



Marketing Systems of Calf Bali



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Abstract

Maintenance calf breeders Bali less profitable for farmers may even affect revenues and increase production costs so that the habit of selling livestock farmers owned calf after the age of 6-8 months with relatively low prices because there is the determinant of the price of the middleman (broker). This can happen because the knowledge of the marketing of livestock products, especially on the price of calf Bali is not known with certainty and easily by livestock farmers. Knowing the purpose of this study is the cause farmers to sell, as well as the motivation of farmers to produce and market a calf Bali. Analyze marketing channels, as well as the impact on the income of farmers. Finding the calf Bali marketing system that is able to increase the income of farmers. Problems in this study are why farmers tend to sell calves? How marketing channels, income, motivation, as well as the government's role in helping farmers to increase their income from the sale calf? This research is explorative through surveys designed as a research explanation (explanatory research design) As well as this study is a combination of qualitative and quantitative with the main approaches used in solving the problem in this research is the quantitative approach, the complex is formulated as a quantitative model that is formulated in mathematics. This research was conducted on the calf Bali marketing system and market and Orion spread across two districts in the island namely: Badung and Buleleng. Locations were selected intentionally (purposive sampling) based on the population of Bali that most cows. Instrument or a measuring tool that is used as a research interview guide to help obtain answers from respondents is structured questionnaires and covered equipped open question. Data used in the form of quantitative and qualitative data. Qualitative data includes the characteristics of respondents, channel and marketing functions performed by any individual or institution related marketing, and analyzed descriptively. Quantitative data includes the margin and marketing costs as well as the farmer's share were analyzed to measure the efficiency of marketing. The collected data is then analyzed by means of simplified tabulation for easy counting. The results showed that farmers sell calf because there is an urgent need that must be met as school children (70 %), 20 % because there are no cages and 10 % for not more than one calf want to look after. Marketing channels and Orion involving breeders and animal markets. There are four channels are formed

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from marketing agencies, namely: marketing channel I (farmers-livestock market 10 %), marketing channels II (Breeders - Orion - Animal Market 75 %), Channel III (Breeders-groups of 5 %). And channels to IV (breeder to another breeder to breeder maintained in accordance purposes 10 %)

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1. Introduction

Bali is one of the central areas of Bali cattle breeding. Bali is a genuine cow seed. Cattle as a source of meat and seed sources. The government hopes to Bali cattle produced up to 2014 is as much as 1.88 million head of cattle that come from farms in the area of seed breeding centers, one of which the province of Bali (Directorate General of Animal Husbandry, 2010). The government's policy is a golden opportunity for dairy farmers in Bali, especially, because Bali is one source of Bali cattle and the only area that is believed to have a pure genetic Bali cattle.

Bali island has an area of 5632.86 km² consisting of 135 796 ha of dry land, 183 833 ha of forest land, 81 482 ha of wetland and 121 797 ha of plantation land (Bali Provincial Animal Husbandry, 2011). When viewed from the area as well as the allotment of land, Bali has a huge potential for the development of cattle breeding Bali. This is supported also by the socio-cultural conditions of the people of Bali who have proximity to cattle, where the majority of the Balinese people, especially those in rural areas have cattle. This condition is evident in the community with a number of groups of cattle or villages built as VBC (Village Breeding Centre) in Bali. Cattle breeding businesses in Bali carried out by farm people, mostly small-scale with ownership (1-3) tail. This effort is usually integrated with the other farm, used as saving or just a hobby and a determinant of social status.

Marketing more efficient will be able to provide a higher price for the farmer. Thus, a more efficient marketing system absolutely must be considered, so that the cattle farm is able to provide additional higher income for farmers. The increase in income will encourage them to keep cows in greater numbers. In addition, it will encourage farmers to carry out maintenance with a better way (eg provide food of a higher quality, and mating systems are better as the use of artificial insemination (AI), so as to improve the quality of beef produced. This will indirectly increase the cattle population in Bali as desired by the government.

Sukanata, et al., (2009) states that fattening beef cattle farming in Bali technically efficient enough shown by business conditions in a state of constant return to scale. The use of production factors such as feed and seed already economically efficient approach demonstrated by the efficiency index value close to one. Facts on the ground show that the income of farmers is still far from expectations. The price received by farmers is still relatively low so that the farmer's share is also low. According to the research results Sukanata et al., (2010), the farmer only receives a share of about 63-69% of the price at the consumer end. If the terms of the profit, dairy farms do not provide a decent profit if we take into account all the sacrifices incurred. Financial analysis results in fattening cattle business done by Sukanata and Budi Rahayu (2009) showed that cows in Bali does not provide a decent profit for them, but rather harmful, if all the sacrifices breeders in production are taken into account with money (including the cost of seeds, forage, feed concentrates, medicines.

