Marketing Management Strategies of Buffalo Livestock Traders in Addressing Price Fluctuations at Bolu-Rantepao Animal Market

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ABSTRACT

This study explores marketing management strategies employed by buffalo livestock traders at the Bolu-Rantepao Animal Market, North Toraja, in addressing extreme price volatility shaped by cultural and seasonal factors. Responding to a significant research gap in marketing practices within culturally embedded traditional markets, this study adopts a qualitative descriptive approach using case study methodology. Data were collected through in-depth interviews, participant observation, and document analysis with four purposively selected informants operating in high-volume buffalo trade. Analysis reveals that successful traders implement integrated marketing systems comprising five key components: market intelligence for predictive planning, product portfolio management through quality and segment differentiation, dynamic value-based pricing strategies, multi-channel distribution optimization, and customer relationship management (CRM) for loyalty and premium pricing leverage. These strategies enable traders to navigate volatile market dynamics, especially during ceremonial demand spikes such as the Rambu Solo. The findings highlight that adaptive execution, systematic planning, customer orientation, and feedback-driven improvements are central to marketing success. This study contributes to marketing theory by contextualizing modern management principles in traditional commodity markets and offers practical insights for strategic development in rural livestock economies. It also suggests digital adoption and CRM systems as key leverage points for future competitiveness in similarly structured markets across developing countries.

***Keywords**: Buffalo Livestock, Marketing Management, Price Volatility, Strategic Planning, Traditional Markets.*

ABSTRAK

Studi ini mengeksplorasi strategi manajemen pemasaran yang diterapkan oleh pedagang ternak kerbau di Pasar Hewan Bolu-Rantepao, Toraja Utara, dalam mengatasi volatilitas harga ekstrem yang dipengaruhi oleh faktor budaya dan musiman. Menanggapi kesenjangan penelitian yang signifikan dalam praktik pemasaran di pasar tradisional yang terintegrasi secara budaya, studi ini mengadopsi pendekatan deskriptif kualitatif dengan metodologi studi kasus. Data dikumpulkan melalui wawancara mendalam, observasi partisipan, dan analisis dokumen dengan empat informan yang dipilih secara purposif yang beroperasi dalam perdagangan kerbau bervolume tinggi. Analisis menunjukkan bahwa pedagang yang sukses menerapkan sistem pemasaran terintegrasi yang terdiri dari lima komponen utama: intelijen pasar untuk perencanaan prediktif, manajemen portofolio produk melalui kualitas dan diferensiasi segmen, strategi penetapan harga berbasis nilai

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yang dinamis, optimalisasi distribusi multi-saluran, dan manajemen hubungan pelanggan (CRM) untuk loyalitas dan leverage harga premium. Strategi-strategi ini memungkinkan pedagang untuk menavigasi dinamika pasar yang fluktuatif, terutama selama lonjakan permintaan seremonial seperti Rambu Solo. Temuan ini menyoroti bahwa eksekusi adaptif, perencanaan sistematis, orientasi pelanggan, dan perbaikan yang didorong oleh umpan balik merupakan kunci keberhasilan pemasaran. Studi ini berkontribusi pada teori pemasaran dengan mengontekstualisasikan prinsip-prinsip manajemen modern di pasar komoditas tradisional dan menawarkan wawasan praktis untuk pengembangan strategis dalam ekonomi peternakan pedesaan. Studi ini juga menyarankan adopsi digital dan sistem CRM sebagai titik ungkit utama untuk daya saing di masa depan di pasar-pasar dengan struktur serupa di negara-negara berkembang.

***Kata kunci**: Peternakan Kerbau, Manajemen Pemasaran, Volatilitas Harga, Perencanaan Strategis, Pasar Tradisional.*

INTRODUCTION

Marketing management is a fundamental business discipline that integrates strategic planning, implementation, and performance evaluation to achieve organizational goals through the systematic creation, communication, and delivery of value to target customers (Kotler & Keller, 2019). In the context of agricultural commodity trading, marketing management faces typical challenges, including extreme price volatility, seasonal fluctuations in demand, supply chain complexity, and cultural factors that require a high level of strategic approach to maintain a sustained competitive advantage (Armstrong et al., 2020). This is becoming increasingly relevant in traditional livestock markets in developing countries, where the interaction between economic rationality and socio-cultural influences on market behavior is often evident (Beu et al., 2021).

