

THE INFLUENCE OF PRICE AND PRODUCT QUALITY ON CUSTOMER ENGAGEMENT BASED ON PERCEIVED VALUE WITH A BUDGETING PERSPECTIVE IN A FAMILY-OWNED LIVESTOCK BUSINESS

Ni Putu Lisa Wijayanti¹, Gde Deny Larasdiputra², I Putu Gde Chandra Artha Aryasa³

^{1,2,3}Warmadewa University, Denpasar, Indonesia

Corresponding author: Ni Putu Lisa Wijayanti

E-mail: putulisawjynt@gmail.com

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Abstract:

This study aims to examine the influence of price and product quality on Customer Engagement based on perceived value from a budgeting perspective in a family-owned livestock business. The research employed a quantitative approach using primary data collected through questionnaires distributed to 75 consumers of Lisa Pig Farm. Data were analyzed using multiple linear regression with SPSS software. The results indicate that price has a significant effect on Customer Engagement, product quality has a significant effect on Customer Engagement, and both price and product quality simultaneously have a significant effect on Customer Engagement, with a coefficient of determination (R^2) of 0.654. These findings suggest that budgeting decisions reflected in pricing strategies and quality management contribute to the formation of positive perceived value and enhance customer engagement. This study extends the role of Customer Engagement as a non-financial indicator in management accounting and entrepreneurial accounting to evaluate market-based business sustainability.

Keywords: Budgeting, Price, Product Quality, Customer Engagement, Perceived Value

INTRODUCTION

The COVID-19 pandemic in 2020 caused a significant decline in the tourism sector in Bali and encouraged communities to return to the local food sector, where demand remained relatively stable. Lisa Pig Farm, located in Lukluk Village, Mengwi, Badung, emerged from this situation and developed as a family-owned business supplying household consumption, culinary industries, and traditional ceremonial needs. However, the sustainability of a livestock business is not solely determined by sales volume, but by the owner's ability to maintain a balance between price and product quality in accordance with customers' perceived value.

The declining interest of younger generations in agriculture and livestock sectors due to modernization and urbanization (Ghoni et al., 2025; Ritonga, 2024) highlights the need for more structured and market-adaptive business management. In this context, the success of small businesses can no longer be measured solely by profit, but also by their ability to build customer engagement as a foundation for long-term sustainability.

Theoretically, perceived value explains that customers evaluate a product based on the comparison between the benefits received and the costs incurred (Shih et al., 2024). Price and quality are two primary elements shaping this perception of value. A reasonable price and consistent product quality enhance customer engagement at cognitive, emotional, and behavioral levels. Zielke et al. (2022) and Zygiaris et al. (2022) emphasize that Customer Engagement (CE) can be positioned as a non-financial indicator capable of predicting loyalty and future business performance.



From a management accounting and entrepreneurial perspective (Alles et al., 2021), pricing and quality management are outcomes of the budgeting process as a tool for cost planning and control. Budgeting assists business owners in determining cost structures and expected margins to maintain efficiency and competitiveness (Purnamasari & Adriza, 2024). Therefore, the price offered to customers reflects internal budgeting decisions, while Customer Engagement serves as market feedback to assess the effectiveness of those decisions. The integration of budgeting, perceived value, and Customer Engagement strengthens the contribution of this study to the development of management accounting and entrepreneurial accounting based on business sustainability. Based on this rationale, this study aims to analyze the influence of price and product quality on Customer Engagement based on perceived value in a family-owned livestock business.

Budgeting, from a management accounting perspective, is a planning and control process used to allocate resources effectively in order to achieve business objectives. In small and medium enterprises (SMEs), the application of capital budgeting techniques supports investment decision-making and improves business performance (Alles et al., 2021). Purnamasari and Adriza (2024) further demonstrate that the proper use of capital budgeting techniques contributes to improved financial performance in both SMEs and large firms. Therefore, pricing decisions and product quality management cannot be separated from previously planned internal budgeting decisions.

