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Marketing Efficiency Of Beef Cattle At The Tirtasari Livestock Market, Toili Sub-District, Banggai Regency

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Abstract

Marketing efficiency is one of the key indicators in assessing the performance of a marketing system. Marketing is considered efficient if the costs incurred during the distribution process are commensurate with the value added generated, the marketing margin is not excessive, and the farmer's share of the price is relatively high. The objective of this study is to analyse the marketing channels, marketing margins, the farmer's share, and the level of marketing efficiency for beef cattle at Tirtasari Livestock Market, Toili Sub-district, Banggai Regency. The research method employed was a survey. The data used comprised both primary and secondary data. The sample was selected using accidental sampling. A total of 30 respondents were included in this study, comprising 15 small-scale traders and 15 large-scale traders. The data analysis carried out included descriptive analysis, marketing margins, the farmer's share, and marketing efficiency. The results of the study indicate that the marketing of beef cattle at Tirtasari Livestock Market involves three channel patterns, namely Channel I (Farmer–Small-scale Trader–Wholesaler–Consumer), Channel II (Farmer–Wholesaler–Consumer), and Channel III (Farmer–Small-scale Trader–Consumer). The marketing margin obtained in Channel I was Rp1,354,093 per head, in Channel II Rp893,458 per head, and in Channel III Rp988,125 per head. The farmer's share stood at 88.4 per cent, 90.7 per cent and 91.1 per cent respectively. The results of the marketing efficiency analysis show that Channel I has an efficiency value of 1.58 per cent for small traders and 2.34 per cent for large traders, Channel II at 3.25 per cent, and Channel III at 1.24 per cent. All three marketing channels are considered efficient as they have efficiency values of less than 5 per cent. Channel III is the most efficient marketing channel, with the lowest efficiency value and the highest farmer share.

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Keyword: Marketing efficiency, farmers' share, marketing margin, beef cattle.

INTRODUCTION

Efforts to develop the livestock sub-sector in Indonesia are continuing on an ongoing basis; beef cattle are one of the most promising livestock types for improving the socio-economic conditions of farming communities in rural areas. However, the success of the beef cattle industry is determined not only by the production process, but also by a marketing system capable of channelling livestock from farmers to consumers effectively and efficiently. Marketing efficiency is one of the key indicators for assessing the performance of a marketing system. A marketing system is considered efficient if the costs incurred during the distribution process are commensurate with the value added generated, the marketing margin is not excessive, and the farmer's share of the price is relatively high. Conversely, an inefficient marketing system is characterised by a long marketing chain, high marketing costs, and low prices received by farmers compared to the prices paid by consumers. The Tirtasari Livestock Market in Toili Sub-district is a crucial centre for beef cattle transactions within the livestock marketing chain in Banggai Regency. This market facilitates the coming together of various economic actors, such as livestock farmers, traders and buyers, who form a diverse range of marketing channels. Data indicate that active trading takes place, with an average of 20 head sold per market session. This figure rises to 30–40 head in the run-up to the Eid al-Fitr and Eid al-Adha festivals. However, the level of marketing efficiency for beef cattle in this market has not yet been identified. This study aims to analyse the efficiency and performance of the beef cattle marketing channels at Tirtasari Livestock Market.

METHOD

The research was conducted at the Tirtasari Animal Market, Toili Sub-district, Banggai Regency, Central Sulawesi Province. This study employed a survey method. The data collected comprised primary and secondary data (Nafisatur, 2024). Sampling was carried out using accidental sampling, whereby anyone who happened to encounter the researcher and met the criteria could be included in the sample. The sample comprised 30 individuals, consisting of 15 small-scale traders and 15 large-scale traders. Descriptive analysis was employed to examine marketing channels, prices, payment patterns, as well as marketing margins, the farmer's share and marketing efficiency.

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RESULTS AND DISCUSSION

Marketing Channels

Marketing channels refer to the flow of products from producers to end consumers (Fajariah et al., 2020). The research findings indicate that the marketing of beef cattle at the Tirtasari Livestock Market in Toili Sub-district comprises three marketing channel patterns, as illustrated in Figure 1.

