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# Price transparency as an operations capability and performance of selected paint manufacturing firms in Rivers State

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**Abstract**
This study investigates the impact of price transparency as an operations capability on performance of selected paint manufacturing firms in Rivers State. Objectives of the study were to examine how dimensions of price transparency as an operations capability such as price clarity, price consistency and price accuracy impact on performance. Using a correlational research design, data were collected from 30 managerial respondents across 10 selected paint manufacturing firms in Rivers State, using structured questionnaire designed in four response options. Pearson Product Moment Correlation (r) was used for the test of hypotheses via SPSS Version 25.0. The findings revealed that price transparency as an operations capability positively and significantly impact on performance of selected paint manufacturing firms in Rivers State. The study concluded that price transparency as an operations capability enhances performance in the manufacturing sector. The study recommended among others that, paint manufacturing firms should clearly standardise and communicate paint prices across all product grades and package sizes, to reduce customer confusion thereby enhancing their market performance.

**Keywords:** Price transparency, operations capability, firm performance, paint manufacturing firms, Rivers State

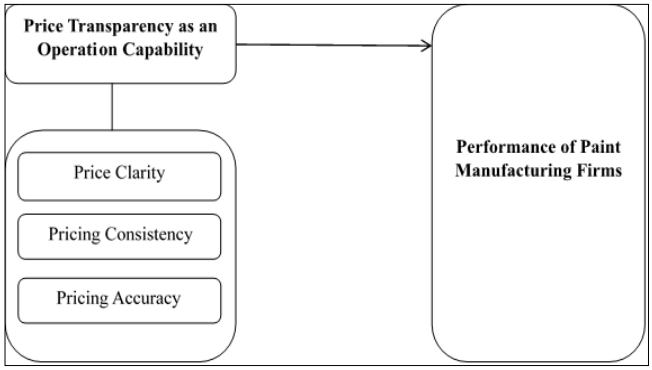
## Introduction

Price performance remains a critical determinant of the overall performance of manufacturing firms, shaping sales growth, profitability, market share, and long-term competitiveness in turbulent economic environments. In sectors exposed to fluctuating input costs, intense competition, and rising customer expectations, firms that manage prices poorly often suffer eroding margins and weakened customer loyalty despite technical production capabilities (Handoyo *et al*., 2023; Spitsin *et al*., 2020; Kotte, 2024) [7, 14, 21]. Emerging operations and supply chain research stresses that information-rich, transparent practices across the chain, especially regarding costs and prices can enhance coordination, reduce opportunistic behaviour, and support more stable, profitable performance outcomes (Li *et al*., 2025; Yoo & Won, 2018; Zhao *et al*., 2024; Jiang *et al*., 2020) [9, 15, 24, 25]. Within this context, price transparency as an operations capability goes beyond occasional disclosure; it reflects a firm's systematic ability to ensure that prices offered to distributors, retailers, and end-users are clear, consistent across channels, and accurately reflect underlying costs and value.

Cost and price transparency in supply chains, when supported by digital tools and traceability systems, has been shown to reduce information asymmetry, cut monitoring costs, and discourage excessive distribution margins, thereby improving efficiency and overall firm performance (Yoo & Won, 2018, Zhao *et al*., 2025) [24, 25]. At the market interface, transparent price information and cost breakdowns can signal fairness and strengthen brand equity and purchase intention, provided customers perceive the disclosed information as fair and credible (Udoh & Wnuk-Pel, 2025; Hanna *et al*., 2019; Kim *et al*., 2024) [8, 12, 23]. These insights highlight three core dimensions of price transparency capability: price clarity (customers easily understand what is being charged and why), price consistency (prices are stable and coherent across products, channels, and time, barring justified changes), and price accuracy (prices closely and reliably reflect true costs, agreed margins, and stated conditions).

