

The Effect of HR Competence on Cattle Farming Business Success in Supporting Food Security

Wildatul Jannah ^{1*}, Yulfita Aini ², Makmur ³

^{1,2,3} Management Study Program, Faculty of Economics, University of Pasir Pengaraian.

Article History

Received : 2026-08-09

Revised : 2026-08-10

Accepted : 2026-08-12

Keywords:

Human Resources; Cattle Farming;
Food Security.

*Corresponding author:

wildatulj645@gmail.com

DOI:

10.68376/MANTRA.v1.i2.a91

Abstract

This study aims to analyze the level of human resource (HR) competence among cattle farmers, examine the effect of HR competence on the success of cattle farming businesses, and analyze the contribution of cattle farming businesses to supporting community food security in Rantau Binuang Sakti Village, Kepenuhan District, Rokan Hulu Regency. This study employed a quantitative method with a survey approach. The population consisted of 32 cattle farmers, all of whom were selected as the sample using the census (total sampling) technique. Data were collected through observation, questionnaires, and documentation, and analyzed using descriptive statistics, validity testing, reliability testing, normality testing, Respondent Achievement Level (TCR) analysis, simple linear regression, hypothesis testing (t-test), linearity testing, and the coefficient of determination, with the assistance of SPSS version 22. The results show that the level of HR competence among farmers falls into the high category, with a mean score of 3.30. Regression analysis produced the equation $Y = 46.561 + 0.535X$, indicating a positive relationship between HR competence and business success. The hypothesis test result shows a calculated t-value of 2.629, greater than the t-table value of 1.693, with a significance value of 0.013 (< 0.05), indicating that HR competence has a positive and significant effect on the success of cattle farming businesses. The coefficient of determination ($R^2 = 0.187$) indicates that HR competence contributes 18.7% to business success in supporting food security, while the remaining 81.3% is explained by other factors outside the scope of this study.

Introduction

The livestock sector is one of the primary pillars of the national economy, playing a role in providing animal protein and improving community welfare, and contributing to Gross Domestic Product (GDP) formation through the production of meat, milk, and other processed products (Simatupang & Hadi, 2020; Hartati, Prakasa, Kholis, & Hilmi, 2024). Livestock production volume nonetheless shows a fluctuating trend across recent years, both for live livestock and livestock products, including beef production, indicating that the sector continues to face structural challenges such as limited capital, low human resource quality, and feed price fluctuations that affect farming business stability.

Sound management of the livestock sector requires management skills capable of adapting to national and global economic dynamics, given that management skills are essential to the stability and development of cattle farming businesses at the national, regional, and local levels (Astuti, 2018; Rosminah et al., 2024). The application of sound management principles, from planning and organizing through implementation and oversight, can minimize the business fluctuation risk cattle farming often faces, whether driven by external factors such as feed prices, climate, and market demand, or internal factors such as human resources and competent governance, enabling farmers to improve production efficiency, maintain livestock output quality, and strengthen the competitiveness of cattle products in support of national food security (Judijanto, Apriyanto, & Sepriano, 2025; Verdian, Rahayu, & Afrizal, 2025).

The national food security program is fundamentally an integrated government effort to guarantee the availability, affordability, and utilization of food for the community, with the cattle farming sector forming a crucial part of that program given its role in providing high-quality animal protein and reducing dependence on beef imports (Badan Ketahanan Pangan Indonesia, 2021; Kurniawan, Fadillah, & Siti, 2024). Efforts to realize national food security through the cattle farming sector are implemented not only at the central level but also broadly at the regional level, with regional governments developing policies and programs suited to local potential, adopting community-based approaches that strengthen farmer institutions, optimize feed land, and integrate the sector's upstream-downstream chain (Izza, Herlina, & Firmansyah, 2025; Jaya, 2022; Widianingrum & Septio, 2023).

Riau Province shows fairly significant development in the cattle farming sector, with a cattle population reaching 124,941 head in 2024 spread across 11 regencies/cities (BPS Riau, 2025), with Rokan Hulu Regency among the regencies making a notable contribution to this development through various farmer support and technical assistance programs, benefiting not only regional economic improvement but also strengthening local community food security (Majid, Hidayati, Syafrizal, & Fridarti, 2025; BPS Kabupaten Rokan Hulu, 2025). Within Kepenuhan District, Rantau Binuang Sakti Village is one of the villages making an important contribution to the cattle farming sector, with 32 cattle farmers managing a total livestock population of 162 head; despite this substantial potential, however, farming management in the village remains largely traditional and less efficient, with limitations in feed management, livestock health, reproduction, and business management aspects still evident, so livestock productivity has not yet been maximized and the sector's potential as a pillar of local food security has not yet been optimally realized.