Perceived value explains that customers evaluate a product based on a comparison between the benefits received and the costs incurred (Shih et al., 2024). This value is not solely financial in nature but also includes emotional and experiential aspects (Sawhani, 2021). In the digital era, consumers have become increasingly critical regarding the alignment between price and product quality due to easy access to information and alternative product comparisons (Ayesha & Muchtar, 2025). Muryani and Muanas (2025) found that perceived value significantly influences customer satisfaction and indirectly affects loyalty. Meanwhile, Nguyen et al. (2025) emphasize that perceived quality and appropriate pricing strategies enhance customer commitment and willingness to pay a premium price.

Price is one of the primary determinants in shaping perceived value. Zielke et al. (2022) explain that price perception influences customers' cognitive and emotional responses toward a brand. In the context of management accounting, price represents the outcome of cost-related decisions reflecting the business's budget structure. When price is perceived as fair and consistent with product quality, customers' perceived value increases and may lead to higher customer engagement.

Product quality constitutes the main functional dimension in the formation of customer value (Shih et al., 2024). In agribusiness and livestock sectors, quality reflects the physical condition of the product, consistency of standards, and suitability to customer needs. Srisathan et al. (2025) highlight the importance of resource management and innovation in maintaining agribusiness sustainability. The declining interest of younger generations in agriculture and livestock due to modernization and urbanization (Ghoni et al., 2025; Ritonga, 2024) underscores the need for professionalization and structured business management. Government initiatives supporting young farmers (Ministry of Agriculture of the Republic of Indonesia, 2023) further reinforce the urgency of strengthening sustainability-oriented business management.

Customer Engagement (CE) refers to the level of customers' cognitive, emotional, and behavioral involvement with a business. Zielke et al. (2022) and Zygiaris et al. (2022) demonstrate that customer engagement is influenced by perceived value and perceived quality. In modern management accounting, CE can be positioned as a non-financial indicator that complements financial-based performance evaluation. Customer engagement serves as a signal that budgeting



decisions reflected in pricing and quality management have successfully generated value aligned with market expectations.

Based on the theoretical framework and previous empirical findings, the following hypotheses are proposed:

- (H1) Price has a positive effect on Customer Engagement.
- (H2) Product Quality has a positive effect on Customer Engagement.
- (H3) Price and Product Quality simultaneously have a positive effect on Customer Engagement.

METHODS

This study employed a quantitative approach with a causal associative research design to examine the influence of price and product quality on Customer Engagement. The research object consisted of customers of Lisa Pig Farm located in Lukluk Village, Mengwi District, Badung Regency. The study was conducted in 2025.

The population included all customers who made purchases within the last year, estimated at approximately 300 customers. The sample size was determined using the Slovin formula with a 10% margin of error, resulting in a minimum sample of 75 respondents. This number also satisfies the minimum sample size requirement for multiple linear regression analysis as recommended by Hair et al. (2019). The sampling technique applied was purposive sampling, with the criterion that respondents must have made at least one purchase.

Primary data were collected through questionnaires using a five-point Likert scale. The price variable was measured using indicators of price-quality congruence, price affordability, and perceived price fairness. Product quality was measured based on the physical condition of livestock, consistency of quality, and suitability to customer needs. Customer Engagement was assessed through cognitive, emotional, and behavioral involvement.

Data analysis was conducted using multiple linear regression with SPSS software (Ghozali, 2021). Prior to hypothesis testing, validity and reliability tests were performed, along with classical assumption tests including normality, multicollinearity, and heteroscedasticity tests. Hypotheses were tested using t-tests (partial effects), F-tests (simultaneous effects), and the coefficient of determination (R^2) to assess the explanatory power of the model.

RESULTS AND DISCUSSION

Based on the validity and reliability tests, all measurement items were declared valid and reliable, with significance values below 0.05 and Cronbach's Alpha values above 0.70. The results of the classical assumption tests indicate that the data were normally distributed, no multicollinearity was detected ($VIF < 10$), and no heteroscedasticity was found. Therefore, the regression model was considered appropriate for further analysis.