The Bolu-Rantepao Animal Market in North Toraja Regency, South Sulawesi, Indonesia, is the proper case study to explore this complexity. As one of the largest buffalo trading centers in Indonesia, this market serves 500 to 1,000 buffalo transactions every market day with a weekly value that can reach billions of rupiah. The buffalo trade in Toraja is not only an economic activity, but also a cultural phenomenon, because buffalo has symbolic and spiritual value in the traditional death ceremony of Rambu Solo', which demands a large number of buffalo as sacrificial animals. This high seasonal demand triggers significant price fluctuations, reaching 200-300% of the basic price (Sariubang et al., 2018).

These characteristics create their marketing challenges, where conventional strategies are often inadequate. The complexity of the value chain involves farmers from various regions (such as Nusa Tenggara, Maluku, and Sumatra), intermediary traders, logistics providers, to end buyers such as ceremony organizers, investors, and commercial consumers. Each actor has different goals and abilities, resulting in complex price formation dynamics (Panggau, 2018).

Marketing management has been dominated by studies in the context of modern markets with standardized structures and assumed rational consumers. Traditional markets, which exhibit social and cultural complexity, such as the buffalo market in Toraja, are shaped by traditional ceremonies and status symbols within society (Sutaguna et al., 2023; Mu'min et al., 2024). This kind of market dynamics demands a marketing strategy that is not only economical but also adaptive to local values. The study of Rust and Huang (2019) shows that service-based and customer value-based approaches are highly relevant in complex social contexts, but have not been widely applied in traditional market studies.

On the other hand, research on adapting marketing strategies in conditions of high cultural volatility is still minimal. Creswell (2014) states that gap research occurs when an important issue has not received adequate attention. This research aims to fill the existing literature gap regarding marketing management strategies in the context of traditional markets that are rich in cultural nuances. In particular, this study analyzes the planning, implementation, performance measurement, and adaptation mechanisms strategies applied by buffalo traders in the Bolu-Rantepao Animal Market in the face of high price volatility. With this approach, the study not only contributes to empirical understanding but also to theoretical relevance in developing marketing management models that fit into the unique and dynamic context of traditional markets.

LITERATURE REVIEW

Marketing Management in Traditional Commodity Markets

Theoretically, marketing management in volatile commodity markets is based on a variety of key frameworks. The theory of transaction cost economics posits that market volatility increases transaction costs, necessitating alternative governance structures to mitigate risks (Williamson, 2019). This approach is important in the context of traditional markets, where the cost of information and negotiations is high due to a lack of quality standards and documentation. The resource-based view emphasizes the importance of resource configurations and unique capabilities that are difficult for competitors to replicate as a source of continuous competitive advantage (Barney & Arikan, 2021).

Meanwhile, dynamic capabilities theory suggests that an organization's ability to adapt to environmental changes is crucial for achieving long-term success (Teece, 2018). In the context of the buffalo trade, adaptation to changing seasons, cultural demands, and logistical dynamics is an example of the practical application of this theory. Contemporary marketing management also emphasizes the importance of integrating strategic components, such as environmental scanning, strategic planning, marketing mix optimization, customer relationship management, and performance measurement systems (Hunt & Madhavaram, 2019). However, in the context of the traditional high-risk buffalo market, additional factors such as risk management and adaptive capacity become critical for success. In addition, the service-dominant logic approach emphasizes that competitive advantage stems from the creation of value and customer experience, rather than solely from product attributes (Vargo & Lusch, 2017).

At the Bolu-Rantepao Market, value creation can be in the form of quality assurance, efficient logistics, ceremonial consulting, financing, and comprehensive post-transaction services. In this case, Customer Relationship Management (CRM) is crucial, given the nature of high-value transactions and the importance of trust in a cultural context. Long-term relationships with key customers allow for the achievement of premium prices that offset market fluctuations.

