



# Farmers Motivation in Developing Local Cattle Livestock Businesses in Lamandau Regency

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**Abstract.** The objectives of this research are to ascertain the maintenance regimen of indigenous cattle and the incentives of farmers in rearing local cattle in Lamandau Regency, Central Kalimantan. The research was conducted from April to June 2024, with key respondents including scholars, industry players, and smallholder farmers. Data collection was carried out through interviews, observations, documentation and literature reviews. Employing the Miles and Huberman analytical approach, this qualitative study revealed that the maintenance of indigenous cattle in Lamandau Regency is predominantly conducted extensively, utilizing oil palm plantation areas or integrating with oil palm cultivation. The impetus behind raising local cattle in Lamandau Regency exhibits a substantial level of drive. The motivation of farmers consists of economic motives, entertainment motives, environmental motives, and social status motives. The categories of motivation for raising local cattle in Lamandau Regency that encourage farmers to raise beef cattle the highest are entertainment and environmental motivations.

**Keywords:** Central Kalimantan, Lamandau, Motivation, Local cattle.

## 1 Introduction

Lamandau Regency is one of the areas with a fairly large beef cattle population in Central Kalimantan. The beef cattle population in 2023 in Lamandau Regency reached 4034 heads [1]. The potential for regional development is also still wide open for the development of beef cattle in Lamandau Regency. Cattle farming is an activity that is familiar to the people of Lamandau Regency. The cattle farming business has been carried out for generations, but is still considered a side business that is managed traditionally and extensively.

The potential for expanding local cattle breeding in this region remains substantial, given the favorable topography and the extensive oil palm plantation spanning approximately 127 hectares [1] This plantation can serve as both a maintenance location and a source of animal fodder. The development of local cattle farming in addition to relying on external factors such as natural conditions, as well as regional economic developments and business potential such as the availability of feed, grazing land, capital and other facilities and infrastructure, but also depends on internal factors of

farmers such as the motivation of farmers in developing the local cattle farming business that is managed. A person's drive to do something and achieve a certain goal is often referred to as motivation. Psychologists define motivation as an internal mechanism that triggers, directs, and sustains behavior over time. Simply put, motivation is the impetus that propels you to start walking, keeps you moving forward, and determines the destination you aim to reach. [2]. According to [3], whether originating internally or externally, plays a pivotal role in fostering motivation, by orchestrating circumstances conducive to achieving desired objectives. The factors that form farmer motivation are based on research conducted by [4], factors that drive farmer motivation include social, economic, policy, and environmental factors. The amalgamation of oil palm cultivation and cattle husbandry presents a promising opportunity through the establishment of extensive oil palm plantations to support the development of integrated beef cattle enterprises. The synergy between oil palm cultivation and cattle farming, underpinned by the principles of Low External Input Sustainable Agriculture (LEISA), exemplifies a mutually beneficial relationship where the interdependence between plantation crops and livestock yields advantages for both sectors, akin to a form of Mutualistic Symbiosis [5].

Sustainable livestock enterprises employing integrated approaches can mitigate the issue of cow dung waste and byproducts from oil palm plantation operations. In reality, livestock excreta, whether feces or urine, can serve as organic fertilizers, thereby acting as substitutes for synthetic fertilizers [6].

In several areas in Indonesia, such as Lamandau Regency, various resources such as land, plants, livestock and communities with various levels of development are found. In areas facing limited feed, farmers have long been carrying out synergistic efforts between plants and livestock, where farmers utilize agricultural waste for animal feed and utilize cow dung as fertilizer for the plants they cultivate. This indigenous wisdom has served as the impetus for the evolution of a livestock enterprise model centered on the integration of agriculture and animal husbandry. This model leverages technological advancements to implement a Crop Livestock System, which optimizes the utilization of agricultural by-products for animal feed and livestock manure for organic fertilization of agricultural produce.

## 2 Conceptual Framework

Lamandau Regency is a district in Central Kalimantan that boasts the highest population of beef cattle, totaling 4,034, along with an oil palm plantation spanning 127 hectares [1]. Most of the area in Lamandau Regency is used as oil palm plantation land. The potential of the land is still large, the availability of abundant feed ingredients, makes the Lamandau community encouraged to have profitable livestock, namely beef cattle.

The integration of oil palm and cattle is a long-standing practice in the Kalimantan region, particularly in Central Kalimantan. A prevailing tradition among the Lamandau community, who predominantly engage in oil palm cultivation, is the simultaneous rearing of livestock. This practice is rooted in the belief that livestock ex-

crement serves as a valuable natural fertilizer for their oil palm plantations. Moreover, the byproducts of oil palm can be repurposed as sustenance for the animals. The inclination towards animal husbandry is significantly encouraged by the favorable environmental conditions and abundant natural resources in the region.

