Gaduhan: Madurese Traditional Cattle Sharing Program in Economic and Social Perspective

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Abstract— Madura has uniqueness in development of traditional sharing systems of beef cattle called *gaduhan*. It is one of indigenous communityies in Madura having potency in enduring economic dimension. Meanwhile, cultural attachment in traditional economic activities becomes an idiosyncratic cultural identity. The portrait of rural Madurese with the dominance of the value of gemeinschaft also gives an exposure to *gaduhan* activities. This objective of this study was to describe the traditional cattle-sharing program in Madura from an economic and social perspective. The paradigm in this research is constructivism with descriptive qualitative methods. The findings in this study indicate that *gaduhan* activities of beef cattle in Madura have social values of local wisdom as well as in traditional economic activities. Economically, *gaduhan* system plays an essential role in increasing the income the parties involved, that is the capital owner (*mangoan*) and cattle keeper (*sengoan*). The values of local wisdom as a priority social aspect become joint economic community resolution. To elicit cattle sharing programs in another field perspective is a considerable challenge for further research.
Keywords—cattle sharing, cultural identity, gaduhan, local wisdom, madura.

I. INTRODUCTION

East Java holds the largest national granary of big ruminant (beef cattle, dairy cows, buffaloes, and horses) and small ruminant (goats, sheep, and pigs) [1]. Geographically, dry land in East Java also has potency to support the development of beef cattle [2]. Furthermore, Madura occupies for around 21% of the beef cattle population in East Java. In 2010, the beef cattle population in Madura reached 787,424 in which the population increases of 4.60% every year. This number, however, is generally still lower compared with the beef cattle increasing in East Java [3]. Madura beef cattle represents the original of Indonesian cows plasma. This benefit makes Madura as a closed area for crossbreeding with bulls from outside Madura [3].

One of the developments in beef cattle is through adoption of animal husbandry technology and animal husbandry advocacy [4]. Another pattern is capital assistance and cattle sharing program empowerment.. Culturally, traditional sharing system of beef cattle as practiced in Bali can be an informal economic institution supported by social values called *karmaphala* [5]. Meanwhile, in structural dimension, the cattle sharing program is institutional forms in the SIPT program [2], business revolving system [6], microcredit program [7], and the independent institutions' group [8]. Cattle sharing program is also connected with corporate involvement in CSR programs [9], [10].

Beef breeding and cultivation in Madura is not only related to the biological and technical aspects but also associated with the socio-economic and cultural dimensions. [11] wrote that in taking care of the cattle of *karapan and Sonok* example; the owners not only get economic benefits, but also represent their social status. Moreover, biologically beef cattle in Madura also show ideographic portraits [11]. The motivation of farmers' involvement in the communal system is not merely due to economic considerations. It also considers to a feeling of self-actualization, psychological needs, warmth, and social affection [12].

Previous research on beef cattle sharing was dominated by the dimensions of biological factors [13], genetic [14]; [15]; [16]). In addition, dealing with the management dimension, previous researches had investigated beef cattle sharing based on managerial perspective [17], and the risk management model [18]. Furthermore, in the community perspective, several studies had examined the cohesiveness of group in beef cattle sharing among breeders [19] as well as dynamics group [20].

Based on literature reviews of previous research, this research will explore from a different perspective. This inquiry focuses on *gaduhan* as traditional cattle sharing program held by Madurese. These activities revealed the advanced wisdom virtues behind. Economic and social perspectives are employed in achieving an interdisciplinary approach with the research objective. These dimensions are essential to be investigated to get novelty and the state of the art position in providing scientific literature in the study of beef cattle sharing system, particularly in the cultural context in Madura region. Geographically, economic benefits, and socio-cultural potential in the traditional Madura cattle-sharing program are remarkable further study. This research does not use a definitive road map, but consistently explores complementary perspectives in answering research questions.

II. METHODS

The constructivist paradigm was used in this research to gain a deeper understanding related to *gaduhan* in Madura from the actor's perspective [21]. Qualitative descriptive method is used to investigate capital owner (*mangoan*) and cattle keeper (*sengoan*) experiences in *gaduhan* system [22]. The research was conducted in two regencies of Madura: Sampang (Banyuates district), and Sumenep (Dasuk district). Informants in this research are ten beef cattle sharing *(gaduhan*) breeders and five investors. A standardized open-ended interview approach was used to mimic the custom informal conversation with informants to encourage trust, openness, and information flow. It also allowed the farmers to initiate and elaborate on topics or solutions of importance to him / her without limitations instated by the presumptions of the research team.

Observations were entirely conducted in the field in location of beef cattle sharing program. Variables observed were the physical environment of maintaining the beef cattle sharing program *(gaduhan)*, feeding process, and breeder transactions. Research was done in four stages: (1) do fieldwork to collect data in villages raising beef cattle sharing programs, (2) perform data reduction and data coding simultaneously from data transcription, (3) analysis the data, by performing the descriptive analysis and making logical inference from finding, and (4) conduct data triangulation with comparing sources of information [23].