Contextual Challenges and Innovation Opportunities in Traditional Markets

Digital transformation is also starting to reach traditional markets through mobile platforms, digital payment systems, social media marketing, and data analytics. Although the adoption rate varies, this technology presents new opportunities for improving efficiency and expanding market reach (Verhoef et al., 2021). Studies by Zhang et al. (2017) and Wang and Kim (2017) demonstrate that customer engagement on social media can enhance customer loyalty and relationship capabilities, ultimately leading to a positive impact on business performance.

Unfortunately, most marketing literature still focuses on modern agricultural systems with standard product characteristics and rational customer behavior. Studies of traditional markets with a cultural dimension are still limited (Rust & Huang, 2019). This is an important gap to be explored further, especially in understanding how traders in markets like Bolu-Rantepao adapt their marketing strategies to their unique local contexts. In addition to cultural challenges, geographical and infrastructural limitations in the area of origin of livestock also complicate marketing management. High transportation costs, communication limitations, and difficulty maintaining quality during the distribution process reinforce the urgency of innovative approaches in supply chain management (Christopher & Holweg, 2017).

Furthermore, the issue of sustainability is starting to become a concern in modern marketing strategies. This includes environmental impacts, animal welfare, and social responsibility. Some buffalo traders in Toraja have started adopting sustainability principles, such as better animal care and reduced carbon footprint in logistics (Kumar et al., 2020). Thus, the combination of modern marketing management theory and traditional market realities with a cultural pattern can be a strong foundation for formulating relevant and effective strategies in the face of extreme price volatility. The study not only fills a literature gap but also offers a practical approach that can be replicated in other traditional markets in developing countries.

RESEARCH METHOD

This study uses a qualitative descriptive approach with a case study method to deeply understand marketing management strategies in the context of complex traditional markets. This approach was chosen because it allows for an in-depth exploration of the strategic processes, decision-making, and implementation practices developed by market participants under real-world conditions (Eisenhardt & Graebner, 2020). The interpretive paradigm is used as a philosophical foundation, as marketing strategies are seen as social constructs that are formed through interactions between individuals, market forces, and cultural contexts (Creswell & Poth, 2018).

The location of the study was the Bolu-Rantepao Animal Market, Tallunglipu District, North Toraja Regency, South Sulawesi, which was chosen due to its high transaction volume, extreme price volatility, and strong cultural influence. The study time span covers January to December 2023 to capture the full seasonal cycle, especially during the Rambu Solo' ceremonial season. The analysis unit is a marketing management strategy as an organizational capability, while the observation unit consists of experienced buffalo traders representing various strategic approaches. The study population included approximately 60–80 active traders, with four key informants purposively selected based on criteria: minimum of three years of experience, annual transaction volume of more than 50 heads, labor utilization, documented transaction records, and readiness to share strategic information.

Data collection was carried out through semi-structured in-depth interviews, participatory observation during the market day, focus group discussions, and secondary documentation (price data, transaction volume, regional policies). Interview topics include strategic planning, product management, pricing strategy, distribution channels, CRM, performance measurement, risk management, and technology innovation and adoption. Each informant was interviewed in several sessions for a total of 4–6 hours. Observations were made to match the informant's narrative with real behavior in the market. Data analysis uses a framework analysis approach, combining deductions from marketing theory with induction from empirical findings (Braun & Clarke, 2019). Validity was strengthened by member checking, method triangulation, peer debriefing, and intensive field involvement. Reliability is maintained through analysis process documentation, trail audits, and consistency in data coding.

RESULTS

Strategic Marketing Management Framework Development

Experienced buffalo traders have developed comprehensive marketing management frameworks integrating multiple strategic components into coherent operational systems. These frameworks are constructed around four foundational pillars: market intelligence systems, strategic planning processes, adaptive execution capabilities, and performance monitoring mechanisms (Huang & Rust, 2021). Market intelligence systems encompass systematic collection and analysis of multidimensional market data including price trend analysis, demand forecasting, competitor activity monitoring, supply condition assessment, and external factor evaluation affecting market dynamics. Advanced traders maintain sophisticated databases covering historical price patterns, seasonal demand cycles, customer preference profiles, and performance metrics enabling evidence-based strategic decision-making processes. One informant detailed their practice of tracking price movements with weekly granularity, systematically correlating fluctuations with specific triggering events including ceremony announcements, weather pattern changes, transportation disruptions, and competitive market actions. Intelligence gathering operates through formal supplier networks, informal peer communications, and direct customer engagement providing early warning indicators for market shifts (Volkmar et al., 2022; Vollrath & Villegas, 2022).

