

Designing a Price Increase Statement Model in the Ready-Mixed Concrete Industry: An Analytical Approach under Inflationary Conditions

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ABSTRACT

Price increases under unstable and inflationary economic conditions represent one of the major challenges for firms operating in the construction industry, particularly companies engaged in the production and supply of ready-mixed concrete. The manner in which such price increases are announced and the design of the related communication message have a direct impact on customer acceptance and the maintenance of stable relationships with stakeholders. Using a quantitative approach, this study identifies and designs an effective model for price increase statements in the ready-mixed concrete industry. The findings indicate that price increase statements are not merely tools for information dissemination but also form part of organizations' communication strategy. Moreover, the key components influencing customer acceptance include transparency, empathy, appropriate timing, reference to external factors, provision of incentives, and the establishment of channels for direct interaction. The results of statistical analyses showed that transparency and empathy had the greatest effects on customer acceptance. These findings emphasize that price increase statements should be designed as communication tools that simultaneously take into account economic requirements as well as customers' psychological and social considerations.

Keywords: Price increase statement, ready-mixed concrete industry, inflation, empathy, competition, fairness, pricing

Introduction

Price increases under inflationary conditions constitute one of the most sensitive managerial decisions in business-to-business and construction-related markets, because they simultaneously affect organizational profitability, customer trust, perceived fairness, and long-term exchange relationships. In industries such as ready-mixed concrete, where production costs are highly exposed to fluctuations in cement, aggregates, fuel, transportation, energy, labor, maintenance, and financial costs, price adjustment is not simply a commercial preference but often a condition for operational continuity. The global economic environment has intensified this challenge, as recent inflationary pressures, supply-chain volatility, and divergent macroeconomic trajectories have



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made cost prediction more difficult for firms and purchasing decisions more uncertain for customers (1). The cement and concrete sector is also closely connected to energy use, industrial transformation, and resource efficiency, which means that shifts in energy prices, decarbonization requirements, and production technologies can directly influence cost structures and pricing decisions in concrete-related industries (2). In Iran's construction sector, inflation has been repeatedly identified as a major determinant of project cost escalation, budgeting instability, and uncertainty in procurement decisions, especially when contractors and builders face sequential increases in material prices during project execution (3-5). Consequently, the central managerial question is not only whether prices should be increased, but how the increase should be communicated in a way that preserves customer acceptance, reduces resistance, and sustains relational continuity.

Pricing has long been recognized as one of the most powerful levers of profitability, competitive positioning, and strategic value capture. Classical pricing theory emphasizes that pricing decisions should be aligned with cost structure, customer value, competitive dynamics, and market segmentation rather than being treated as routine administrative adjustments (6). More recent strategic perspectives similarly argue that pricing must be designed as an integrated managerial process that connects market analysis, value communication, internal capabilities, and customer psychology (7). In this view, pricing is not merely the mathematical conversion of costs into sales prices; it is a strategic language through which the firm signals value, quality, scarcity, risk, and relationship orientation. Marketing management literature has also emphasized that price is one of the most visible elements of the marketing mix and has a direct role in shaping perceived value, demand, positioning, and customer response (8). However, many firms still approach price changes defensively, especially during inflation, by issuing brief notices that focus only on cost increases while neglecting the communicative, emotional, and fairness-related dimensions of the message. Such an approach can weaken the legitimacy of the price increase and transform an economically necessary decision into a relational risk.