One of the success factors for cattle farming businesses in supporting food security is human resource (HR) competence, consistent with one of the missions of the Food Security Agency's program to improve HR quality (Badan Ketahanan Pangan Indonesia, 2021); farmer HR competence encompasses the knowledge, skills, and work attitude that support the professional management of farming businesses, with farmers possessing higher competence tending to be better able to adapt to changes in the business environment, apply innovation, and sustain their cattle farming businesses amid market and environmental challenges.

Prior research has produced differing results regarding the effect of HR competence on cattle farming business success. Amam et al. (2021) found that farmer HR has a positive effect on farming businesses, consistent with the findings of Nurjannah (2023) and Kahfi, Amam, Rusdiana, and Nakhma'ussolikah (2022), who found that HR competence affects business success, and with the findings of Alfiansyah and Erniawati (2024), who similarly found an effect of farmer HR competence on farming success. However, the findings of Fauziyah, Nurmalinga, and Burhanuddin (2020) instead show that farmer HR competence (entrepreneurship) does not affect cattle farming business success, a result consistent with the findings of Razak, Herianto, Armayanti, and Kurniawan (2021) and Nurdiansah, Suherman, and Putranto (2020), who likewise found that farmer HR competence shows no effect on cattle farming business success. This research gap makes the role of farmer competence in cattle farming business success, particularly in supporting food security, an interesting subject for further study.

This study is important to conduct in order to analyze the extent to which human resource competence affects the success of cattle farming businesses in supporting food security in Rantau Binuang Sakti Village. Without this study, a gap in scientific information would remain regarding the real contribution of farmer competence to achieving local-level food security; the results are expected to serve as a basis for policymakers and related parties in formulating strategies to improve farmer capacity, so that the cattle farming sector can develop sustainably. Accordingly, this study is entitled "The Effect of HR Competence on the Success of Cattle Farming Businesses in Supporting Food Security in Rantau Binuang Sakti Village."

Literature Review and Hypothesis Development

Human resource competence theory explains that the success of an organization or individual in achieving objectives is largely determined by the ability, skill, and behavior possessed

to carry out tasks effectively; competence encompasses not only knowledge and technical skill but also the values, attitudes, and work motivation that drive a person to perform according to the demands of their profession (Benjamin, Malusa, & Rahmat, 2021). Competence represents a combination of knowledge, skills, and personal attributes (attitudes) reflected through observable, measurable, and evaluable job behavior (Benjamin, Malusa, & Rahmat, 2021), while competent human resources are defined as individuals capable of carrying out tasks and activities related to their position by drawing on knowledge, attitude, skill, and behavior (Izzati & Mulyana, 2019).

HR competence can be measured through five indicators: knowledge, referring to the information a person possesses within a particular field, needed to carry out tasks and responsibilities and to determine the success of task performance; skill, referring to the ability to carry out a particular task, whether physical or mental, involving both general and specific mastery of practical execution; motive, the things a person consistently thinks about or desires that give rise to action, encompassing achievement drive, the desire to improve one's standard of living, or the desire to contribute to the community; traits, referring to relatively stable personal characteristics that influence how a person thinks, feels, and acts, such as persistence, openness to change, resilience, and adaptability; and self-concept, referring to a person's attitudes and self-image values, such as confidence in one's own ability to succeed in a given situation (Tsauri, 2020; Ramdhan, 2023).

A cattle farming business is an economic activity within the agribusiness sector encompassing the planned, systematic, and sustainable rearing, breeding, and management of cattle, aimed at obtaining animal products such as meat, milk, hide, organic fertilizer, and animal labor; such businesses encompass not only livestock rearing but also production management, quality feed provision, disease control and animal health, reproduction management, and the application of farming technology to improve efficiency and productivity, and hold a strategic role in supporting national food security, providing industrial raw materials, and improving the welfare of rural farming communities (Mayulu, 2023).