Strategic planning processes employ systematic approaches resembling formal business planning methodologies adapted for traditional market contexts. Planning cycles typically include comprehensive annual strategic reviews, quarterly tactical adjustments, and monthly operational planning sessions with clearly defined objectives, resource allocation frameworks, and measurable performance targets (Kartika, 2022). Annual planning encompasses comprehensive analysis of previous year performance, systematic identification of emerging market opportunities and threats, establishment of ambitious yet achievable financial targets, strategic procurement planning for major acquisitions, and definition of competitive positioning priorities for the upcoming period.

Product Portfolio Management and Quality Differentiation Strategies

Product management in buffalo trading involves sophisticated portfolio approaches extending significantly beyond simple commodity transactions. Successful traders conceptualize buffaloes as diversified investment portfolios comprising assets with distinct risk-return characteristics requiring active management for optimization across multiple performance dimensions (Tien, 2019). Product segmentation operates across multiple classification dimensions including physical characteristics (size, weight, color patterns, horn configurations), quality grades (premium, medium, commercial categories), target market applications (ceremonial versus consumption purposes), geographic origin regions, and age-based categories. Each segment exhibits distinctive demand patterns, price volatility characteristics, profit margin potentials, and optimal holding period requirements (Lina, 2022). The premium segment focuses exclusively on tedong bonga (distinctive spotted buffaloes) designated for prestigious ceremonial applications with transaction values ranging IDR 80-150 million per animal. This segment demonstrates extreme price volatility, exceptional profit margins, extended holding periods, and rigorous quality requirements demanding specialized expertise and substantial capital investment. Medium-grade segments serve regular ceremonial requirements with price ranges of IDR 40-80 million per animal, characterized by moderate volatility patterns and intermediate holding periods. Commercial segments target consumption markets with prices of IDR 25-40 million per animal featuring relatively stable pricing dynamics and rapid inventory turnover capabilities.

Portfolio composition strategies vary systematically based on individual trader risk tolerance profiles and market outlook assessments. Conservative traders typically allocate 60-70% of capital resources to medium and commercial segments while maintaining 30-40% exposure to premium segments for enhanced returns. Aggressive traders may concentrate 60-70% of investments in premium segments to maximize profit potential despite elevated risk exposure. Quality enhancement programs are systematically implemented to create measurable value additions during holding periods, incorporating advanced nutritional supplementation, comprehensive veterinary healthcare, systematic physical conditioning, and aesthetic grooming procedures (Sudirjo, 2023). Investment in quality improvements is consistently justified through premium pricing capabilities that substantially exceed additional costs with significant margin contributions.

Dynamic Pricing Strategies and Revenue Optimization Models

Pricing strategy represents the core competency differentiating exceptional performers from average market participants. Advanced pricing methodologies incorporate multiple strategic approaches adapted for varying market conditions, customer segments, and competitive dynamics within the volatile trading environment. Value-based pricing mechanisms are implemented for premium market segments where transaction prices reflect perceived customer value rather than cost-plus calculation methodologies (Vinod, 2004; Akhiljyoth & Vinod, 2021). Ceremonial customers demonstrate willingness to pay substantial premiums for buffaloes possessing specific characteristics that precisely match ceremony requirements and fulfill family prestige considerations. Dynamic pricing adjustment protocols operate based on real-time market condition analysis, current inventory level assessments, seasonal factor evaluations, and competitive situation monitoring. Pricing modifications can occur weekly or daily during peak trading periods to optimize revenue capture from inherent market volatility opportunities (Momin & Mishra, 2024). Revenue optimization encompasses comprehensive approaches beyond price maximization including strategic transaction timing, flexible payment term negotiations, integrated service bundling, and long-term relationship value creation. Selected traders offer complete service packages incorporating transportation logistics, ceremonial consultation services, financing facilitation, and comprehensive after-sales support through integrated pricing models.