The strategic importance of pricing becomes even clearer in competitive and inflationary markets, where customers compare suppliers not only on price levels but also on reliability, transparency, perceived fairness, service quality, and responsiveness. Research on pricing strategy indicates that different pricing orientations and pricing levels can significantly influence corporate profitability, particularly when firms develop systematic pricing capabilities rather than relying only on reactive price changes (9). Reviews of pricing strategy research also show that pricing has evolved from a narrow cost-plus function into a multidimensional managerial domain involving value-based pricing, competitive pricing, dynamic pricing, and relationship-based pricing (10). Hinterhuber and Liozu argue that weak pricing processes can seriously damage organizational performance, especially when firms fail to capture value or communicate price logic effectively (11). The importance of pricing power has also been highlighted in business and investment thought, where the ability to raise prices without losing customers is viewed as evidence of durable competitive advantage (12, 13). For ready-mixed concrete producers, however, pricing power is constrained by intense competition, local market structure, project-based purchasing, and customers' sensitivity to sudden cost changes. Therefore, the firm's ability to design a persuasive price increase statement may become an important micro-level mechanism for protecting pricing power in a turbulent market.

In the ready-mixed concrete industry, price increases are particularly complex because the product is technically essential, time-sensitive, locally supplied, and closely tied to project schedules and contractual commitments. Customers such as contractors, mass builders, engineering offices, and construction companies often purchase concrete within predefined project budgets, and unexpected price changes may disrupt cost estimates, tender

commitments, and cash-flow planning. At the same time, producers face rising input costs and operational constraints that cannot always be absorbed internally. Studies on the Iranian construction industry show that inflation increases the final cost of construction projects and creates uncertainty in procurement and project management (3, 4). Research on concrete production has also shown that the use of alternative materials may help reduce production costs, but such technical solutions cannot fully eliminate the need for pricing adjustment when macroeconomic pressures persist (14). Thus, ready-mixed concrete firms operate in a managerial space where economic necessity, technical constraints, customer dependence, and competitive pressure intersect. In such a context, a price increase statement must do more than announce a new price; it must explain, justify, and relationally manage the change.

A major theoretical foundation for understanding customer reactions to price increases is the concept of perceived price fairness. Price fairness refers to the customer's judgment about whether a price, a price change, or a pricing procedure is reasonable, legitimate, and acceptable in relation to expectations, reference standards, and perceived seller motives. Xia, Monroe, and Cox developed a conceptual framework showing that unfair price perceptions can emerge when customers compare actual prices with reference prices, competitor prices, previous transactions, or perceived seller costs, and when they believe that the seller is exploiting the situation rather than responding to legitimate conditions (15). Later research has confirmed that perceived price fairness affects loyalty, willingness to pay, complaint behavior, and even retaliatory behavior, indicating that unfairness perceptions can produce both attitudinal and behavioral consequences (16). In dynamic pricing environments, perceived unfairness can also generate stronger negative emotional responses, including brand hate, especially when customers believe that price changes are arbitrary, discriminatory, or opportunistic (17). Therefore, in inflationary markets, the design of price increase messages must directly address fairness perceptions by clarifying the reasons for the increase and demonstrating that the firm's action is proportionate, transparent, and necessary.

The literature on dynamic pricing, price discrimination, and differential pricing provides further insight into why communication quality matters when prices change. Although dynamic pricing can improve revenue optimization and market responsiveness, it can also create fairness concerns when customers perceive that different buyers are being treated unequally or that price changes lack transparent justification (18). Personalized price discrimination in e-commerce similarly shows that customers may respond negatively when price differences appear opaque, intrusive, or unjustified (19). Research on differential pricing also indicates that the subject and context of price differentiation influence consumer behavior, meaning that customers' reactions depend not only on the price itself but also on how the pricing logic is framed and interpreted (20). In service platforms, dynamic pricing can influence customer satisfaction through perceived justice and service recovery, suggesting that price adjustment must be accompanied by mechanisms that restore fairness and confidence (21). Meta-analytic evidence on dynamic pricing also identifies multiple determinants of perceived fairness, including transparency, reference prices, customer characteristics, and situational explanations (22). These findings are highly relevant to ready-mixed concrete, where customers may accept price increases more readily if they perceive them as externally driven, consistently applied, and communicated in a respectful and evidence-based manner.