Business success reflects the achievement of a farmer's hard-won targets, with a cattle farmer considered successful when their competence continues to improve, they conduct business ethically without harming other parties, and they are able to improve their farming business's productivity; such success can be assessed through the indicators of productivity, reflecting the direct measure of how much animal food (livestock numbers, milk, meat, eggs, etc.) is produced and thereby directly affecting food availability; managerial capability, encompassing the application of agribusiness principles across feed, health, care, sanitation, and breeding to achieve efficiency and sustainability; innovation, encompassing the adoption of farming technology that directly improves production efficiency and output; income, reflecting the economic success and business continuity of the farmer; and marketing, encompassing the use of digital marketing and e-commerce to expand market access for farming products (Luthfi, Susanti, Nuraliah, & Faradila, 2024).

Food security is defined under Law No. 18 of 2012 on Food as a condition in which food is fulfilled for the state through to the individual, reflected in the availability of sufficient food in both quantity and quality, safe, diverse, nutritious, evenly distributed, and affordable, and not contrary to religion, belief, and community culture, enabling a healthy, active, and sustainably productive life (Badan Ketahanan Pangan Indonesia, 2021). One form of food security in the livestock sector is the provision of sufficient meat, eggs, and milk for the community, given that the livestock sector plays a crucial role as a source of animal protein essential for human nutrition; a food-secure condition is indicated when meat, eggs, and milk can be consumed by the general public, with one relevant effort being the pursuit of meat self-sufficiency to meet community meat needs (Azis, Hamka, Bilyaro, & Dani, 2024).

Ha: HR competence has a positive and significant effect on the success of cattle farming businesses in supporting food security in Rantau Binuang Sakti Village. H0: HR competence does not have a positive and significant effect on the success of cattle farming businesses in supporting food security in Rantau Binuang Sakti Village.

Research Methods

This study employed a quantitative method, in which data are collected and analyzed in numerical form through a systematic interpretation process. The research was conducted in Rantau Binuang Sakti Village, Kepenuhan District, Rokan Hulu Regency. The population in this study consists of all cattle farmers in Rantau Binuang Sakti Village, totaling 32 farmers (Sugiyono, 2022). The sampling technique used was census (total sampling), in which all members of the population are used as the sample (Sugiyono, 2019), so that all 32 cattle farmers in the village were included as respondents.

The data sources used in this study comprise primary data, obtained directly through the distribution of a questionnaire to respondents covering statements related to competence and cattle farming business practices, and secondary data, comprising pre-existing data collected to support the research objective, such as agricultural census figures. Data were collected through observation of cattle farming activity, feed management, and facility conditions at the research site; a questionnaire containing written statements developed based on the indicators of HR competence and cattle farming business success, with each statement scored using a rating scale to obtain quantitative data suitable for statistical analysis; and structured interviews with farmers to obtain in-depth data regarding their experience, business management pattern, and views on the effect of HR competence on cattle farming business success.

HR Competence (X) is defined as an individual's ability within their field to carry out work optimally, measured through the indicators of knowledge, skill, motive, traits, and self-concept (Tsauri, 2020). Cattle Farming Business Success (Y) is defined as the achievement of farming targets based on the competence possessed, measured through the indicators of productivity, managerial capability, innovation, income, and digital marketing (Luthfi, Susanti, Nuraliah, & Faradila, 2024). The Likert scale technique was used to process data obtained from the questionnaire, an instrument commonly used to assess social matters manifested in the form of individual or group attitudes, opinions, and perceptions (Sujarweni, 2024), with responses scored from 1 (Strongly Disagree) to 5 (Strongly Agree). Respondent Achievement Level (TCR) analysis was used to determine how high the achievement level of each research variable is, based on the statements respondents provided, calculated as the mean score divided by 5 and multiplied by 100%, and classified into the categories of very good (90–100), good (80–89.99), fairly good (65–79.99), not good (55–64.99), and very not good (0–54.99) (Nardo, Helia, & Jaya, 2020).