Research on cost-information transparency suggests that when customers and channel partners trust that prices are accurate and not arbitrarily inflated, strategic waiting and disputes decline, sales volumes improve, and both firms and consumers can benefit in expectation (Jiang *et al*., 2020; Hanna *et al*., 2019) [8, 9]. For paint manufacturing firms in Rivers State, where raw material volatility, competition, and customer sensitivity to "fair pricing" are pronounced, developing robust price transparency as an operations capability may thus be a key pathway to improved financial performance, stronger customer relationships, and more resilient competitive positioning. Against this backdrop, the present study investigates the relationship between price transparency (in terms of clarity, consistency, and accuracy) and the performance of selected paint manufacturing firms in Rivers State.

## Conceptual Framework




**Source:** Adopted from Kotte (2024) [14]; Handoyo *et al*. (2023) [7]; Yoo & Won (2018) [24]; Researcher's conceptulaisation (2026).

**Fig 1:** Conceptual Framework Price Transparency as an Operations Capability and Performance of selected paint manufacturing firms

**Aim and Objectives**

The aim of this study was to examine the impact of price transparency as an operations capability on performance of selected paint manufacturing firms in Rivers State. The specific objectives were to:

1. impact of price clarity on performance of selected paint manufacturing firms in Rivers State.
2. impact of price consistency on performance of selected paint manufacturing firms in Rivers State.
3. impact of price accuracy on performance of selected paint manufacturing firms in Rivers State

**Research Questions**

1. How does price clarity impact on performance of selected paint manufacturing firms in Rivers State?
2. How does price consistency impact on performance of selected paint manufacturing firms in Rivers State?
3. How does price accuracy impact on performance of selected paint manufacturing firms in Rivers State?

**Research Hypotheses**

The following null hypotheses were tested at a significance level of 0.01.

**$Ho_1$:** Price clarity does not significantly impact on performance of selected paint manufacturing firms in Rivers State

**$Ho_2$:** Price consistency does not significantly impact on performance of paint manufacturing firms in Rivers State.

**$Ho_3$:** Price accuracy does not significantly impact on performance of paint manufacturing firms in Rivers State.

**Review of Related Literature**

**Concept of Price Transparency as an Operation Capability**

Price transparency as an operational capability refers to a firm's systematic ability to generate, manage, and share clear, credible information on how prices are formed across the supply chain, including cost structures, margins, and pricing rules. At its core, this capability rests on integrated data systems, analytics, and governance mechanisms that make cost and price information visible to internal and external stakeholders in real time, often supported by digital technologies such as blockchain and smart contracts (Cui *et al*., 2023; Yoo & Won, 2018) [5, 24].

From an operational perspective, vertical cost transparency (e.g., revealing sourcing and production costs to buyers) and horizontal transparency (e.g., sharing order and transaction prices across buyers) shape coordination, contract design, and inventory decisions, and can raise or lower total supply chain profit depending on capacity and competitive intensity (Cui *et al*., 2023) [5]. Blockchain-based price tracing systems exemplify this capability by recording every transaction and margin along the chain, enabling participants to track product price histories, validate transactions, deter opportunistic overpricing, and reduce administrative and monitoring costs (Yoo & Won, 2018) [24]. Price transparency also functions as a market-facing capability: sharing cost breakdowns and pricing logic with customers can increase perceived price fairness, trust, brand equity, and purchase intention when information is presented clearly and credibly (Kim *et al*., 2020; Kim *et al*., 2024) [12, 13]. However, transparency must be strategically calibrated; overly detailed cost disclosure can trigger perceptions of price unfairness or information overload, particularly for premium offerings, and may reduce willingness to pay (Kim *et al*., 2020) [13].

Internally, developing pricing capability involves building skills, systems, and routines for understanding costs, competitors' prices, and customers' willingness to pay, and for using this information to set and defend prices dynamically in changing markets (Ranjan & Nayak, 2023) [20]. As an operational capability, price transparency therefore goes beyond one-off disclosures; it integrates technology, information governance, and pricing processes to support coordination with partners, strengthen customer relationships, manage ethical and regulatory expectations, and ultimately improve supply chain and firm performance (Li *et al*., 2025; Cui *et al*., 2023; Yoo & Won, 2018; Swift *et al*., 2019; Khosroshahi *et al*., 2019; Ranjan & Nayak, 2023) [5, 11, 15, 20, 22, 24]. Price transparency, price consistency and price accuracy among others are key factors of price transparency as an operations capability.