Inflation intensifies the psychological salience of price because customers become more vigilant, more comparative, and more sensitive to signals of opportunism. Consumer behavior research shows that customers do not evaluate prices only through objective affordability; they interpret prices through reference points, expectations, emotions, perceived value, and social comparison (23). Behavioral pricing research also demonstrates that

consumers' responses to price changes are shaped by reference-price effects, loss aversion, prior experience, and the perceived credibility of the seller's explanation (24). In competitive markets, pricing strategies must therefore account for both rational and behavioral dimensions of customer response, because buyers may reject even economically justified price increases if they interpret them as unfair or poorly communicated (25). Recent work on price fairness trends in marketing research similarly highlights that fairness remains a central construct in understanding customer reactions to changing prices, especially in markets characterized by volatility and information asymmetry (26). Measuring price fairness and its effect on trust further confirms that perceived fairness is closely linked to customers' willingness to maintain the relationship with the seller (27). For this reason, firms in inflationary environments must treat price increase communication as a trust-preservation process.

Another important dimension of price increase communication is empathy. Empathy in customer interaction refers to the firm's ability to recognize the customer's situation, acknowledge the burden created by the price increase, and express concern in a credible and non-manipulative manner. Research on employee empathy shows that empathetic interactions can increase customer satisfaction and loyalty, particularly when customers experience uncertainty, dissatisfaction, or service-related stress (28). In the context of price increases, empathy does not mean apologizing for necessary business decisions or weakening the firm's economic position; rather, it means communicating the decision in a way that acknowledges customer pressure and demonstrates relational responsibility. This is especially important in B2B construction markets, where repeated transactions, project continuity, and interorganizational trust are central. A price increase statement that combines factual transparency with empathetic framing may reduce defensive reactions by showing that the firm understands the customer's operational constraints. Such communication may also distinguish the firm from competitors who merely announce price changes without explanation or relational sensitivity.

Timing is also a central component of effective price increase communication. In project-based markets, the same increase may be interpreted differently depending on when it is announced, how much notice is provided, and whether customers are given the opportunity to adjust procurement schedules or renegotiate project budgets. Multichannel and customer-choice research shows that purchasing behavior is influenced by information availability, channel characteristics, and customers' decision contexts (29). When customers receive late or ambiguous information, they may experience reduced control and increased dissatisfaction. Conversely, timely communication can enhance predictability and reduce resistance by enabling customers to plan. In addition, customers may respond more positively when firms provide transitional incentives, phased implementation, or alternative purchasing options, because such measures signal fairness and shared burden. Research on partitioned versus combined pricing indicates that price presentation can influence buyer behavior, suggesting that how price components are framed may affect customer interpretation and acceptance (30). Therefore, the design of a price increase statement should include not only the final price but also the timing, rationale, implementation process, and any supportive measures offered to customers.

The emergence of data-driven and AI-enabled pricing has further increased the need for transparent communication. AI-powered real-time analytics can help firms optimize dynamic pricing by incorporating customer behavior, market competition, and demand conditions, but these techniques may also increase customer suspicion if price changes appear algorithmic, unstable, or insufficiently explained (31). In traditional industrial markets such as ready-mixed concrete, customers may not expect algorithmic price changes, but they still evaluate whether the seller's price adjustment is based on legitimate cost movements or opportunistic market exploitation. This means

that even when pricing decisions are analytically sound, their acceptance depends on the communicative bridge between internal pricing logic and external customer perception. Value-based pricing literature also emphasizes that customers' price evaluations are linked to perceived value, quality, benefits, and sacrifice, not to nominal price alone (32). If customers understand that the price increase is connected to maintaining product quality, delivery reliability, technical standards, and service continuity, they may be more likely to accept it as a necessary adjustment rather than an arbitrary burden.