Prior to the main analysis, instrument testing was carried out through validity testing (an item declared valid if its calculated *r*-value exceeds the *r*-table value and its significance value is below 0.05) and reliability testing using Cronbach's Alpha, with an instrument declared reliable if its Alpha value exceeds 0.60 (Ghozali, 2018). Data were analyzed using simple linear regression, comprising descriptive statistical analysis, classical assumption testing (normality tested using the Kolmogorov-Smirnov method, in which a significance value above 0.05 indicates normally distributed data), simple linear regression analysis with the model $Y = a + bX + e$, linearity testing (a significance value below 0.05 in the linearity test indicates a linear relationship between the independent and dependent variables), the coefficient of determination (R^2) test, and hypothesis testing through the partial test (*t*-test) at a 5% significance level, with the assistance of SPSS version 22 (Ghozali, 2018).

Results and Discussion

Of the 32 respondents, the majority were male (28 people or 88%), aged 40–50 years (17 people or 53%), with junior high school (SMP) as the most common final education level (17 people or 53%), and the majority owning fewer than 5 head of cattle (21 people or 66%), indicating that cattle farming in Rantau Binuang Sakti Village remains dominated by small-scale operations. Descriptive statistics show that the HR Competence variable has a mean value of 82.44 (minimum 60, maximum 113, standard deviation 11.53), while the Business Success variable has a mean value of 90.63 (minimum 59, maximum 109, standard deviation 14.25). Validity testing showed that all items across both variables had a calculated *r*-value greater than the *r*-table value (0.296) with a

significance value below 0.05, so all items were declared valid, and reliability testing confirmed the instrument's reliability. Normality testing confirmed that the residual data is normally distributed.

Table 1. HR Competence Level by Indicator

Indicator	Mean	Category
Knowledge	3.09	High
Skill	3.06	High
Motive	3.42	High
Traits	3.29	High
Self-Concept	3.62	High
Overall	3.30	High

Source: Researcher-Processed Data, 2026

Based on Table 1, all HR Competence indicators fall within the high category, with Self-Concept obtaining the highest mean value (3.62) and Skill the lowest (3.06), though still within the high category. The overall HR Competence variable obtained a mean value of 3.30 (high category), indicating that cattle farmers in Rantau Binuang Sakti Village generally possess an adequate level of competence to manage their farming businesses. Respondent Achievement Level (TCR) analysis further shows that the HR Competence variable obtained an overall TCR of 66% (good category), with the statement “I am confident in my ability to manage a cattle farming business” obtaining the highest TCR (78%, good category) and the statement “I am able to handle sick livestock” obtaining the lowest TCR (51%, fairly good category), indicating that farmers' technical capability in livestock health handling remains relatively limited. The Business Success variable obtained an overall TCR of 73% (good category), with the highest TCR found for the marketing-related statement regarding demand for the cattle raised (85%, very good category) and the lowest for the statement regarding meeting market demand (59%, fairly good category).

Table 2. Simple Linear Regression and t-Test Results

Variable	B	Beta	T	Sig.
(Constant)	46.561		2.752	0.010
HR Competence (X)	0.535	0.433	2.629	0.013

Source: SPSS Data Processing Results, 2026. Dependent Variable: Business Success; *t*-table ($\alpha = 0.05$, $df = 30$) = 1.693

Based on Table 2, the regression equation obtained is $Y = 46.561 + 0.535X$. The positive regression coefficient indicates a positive relationship between HR Competence and Business Success: a one-unit increase in HR Competence is associated with a 0.535-point increase in Business Success. The calculated *t*-value of 2.629 exceeds the *t*-table value of 1.693, with a significance value of 0.013 (< 0.05), so H_a is accepted and H_0 is rejected: HR Competence has a positive and significant effect on cattle farming Business Success.

Table 3. Linearity Test and Coefficient of Determination Results

Test	Value	Sig.	Result
Linearity (F)	15.108	0.003	Linear relationship
R	0.433	—	—
R Square	0.187	—	—
Adjusted R Square	0.160	—	—

Source: SPSS Data Processing Results, 2026

The linearity test result shows a calculated *F*-value of 15.108 with a significance value of 0.003 (< 0.05), indicating that the relationship between HR Competence and Business Success is linear, so the simple linear regression model is appropriate for this analysis. The *R* Square value of 0.187 indicates that HR Competence explains 18.7% of the variation in Business Success, while the remaining 81.3% is explained by other factors outside the research model, such as business capital, feed availability, breeding stock quality, extension support, market access, government policy, and business environment conditions.

