

Characterising the Marketing Chain for Beef Cattle in East Java, Indonesia

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ABSTRACT

This research traced the movement of beef cattle from small-scale producers to consumers in East Java, the province with the highest share of the cattle population in Indonesia and a large proportion of beef consumers. The research was undertaken in five districts in 2010-11. Interviews were conducted with 113 small-scale producers, 52 growers, 78 traders, and 34 butchers. The institutions visited were traditional district markets, district slaughter-houses, and supermarkets. The results showed that the main movement of cattle was from small-scale producers and growers who sold cattle in the village to traders (collectors) who were based in the village, sub-district, or district. These in turn sold to other traders or directly to butchers in the district market place. There was also a secondary movement of calves and young cattle from producers to traders to small- and medium-scale growing and fattening operations, and then to traders and butchers. The traders generally sold cattle twice a week in their preferred marketplace. The district traders sold more cattle than more localised traders, averaging 34/month. The butchers bought on average 40/month. The number slaughtered increased from 20 to 28/month during Muslim festivals. The price of cattle at each stage depended on the breed and sex. Crossbred animals and bulls had a higher price, reflecting higher expected carcass weight. The meat from the slaughterhouses was sold in traditional wet markets, with some going to supermarkets as fresh local beef. The main consumers of the beef sold in the wet markets were meat-ball producers, street vendors, households, and restaurants. Marketing and slaughtering costs were a small proportion of the market price. It can be concluded that the principal beef marketing chain from small-scale producers to consumers in East Java is reasonably competitive and efficient, with many actors at each stage.

Key Words: marketing chain, East Java, small-scale cattle producers, traders, butchers

INTRODUCTION

The province of East Java is one of the centre of beef cattle production in Indonesia with 4.7 million head of cattle. More than 90% of cattle production in East Java is derived from small-scale producers using local resources. These small-scale cattle production systems are diverse. While in some cases production inputs (land, labour, livestock and feed sources) are all held within a single household, in other cases they are dispersed among various actors, for example, when a poor, landless household keeps one or more cattle for the owner, harvesting or buying feed from other, crop-producing households or intermediaries. The main objective of keeping cattle by farmers in East Java is to own a productive asset that can generate cash income through the sale of offspring, whether to meet consumption needs, farming expenses, or for significant periodic outlays such as school fees and wedding expenses. As a secondary purpose, farmers also keep cattle for draught power and to produce manure that is needed for their crop land. The beef marketing chain in Indonesia is complex, with both short and long chains from producers to consumers. Cattle can change hands many times before finally being slaughtered and sold in retail outlets (Newsome and Llewelyn, 2004). Deblitz *et al.* (2010) reported that before coming to Jakarta as the prime end-market,

beef cattle from other provinces may transit in East Java. Hadi *et al.* (2002) added that cattle are brought from East Java to Jakarta by both sea and land transportation, including by truck and rail. This paper describes and analyzes the movement of beef cattle from small-scale producers to consumers within East Java. Commercial feedlots, inter-provincial trade, and port are beyond the scope of this paper. An understanding of the marketing system and its constraints will be an important aspect of on-going research into improving the productivity and livelihoods of small-scale producers.

MATERIALS AND METHODS

Questionnaire surveys were conducted in five districts in East Java during March-August 2010, November-December 2010, and August-September 2011. The surveys involved 113 small-scale cattle producers, 52 cattle growers, 78 traders, 34 butchers, 3 slaughterhouse district officials located in Pasuruan, Sidoardjo and Tandes, 5 wet-market sellers in Malang, Pasuruan, Probolinggo, and Banyuanyar, and 7 supermarket meat-division staff located in Malang, Pasuruan, Sidoardjo and Surabaya. Some of the issues addressed by the questionnaires for small-scale producers and growers included: types of cattle sold, price, reason for selling, and destination of cattle sold. For traders and butchers the data included number and type of cattle bought/sold/slaughtered, destination of cattle sold, and cost of cattle sold/slaughtered. These data were synthesized to build a descriptive analysis of the cattle and beef marketing chain in East Java.

RESULTS AND DISCUSSION

Marketing chain

A marketing chain can be defined as the full range of activities required to bring a product (e.g., live cattle) to final consumers passing through the different phases of production, processing, and delivery (IDRC, 2000). Various actors with different characteristics are involved in each phase. A summary of the marketing chain for cattle and beef in East Java, based on the surveys conducted, is provided in Figure 1.