Despite the extensive literature on pricing strategy, dynamic pricing, consumer responses, perceived fairness, and inflationary cost pressures, a practical research gap remains in the design of price increase statements as structured managerial communication tools, particularly in the ready-mixed concrete industry. Existing studies provide valuable insight into price fairness, dynamic pricing, customer satisfaction, pricing power, and construction cost inflation, but fewer studies integrate these perspectives into an operational model for announcing price increases to B2B and B2C customers under inflationary conditions. In many firms, price increase notices are still prepared in an ad hoc manner, without systematic attention to transparency, empathy, timing, external justification, incentives, and interactive communication channels. This gap is important because the price increase statement is often the first and most visible contact point through which customers interpret the firm's intentions. If the message is vague, abrupt, or purely financial, customers may attribute the increase to opportunism. If the message is transparent, empathetic, timely, and supported by credible external explanations, customers may perceive the increase as fairer and more acceptable. Accordingly, a scientifically designed model can help ready-mixed concrete firms transform price increase announcements from a source of conflict into a structured process of customer relationship management.

The aim of this study was to design and empirically evaluate an effective model for price increase statements in the ready-mixed concrete industry under inflationary conditions, with emphasis on the roles of transparency, empathy, timing, reference to external factors, incentives, and invitation to dialogue in enhancing customer acceptance.

Methods and Materials

The present study was conducted with the aim of designing an effective statement for announcing price increases under inflationary conditions in the ready-mixed concrete industry, and it employed a quantitative approach in order to examine both the theoretical depth and the empirical validity of the model.

The quantitative phase of the study was conducted to empirically test the model and determine the magnitude of the effects of its components. A researcher-made questionnaire was designed based on the qualitative findings, and its face and content validity were confirmed by experts. The reliability of the questionnaire was assessed using Cronbach's alpha and composite reliability. The statistical population consisted of customers in the ready-mixed concrete industry, including contractors, mass builders, engineering offices, and construction companies, and convenience sampling was used. The statistical population was estimated to include approximately 300 individuals. To determine the sample size, Cochran's formula was used (Cochran, 1977). Given the limited size of the statistical population, Cochran's formula is as follows:

$$n = \frac{n_0}{1 + \frac{n_0 - 1}{N}} \quad (1)$$

Therefore, the statistical sample size is:

$$\frac{96}{\frac{96-1}{300} + 1} \approx 73$$

Considering the possibility of non-response, the final sample size was estimated to be approximately 80 to 100 individuals, which is sufficient for generalizing the results to the statistical population.

The data collection tools included library studies, a questionnaire, and direct observation. In the qualitative phase of the study, library studies were used to extract the theoretical background and conceptual framework, including specialized books, domestic and international articles, theses, and industrial reports. Field observations were conducted to examine the practical alignment of statements with communication principles and to investigate responses to customer objections.

The quantitative phase of the study was also conducted through a questionnaire that included demographic information, the dimensions of the conceptual model measured using a Likert scale, and open-ended questions. Its validity and reliability were examined through a pilot test, exploratory factor analysis (EFA), confirmatory factor analysis (CFA), composite reliability, and average variance extracted (AVE). Quantitative data analysis was performed using SPSS for descriptive analysis and SmartPLS for structural equation modeling. Indices such as factor loading, R^2 , Q^2 , SRMR, and f^2 were calculated to examine model fit, validity, and effect size.

The quantitative analysis was completed by examining descriptive indices, factor analysis, validation of the measurement and structural models, and testing the significance of path coefficients through bootstrapping. In addition, between-group comparison tests, including ANOVA and independent-samples *t*-tests, were conducted to analyze differences based on customer type or region.

To validate the instruments, content validity was examined through expert judgment, construct validity was assessed using CFA as well as AVE and CR indices, and face validity was evaluated through a pilot test. The reliability of the questionnaire was measured using Cronbach's alpha and composite reliability, while Cohen's kappa coefficient was used in the qualitative analysis. In addition, data triangulation, participant review, and external auditing were used to enhance internal validity. Ethical principles, including informed consent, confidentiality, and the use of data exclusively for scientific purposes, were also observed.

Overall, the use of a quantitative approach, multiple instruments, specialized software, multilevel analysis, and adherence to ethical principles ensured that the data had sufficient conceptual depth, generalizability, and realism, and that the research findings possessed high scientific validity and practical applicability.

