The Influence of Price and Promotion on Sales Volume in a Printing Services Business

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Abstract

Competition among retail printing businesses in urban areas demands that marketing variables be managed in a measured way in order to sustain sales volume. This study aims to analyze the influence of pricing and promotion execution on sales volume, both partially and simultaneously. An associative quantitative approach was applied through a survey method, using incidental sampling of repeat customers, and the data were analyzed using multiple linear regression. Statistical testing shows that price and promotion each have a positive and significant partial effect, and that together they contribute significantly to increased sales volume. Of the two, promotion shows a more dominant driving force than price. A critical evaluation detected indications of a very high correlation between the independent variables, so the explanatory power of the model must be interpreted with caution, as a representation of the integrated perception of value in consumers' minds. The practical implications direct printing business owners to combine perceived-benefit-based pricing with effective direct promotion in order to boost orders.

Keywords: *Marketing mix, Pricing, Printing retail management, Promotion, Sales volume.*

A. INTRODUCTION

The dynamics of the urban retail industry demand precise strategic adaptation from every business entity, in which education and the application of retail management are crucial to building operational readiness for the market (Farisi et al., 2026). The accessibility of digital printing technology has lowered barriers to entry, reduced physical product differentiation, and shifted the arena of competition toward a contest of marketing mixes. Pricing strategy plays a vital role, oriented directly toward earning profitability while also determining a company's bargaining position amid intense competition (Hasibuan et al., 2022). In make-to-order business units such as CV Agung Jaya Jakarta, financial sustainability and capacity growth depend on management's ability to keep sales volume stable. Applying a marketing mix that comprehensively integrates product, price, place, and promotion has been shown to improve service quality while also boosting actual sales metrics (Farisi et al., 2024). Although the traditional marketing mix is a fundamental element, its effectiveness on business performance and retail competitiveness can be significantly mediated by innovation capacity and the adaptation of service marketing strategies (Elizabeth & Haryanto, 2025).

Pricing in the context of printing services retail rests on creating perceived value in the minds of target consumers. Price serves as a quantitative representation of the exchange value of the visual benefits and durability of the printed output. In

predictive terms, hybrid retail sales models show that the promotion period is the most important demand driver, followed by the discount percentage and the product price level (Phumchusri & Phupaichitkun, 2024). Price margin and trade promotion strategies play an essential role as the main drivers of procurement and transaction decisions across various business distribution ecosystems (Sucipto et al., 2026). Urban customer segments dominated by those of productive age and university students have a level of price sensitivity that runs parallel to their demand for quality conformity. The price fairness perceived by this segment becomes the initial foundation that triggers transaction decisions, bridging budget rationality with expectations of print results.

Promotional instruments act as a means of stimulating transactions and delivering messages to reduce information asymmetry between service providers and prospective consumers. Promotional activities do not merely increase visibility; they create calibrated short-term economic incentives that trigger a surge in actual orders (Zhang et al., 2020). Digital marketing optimization offers significant opportunities for MSME actors and local retail businesses to expand market reach while substantially multiplying their turnover (Priono et al., 2025). Applying design of experiments to digital marketing activities has been shown to significantly improve marketing quality by generating more website interactions, shortening marketing process durations, optimizing credit allocation across crucial channels, and preventing increases in product prices (McDermott, 2025). The effectiveness of promotional incentives is strongly influenced by the temporal context framework, visual appeal, and the precision of the communication channels used to reach the target market directly (Keller et al., 2019). The synergy between the clarity of promotional information and financial appeal accelerates the sales conversion cycle.

Empirical studies in the retail sector often target conative variables such as purchase intention without addressing the essence of order volume, and frequently overlook the potential for statistical anomalies when presenting the coefficient of determination. To fill this academic gap, this study formulates three main hypotheses. The first hypothesis (H1) proposes that price has a positive and significant partial effect on sales volume at CV Agung Jaya Jakarta. The second hypothesis (H2) proposes that promotion has a positive and significant partial effect on sales volume. The third hypothesis (H3) postulates that price and promotion together have a positive and significant effect on sales volume.

B. METHOD

This study adopts an associative quantitative approach through a survey method to analyze the causal relationship of price (X1) and promotion (X2) to sales volume (Y). The research was centered at CV Agung Jaya Jakarta, with a target population of 139 repeat customers. The sample size was determined using a 5% margin of error, yielding 103 respondents recruited through accidental sampling.

Primary data were collected using a structured questionnaire with a 5-point Likert scale containing 15 measurable statements (5 items per variable). Instrument

validity was tested through Pearson Product Moment correlation (threshold r-table = 0.193), while reliability was evaluated using Cronbach's Alpha (threshold 0.60). A series of classical assumption tests was rigorously carried out, including the Kolmogorov-Smirnov test for residual normality, a multicollinearity test using Tolerance and the Variance Inflation Factor (VIF), and the Glejser test for heteroskedasticity. The statistical model was evaluated using multiple linear regression ($Y = \alpha + \beta1X1 + \beta2X2 + e$). Hypothesis significance was tested through the t-test (partial) and the F-test (simultaneous) at a significance level of $\alpha = 0.05$, supported by analysis of the coefficient of determination (R^2). All computations were processed using IBM SPSS Statistics.