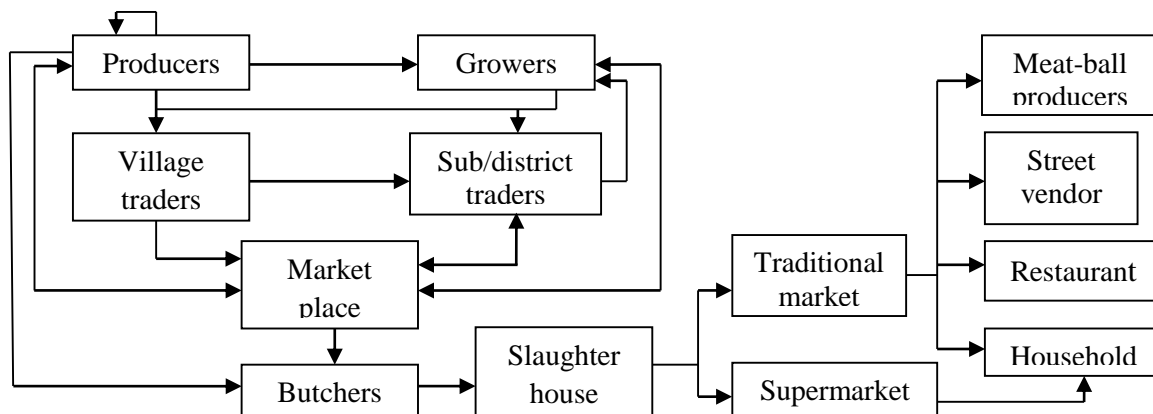


Figure 1. Dominant cattle and beef market chain in East Java

Most farmers in the study sold their cattle in the village (70% to village traders, 15% to sub-district traders, 3% to district traders, 10% to other farmers, 2% to butchers) and only 2% sold directly to the marketplace. Patrick *et al.* (2010) reported that most farmers in Bali and Lombok prefer selling their cattle to collectors, either on-farm or at a local market, rather than directly to butchers. The reasons for selling cattle could be grouped as meeting immediate household needs not including farm input (60%), buying items of secondary importance such as motorcycle, TV, and other electricity appliances (24%), and buying a house and/or land or paying for a wedding (10%). Musemwa *et al.* (2010) and Hadi *et al.* (2002) also reported that

farmers sold cattle to finance household requirements. On the other hand, Hermansyah and Mastur (2008) reported that farmers in West Nusa Tenggara tended to sell and slaughter cattle when cattle were sick. In the present study, the types of cattle sold were calves (45%), young cattle (17%), adults (24%), and all three (14%). Farmers in the more intensively-farmed lowland districts were more likely to sell calves. Priyanti *et al.* (2012) found that farm-gate prices for cattle varied with liveweight, body condition, breed, and sex, indicating an efficient transmission of price information about market requirements.

Village traders sold calves and young cattle directly to other traders (63-66%) or farmers (22-28%), while only 9-12% sold in the market. Traders also sold adult cattle to other traders (43%), butchers (40%), and farmers (10%), and 16% sold in the market. Traders stated that the price and size of cattle were the most important criteria in selling cattle. District traders sold more cattle than other traders, averaging around 34 head/month; they sold roughly equal numbers of young and adult cattle.

Butchers bought on average 2-3 cattle every market day (i.e., twice per week). Not all cattle bought by butchers were slaughtered on the same day; some were held in the slaughterhouse pen for up to 2 days as stock to support a daily supply of meat to the market. The price of Ongole bulls (the local breed) averaged of IDR 7.7 million, compared with Ongole x European crossbred bulls, which averaged IDR 10.1 million for the same body size. This is could be due to higher dressing/carcass percentage that in turn will give higher beef. The number of cattle slaughtered and the price paid per head varied during the year. In the low season the price of Ongole bulls averaged IDR 6.9 million and butchers slaughtered on average 19 per month. During the peak periods such as Idul Fitri, Idul Adha, or fasting month, the price increased to IDR 9.2 million and the number of cattle slaughtered to 28 per month. Suryanto (2006) reported a slightly higher figure of 30 per month in Central Java. Most butchers (76%) had their own meat shop in the traditional wet market, which was usually managed by their wives, assisted by 1-2 workers.

Eight meat sellers in three different traditional markets were interviewed. All of them sold local beef but two sold beef from imported live cattle fattened in feedlots (10-20% of the volume sold). Sales of local beef averaged 80 kg/day and of offal 24 kg/day; for those who sold feedlot beef, sales averaged 20 kg/day and offal 25 kg/day. According to the sellers interviewed, the main purchasers of beef from the traditional market were (in order of importance) meat-ball producers, street vendors, households, and restaurants. Priyanti and Putu (1999) reported that beef marketing is dominated by the wet markets which also supply a small portion of the prime grade beef required by hotels and restaurants. However, most hotels, big restaurants, and supermarkets prefer to buy imported meat from meat distributors (Patrick *et al.*, 2010).

Marketing costs

The marketing costs incurred by traders averaged IDR 99,000 per head, or about 1% of the selling price not included the buying price of cattle. This included the cost of transportation, permit fee, marketplace fee, feed cost, rent for pens, and broker fees (Table 1). Transportation costs and broker fees were the largest items, accounting for 43% and 30% of the total marketing cost respectively. Village traders incurred somewhat lower costs than traders operating at the sub-district or district level. The additional cost of slaughtering cattle was around IDR 150,000/head, with labour accounting for over half this amount. This represents about 1.5% of the buying price not including the buying price of cattle.

Table 1. Costs for marketing/slaughtering cattle (IDR/head)

Items	Village trader	Sub-district trader	District trader	Butcher
Transportation	37,921	46,157	45,357	31,188
Permit fee	6,875	8,750	8,000	2,667
Marketplace/slaughterhouse fee	2,175	2,245	2,911	20,174
Feed cost	5,146	8,197	5,625	5,000
Penning cost	14,750	13,333	na	2,070
Broker fee	25,313	24,886	39,063	na
Labour	na	na	na	88,665
Total	92,179	103,570	100,955	149,764

CONCLUSION

The traditional cattle and beef marketing chain from small-scale producers to consumers in East Java has many actors at each stage, i.e., producers, growers, traders, butchers, and meat sellers. It appears to be reasonably competitive and efficient, with low marketing costs and reasonably adequate transmission of information to producers about market preferences for animal characteristics and seasonality of supply. Government's facilitating role in supporting infrastructure such as roads, market facilities, and slaughterhouses is important, as well as regulating meat quality, but further intervention in the market is probably not warranted.

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