Findings and Results

SPSS 27 and SmartPLS 4 were used for descriptive and exploratory analyses as well as structural equation modeling. SmartPLS analyses were conducted in two sections:

The outer model was examined to assess the validity and reliability of the constructs.

The inner model was examined to evaluate the structural paths and the overall model fit.

In evaluating the outer model, based on the results presented in Table 1, all constructs had factor loadings above 0.6; therefore, convergent validity was acceptable. In addition, the AVE values for most constructs were above 0.5 (Table 2), indicating adequate explanatory power for the variance of the variables. Composite reliability (CR) values

above 0.7 indicated acceptable reliability of the constructs. Accordingly, the outer model had desirable convergent validity and reliability.

Table 1. Validity, Reliability, and Model Fit Indices

Construct	AVE	CR
Transparency	0.54	0.81
Empathy	0.59	0.84
Timing	0.51	0.79
Incentive	0.49	0.77
Reference to External Factors	0.56	0.83
Invitation to Dialogue	0.52	0.78

Table 2. Sample CFA Indices

Construct	Factor Loading	AVE	CR
Transparency	0.72	0.54	0.81
Empathy	0.75	0.59	0.84
Timing	0.70	0.51	0.79
Incentive	0.68	0.49	0.77
Reference to External Factors	0.74	0.56	0.83
Invitation to Dialogue	0.66	0.52	0.78

According to the evaluation of the inner model, the model fit indices presented in Table 3 show that the SRMR value was 0.062, which is lower than 0.08; therefore, the overall model fit was appropriate. In addition, the R^2 value for price acceptance was 0.47, indicating a relatively strong explanation of the dependent variable by the independent variables. Since the Q^2 value was 0.33, the model had desirable predictive relevance.

Table 3. Model Fit

Fit Index	Value
SRMR	0.062
R^2 for Price Acceptance	0.47
Q^2	0.33

The f^2 values also showed that transparency (0.21) and empathy (0.18) had medium effects, while incentives (0.09) had a small effect on price acceptance. Based on the obtained results, the structural model had an appropriate fit, and the proposed relationships in the model were statistically significant.

The results of the independent-samples t -test (Table 4) showed that transparency ($p = 0.004$) and appropriate timing ($p = 0.001$) were more valuable for B2B customers. B2C customers showed greater sensitivity and stronger responses to incentives ($p = 0.035$). No significant differences were observed in the other components. These findings indicate differences in decision-making patterns between organizational customers and final consumers.

The ANOVA results showed that perceived transparency ($p = 0.026$) and appropriate timing ($p = 0.018$) differed significantly among the northern, central, and southern regions of the country. The highest level of perceived timing belonged to the central region. However, the other components did not show significant differences. These differences may be due to variations in access to information or regional communication styles. Based on the results of the Kruskal–Wallis test, the invitation-to-dialogue component increased significantly as purchase history increased ($p = 0.033$). The other components did not show significant differences. Therefore, customers with longer purchase histories tended to prefer more interactive communication with the company.

The findings indicate that the effectiveness of price increase messages differs across various customer groups. Specifically, transparency and timing are more important for B2B customers and customers in central regions.

However, incentives are more influential among B2C customers and customers with shorter purchase histories. On the other hand, invitation to dialogue is more important for customers with longer purchase histories. Therefore, the formulation of price increase statements should be aligned with the characteristics of the target audience.

Table 4. Results of Between-Group Comparisons

Variable	Test Type	Statistic	Sig.	Result
Transparency	<i>t</i> (B2B/B2C)	2.91	0.004	Significant
Timing	<i>t</i> (B2B/B2C)	3.41	0.001	Significant
Incentive	<i>t</i> (B2B/B2C)	-2.13	0.035	Significant
Transparency	ANOVA (Region)	3.76	0.026	Significant
Timing	ANOVA (Region)	4.01	0.018	Significant

Overall, the results of structural equation modeling showed that, among the variables examined, transparency and empathy had the greatest effects on customer acceptance, with effect sizes of 0.21 and 0.18, respectively. Based on the results of the structural model, the variables of transparency and empathy had the highest effect sizes on customer acceptance compared with the other constructs.