Urgency (Virtue) Research

Increase the income of farmers, therefore, the urgency of this research can illustrate why Bali cattle ranchers sell at a young age (calf), how the calf marketing channel today, how marketing impacts calf breeder Bali to earnings, the picture is expected to motivate farmers to produce and market the Bali good calf, and found the calf Bali marketing system that is able to increase the income of farmers is expected to make a recommendation to the provincial

government of Bali, to take a correct policy, so that the more prosperous Bali cattle ranchers. 5 Targeted Outcomes and Contribution to Science. In this study will be carried out observations and surveys of the marketing system to farmers calf Bali cattle breeder seeds are spread across two districts in Bali, Buleleng, and Badung regency, then the outcomes targeted in this study are:

- a) Determine the cause ranchers to sell calves.
- b) Analyzing the current calf marketing channel?
- c) Know the motivation of farmers to produce and market a calf Bali good.
- d) Identify government policies in producing and marketing the calf Bali.

2. Materials and Methods

Research Design

This research is explorative through research surveys designed as an explanation (explanatory research design) because it intends to clarify the relationship between independent variables (independent variable) with no free variables (dependent variable) (Singarimbun and Effendi, 2006; Kerlinger, 2000). As well as this study is a combination of qualitative and quantitative with the main approaches used in solving the problem in this research is quantitative approach, a quantitative approach is an approach system (system approach), which in this approach is in accordance with reality (real system) complex is formulated as quantitative models formulated mathematics (Sinaga, 2009).

In the context of this study, Bali cattle breeding business will illustrate become a model formulated mathematics. This study was designed as a research survey on marketing systems calf Bali from farmers to the consumers. Bali calf marketing system by analyzing the functions of marketing, channel marketing, cost structure, the cost and the marketing margin, R / C ratio, the farmer's share as well as the analysis of the structure, behavior and market execution.

In practice, the cattle breeding business Bali and marketing calf Bali involve aspects of behavior and institutions that are sometimes difficult to quantify, but these aspects remain to be considered, therefore, in addition to using a quantitative approach, this study is also equipped with qualitative approach to enrich the discussion that this study will be sharper and relevant to the issues in the field

Location and Time Research

This research was conducted on the calf Bali marketing system and market and Orion spread over two (2) districts in the island namely: Badung and Buleleng. Locations were selected intentionally (purposive sampling) based on the population of cows Bali the highest among the eight counties and one city spread across the island of Bali, and which has a market potential of animals and the development of cattle breeding business aircraft in Bali, farmers as producers and marketing system calf in the island of Bali, the marketing agencies involved. This study will be conducted from January to June 2015.

Data and Data Collection

Data used in this study can be divided into two:

- a) Qualitative Data:
This data includes the ideas, views, and problems faced by farmers in Bali cattle both in terms of production/reproduction and marketing, as well as the views and ideas of a cattle trader, Orion and government (Disnak Bali Province)
- b) Quantitative Data:
These data form the number of dairy farmers in Bali, production, and reproduction of data, as well as data, costs Bali cattle and cattle business investment and the number of stems Bali cattle calf cattle marketed through marketing agencies.

The data used in this study can be divided into three (3) namely: primary data used in this study was obtained directly on-site research by an interview in Bali cattle breeding businesses, experts, and governments, Bali cattle marketing. Secondary data used in this study comes from the data recording, and production costs Bali cattle in Bali. Documents originating from BPS (Central Bureau of Statistics) and the institutions that are relevant to this study. Primary data obtained from direct observation of the activities and conduct interviews with individuals/marketing involved using an instrument such as a questionnaire or a list of questions prepared in advance in accordance with the problem and the purpose of this research. While the secondary data obtained through documents or data company that includes activities in running the Bali cattle marketing system. In addition, secondary data drawn from institutions and agencies associated with this research.

Population and Sample

The study population is the overall individual/marketing agencies involved in the marketing system from producer calf Bali (Bali cattle ranchers parent) to the buyer/consumer, which includes two (2) districts in the island namely: Badung and Buleleng. The election of Badung district as an area of research because the animal market the largest in Bali is located in the district naughty, sub Mengwi, village Beringkit, and Badung ranking third majority of the total population of cows Bali in Bali, as many as 24 816 individuals (Table 2), in order according to the title of my research is the marketing system. And six (6) districts spread in Badung, I select two (2) districts most cow population Balinya namely: South Kuta districts as many as 8182 head and tail Evening 5516 (Table 4). Determination districts elected by 30% of the number of districts each district, enough to represent to get valid data. As for the Buleleng district is the largest district population Bali cow tail as many as 76 200 spread over 9 districts. From 9 districts I select three (3) districts namely, Gerokgak because of most populations cow tail Balinya as many as 22 210, and as many as 7,165 Seririt tail as well as many additional Kubu tail 6632 (Table 3). Sampling for the region and individual/marketing agencies in the region conducted by purposive sampling method (intentionally), based on data from the cattle population of Bali in Bali in 2014.