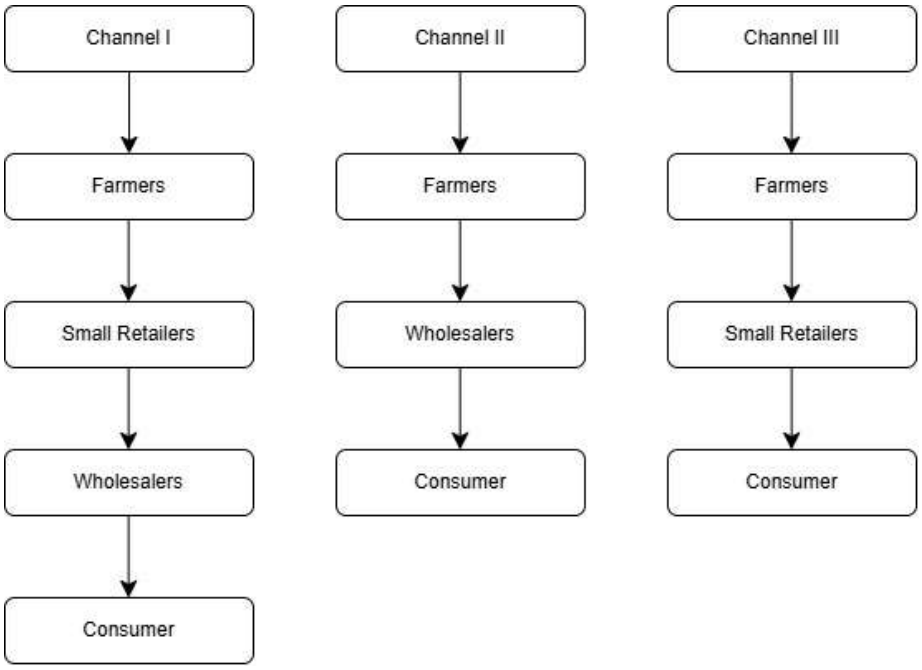


Figure 1. Marketing Channels for Beef Cattle at Tirtasari Livestock Market

Channel pattern I is the longest marketing channel as it involves two levels of intermediaries—namely small-scale traders and wholesalers—before beef cattle reach the consumer. The large number of market participants involved in this supply chain has the potential to increase marketing costs and margins. Consequently, the farmer's share of the price tends to decrease. Channel Pattern II employs a shorter distribution chain, as farmers sell beef cattle directly to wholesalers before they reach the end consumer. In Channel Pattern III, farmers sell beef cattle to small traders, who then sell them directly to the end consumer. This channel is also classified as a short marketing channel as it involves only one intermediary. The formation of these three channel patterns in the marketing of beef cattle, due to the involvement of various marketing institutions, is supported by the findings of Kiswanto et al (2021), who state that beef cattle marketing channels are pathways connecting farmers with consumers through various marketing institutions. The study identified three channels: farmer–end consumer; farmer–

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collector–end consumer; and farmer–collector–wholesaler–end consumer.

Marketing Margin

Kurniyawan (2023) explains that the marketing margin is essentially the difference between the selling price of a product and its purchase price. The size of the marketing margin for each marketing organisation depends on the total costs incurred and the profit. The higher the costs and the greater the profit sought by the trader, the larger the marketing margin. According to Muntaviah (2025), the marketing margin represents the total economic value generated by all distribution activities, from the producer stage until the product reaches the end consumer.

Table 2. Average Costs and Marketing Margins for Beef Cattle in Channel I

No	Uraian	Harga/Ekor	Margin Pemasaran
1	Livestock Farmer		
	Selling Price	10.320.871	
2	Small Retailers		949.735
	Purchase Price	10.320.871	
	Marketing Costs	177.636	
	Profit	772.098	
	Selling Price	11.270.606	
3	Wholesalers		404.358
	Purchase Price	11.270.606	
	Marketing Costs Profit	272.657 131.701	
	Final Selling Price	11.674.964	
4	Final Selling Price	11.674.964	

Source: Processed primary data, 2026

An analysis of the beef cattle marketing channel at Tirtasari Livestock Market shows that the commodity moves from farmers to end consumers via two intermediary bodies—small-scale traders and wholesalers—with a total accumulated marketing margin of Rp1,354,093 per head. This margin structure is formed by the difference between the selling price at the farmer level (Rp10,320,871 per head) and the purchase price at the end-consumer level (Rp11,674,964 per head). At the first stage, small-scale traders purchase cattle from farmers and resell them for Rp11,270,606 per head after allocating marketing costs of Rp177,636 (transport, labour and levies) and taking a profit of

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Rp772,098, thereby generating a margin of Rp949,735 per head. Subsequently, wholesale traders distribute the commodity to end consumers by adding operational costs of Rp272,657 and a profit margin of Rp131,701, resulting in a marketing margin of Rp404,358 per head. Overall, small-scale traders play the most dominant role in price formation as they account for 70.14 per cent of the total marketing margin in this supply chain.