Discussion and Conclusion

The findings of the present study showed that the proposed model for designing price increase statements in the ready-mixed concrete industry has acceptable explanatory and predictive power under inflationary conditions. The measurement model demonstrated satisfactory convergent validity and reliability, as all factor loadings were above 0.60, most AVE values exceeded the acceptable threshold of 0.50, and composite reliability values were higher than 0.70. These results indicate that the selected components, namely transparency, empathy, timing, incentives, reference to external factors, and invitation to dialogue, are conceptually coherent and empirically appropriate for explaining customer acceptance of price increases. The structural model also showed adequate fit, with SRMR = 0.062, $R^2 = 0.47$ for price acceptance, and $Q^2 = 0.33$, suggesting that the model can explain a meaningful proportion of variance in customers' acceptance of price increases and has desirable predictive relevance. These findings are consistent with strategic pricing theory, which emphasizes that pricing decisions cannot be reduced to cost calculation alone and must be integrated with value communication, customer perception, and competitive positioning (6, 7). They also support the broader marketing view that price is not merely an economic variable but a communicative signal that shapes perceived value, trust, and customer response (8). Therefore, the results confirm that in inflationary industrial markets, the effectiveness of a price increase depends not only on the economic necessity of the increase but also on how the organization frames, justifies, and communicates that increase to its customers.

The most important finding was that transparency had the strongest effect on customer acceptance, with an effect size of $f^2 = 0.21$. This result indicates that customers are more likely to accept a price increase when the firm clearly explains the reasons for the change, provides understandable information about cost pressures, and avoids ambiguous or abrupt announcements. This finding is strongly aligned with the literature on perceived price fairness, which argues that customers evaluate prices in relation to reference prices, seller motives, previous transactions, competitor prices, and perceived cost changes (15). When customers do not understand the rationale behind a price increase, they may attribute it to opportunism, exploitation, or unfair treatment; however, when the firm provides clear explanations, customers may interpret the increase as more legitimate and unavoidable. Prior studies have also shown that perceived price fairness affects loyalty, willingness to pay, complaint behavior, and

retaliatory responses, which means that transparency is not only a cognitive factor but also a mechanism for preventing relational damage (16). The present finding is also consistent with research on dynamic pricing, which shows that opaque price changes can trigger perceptions of unfairness, especially when customers believe that prices are arbitrary or discriminatory (18, 19). In the ready-mixed concrete industry, where price changes are often linked to energy, transportation, cement, raw materials, and macroeconomic instability, transparency can reduce uncertainty by connecting the announced increase to recognizable external pressures (1, 2).

The strong role of transparency is particularly meaningful in the context of inflation, because inflation increases customer sensitivity to price movements and makes buyers more attentive to the perceived legitimacy of sellers' decisions. Previous studies in the construction sector have shown that inflation increases the final cost of construction projects, disrupts project budgeting, and creates uncertainty in procurement planning (3-5). Under such conditions, customers in the ready-mixed concrete market may already expect some degree of price adjustment, but acceptance depends on whether the increase is presented as evidence-based, proportionate, and externally justified. The finding that reference to external factors is part of the accepted model supports this interpretation. When companies refer to inflation, increased energy costs, transportation expenses, supply-chain pressures, or changes in raw-material costs, they help customers understand that the price increase is not purely discretionary. This interpretation is consistent with the argument that pricing decisions must be connected to real cost structures and market conditions while still being communicated through a customer-oriented strategy (9, 11). In addition, the relevance of external justification is supported by studies showing that firms can reduce production cost pressures through alternative materials, but such operational strategies may not fully neutralize inflationary cost escalation in concrete production (14). Therefore, transparency and external justification together function as legitimacy-building mechanisms in price increase statements.