Table 1. Multiple Linear Regression Results

Variable	Coefficient (B)	t-value	Sig.
Constant	1.817	2.019	0.047
Price	0.376	3.837	0.000
Product Quality	0.559	4.954	0.000
R = 0.809			
R ² = 0.654			
Adjusted R ² = 0.645			
F-statistic: Significant at $\alpha = 0.05$ (Sig. = 0.000)			



Source: Processed data (2025)

The multiple linear regression analysis reveals that the price variable has a positive and significant effect on Customer Engagement, with a coefficient of 0.376 and a significance value of 0.000. Product quality also has a positive and significant effect on Customer Engagement, with a coefficient of 0.559 and a significance value of 0.000. Simultaneously, price and product quality significantly influence Customer Engagement, as indicated by an F-test significance value of 0.000. The coefficient of determination (R^2) is 0.654, indicating that 65.4% of the variation in Customer Engagement can be explained by price and product quality, while other variables outside the research model influence the remaining portion.

The findings indicate that price significantly influences Customer Engagement. It suggests that customers' perceptions of price fairness and appropriateness play an important role in shaping their level of engagement. From a perceived value perspective, price represents the sacrifice incurred by customers; therefore, when the price is perceived as proportional to the benefits received, the perceived value increases (Shih et al., 2024). This finding is consistent with Zielke et al. (2022), who argue that price perception influences customers' cognitive and emotional responses.

Product quality was found to have a more dominant influence on Customer Engagement compared to price. It implies that functional benefits – such as the physical condition of livestock, consistency of quality, and suitability to customer needs – serve as the primary drivers of value formation. This result supports Nguyen et al. (2025), who emphasize that perceived quality contributes significantly to customer commitment. In the agribusiness context, effective quality management reflects efficient resource allocation and business innovation (Srisathan et al., 2025).

Simultaneously, price and product quality shape Customer Engagement through the mechanism of perceived value. When customers evaluate the balance between benefits and costs as acceptable, engagement increases at cognitive, emotional, and behavioral levels. This finding reinforces Zygiaris et al. (2022), who suggest that customer engagement reflects perceived quality and satisfaction.

From a management accounting perspective, these results demonstrate that budgeting decisions reflected in pricing structures and quality management have direct implications for market responses. Customer Engagement can be positioned as a non-financial indicator that complements financial-based performance evaluation (Heykal et al., 2024). Therefore, this study extends the role of budgeting as a strategic tool that not only controls costs but also creates value oriented toward long-term business sustainability.

CONCLUSION

This study aimed to examine the influence of price and product quality on Customer Engagement based on perceived value from a budgeting perspective in a family-owned livestock business. The findings indicate that price and product quality have positive and significant effects on Customer Engagement, both partially and simultaneously. The coefficient of determination (R^2) of 0.654 suggests that the combination of these two variables explains a substantial portion of the variation in customer engagement.

These results confirm that price, as a reflection of cost-related decisions, and product quality, as a representation of customer benefits, play essential roles in shaping consumers' perceived value. When customers perceive a fair balance between benefits and costs, their level of engagement increases. Therefore, Customer Engagement can be positioned as a non-financial indicator to evaluate the effectiveness of budgeting decisions in small and family-owned businesses.



Implications.

- 1) Theoretical Implications. This study extends the management accounting literature by integrating the concepts of budgeting, perceived value, and Customer Engagement within the context of a family-owned livestock business. Customer Engagement is not merely a marketing construct but can also function as a non-financial indicator to assess the effectiveness of cost decisions and business strategies. This integration reinforces a management accounting approach that is not solely profit-oriented but also focused on value creation and business sustainability.
- 2) Practical Implications. For livestock business owners, the findings highlight the importance of maintaining a balance between price and product quality to enhance customer engagement. The budgeting process should consider customers' perceived value to ensure that cost decisions are not only internally efficient but also aligned with market expectations. This approach supports long-term sustainability-oriented business strategies.
- 3) Limitations and Recommendations. This study is limited to a single livestock business and employs a quantitative approach. Future research is recommended to expand the research scope to different agribusiness contexts and incorporate additional variables, such as service quality or customer experience, to obtain a more comprehensive understanding of agribusiness sustainability.

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