HR Competence Level Among Cattle Farmers in Rantau Binuang Sakti Village

The results show that the level of HR competence among cattle farmers in Rantau Binuang Sakti Village falls within the high category, with a mean value of 3.30 across all five indicators. The highest value on the self-concept indicator suggests that farmers hold strong confidence in their own capability to run their farming business, while the lowest value, on the skill indicator, though still within the high category, indicates room remains for improving technical capability, such as livestock health handling, business record-keeping, and farming technology application. This finding is consistent with the view that competence represents a combination of knowledge, skills, and personal attributes reflected through job behavior that produces effective performance (Benjamin, Malusa, & Rahmat, 2021), and with the view that competent human resources are marked by mastery of knowledge, skill, cooperative ability, productivity, creativity, and attitudes supporting organizational goal achievement (Izzati & Mulyana, 2019). This finding is further consistent with Saleh (2018), who found that improving farmer entrepreneurial competence can raise knowledge, technical competence, and managerial competence, thereby increasing productivity, livestock ownership, and farmer income, and with Kahfi, Amam, Rusdiana, and Nakhma'ussolikhah (2022), who found that farmer HR quality positively affects sustainable farming development across the economic, social, institutional, and technological dimensions. This finding diverges somewhat from Nurjannah (2023), who found that farmer characteristics have not been able to significantly affect business success given still-low education and technology mastery levels; this divergence can be understood given that the present study assesses HR competence more comprehensively across five dimensions rather than through farmer characteristics such as age or formal education alone, and most respondents in this study, despite holding only a junior high school education, still achieved a high competence level, suggesting that competence develops through experience, motivation, and continuous learning rather than formal education alone.

The Effect of HR Competence on Cattle Farming Business Success

The simple linear regression result shows that HR Competence has a positive and significant effect on cattle farming Business Success in Rantau Binuang Sakti Village, evidenced by a positive regression coefficient of 0.535, a calculated t-value of 2.629 exceeding the t-table value of 1.693, and a significance value of 0.013 (< 0.05); the R Square value of 0.187 indicates that HR Competence explains 18.7% of the variation in Business Success, while the remaining 81.3% is explained by other factors outside the research model, such as business capital, feed availability, breeding stock quality, extension support, market access, government policy, and business environment conditions. This finding is consistent with competence theory, which holds that individuals with high competence are better able to identify problems, make appropriate decisions, utilize resources efficiently, and achieve business objectives optimally (Benjamin, Malusa, & Rahmat, 2021), and further reflects the strategic role of cattle farming businesses in supporting food security through the provision of high-quality animal protein (Mayulu, 2023; Azis, Hamka, Bilyaro, & Dani, 2024). This finding is consistent with Nurjannah (2023), who found that entrepreneurial competence has a positive and significant effect on cattle farming business success, with Alfiansyah and Erniawati (2024), who found that human resource management significantly affects dairy cattle farming productivity through improved skill, work motivation, and livestock health management, and with Saleh (2018) and Kahfi, Amam, Rusdiana, and Nakhma'ussolikhah (2022), who similarly found that farmer competence improves productivity, income, and farming business sustainability through strengthened technical and managerial competence and adaptability to technological development.

The Contribution of Cattle Farming Businesses to Community Food Security

The coefficient of determination of 0.187, or 18.7%, indicates that HR competence explains a moderate proportion of the variation in cattle farming business success that supports food security, while the remaining 81.3% is influenced by other factors outside the research model. Although not yet dominant, this finding still demonstrates that farmer competence plays a real role in improving business success, which ultimately contributes to the provision of animal food at the

village level, consistent with the food security concept under Law No. 18 of 2012 on Food, which affirms that food security requires the availability of sufficient, safe, nutritious, evenly distributed, and sustainable food (Badan Ketahanan Pangan Indonesia, 2021), and with the view that the livestock sector plays a crucial role in supporting food security through animal protein provision, productivity improvement, and production system sustainability (Azis, Hamka, Bilyaro, & Dani, 2024). This finding is supported by the business success indicators used in this study, encompassing productivity, managerial capability, innovation, income, and marketing, which together indicate that better-managed farming businesses contribute more effectively to the continuous availability of animal food supply (Luthfi, Susanti, Nuraliah, & Faradila, 2024), consistent with Kahfi, Amam, Rusdiana, and Nakhma'ussolikhah (2022), who found that farmer HR quality positively affects sustainable farming development. Given that 81.3% of the variation remains explained by factors outside this study, such as breeding stock quality, feed availability, capital access, animal health services, extension support, technology use, farmer institutional support, and local government policy, strengthening food security through the cattle farming sector requires a comprehensive approach that synergizes improved human resource quality with strengthened production facilities, farming technology development, and expanded market access.