Table 3. Average Costs and Marketing Margins for Beef Cattle in Channel II

No	Uraian	Harga/Ekor	Margin Pemasaran
1	Livestock Farmer		
	Selling Price	8.678.000	
2	Wholesalers		893.458
	Purchase Price	8.678.000	
	Marketing Costs	311.438	
	Profit	582.021	
3	Final Selling Price	9.571.458	

Source: Processed primary data, 2026

Table 3 shows the distribution of beef cattle categorised as a short supply chain, as it involves only one intermediary, namely the wholesaler, who connects farmers directly with end consumers. In this structure, wholesalers purchase cattle from farmers at an average price of Rp8,678,000 per head and resell them for Rp9,571,458 per head, resulting in a total marketing margin of Rp893,458 per head. This margin is allocated to cover marketing costs of Rp311,438 per head—which include transport (Rp160,833), labour (Rp135,833) and levies (Rp14,771)—as well as generating a profit for the wholesaler of Rp582,021 per head. The efficiency of this channel is evident from its simple distribution structure, in which minimal involvement of intermediaries helps to reduce marketing costs whilst providing economic added value through the provision of effective transport and distribution services right to the consumer.

Table 4. Average Costs and Marketing Margins for Beef Cattle in Channel III

No	Uraian	Harga/Ekor	Margin Pemasaran
1	Livestock Farmer		
	Selling price	10.128.125	
2	Small Retailers		988.125
	Purchase Price	10.128.125	
	Marketing Costs	138.240	

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	Profit	849.885	
3	Final Selling Price	11.116.250	

Source: Processed primary data, 2026

Table 4 shows that small-scale traders purchase cattle from farmers at an average price of Rp10,128,125 per head and resell them to consumers for Rp11,116,250 per head, resulting in a total marketing margin of Rp988,125 per head. This margin is allocated to marketing operational costs of Rp138,240 per head, which cover transport (Rp56,250), labour (Rp75,000) and levies (Rp6,990), and generates a net profit for small traders of Rp849,885 per head. The high proportion of profit relative to these operational costs indicates a good level of economic efficiency. This pattern confirms that the shorter the market chain, the lower the distribution costs incurred, which in turn can optimise the share of the price (farmer's share) received by farmers.

Farmer's share

The farmer's share is the percentage of the price received by the farmer (producer) compared with the price paid by the end consumer.

Table 5. Average Costs and Farmers' Share under Channel I Scheme

No	Uraian	Harga/Ekor	*Farmer Share (%)*
1	Livestock Farmer		
	Selling Price	10.320.871	
2	Small Retailers		**88,4**
	Purchase Price	10.320.871	
	Marketing Costs	177.636	
	Profit	772.098	
	Resale Price	11.270.606	
3	Wholesalers		**96,5**
	Purchase price	11.270.606	
	Marketing Costs	272.657	
	Profit	131.701	
4	Final Selling Price	11.674.964	

Source: Processed primary data, 2026

The performance of this marketing system is considered highly effective, as reflected in the high farmer's share—88.4 per cent at the small-scale trader level and 96.5 per cent at

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the wholesale level; as both figures significantly exceed the 50 per cent threshold, it can be concluded that the beef cattle marketing channel in this region has met the criteria for good economic efficiency.

Table 6. Average Costs and Farme's Share Distribution Channel II

No	Uraian	Harga/Ekor	*Farmer Share (%)*
1	Livestock Farmers		
	Selling Price	8.678.000	
2	Wholesalers		**90,7**
	Purchase Price	8.678.000	
	Marketing Costs	311.438	
	Profit	582.021	
3	Final Selling Price	9.571.458	

Source: Processed primary data, 2026

Based on the data analysis, farmers sell cattle at an average price of Rp8,678,000 per head to wholesalers, who then resell them to consumers at Rp9,571,458 per head. This product allocation process generates a marketing margin of Rp893,458 per head, which covers the wholesalers' operating costs of Rp311,438 (including transport, labour and levies) as well as a net profit of Rp582,021 per head. From a market performance perspective, this channel is classified as highly efficient as it generates a Farmer's Share of 90.7 per cent, far exceeding the standard efficiency threshold of 50 per cent. This high figure indicates a healthy market structure for producers; the majority of the price paid by end consumers is successfully absorbed by farmers, whilst the share allocated to the costs and profits of intermediary organisations remains relatively small.