The second strongest predictor of customer acceptance was empathy, with an effect size of $f^2 = 0.18$. This finding indicates that customers do not evaluate price increase statements only through economic rationality; they also respond to the emotional and relational tone of the message. In other words, a technically accurate statement may still be ineffective if it appears indifferent to customer pressures, project constraints, and financial concerns. This result is consistent with research showing that employee empathy during customer interactions increases customer satisfaction and loyalty, especially in situations where customers experience stress, dissatisfaction, or uncertainty (28). In price increase communication, empathy means acknowledging the burden imposed on the customer, expressing awareness of the customer's difficulties, and presenting the increase as a reluctant but necessary decision rather than as a purely profit-driven action. This is consistent with consumer behavior theory, which emphasizes that purchase decisions and price evaluations are shaped by emotions, expectations, perceived value, and relational experience, not merely by objective price levels (23). The finding also aligns with research on perceived justice in service recovery and dynamic pricing, where customers' reactions are influenced by whether they feel respected, considered, and fairly treated (21). Therefore, empathy can be understood as the relational complement of transparency: transparency explains the reason for the increase, while empathy reduces emotional resistance to it.

The results also showed that incentives had a smaller but meaningful effect on price acceptance, with $f^2 = 0.09$. Although incentives were less influential than transparency and empathy, they still contributed to customer acceptance, particularly among B2C customers and customers with shorter purchase histories. This finding suggests that incentives such as phased implementation, short-term discounts, loyalty privileges, flexible payment

conditions, or priority delivery may help reduce resistance when customers have weaker relational attachment to the company or less experience with its pricing practices. This result is consistent with behavioral pricing research, which shows that customer response to price is affected by reference points, perceived losses, and the framing of price changes (24). Incentives may soften the perceived loss associated with price increases by creating a compensatory value signal. The finding is also consistent with research on partitioned versus combined pricing, which indicates that the presentation and structuring of price components can influence buyer behavior (30). Similarly, studies on customer perceptions of dynamic pricing show that fairness concerns can be moderated when the pricing process includes justifiable explanations or corrective mechanisms (22, 27). Thus, although incentives should not replace transparency or empathy, they can strengthen the overall communication strategy by showing that the firm is willing to share part of the burden with customers.

The between-group comparison results provide further insight into how customer characteristics shape responses to price increase statements. The independent-samples *t*-test showed that transparency ($p = 0.004$) and appropriate timing ($p = 0.001$) were more important for B2B customers, whereas B2C customers were more responsive to incentives ($p = 0.035$). This pattern is theoretically meaningful because B2B customers, such as contractors, engineering firms, and construction companies, usually make price-related decisions within project budgets, contractual obligations, procurement schedules, and long-term supplier relationships. Therefore, they need clear, timely, and reliable information to adjust their operational and financial planning. This interpretation is consistent with pricing strategy literature, which emphasizes that pricing decisions in organizational markets must support profitability, predictability, and long-term relationship management (10, 25). It is also compatible with research on multichannel customer choice and pricing strategy, which shows that customers' decision-making patterns depend on their purchasing context, information needs, and interaction channels (29). In contrast, B2C customers may be more sensitive to immediate perceived loss and may therefore respond more strongly to compensatory incentives. This aligns with consumer behavior and behavioral pricing perspectives, which argue that individual consumers often evaluate prices through perceived gains, losses, fairness, and short-term value cues (23, 24).

The ANOVA results also showed significant regional differences in perceived transparency ($p = 0.026$) and timing ($p = 0.018$) among customers in northern, central, and southern regions, with the central region showing the highest level of perceived timing. This finding suggests that the effectiveness of price increase communication may depend on regional communication norms, access to market information, competitive intensity, customer density, and local business routines. Although the study did not directly test the causes of these regional differences, the result is consistent with the broader pricing literature, which emphasizes that market context and competitive conditions influence pricing strategy and customer response (9, 25). It also corresponds with research on differential pricing, which shows that customers' responses to price differences depend on the context in which price variation is interpreted (20). In addition, the Kruskal–Wallis result showed that invitation to dialogue increased significantly with purchase history ($p = 0.033$), indicating that customers with longer relationships expect more interactive and participatory communication when prices change. This finding is consistent with the relational logic of pricing power and long-term competitive advantage, according to which firms that maintain trust and credibility are better positioned to adjust prices without losing customers (12, 13). It also supports the idea that pricing should be treated as a strategic process rather than a one-way announcement (7).