Price clarity refers to how clearly and easily customers and internal stakeholders understand product prices. It involves presenting prices in a simple, unambiguous, and standardised manner across product grades and package sizes. Clear pricing eliminates hidden charges and reduces confusion during sales transactions. It supports faster customer decision-making and smoother order processing (Yoo & Won, 2018; Kim *et al*., 2024) [12, 24]. Price clarity also minimises pricing disputes and complaints. Internally, it enhances coordination between operations, sales, and finance units. It improves trust and credibility with distributors and customers. Clear prices support accurate demand forecasting and production planning. Price clarity reduces administrative delays and rework.

Price consistency pertains to the uniform application of prices across customers, regions, and sales channels. It ensures that similar paint products are sold at the same price under similar conditions. Consistent pricing reduces confusion and perceptions of unfairness among customers. It minimises internal conflicts between sales, distribution, and finance units. Price consistency supports reliable demand forecasting and production scheduling. It prevents revenue leakage and unauthorised price variations. Consistent pricing also enhances customer trust and brand credibility. It simplifies billing and invoicing processes. By standardising prices, firms improve process reliability (Jiang *et al*., 2020) [9].

Price accuracy refers to the correctness of quoted, recorded, and invoiced prices. It ensures that prices accurately reflect production costs, taxes, logistics, and approved margins. Accurate pricing reduces billing errors and the need for rework or adjustments. It supports effective cost control and financial planning (Hanna *et al*., 2019; Bertini *et al*., 2020; Ranjan & Nayak, 2023) [3, 8, 20]. Price accuracy improves coordination between operations, finance, and sales functions. It enhances customer confidence by eliminating price discrepancies. Accurate prices contribute to faster order processing and timely payments. They also reduce disputes and revenue losses. Price accuracy supports reliable performance measurement.

**Concept of Performance**

Performance in manufacturing firms refers to the extent to which these firms achieve desired financial, operational, and market outcomes through efficient conversion of raw materials into quality paint products that satisfy customers

and generate sustainable returns. In practice, performance is often assessed through financial indicators such as profitability, liquidity, solvency, and asset efficiency, which show whether the firm is generating adequate returns, meeting short- and long-term obligations, and using resources productively (Kanagaraj & George, 2025; Rajender, 2020) [10, 19]. Studies on paint companies reveal that ratio analysis and trend analysis are widely used to evaluate profitability, operational efficiency, and financial stability over time, helping managers and investors judge growth potential and risk (Kanagaraj & George, 2025; Akande *et al*., 2019; Liu, 2025) [1, 10, 16]. Beyond finance, performance in paint firms is closely linked to sales growth, market share, and competitive position, reflecting the ability to survive intense industry rivalry, raw-material price volatility, and changing customer preferences (Akande *et al*., 2019 [1]; Ranjan & Nayak, 2023; Li *et al*., 2025) [15, 20].
Research on strategic competitiveness and innovation orientation shows that product, technological, and market innovations significantly improve sales, profit, and overall corporate performance in paint manufacturing firms, indicating that dynamic capabilities are central to performance in this sector (Akande *et al*., 2019) [1]. At the operational level, performance also covers productivity, quality, and defect rates in paint production and application processes, with tools such as Overall Equipment Effectiveness (OEE), quality control methods, and performance maturity models used to identify inefficiencies and drive continuous improvement in paint plants (Olalere & Ramdass, 2024; Chahidi *et al*., 2022; De Oliveira Guimarães da Silva *et al*., 2021) [4, 6, 17]. Competitive assessments of paint companies highlight that low profitability, weak sales departments, and limited strategic focus undermine performance, whereas diversification, modern technologies, and motivated employees strengthen it (De Oliveira Guimarães da Silva *et al*., 2021) [6]. Overall, the concept of performance in paint manufacturing firms is therefore multi-dimensional, integrating financial health, sales and market outcomes, operational efficiency, product quality, and strategic adaptability as key indicators of success and long-term viability (Rajender, 2020; Alaba & Abomeh, 2021) [2, 19].