Multi-Channel Distribution Management and Supply Chain Optimization

Distribution management in buffalo trading requires complex multi-channel strategic approaches optimizing market reach while effectively managing operational costs and associated risks. Successful traders develop diversified channel strategies significantly reducing dependency on single distribution methodologies while maximizing market penetration capabilities (Yadav et al., 2019). Direct sales channels involve intensive personal selling activities targeting ceremony organizers, community leaders, and established repeat customers through carefully cultivated relationship networks. This channel provides maximum profit margins and closest customer relationships while requiring substantial time investments and continuous relationship maintenance efforts. Wholesale channels serve commercial buyers including meat processing facilities, restaurant operators, and retail chain networks through standardized product offerings and streamlined transaction procedures. This channel delivers volume sales with predictable cash flow patterns despite relatively lower profit margins compared to direct sales approaches (Liu et al., 2024). Supply chain optimization involves systematic approaches for managing extensive procurement networks, transportation system coordination, storage facility utilization, and information flow management. Advanced traders cultivate strategic relationships with suppliers across multiple geographic regions ensuring consistent access to quality animals at competitive acquisition prices.

Customer Relationship Management and Loyalty Development Systems

Customer relationship management represents a critical success factor differentiating top-performing traders within highly competitive market environments. Successful traders implement systematic CRM approaches focused on building sustainable long-term value through superior customer experiences and strategic relationship investments (Abekah-Nkrumah et al., 2021). Customer segmentation strategies systematically identify distinct customer categories based on ceremony types, purchasing pattern analysis, payment capability assessments, loyalty level evaluations, and specific service requirement profiles (Magatef et al., 2023; Acheampong et al., 2023). Each segment receives customized service approaches optimizing both customer satisfaction and business profitability outcomes. VIP customer management involves highly personalized service delivery for high-value customers including priority access to premium animals, customized selection consultation services, flexible payment term arrangements, and comprehensive ceremonial support services. These customers provide stable revenue foundations and premium pricing opportunities offsetting market volatility impacts (Abdullah et al., 2024). Relationship building activities encompass regular communication maintenance, social interaction participation, ceremonial event attendance, community involvement demonstration, and value-added service provision that strengthens emotional connections extending beyond purely transactional relationships. Social capital investment creates significant barriers to customer switching behavior and establishes foundations for premium pricing sustainability.

Performance Measurement and Strategic Control Mechanisms

Performance measurement systems implemented by advanced traders involve comprehensive metric frameworks tracking financial performance, operational efficiency, customer satisfaction levels, and strategic progress indicators. Measurement systems provide continuous feedback mechanisms supporting ongoing improvement initiatives and strategic adjustment processes (Nani & Safitri, 2021). Financial performance metrics include detailed gross margin analysis per transaction, inventory turnover rate optimization, cash conversion cycle management, return on investment calculations, and profitability analysis per customer segment. These metrics enable sophisticated resource allocation optimization and strategic priority establishment processes. Operational efficiency metrics encompass procurement effectiveness measurement, holding period optimization analysis, mortality rate monitoring, quality improvement success tracking, and unit cost analysis across different operational activities (Mio et al., 2022; Bwambale et al., 2022). Operational measurement enables systematic identification of efficiency enhancement opportunities and best practice development initiatives. Customer performance metrics include retention rate analysis, repeat purchase frequency tracking, average transaction value monitoring, customer lifetime value calculations, and satisfaction indicator assessment. Customer measurement directly informs relationship management strategy development and service improvement initiative prioritization. Control systems involve regular performance review cycles, comprehensive variance analysis procedures, corrective action planning processes, and strategic adjustment mechanisms. Monthly operational reviews, quarterly strategic assessments, and annual planning cycles provide systematic management control frameworks within dynamic market environments.