C. RESULTS AND DISCUSSION

1. Descriptive Analysis and Regression Results

The demographic structure of respondents was dominated by university students (94.17%) aged 15 to 30 years. This characteristic indicates a market segment with high information literacy and a level of budget sensitivity that responds quickly to price fluctuations and promotional stimuli.

Table 1. Results of Multiple Linear Regression and Hypothesis Testing

Variable	Unstandardized Coefficient (B)	Standardized Coefficient (β)	t-value	Significance (p)
(Constant)	-0.333	-	-0.631	0.259
Price (X1)	0.404	0.393	4.269	0.000*
Promotion (X2)	0.603	0.586	6.374	0.000*

*Note: Dependent variable = Sales Volume; t-table = 1.984; *Significant at p < 0.001.*

The resulting regression model is Y = -0.333 + 0.404 X1 + 0.603 X2. The multicollinearity test detected a Tolerance value of 0.067, which is mathematically equivalent to a VIF of 14.925. This figure exceeds the maximum VIF tolerance limit of 10, reflecting an excessively high correlation among the independent variables. The simultaneous test yielded F-value = 830.870 ($p < 0.001$) with $R^2 = 0.943$ and Adjusted $R^2 = 0.942$. The high multicollinearity indicator requires that this coefficient of determination be interpreted as an upper bound of conceptual perception, not as an absolute claim of causality for actual sales.

2. The Effect of Price on Sales Volume

The acceptance of the first hypothesis (H1) validates the postulate that pricing aligned with market expectations accelerates order volume. The empirical figures reflect respondents' high appreciation of the indicator of benefit-to-price conformity (mean 4.26) and of price-to-print-quality conformity (mean 4.22). This empirical manifestation confirms that price value plays a crucial role in shaping consumer attitudes that lead to purchase intention (Rakhmawati & Farisi, 2024). A positive price perception in consumers' minds can even strongly drive impulsive buying decisions when mediated by the positive emotions that arise during the transaction process (Farisi & Rahmawati, 2025). The student segment is willing to place orders repeatedly

as long as the financial sacrifice is equivalent to the durability and color precision of the documents delivered.

3. The Effect of Promotion on Sales Volume

The acceptance of the second hypothesis (H2), with a standardized coefficient (β = 0.586), shows that promotion provides a more aggressive driving momentum than the price component (β = 0.393). The presence of discount programs (score 4.17) reduces transaction friction and accelerates the conversion of interest into actual orders. The timing of promotional offers strongly determines sales response, with promotions ahead of holidays being highly effective at exploiting consumer urgency for time-sensitive products (Darbanian, 2025). The implementation of digital marketing campaigns and innovation in visual branding has been shown to significantly broaden market penetration and boost business turnover (Priono et al., 2025). Structured mentoring and packaging branding strategies have succeeded in building product exclusivity that triggers a surge in retail consumer demand (Hasanudin et al., 2024). The low score on the direct communication indicator (score 4.05) signals a warning that the absence of personalized messages can hinder the maximization of promotional conversion at the grassroots level (Hmurovic et al., 2023).

4. Simultaneous Effect and Marketing Synergy

The synergy between pricing strategy and promotional campaigns was shown to simultaneously create massive leverage on sales volume (H3 accepted). Precise pricing serves as the foundation of transaction feasibility, while promotion execution acts as an accelerator that brings in mass volume. Although the coefficient of determination recorded a striking 94.3%, the multicollinearity anomaly indicates that respondents perceived the price and promotion instruments as one inseparable unified value proposition. Sustainable sales volume growth in the era of digital distribution is strongly driven by a tactical combination of trade promotion programs and balanced price margin protection (Sucipto et al., 2026). In addition, retail operational reliability such as inventory data accuracy plays an important role; high promotional activity is associated with lower inventory inaccuracy, and conducting inventory audits has been shown to increase overall store sales by 11 percent (Rekik et al., 2026). Other unmeasured variables, such as service speed, material quality, and staff competence, continue to account for the remaining variance that secures long-term customer loyalty.

D. CONCLUSION

Based on the results of the analysis, it can be concluded that the price component and the promotion program, both partially and simultaneously, have a positive and significant influence in driving sales volume growth for printing services at the company studied. The perceived price value, which is directly proportional to print quality, forms the foundation of customer transactions, while promotional

incentives act as an accelerator that provides a more dominant driving force for expanding order volume. The excessively high correlation between the independent variables indicates that consumers regard price and promotion as one inseparable value offering. As a tactical recommendation, management is advised to maintain a value-based pricing scheme for large-scale orders, while also increasing personalized direct marketing communication through digital platforms to overcome the weakness of promotional messages at the grassroots level. Future researchers are advised to broaden the sample coverage using random methods and to use actual historical transaction data to mitigate perception-dependence bias.

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