## Theoretical Review

The study anchored on Transaction Cost Economics (TCE) Theory. Transaction Cost Economics (TCE) Theory was propounded by Oliver E. Williamson in 1975, building on earlier ideas by Ronald Coase. The theory assumes that economic exchanges involve transaction costs such as searching for information, negotiating contracts, and monitoring performance. It posits that organisations seek to minimise these costs through efficient governance structures. TCE assumes bounded rationality and opportunistic behaviour among economic actors. Efficient organisational arrangements are therefore adopted to reduce uncertainty and transaction-related inefficiencies (Kim *et al*., 2024; Bertini *et al*., 2020) [3, 12].

The theory is relevant to understanding how price transparency, through price clarity, price consistency, and price accuracy, as an operations capability impacts the performance of selected paint manufacturing firms. TCE highlights that transactions involve costs such as searching for information, negotiating prices, and resolving disputes. When paint manufacturers implement clear, consistent, and accurate pricing, these transaction costs are significantly reduced. Price clarity minimizes the time and effort customers and distributors spend understanding prices, reducing information search costs. Price consistency prevents frequent renegotiations and conflicts caused by price variations across regions or channels, lowering negotiation and enforcement costs. Price accuracy reduces errors and billing disputes, cutting down on monitoring and enforcement costs. By reducing these transaction costs, paint firms can streamline operations, improve customer trust, and foster smoother supply chain relationships. This enhances operational efficiency, process reliability, and ultimately overall firm performance. Therefore, TCE provides a theoretical basis for why price transparency as an operational capability leads to better economic outcomes in paint manufacturing.

## Methodology

The study adopted the correlational research design. The population of this study was ten (10) selected paint manufacturing firms in Rivers State which are registered with the Rivers State branch of Paint Manufacturers Association of Nigeria (PMAN). The sample size for this study was the ten (10) paint manufacturing companies earlier indicated as the population. The study adopted the census techniques. One of the reasons for applying census method is the limited and manageable size of the population. With regard to the respondents of the study given the strategic nature of the study, three key managers (production manager, marketing manager and logistics manager) were chosen as respondents from each paint manufacturing firm. Therefore, 30 managers were used as respondents for the study. Data were collected through a structured questionnaire which was designed in four-point response options: Strongly Agreed (SA) 4, Agreed (A) 3, Disagreed (D) 2, and Strongly Disagreed (DS) 1. The instrument was validated by two industrial relations experts and one measurement and evaluation expert. The reliability coefficient of the instrument (0.72) was elicited using Crombach Alpha. Pearson Product Moment Correlation (r) was used for the test of hypotheses. 24(80%) copies of the questionnaires was accurately filled and successfully retrived by the researcher. A bivariate analysis (test of hypothesis) was done using SPSS Version 25 at 0.01 level of significance.

## Results

**$H_{O1}$:** Price clarity does not significantly impact on performance of selected paint manufacturing firms in Rivers State.

**Table 1:** Impact of Price Clarity on Performance

| | | | **Price Clarity** | **Performance** |
|---|---|---|---|---|
| | Price Clarity | Pearson Correlation | 1 | .638 ** |
| | | Sig. (2-tailed) | . | .000 |
| | | N | 68 | 68 |
| | Performance | Pearson Correlation | .638 ** | 1 |
| | | Sig. (2-tailed) | .000 | . |
| | | N | 68 | 68 |

**. Correlation is significant at the 0.01 level (2-tailed)

Table 1 above shows r value of 0.638 at a significance level of 0.00 which is less than the chosen alpha level of 0.01. Since the significance value 0.000 is less than the alpha level of 0.01, the null hypothesis ($Ho_1$) which states that price clarity does not significantly impact on performance of selected paint manufacturing firms in Rivers State was rejected and the alternate hypothesis accepted. This implies that price clarity significantly impacts on performance of selected paint manufacturing firms in Rivers State.