TABLE.1 THE BEEF CATTLE SHARING DIFFERENCES IN SAMPANG AND SUMENEP

Dimension	Sampang (Lar Lar, Banyuates)	Sumenep (Kertabarat, Dasuk)
Entrant/s & transaction mechanism	Two entities directly : farmers and investor	Three entities involves third parties called *paneggu'* besides the farmer *(sengoan*) and investor *(maoan)* with *"ta tengka"* mechanism.
Investment	Local and external investor.	Local investor such as civil servants, or local entities capital investment in making a profit
Beef cattle	Beef cattle. Madura beef varieties. The average cow is worth slaughtering 100 kg, the market price is 12 million. 60 kg of weight is still a litlle bit thin.	Beef cattle. Madura beef varieties. The average cow is worth slaughtering 100 kg, the market price is 10 million.
Profit sharing and sales	Female beef (around 12 months of age). Maintenance time can be up to delivery. The sale is done at the cattle market, surrendered to a trusted person / trader.	Female beef (around 12 months of age). Maintenance time is usually 3-4 months. The sale is made on the cattle market by *paneggu* '

III. FINDING AND DISCUSSION

A. Gaduhan : Economic Challenge in Traditional Customs Setting

Kusnadi [24] inscribed that cattle ownership at the farm level is still relatively small, 1-2 beef or goats, and 5-20 poultry. Several causes of the acceptance of cattle livestock business includes how farmers determine their business objectives [25], agro-environmental creation by taking into account heterogeneity of livestock farmers [26], and meeting the needs of livestock protein [8]. Human resources of farmers also play an essential role in the cattle business [27].

Gaduhan in Madura plays important role as an alternative in economic empowerment of livestock farmers. The main factor is the closeness of the area where the villagers look for green food, time, and energy efficiency. Most of the informants (breeders) said that the cattle sharing program system had a direct economic impact and could be pioneer of cattle investment in the future. Several unique findings were obtained about *gaduhan* in the two districts. These differences occur in term of contract, maintenance system, and profit-sharing agreement.

Every community has assets and keys to recognize and build upon these excavations of indigenous potency with courageous solutions [28], [29]. Economic motives in the traditional cattle-sharing program in Madura are carried out within the framework of neighborhoods. The investment is conducted in traditional cattle sharing to endure a strategic partnership between villagers and investors. According to informants, cattle sharing is a modest means created to gentrify society pattern. Less desirable parts of this pattern were found in this research. The research findings show that the potency of traditional pattern can be opportunities for economic growth and reinvestment.

B. Enduring Social Capital in Traditional Cattle Sharing

The revenue-sharing transactions of cattle sharing system in Madura virtually uses local wisdom. *Gaduhan* in Sampang, the price of pure cattle follows the market mechanism with profit sharing agreed directly at the beginning of the contract between breeders and investors. Otherwise, in Sumenep, the mechanism to estimate the price of cattle is by looking at the moon. In particular, feminity is sticked as a belief in raising the beef cattle sharing in Sumenep. If the cattle raiser or keeper is a female, the cows produced will be bigger *(nya'gas ro'koro').* The revenue sharing mechanism in beef cattle sharing in Sumenep is conducted by indirect agreement through a middleman (*paneggu* ').

In Sampang, beef cages were constructed simpler. The cows are directly placed on the plaster floor with a closed cage and the shape is like a house. Otherwise, in Sumenep, there is a deck like a bamboo cage floor, in which the ground of the cage can be dredged. To protect from diseases, breeders in Sampang do '*kampoan*'which related to burning activity near the cage. Otherwise, in Sumenep, there is special treatment in beef cattle by which an oil-like fly drug is used with the composition of bulldog pesticide and coconut oil. In Sampang, grass food complement is supplied with herbal drink supplements, containing soda, ginger, curcuma aeruginosa, and egg. In Sumenep, moreover, breeders prefer to use *'etanaghi'* foods (rice bran, moringa leaves, and corn). Concoctions of herbal medicine is feeded as supplements.

Enormous progress has been made in selecting animals, including cattle, for specific traits using traditional quantitative genetics approaches. Nevertheless, considerable variation in phenotypes remains unexplained and therefore represents other potential additions for animal production [30]. The traditional pattern of *gaduhan* becomes a channel for breeders and investors (and the *paneggu*' in Sumenep context) in establishing economic relations based on local wisdom. The contract was made orally with the principle of mutual trust. The emotional closeness amomg citizens such as relatives, neighbors, and friends leads to relationships among villagers to be closer in cooperation [31]; [32]. The informants said that the resolution of dynamics in cattle sharing business relationships is held with the principle of "*tolong bi nolong*" (help each other). However, in Sampang

district, sick beefs are sold to peer groups in their area, while in Sumenep, those are sold to slaughterhouses.

IV. CONCLUSIION

In economic perspective, g*aduhan* system in Madura give financial income to the breeders. To the end of sharing system is conducted with discussion. If dynamic in the business appears between breeders *(sengoan*) and investor *(mangoan*), this is solved by principle of *tolong bi nolong* as the priority. This traditional economic activity in *gaduhan* system is not purely about economic profit.

In addition, social perspective of *gaduhan* system can be identified from the interactions developed between breeders *(sengoan*) and investors *(mangoan*). This occurs in the 'business as unusual' quadrant where there are economic factors also involved in local wisdom. The profit sharing mechanism and business agreements are actually a social investment in developing kinship between breeders *(sengoan*) and investors *(mangoan*). Risk management that is carried out in the two districts is also based on local wisdom. Collective identity in communal society is demonstrated in the delegation of social and economic roles in cattle sharing systems *(gaduhan*) in Madura.

Culturally values as cattle sharing program in Madura can be a social capital for community empowerment. While in a structural perspective, further research is needed to see the potential of institutions such as the community, village-owned enterprises (BuMDes) in management to achieve self-sufficient village. The combination of cultural and structural approaches in managing economic and social potential is expected to be a catalyst for sustainable community development.

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