Every motivational theory tries to describe what humans really are and what humans can become. For another reason, it can be said that a motivational theory has content in the form of a certain view of humans. The content of motivational theory helps us understand the dynamic involvement of where farmers develop their businesses by describing the activities of farmers in the involvement of cattle fattening activities and/or oil palm plantation maintenance every day.

In the realm of Human Motivation theory, McClelland delineates three fundamental needs (power, affiliation, and achievement) and posits that human drive stems from shifts in affective states. Certain situations will cause changes in affective conditions through non-specific responses from the autonomic nervous system. The intensity of motivation varies among individuals based on perceptions of stimuli and individual adaptive abilities. Therefore, when there is a difference between expectations and perceptions, a person will be motivated to eliminate this difference [7].

Every farmer has the drive to do cattle farming because of external or environmental drives, including economic motives, environmental motives, entertainment motives, and social status motives. Based on the discussion above, the conceptual framework can be described as follows:

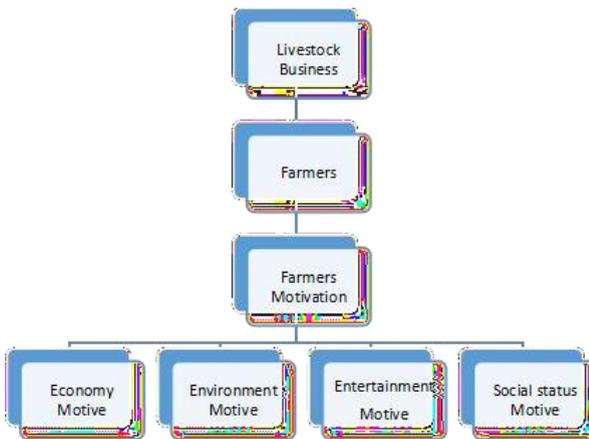


Fig. 1. Motivation Farmers Framework

### 3 Result and Discussion

#### 3.1 Type of Research

The type of research conducted in this study was descriptive qualitative. Qualitative methods are research methods based on postpositivism or enterprising philoso-

phy, used to research natural object conditions, where researchers are key instruments, data collection techniques are carried out by triangulation (combination of observation, interviews, documentation), the data obtained tends to be qualitative data, data analysis is inductive and the results of qualitative research are to understand meaning, understand uniqueness, construct phenomena and find hypotheses [8].

A qualitative methodology is an investigative approach that relies on detailed verbal descriptions, meticulously arranged from data collection to the interpretation and presentation of research findings [9].

Qualitative research is also called interpretative research, naturalistic research, or phenomenological research. The qualitative approach accentuates the significance, rationale, and elucidation of a specific circumstance within a particular context, delving into aspects intertwined with everyday existence. Furthermore, the qualitative methodology underscores the process over the final outcome. Consequently, the course of actions may vary contingent upon the circumstances and the multitude of symptoms identified. The primary aim of research utilizing a qualitative approach is to cultivate comprehension and concepts that eventually evolve into theories. This phase is recognized as grounded theory research. [10]. The focal point of the study revolves around the impetus driving smallholder farmers in the establishment of beef cattle enterprises in Lamandau Regency. Grounded theory embodies an analytical approach linked to structured data that is employed and employs a sequence of techniques to formulate inductive theories pertaining to substantive realms [11].

### **3.2 Data Collection**

Data collection in this study involved observation, interviews, and document analysis. Subsequently, the diverse data sources are compared through a method known as triangulation. Triangulation, a data collection approach, integrates various techniques and pre-existing data sources. Researchers use triangulation in data collection, essentially not only gathering data but also scrutinizing its credibility by utilizing a variety of data collection methods and sources.

The objective of triangulation is not to ascertain the absolute truth regarding multiple phenomena, but rather to enhance the researcher's comprehension of the findings. The significance of employing data collection methods with triangulation lies in determining whether the acquired data is convergent (comprehensive), inconsistent, or conflicting. Consequently, through the utilization of triangulation techniques in data collection, the data acquired will exhibit greater consistency, thoroughness, and certainty. By implementing the "strategy" of Triangulation data collection (employing various methods on the same source) [8].

### **3.3 Data Sources**

The data sources in this study are information obtained directly from farmers or specific documents. Data collection was carried out through interviews and firsthand observations of key informants among beef cattle farmers in Lamandau Regency.