Table 7. Average Costs and Farmers' Share for Channel III

No	Description	Price/Head	*Farmer Share (%)*
1	Livestock Farmers		
	Selling Price	10.128.125	
2	Small Retailers		**91,1**
	Purchase Price	10.128.125	
	Marketing Costs	138.240	
	Profit	849.885	
3	Final Selling Price	11.116.250	

Source: Processed primary data, 2026

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According to marketing data, small-scale traders purchase livestock from farmers at a price of Rp10,128,125 per head, with marketing operational costs amounting to Rp138,240 per head—covering transport, labour and levies—and realise a profit margin of Rp849,885 per head. The accumulation of operational costs and profits from the producer to the end consumer results in a total marketing margin of Rp988,125 per head, with the final selling price at the consumer level reaching Rp11,116,250 per head. Through this pricing structure, a very high farmer's share is achieved, amounting to 91.1 per cent; this indicates that this marketing system operates efficiently, as the majority of the price paid by consumers is absorbed directly by the farmers.

Marketing Efficiency

According to Budiharjo and Nurfadilah (2023), an efficient marketing system contributes to a reduction in margins through lower marketing costs. This not only increases the selling price at the producer level and offers more affordable prices to consumers, but also strengthens the competitiveness of products and ensures fair profits for all stakeholders in the marketing organisation. The marketing efficiency figures for beef cattle at Tirtasari Market are presented in Table 8.

Table 8. Marketing Efficiency Figures for Beef Cattle at Tirtayasa Market

No	Description	Value	Marketing Efficiency
1	Channel I		
	Small Retailers		3,86
	Retail Price	11.270.606	
	Total Marketing Costs	177.648	
	Wholesalers		
	Retail Price	11.674.964	
	Total Marketing Costs	272.760	
2	Channel II		
	Wholesalers		3,25
	Retail Price	9.571.458	
	Total Marketing Costs	311.438	
3	Channel III		
	Small Retailers		1,24
	Retail Price	11.116.250	
	Total Marketing Costs	138.240	

Source: Processed primary data, 2026

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In distribution channel I, which involves farmers, small-scale traders and wholesalers, right through to the end consumer, marketing efficiency was recorded at 1.58 per cent at the small trader level (selling price of Rp11,270,606 per head; costs of Rp177,648 per head) and 2.34 per cent at the large trader level (selling price of Rp11,674,964 per head; costs of Rp272,760 per head). This distribution channel is classified as long, which is consistent with the findings of Ningsi et al. (2017), who stated that the marketing of beef cattle remains relatively simple to this day; the route from producer to consumer is still lengthy; and the significant role played by traders and middlemen in livestock transactions results in farmers receiving low prices, as they lack bargaining power.

Channel pattern II, which cuts out the distribution chain by involving only farmers and wholesalers, resulted in a selling price of Rp9,571,458 per head and marketing costs of Rp311,438 per head, thus recording both the highest efficiency value and the lowest efficiency of 3.25 per cent. Conversely, Channel Model III, which brings farmers into direct contact with small traders, proved to be the most efficient marketing channel as it yielded the lowest efficiency value—1.24 per cent—with a selling price of Rp11,116,250 per head and minimal marketing costs of Rp138,240 per head.

Whilst Channel Pattern III is able to minimise marketing expenditure relative to the value of the products marketed, Channel Pattern II indicates a cost structure that is disproportionate to the selling price of the commodities. The three marketing channel patterns that have emerged in Tirtayasa Market can still be categorised as efficient, as the marketing efficiency ratio obtained is well below 5 per cent. The lower the marketing efficiency percentage, the more efficient a marketing channel is, as distribution costs are relatively low, marketing margins are smaller, and the share of the price received by producers tends to be larger (Adi, 2022).

CONCLUSION

The marketing of beef cattle at Tirtasari Livestock Market, Toili Sub-district, is divided into three indirect marketing channels involving marketing intermediaries such as wholesalers and small-scale traders. Of the three, marketing channel 3 is the most efficient, with an efficiency value of 1.24 per cent, as it has the lowest percentage of marketing costs relative to the price paid by the end consumer. Meanwhile, marketing channel 2 (3.25 per cent) and marketing channel 1 (3.86 per cent) are considered less efficient due to their relatively higher percentage of marketing costs.

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