Table 1
Females Bali cattle population in the Province of Bali

No. DISTRICT / CITY Bali Cattle		Females Bali Cattle						Total	Total
No.	City Bali cattle	calf	Calf females	2-4 years	5-6 years	>6 years	Total		
1	Denpasar	1,018	1,317	1,729	1,371	336	5,771	7,241	
2	Badung	3,804	5,007	5,516	7,313	3,176	24,816	37,862	
3	Gianyar	5,896	5,965	10,382	5,572	3,256	31,071	46,861	
4	Klungkung	5,776	5,868	5,186	4,938	4,828	26,596	37,250	
5	Karangasem	12,669	15,949	16,747	19,706	4,140	69,211	122,299	
6	Bangli	5,511	8,259	6,660	5,780	4,413	30,623	75,164	
7	Buleleng	16,346	18,190	16,360	14,216	11,088	76,200	121,613	
8	Jembrana	7,205	9,710	8,205	8,050	6,099	39,269	52,306	
9	Tabanan	4,913	6,406	7,684	7,438	4,182	30,623	52,916	
Total : 2014		63,138	76,671	78,469	74,384	41,518	334,180	553,512	
Total : 2013		45,243	59,730	71,309	76,821	39,554	292,657	478,146	
Total : 2012		80,100	87,757	81,347	89,962	45,018	384,184	651,216	
Total : 2011		60,588	80,813	96,433	107,491	53,924	399,249	637,473	

Source: Department of Animal Health livestock and Bali Province, 2014

In the district where the most the most preserved cow Bali, the districts will be targeted researchers in data collection and in-depth interviews, which can provide data and information on the marketing system as a whole calf Bali in accordance with the problems and objectives that have been set. Samples region in the intent covers an area of Badung and Buleleng. Individual sample/marketing agencies are taken by purposive sampling (deliberately), as many as 30% of respondents in each district are sufficient to represent the overall respondents in these districts.

Data took the form of primary data and secondary data. Primary data obtained from direct observation of the activities and conduct interviews with individuals/marketing involved using an instrument such as a questionnaire or a list of questions prepared in advance in accordance with the problem and the purpose of this research. While the secondary data obtained through documents or data which includes activities in the marketing system running calf Bali in Bali. In addition, secondary data drawn from institutions and agencies associated with this research.

Instrument or measuring tools is very important in research activities, because only with instruments or measuring devices that either will be obtained data or information relevant to the purpose of research, therefore, the measuring instrument shall have a validity study and reliability high.

Instrument or a measuring tool that is used as a research interview guide to help obtain answers from respondents is structured questionnaires and covered equipped open question. Respondents provide answers based on questions or choose alternative answers that have been available on the questionnaire (Appendix 1). Explanation - qualitative and in-depth explanations that are not covered in the questionnaire but is closely related to the research problem, asked to use open-ended questions to guide the interview, and the results are recorded in a separate annex. Questionnaire for experts and market participants calf Bali, as well as other relevant agencies, conducted in-depth interviews (In-depth Interview) and the results are recorded in a separate annex.

3. Results and Discussions

After empirically in marketing models calf can Bali in Bali as the scheme below:

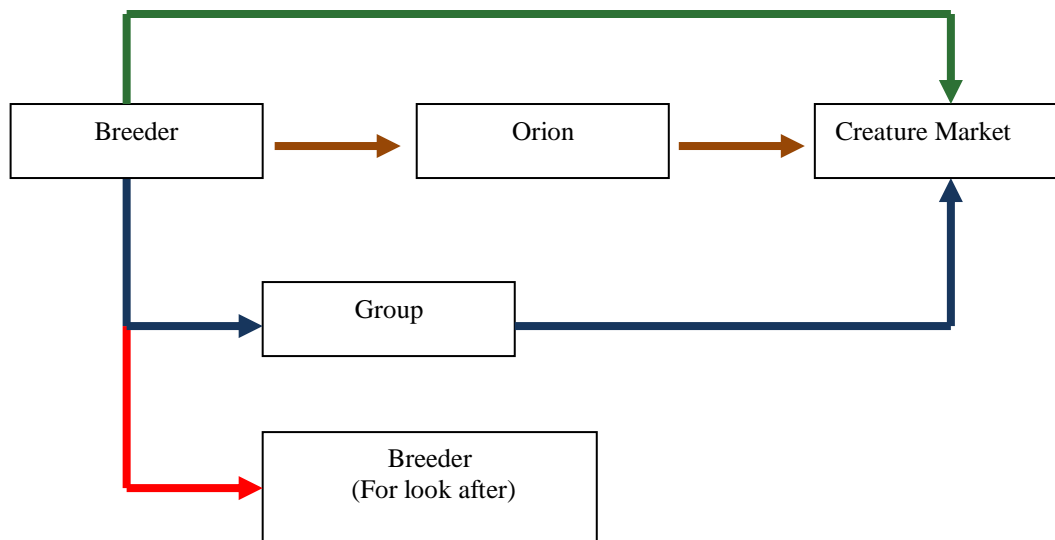


Figure 1. Channel Model Scheme Marketing Calf Bali

Marketing channels I: Farmers sell calf Bali directly to the animal market, only 10 %, it is caused due to lack soul entrepreneurship of farmers and no courage and experience breeder sells calves to market animals, fear calf mocked scalpers animal market, so breeders rarely or only 10 % are sold directly to the market livestock animals. Selling cattle directly to the animal market, located adjacent to the animal market, as Abian Semal area, meaning the distance between animals with farmers market very close. Besides, because these breeders already mastered and know the state of the livestock market.

The results showed that farmers sell calf cattle because there is an urgent need that must be met as school children (70 %), 20 % because there are no cages and 10 % for not more than one calf growth. Marketing channels and Orion involving breeders and animal markets. There are three channels that form of marketing agencies, namely: marketing channel I (farmers-breeders),

Marketing channels II (Breeders-Orion-Animal Market), Line III (Breeders-Animal Market). Marketing channels II: Bali cattle ranchers to sell calves to the next Orion Orion who sells to the animal market, by 75%. This is because breeders we do not want to take the risk in marketing, which we know to the marketing of livestock need to transport and remove livestock from the cage. Calves were only 8 months old very susceptible to fracture so that farmers do not want to take risks. Breeders sell their animals in cages. The sales process breeder open the initial price, the opening price of the beginning is known by breeders because of information from neighboring farmers after it happened to bargain until a price agreement. In the event of a price agreement, Orion will pay 50% of the deal price as a binder so that the calf breeders do not sell anymore. And when the calves out of the cage, farmers have received throughout the selling price according to the agreement. The risk after the animal out of the cage is the responsibility of Orion. Another thing causes breeders so much selling calf through Orion because of the lack of soul entrepreneurship of farmers and HR (Human Resources) farmers were on average 64% completed primary school (elementary school) and age of farmers who average 46 years of age is approaching the elderly (elderly people), this age want simple and practical circumstances.