In this qualitative research, investigative activities are conducted deliberately, guided, and consistently aimed at attaining essential information. The diverse data sources to be utilized in this study include:

1. Primary data: Information obtained firsthand from the source, either through direct observations or interviews.
2. Secondary data: Data acquired indirectly from the source. The secondary data sources for this study consist of written materials, such as supporting documents from relevant entities concerning the issue of beef cattle farmers' motivation to enhance their enterprises.

### 3.4 Analysis Techniques

The data analysis techniques used include systematic collection to facilitate researchers in deriving conclusions. As per reference [12], the analysis comprises three concurrent activities: data reduction, data presentation, and drawing conclusions/verification. Delving further into each flow reveals the following details:

1. Data reduction:

Data reduction here is characterized as the process of refining, simplifying, abstracting, and transforming raw data derived from field notes. This process persists throughout a qualitative research project. The groundwork for data reduction is laid when the researcher defines the conceptual framework, research problem, and data collection approach. Various stages of data reduction unfold during data collection, such as summarization, coding, theme identification, clustering, partitioning, and memo creation. This transformation of data continues post-field research until a comprehensive final report is compiled. Data reduction serves as a pivotal component of analysis, refining, categorizing, eliminating redundancies, and structuring data to facilitate the derivation and validation of conclusive insights. It is essential to note that qualitative data can be simplified and transformed through diverse methods, including selective extraction, summarization, categorization, and occasionally numerical conversion.

2. Data presentation:

Miles & Huberman define presentation as a structured compilation of information that enables conclusion-drawing and decision-making. They advocate for sophisticated presentations as a fundamental aspect of valid qualitative analysis, encompassing matrices, graphs, networks, and charts. These tools are strategically designed to amalgamate structured information in a coherent, accessible manner. Consequently, analysts can discern patterns, make informed conclusions, and continue their analysis based on the insights gleaned from the presentation.

3. Conclusion or verification:

Drawing conclusions, as per Miles & Huberman, represents a fragment of a comprehensive analytical process. Conclusions undergo continual verification throughout the research. Verification can range from fleeting thoughts during writing to meticulous peer reviews, fostering intersubjective agreement, or replicating findings in alternate datasets. The meanings derived from data necessitate scrutiny for their accuracy, robustness, and relevance, ensuring their validity. The final

conclusions are not solely confined to the data collection phase but demand verification to uphold accountability. The schematic representation of the data analysis process utilizing the Miles and Huberman interactive model is depicted in the ensuing diagram:

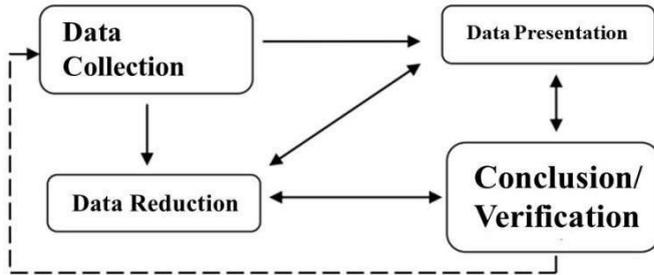


Fig. 2. Diagram model of the Miles and Huberman interactive data analysis

## 4 Results and discussion

### 4.1 Overview of Lamandau Regency

Geographically, Lamandau Regency is situated between 1°9' - 3°36' south latitude and 110°25' - 112°50' east longitude. It is one of the 14 Regencies/Cities within Central Kalimantan Province. Lamandau Regency was established as a separate entity from its parent regency, West Kotawaringin Regency, in 2002. Covering an area of 6,414 km<sup>2</sup>, it is home to approximately 112,441 residents as of mid-2024. The inauguration of this regency took place on August 4, 2002, with Nanga Bulik serving as its capital. Comprising 8 sub-districts, 3 districts, and 79 villages, Lamandau Regency boasts a diverse and vibrant community.

The condition of the planning area is mostly an open area with a little shrubbery and shrubs, as a result of the forest clearing process. However, in several other areas there are still green areas such as plantation areas, swamps and some small forests. Meanwhile, the area is dominated by settlements, with few trade and housing areas. Meanwhile, across or to the north of the Lamandau River, there are still many green areas in the form of swamps, plantations with few organizational areas. Most of the sources of income for the population of Lamandau Regency come from agriculture (plantations and animal husbandry) [1]. This is supported by the use of land that is widely cultivated in the planning area, namely plantations and forestry. The use of land dominance in the area is in accordance with the potential of the existing land, including the clearing of forests which are then converted into plantations, which is very appropriate because the soil conditions are still fertile and the nutrient content is still good. The number of plantation areas in the planning area is quite large so it is appropriate if used to maintain the sustainability of nature.