Implication and Conclusion

Based on the results of the analysis and discussion, it can be concluded that the level of HR competence among cattle farmers in Rantau Binuang Sakti Village falls within the high category (mean = 3.30), with the self-concept indicator scoring highest and the skill indicator lowest, though both remain within the high category. HR Competence has a positive and significant effect on cattle farming Business Success (H_a accepted, H_0 rejected), evidenced by a regression coefficient of 0.535, a calculated t-value of 2.629 exceeding the t-table value of 1.693, and a significance value of 0.013. Cattle farming businesses contribute to community food security in Rantau Binuang Sakti Village through the business success shaped by farmer HR competence, which explains 18.7% of this variation, while the remaining 81.3% is influenced by other factors outside this study, such as business capital, technology, breeding stock quality, feed availability, extension support, market access, and policy support.

These findings imply that cattle farmers are encouraged to continue improving their competence through training, extension activities, and self-directed learning regarding farming technology, business management, financial record-keeping, and marketing, so that business success can improve sustainably. The Rokan Hulu Regency Government and its livestock-related agencies are encouraged to expand farmer coaching, mentoring, capital assistance, and technology and marketing access programs, particularly in areas with limited access such as Rantau Binuang Sakti Village. Livestock extension workers and mentoring institutions are encouraged to intensify mentoring focused on strengthening farmers' technical, managerial, and entrepreneurial competence through applicable, sustainable training suited to field needs. Future researchers are recommended to incorporate other variables believed to affect cattle farming business success and food security, such as capital access, breeding stock quality, technology use, institutional support, extension, and government policy, in order to obtain a more comprehensive research model.

References

- Alfiansyah, & Erniawati. (2024). Pengaruh manajemen sumber daya manusia terhadap produktivitas peternakan sapi perah. *Jurnal Ilmu Peternakan Indonesia*, 1(1), 15–19.
- Amam, Setyawan, H. B., Jadmiko, M. W., Harsita, P. A., Rusdiana, S., & Luthfi, M. (2021). Pengaruh sumber daya manusia terhadap aksesibilitas sumber daya usaha ternak sapi potong rakyat. *Jitro (Jurnal Ilmu dan Teknologi Peternakan Tropis)*, 8(1), 57–65.
- Astiti, N. M. A. G. R. (2018). *Pengantar ilmu peternakan*. Penerbit Universitas Warmadewa.
- Azis, A. R., Hamka, M. S., Bilyaro, W., & Dani, M. (2024). Ketahanan pangan dan keberlanjutan peternakan di era modern. *Buletin Peternakan Tropis*, 5(2), 187–195.
- Badan Ketahanan Pangan Indonesia. (2021). *Rencana strategis Badan Ketahanan Pangan tahun 2019–2020*. Kementerian Pertanian Republik Indonesia.