Overall, the findings show that the price increase statement should be designed as a structured communication instrument rather than a simple notification. In the ready-mixed concrete industry, where price increases are often unavoidable because of inflation, input cost escalation, and supply-side pressures, customers' acceptance depends on the firm's ability to combine economic explanation with fairness, empathy, timing, and interaction. This result is consistent with recent work on inflationary pricing, which emphasizes the need for confidence, clarity, and strategic discipline in price communication during unstable economic periods (33). It is also compatible with research on AI-powered and real-time pricing, which shows that even analytically optimized pricing requires attention to customer behavior and competitive reactions (31). The present study therefore extends prior pricing and fairness research by applying these concepts to a specific industrial context and by showing that customer acceptance of price increases is shaped by a combination of rational, emotional, relational, and contextual factors. The practical implication is that ready-mixed concrete firms should not rely on generic price increase notices; instead, they should design segmented statements that provide transparent cost justification, acknowledge customer pressure, announce changes at the right time, refer to credible external factors, offer appropriate incentives, and create channels for direct dialogue.

This study had several limitations that should be considered when interpreting the findings. First, the research was conducted in the ready-mixed concrete industry, and although this context is highly relevant for examining price increases under inflationary conditions, the results may not be fully generalizable to other industries with different customer relationships, price structures, or competitive dynamics. Second, the use of convenience sampling may have limited the representativeness of the sample, even though the selected respondents were relevant customers of the industry. Third, the data were collected through self-report questionnaires, which may be affected by response bias, subjective interpretation, and temporary market conditions at the time of data collection. Fourth, although the model included key communication components, other variables such as brand reputation, customer dependency, contract type, competitor behavior, payment terms, and previous dissatisfaction were not fully examined. Finally, the study measured customer acceptance based on stated perceptions, while actual purchasing behavior after price increases may differ from questionnaire-based responses.

Future studies should test the proposed model in other construction-related industries, such as cement, steel, aggregates, building materials, and engineering services, in order to assess the generalizability of the model across different market structures. Researchers are also encouraged to use larger and more probabilistic samples to improve external validity and to compare the responses of different customer segments with greater statistical precision. Longitudinal designs would be useful for examining whether customer acceptance changes before, during, and after the implementation of actual price increases. Future research can also incorporate experimental methods by presenting different versions of price increase statements and comparing their effects on perceived fairness, trust, loyalty, and purchase intention. In addition, future models should examine the moderating roles of customer tenure, contract type, perceived supplier dependency, brand credibility, competitive alternatives, and prior service experience. Qualitative follow-up interviews could also provide deeper insight into why some customers respond positively to transparent and empathetic messages while others remain resistant.

Managers in the ready-mixed concrete industry should design price increase statements as strategic communication documents rather than routine administrative notices. A strong statement should clearly explain the economic reasons for the increase, present the change in a timely manner, use respectful and empathetic language, and show that the company understands the operational pressure placed on customers. Firms should avoid vague,

abrupt, or purely financial messages, because such messages may increase perceptions of unfairness and opportunism. For organizational customers, managers should emphasize transparency, advance notice, project-planning implications, and direct communication with account managers. For individual or smaller customers, supportive incentives, phased implementation, and clear explanation of benefits may be more effective. Companies should also create channels for dialogue, especially for long-term customers, so that customers can ask questions, negotiate implementation details, and feel that their concerns are heard. In practice, the most effective price increase statement is one that combines economic necessity with fairness, empathy, and relationship preservation.

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Authors' Contributions

All authors equally contributed to this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

All ethical principles were adhered in conducting and writing this article.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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