Fig. 3. Research Location

### 4.2 Research Results

McClelland introduced a motivation theory closely intertwined with the concept of learning, asserting that a strong need propels individuals to engage in behaviors that satisfy that need. Central to this theory is the idea that needs are acquired through adaptation to one's environment, leading to a higher frequency of corresponding behaviors [13].

The need for achievement encompasses the aspiration to autonomously master various facets such as objects, ideas, or individuals, and enhance self-assurance through skill development. Derived from research findings, McClelland delineated a set of defining characteristics indicative of a pronounced need for achievement. These include [14]:

- Preference for situations where personal accountability is held for problem-solving
- Inclination towards setting moderate achievement objectives and assessing risks
- Desire for genuine feedback regarding performance

In this qualitative descriptive exploration, researchers are tasked with identifying, elucidating, portraying, and delving into data obtained through comprehensive interviews, direct observations, and documentation within the research setting.

Based on the data acquired, the findings of this research reveal that the motivation of beef cattle farmers in Lamandau Regency is predominantly driven by environmental and recreational incentives. Social status incentives fall within the moderate category, while economic incentives represent the lowest category of motivation. The

forthcoming section will delve into the pivotal aspect of the study, specifically focusing on the analysis of motivation encompassing economic, environmental, recreational, and social status incentives. The depiction of farmer motivation scores can be visualized in a diagram through qualitative descriptive analysis.

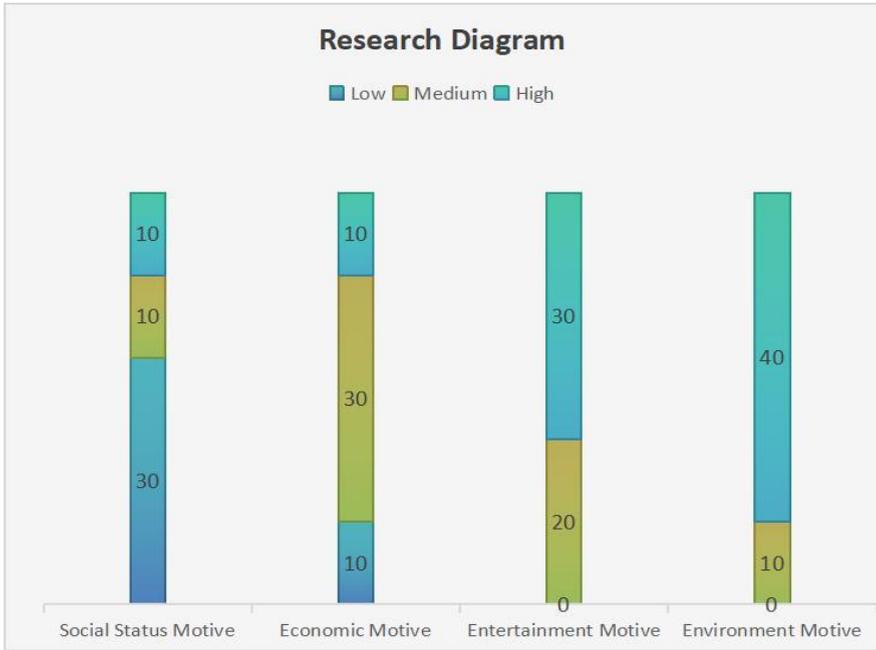


Fig. 4. Research diagram using qualitative descriptive analysis.

The level of motivation among farmers plays a pivotal role in determining the success of beef cattle farming [23]. Farmers who exhibit high levels of motivation are inclined to exert more substantial efforts in expanding their enterprises [26]. They are more receptive to the latest advancements in science and technology aimed at enhancing productivity. Motivation can be shaped by both internal and external factors, and a profound comprehension of these factors can aid in devising efficacious strategies to boost farmer motivation in integration.

According to [15], farmer motivation can be categorized into two main types: internal and external motivation. Internal motivation encompasses social and economic incentives, whereas external motivation pertains to the social and economic milieu.

**Social Status Motivation.** Farmers in raising beef cattle do not change the social status of a farmer in society. Raising livestock will not then be more recognized, respected and appreciated by the community. However, by raising livestock, it will have an impact on farmers being better known by the community because not all communities have beef cattle. This proves that farmers raise livestock because raising beef cattle can increase social status in terms of being better known in society. [16] stated

that raising beef cattle can improve social status in society, namely 61.8% of farmers want to be respected and 82.4% want to be appreciated in raising beef cattle.