- Benjamin, Malusa, T., & Rahmat, A. (2021). Pengembangan sumber daya manusia: Teori, dimensi pengukuran, dan implementasi dalam organisasi. Zahir Publishing.
- BPS Kabupaten Rokan Hulu. (2025). Hasil pencacahan lengkap sensus pertanian 2023: Usaha pertanian perorangan (UTP) peternakan. Badan Pusat Statistik Kabupaten Rokan Hulu.
- BPS Riau. (2025). Provinsi Riau dalam angka 2025. Badan Pusat Statistik Provinsi Riau.
- Fauziyah, D., Nurmalinga, R., & Burhanuddin. (2020). Pengaruh karakteristik peternak melalui kompetensi peternak terhadap kinerja usaha ternak sapi potong di Kabupaten Bandung. *Jurnal Agribisnis Indonesia*, 3(2), 83–96.
- Ghozali, I. (2018). Aplikasi analisis multivariate dengan program SPSS (8th ed.). Badan Penerbit Universitas Diponegoro.
- Hartati, H., Prakasa, A. I., Kholis, N., & Hilmi, I. (2024). Pengaruh populasi, jumlah pemotongan, hasil produksi ternak terhadap Produk Domestik Bruto (PDB) dan Penanaman Modal Dalam Negeri (PMDN). *Jurnal Ilmiah Ilmu-Ilmu Peternakan*, 27(2), 137–152.
- Izza, N. N., Herlina, L., & Firmansyah, C. (2025). Kontribusi usahaternak sapi perah dan pengaruh faktor sosial ekonomi terhadap ketahanan pangan rumah tangga peternak. *Agrinimal Jurnal Ilmu Ternak dan Tanaman*, 13, 40–49.
- Izzati, U. A., & Mulyana, O. P. (2019). Psikologi industri & organisasi. Penerbit Bintang Surabaya.
- Jaya, I. (2022). Peran Dinas Pertanian dan Ketahanan Pangan dalam program subsidi bibit sapi terhadap perkembangan perekonomian masyarakat. *Jurnal Administrasi Publik (JAP)*, 8(2), 131–147.
- Judijanto, L., Apriyanto, A., & Sepriano, S. (2025). Peternakan modern: Pengelolaan dan peningkatan produktivitas. PT. Sonpedia Publishing Indonesia.
- Kahfi, M. A. N., Amam, A., Rusdiana, S., & Nakhma'ussolikah, N. (2022). Pengaruh SDM peternak sapi perah terhadap pembangunan peternakan berkelanjutan. *Mimbar Agribisnis: Jurnal Pemikiran Masyarakat Ilmiah Berwawasan Agribisnis*, 8(2), 785.
- Kurniawan, A., Fadillah, & Siti, A. (2024). The competence of Balinese cattle farmers in Oeledsala Village, Taebenu District, Kupang Regency. *Agriwar Journal*, 4(2), 74–89.
- Luthfi, N., Susanti, I., Nuraliah, S., & Faradila, S. (2024). Pengantar peternakan. Son Pedia Publishing Indonesia.
- Majid, I., Hidayati, S. G., Syafrizal, S., & Fridarti, F. (2025). The technical analysis of beef cattle in the former transmigration area of SKP. A Kabupaten Rokan Hulu. *Jurnal Embrio*, 17(1), 11–22.
- Mayulu, H. (2023). Sapi potong dan manajemen usaha. PT. Rajagrafindo Persada-Rajawali Pers.
- Nardo, R., Helia, S., & Jaya, A. (2020). Perilaku inovatif SDM dalam organisasi (Kajian teoritis dan praktis). CV. Media Sains Indonesia.
- Nurjannah, B. (2023). Analisis faktor-faktor yang mempengaruhi keberhasilan usaha ternak sapi di Tamangapa Makassar. *Economics and Digital Business Review*, 4(2), 216–222.
- Ramadhan, M. (2023). Perencanaan dan pengembangan SDM. PT. Literasi Nusantara Abadi Grup.
- Rosminah, Mardiah, Isra, M., Silalahi, F. T. R., Siadari, U., Zulkifli, D., Yusdianto, Sari, S. P., Lubis, M., Paloma, C., & Boekoesoe, Y. (2024). Manajemen agroindustri: Strategi dan implementasi. Penerbit Yayasan Kita Menulis.
- Saleh, H. (2018). Peranan kompetensi kewirausahaan terhadap keberhasilan usaha ternak sapi di Desa Bune Kab. Bone Sulawesi Selatan. *Prosiding Seminar Nasional: Manajemen, Akuntansi, dan Perbankan*, 1(1), 390–402.
- Simatupang, & Hadi. (2020). Daya saing usaha peternakan menuju 2020. *Wartazoa*, 14(2), 45–57.
- Sugiyono. (2019). Metode penelitian kuantitatif, kualitatif, dan R&D. Alfabeta.
- Sugiyono. (2022). Metode penelitian kuantitatif. Alfabeta.
- Sujarweni, W. (2024). Metodologi penelitian bisnis dan ekonomi. Pustaka Baru Press.
- Tsauri, S. (2020). MSDM: Manajemen sumber daya manusia. STAIN Jember Press.
- Verdian, R., Rahayu, H. C., & Afrizal, A. (2025). Optimizing human resource management strategy in improving food security programs. *Strata Social and Humanities Studies*, 3(1), 87–99.

Widianingrum, D. C., & Septio, R. W. (2023). Peran peternakan dalam mendukung ketahanan pangan Indonesia: Kondisi, potensi, dan peluang pengembangan. *National Multidisciplinary Sciences*, 2(3), 285–291.