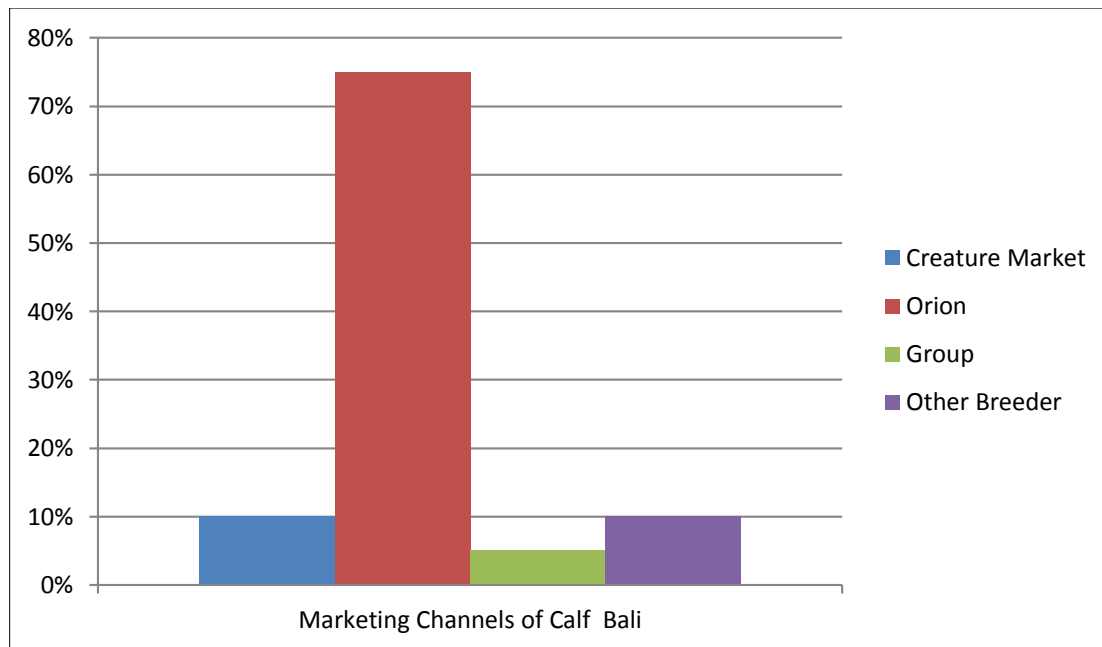


Figure 2. Marketing Channel Percentage

Channel III: Breeders sell calves to the group as much as 5%, calf sales in the third channel is the lowest. Low calf sales in this channel because local farmers have little soul entrepreneurship. Breeders who have an entrepreneurial spirit and want to help fellow ranchers to sell calves owned by ranchers to market animals by collecting calf-calf that will be sold. Open in the rental car and sold jointly to market the animals, for the assistance of the breeders who are familiar and already know the ins and outs of the market, while farmers outing to the veterinary market. Breeder the livestock sold will tip the coordinator of the group and invited to eat in the veterinary market.

Channel IV: Breeders sell calves to other farmers who were in the village to be maintained, as the purpose of the breeder. Male calves reared for two years to be fattened, while the female calf production is maintained to get the calf. Sales of calves to other farmers at 10 % the same as the first channel that farmers sell to the pet market. The small percentage of the sale of the calf to a neighbor because the neighbor needs to be the calf and the capacity of the enclosure which is owned by farmers and ranchers neighboring capital owned limited so that the percentage of sales to the neighboring small calf.

4. Conclusion

- a) System calf Bali marketing consists of 4 (four) channels:
- 1) Breeders → animal-market.
 - 2) Breeders → Orion → Animal-Market
 - 3) Breeders → Group → Animal-Market
 - 4) Breeders → others to be maintained in accordance with the purpose of maintenance.
- b) Percentage of sales through Orion's calf is very high (75%), this shows the lack of soul entrepreneurship from the breeder.

Conflict of interest statement and funding sources

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Statement of authorship

The author(s) have a responsibility for the conception and design of the study. The author(s) have approved the final article.

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References

- Abbott, J. C. (1987). *Agricultural marketing enterprises for the developing world: with case studies of indigenous private, transnational co-operative and parastatal enterprise*. CUP Archive.
- Bali Provincial Animal Husbandry. (2001). 'Potential Livestock and Bali Provincial Government Policy On Livestock and Meat trading system Inter-regional in Bali Provincial Level'. Provincial Animal Husbandry Department of Bali, Denpasar.
- Bali Provincial Animal Husbandry. (2009). Information Data Bali Provincial Animal Husbandry. Provincial Animal Husbandry Bali, Denpasar.
- Bali Provincial Animal Husbandry. Cattle Population Count. (2013). Jiwa Bali in Bali. animal husbandry Department The province of Bali, Denpasar.
- Directorate General of Livestock. (1993). Policy and Strategy Development of Agribusiness Pelita VI. National Discussion reports I Agribusiness. Cooperation Faculty of Animal Science degan Directorate General of Livestock.
- Downey, W. D. (1989). Agribusiness Education in Transition: Strategies for Change. *Report of the National Agribusiness Education Commission, Lincoln Institute of Land Policy, Cambridge, MA*.
- Kohls, R. L., & Downey, W. D. (1972). *Agricultural Marketing*.
- Kohls, R. L., & Uhl, J. N. (1990). *Marketing of agricultural products* (No. Ed. 7). Macmillan Publishing Company.
- Kotler, P. (2000). Marketing management: The millennium edition. *Marketing Management*, 23(6), 188-193.
- Limbong, W. H., & Sitorus, P. (1987). Introduction to Agricultural business administration. *Faculty of Agriculture, Bogor Agricultural University, Bogor.[Google Scholar]*.
- M. Razali, Che Ismail Hasanah, Ali Khan, Mutusamy Subramaniam, S. (2000). Psychosocial interventions for schizophrenia. *Journal of Mental Health*, 9(3), 283-289. <https://doi.org/10.1080/jmh.9.3.283.289>
- Rasa Astiti, N. M. A. G., Rukmini, S., Ketut, N., & Seri Rejeki, I. (2017). Teknologi Pengelolaan dan Pengemasan Produk Hasil Peternakan.
- Saifuddin, S. U. kritik epistem ologi tafsir kontem porer.

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