The social environment is the lowest indicator influencing the level of farmer motivation. The level of farmer motivation based on social motivation is included in the low category. This is because what motivates farmers in terms of society is the farmer's desire to make friends only. According to research [17-19], social motivation tends to be categorized as low, given that the adoption of the Agroforestry system is predominantly driven by economic rather than social or ecological considerations. On the other hand, the social setting is classified as moderate, indicating that it significantly motivates farmers engaged in rice farming. In contrast, the motivation levels of cattle farmers are classified as high, with internal factors such as farmer attitudes playing a pivotal role.

**Economic Motivation.** The level of farmer motivation seen from economic motivation is included in the medium category. The economic motivation for raising beef cattle is because raising cattle will increase income and additional profits. Beef cattle farming can also be used as savings. This is because what motivates farmers in terms of economy is the desire of farmers to increase family savings and improve family welfare. These results are in line with the research [20] where motivation is influenced by economic factors. Additionally, as per [21], farmers engaging in horticultural cultivation in Candikuning Tourism Village, Baturiti District, Tabanan Regency, exhibit a high level of motivation. Furthermore, the Nawaru I farmer group demonstrates a high level of motivation, whereas the Nawaru II farmer group falls into the medium category, influenced primarily by internal factors [22].

The level of farmer motivation based on the economic environment is included in the medium category. Farmers are more interested in trying rice seed farming because the selling price of rice seeds is quite high. This is in line with the research [18], the economic environment is included in the medium category where the economic environment is quite motivating for farmers in rice farming activities. Beef cattle farming can increase income and can be used as savings. Raising Bali cattle for farmers can increase income and can meet the needs of farmers and their families because it has a high selling value and can also be used as savings because it can be sold at certain times if there is an urgent need, such as a party (aqiqah, wedding, thanksgiving) and financing the needs of children who are studying. In general, raising Bali cattle is not a main job but only a side job that provides additional income. Farmers feel that they get benefits from cow dung because feces can be directly used to fertilize oil palm land naturally.

**Entertainment Motivation.** Entertainment motivation was the motivation of farmers in raising beef cattle which is driven by feelings of pleasure and can be used as entertainment. Raising beef cattle gave farmers a feeling of pleasure. This outcome aligns closely with the findings of [23], indicating that a significant 45.9% of farmers attribute their motivation to entertainment, with 28.6% falling into the medium category, and 25.5% in the low category. In contrast, a separate study [24] suggested that the

majority of farmers in Tinanggea District and Palangga District exhibit a moderate level of entertainment motivation.

Through the palm oil cattle integration system, farmers can save time in running their livestock business [25] so that farmers can fill their free time and as an additional activity by raising beef cattle. When in the garden for a whole day, which is far from the crowd, seeing and feeding livestock is an entertainment in itself. Farmers plan and long for their harvest and oil palm plantations to bear fruit because of the natural fertilizer from livestock.

**Environmental Motivation.** Environmental motivation was the motivation of farmers in raising beef cattle which is caused by environmental factors where farmers live as the main reason for farmers. Farmers state that they raise beef cattle because they have extensive oil palm land and have had a lot of experience in raising cattle (minimum <6 years). The land under their possession serves as a pivotal factor motivating them to raise cattle, as it serves as a crucial source of green fodder for their livestock, encompassing grasses (gramineae) and leguminous plants (leguminosa). In addition, the higher the experience of farmers in managing livestock businesses, the higher the motivation to raise cattle. This is in accordance with the results [24] which stated that the desire to raise cattle is because they see the family environment and the surrounding environment, on average many people raise cattle and there is empty land so that it gives rise to their motivation to raise cattle.

Additionally, research [25] underscores that farmers exhibit a high level of motivation towards integrating oil palm cultivation with cattle farming, particularly in economic and developmental spheres, with a substantial level of motivation observed in social aspects as well. The study findings underscore the positive and significant impact of both internal and external factors on farmer motivation. Elements such as experience, cosmopolitanism, external support, access to necessary facilities, market assurances, ease of integration, and the perceived benefits of integration collectively contribute to enhancing farmer motivation within the Meliau District

## 5 Conclusion

This study aims to determine the level of motivation of smallholder farmers in raising local cattle in Lamandau Regency. The conclusion of the research results shows that the motivation of local cattle farmers in Lamandau Regency tends to be high, but there are still many regional potentials that can be used to support beef cattle farming businesses, one of which is by optimizing the use of oil palm plantations with oil palm-cattle integration. This research has been attempted and carried out in accordance with scientific procedures, however, it still has limitations, including limitations regarding the discussion of variables, so that the discussion is only limited to these variables and limited references to previous research or research, resulting in this study having many weaknesses both in terms of research results and in its analysis. Suggestions for developing further research are to conduct more in-depth research on

the aspects of motivation and livestock maintenance systems, namely the utilization of oil palm-cattle integration.

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