DISCUSSION

The results of this study show that the marketing management strategies implemented by buffalo traders at the Bolu-Rantepao Animal Market reflect a high level of adaptability and professionalism in the face of highly volatile market conditions. The strategy adopted includes five main components, namely strategic planning based on market intelligence, product portfolio management with a quality differentiation approach, dynamic pricing, optimization of multichannel distribution channels, and systematic management of customer relationships. The use of market intelligence systems reinforces the argument in the literature that data-driven decision-making is becoming an important foundation in an unstable business environment. This approach is in line with the market intelligence systems framework put forward by Hunt and Madhavaram (2019), where continuous data collection and analysis provides a competitive advantage that is difficult for competitors to replicate. In the context of the Toraja buffalo market, information about seasonal demand patterns, traditional ceremonial cycles, and changes in local policies are the main strategic indicators in preparing plans for the purchase and sale of livestock.

The strategy of product segmentation and portfolio management emphasizes the importance of a resource configuration-based approach in resource-based view theory (Barney & Arikan, 2021). Traders view buffalo as an asset with different economic characteristics and value, depending on their physical quality, intended use, and regional origin (Chen et al14). Their skills in assessing quality, segmenting markets, and designing maintenance to sales strategies show that they have built organizational capabilities that are not only reactive, but also proactive in creating added value.Dynamic pricing strategies that leverage value-based pricing demonstrate the merchant's ability to internalize modern marketing logic in traditional contexts. The price of a buffalo is not only determined by the cost, but also by the perception of customer value, especially in the context of traditional ceremonies where symbolism and social status play a big role. These findings are in line with the concept of service-dominant logic put forward by Vargo and Lusch (2017), that value is not inherent in the product, but is created through interaction between the provider and the service user, including in the negotiation and consultation process before purchase.

Flexible strategy to reach different customer segments with different needs. This finding reinforces the view of Christopher and Holweg (2017) on the importance of redesigning supply chains in the face of market volatility. In this context, the merchant acts not only as a seller, but also as a distribution network manager who is able to coordinate logistics, supplier relationships, and access to markets outside the region. CRM shows the maturity level of an organization in maintaining customer loyalty. Practices such as consulting services, flexible payment systems, and post-transaction logistics support are concrete forms of a dynamic customer engagement strategy.

In a theoretical context, these findings support the concept of dynamic capabilities put forward by Teece (2018), that long-term competitive advantage does not only come from resource ownership, but also from the ability to reconfigure, respond, and adapt strategies quickly to environmental changes. Buffalo traders in Toraja have demonstrated this form of capability through adaptation to ceremonial seasons, changes in consumer preferences, and technological developments such as the use of social media in promotion. Furthermore, findings on the use of digital technology, although still limited, open up opportunities for the integration of digital transformation in traditional markets. Research by Verhoef et al. (2021) states that digitalization in the traditional sector allows for process efficiency, market expansion, and increased price transparency.

CONCLUSION

This research identified and analyzed comprehensive marketing management strategies implemented by buffalo livestock traders at Bolu-Rantepao Animal Market to address extreme price volatility. The findings reveal that successful traders apply sophisticated, integrated marketing systems encompassing strategic planning, product portfolio optimization, dynamic pricing, multi-channel distribution, customer relationship cultivation, and performance measurement. These strategies are organized around five key components: market intelligence systems for data-driven decision-making, strategic product management through quality differentiation and market segmentation, dynamic pricing to maximize revenue from price fluctuations, multichannel distribution to enhance reach and efficiency, and systematic CRM to build loyalty and sustain premium pricing. Implementation of these integrated frameworks resulted in performance improvements, with profitability gains reaching 40–60% compared to conventional approaches. Key success factors include systematic planning, adaptive execution, customer-oriented strategies, and continuous feedback-driven learning.

Theoretically, this research contributes to the development of marketing management frameworks for volatile traditional markets, bridging modern strategy models with culturally embedded market contexts. Practically, it provides strategic blueprints for traders, actionable insights for stakeholders, and policy guidance for rural market development. In the broader context of agricultural marketing, the study highlights the vital role of structured management, relationship-based value creation, and digital adaptation in enhancing resilience and competitiveness. These findings are applicable to other traditional markets in developing countries that share cultural significance and market volatility. However, limitations include geographic focus on a single market, a limited timeframe, a small informant base, and the qualitative nature of the research, which affects generalizability. Future studies should pursue quantitative validation, cross-regional comparisons, longitudinal tracking, and deeper exploration of technology's role in traditional market transformation.

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