**$Ho_2$:** Price consistency does not significantly impact on performance of selected paint manufacturing firms in Rivers State.

**Table 2:** Impact of Price Consistency on Performance

| | | | Price Consistency | Performance |
|---|---|---|---|---|
| | Price Consistency | Pearson Correlation | 1 | .714 ** |
| | | Sig. (2-tailed) | . | .000 |
| | | N | 68 | 68 |
| | Performance | Pearson Correlation | .714 ** | 1 |
| | | Sig. (2-tailed) | .000 | . |
| | | N | 68 | 68 |

**. Correlation is significant at the 0.01 level (2-tailed)

Table 2 above shows r value of 0.714 at a significance level of 0.00 which is less than the chosen alpha level of 0.01. Since the significance value 0.000 is less than the alpha level of 0.01, the null hypothesis ($Ho_2$) which states that price consistency does not significantly impact on performance of selected paint manufacturing firms in Rivers State was rejected and the alternate hypothesis accepted. This implies that price consistency significantly impacts on performance of selected paint manufacturing firms in Rivers State.

**$Ho_3$:** Price accuracy does not significantly impact on performance of selected paint manufacturing firms in Rivers State.

**Table 3:** Impact of Price Accuracy on Performance

| | | | Price Accuracy | Performance |
|---|---|---|---|---|
| | Price Accuracy | Pearson Correlation | 1 | .690 ** |
| | | Sig. (2-tailed) | . | .000 |
| | | N | 68 | 68 |
| | Performance | Pearson Correlation | .690 ** | 1 |
| | | Sig. (2-tailed) | .000 | . |
| | | N | 68 | 68 |

**. Correlation is significant at the 0.01 level (2-tailed)

Table 3 above shows r value of 0.690 at a significance level of 0.00 which is less than the chosen alpha level of 0.01. Since the significance value 0.000 is less than the alpha level of 0.01, the null hypothesis ($Ho_3$) which states that price accuracy does not significantly impact on performance of selected paint manufacturing firms in Rivers State was rejected and the alternate hypothesis accepted. This implies that price accuracy significantly impacts on performance of selected paint manufacturing firms in Rivers State.

**Discussion of Findings**

The findings of this study revealed that price clarity in the dimensions of price clarity, price consistency and price accuracy significantly impact on performance of selected paint manufacturing firms in Rivers State. These findings are in line with Kim *et al*. (2024) [12] which averred that price transparency in international retailing on digital platforms enhances performance. Also, the study finds alignment with the work of Bertini *et al*. (2022) which emphasized that transparency in pricing promotes performance of an organization. From the precedents, price clarity enables customers, distributors, and contractors to clearly understand product prices across different paint types, grades, and packaging sizes. This reduces price disputes, order cancellations, and delays, thereby improving customer satisfaction and market performance. Clear pricing also supports faster decision-making within sales and distribution channels. Price consistency ensures that uniform prices are applied across regions, customer segments, and sales channels. This consistency minimises internal conflicts, prevents revenue leakages, and strengthens coordination between production, sales, and logistics units. Consistent pricing improves demand predictability, which enhances production planning, inventory management, and operational efficiency (Chahidi *et al*., 2022; Alaba & Abomeh, 2021; Liu, 2025) [2, 4, 16]. Price accuracy ensures that quoted and invoiced prices correctly reflect production costs, taxes, and distribution expenses. Accurate pricing reduces billing errors, rework, and financial losses, leading to improved profitability and process reliability. It also supports effective cost control and budgeting.

**Conclusion**

Conclusively, price clarity, consistency, and accuracy enhance operational efficiency, process reliability, customer trust, and competitive positioning. By embedding price transparency into operational systems and decision-making, paint manufacturing firms can achieve improved financial outcomes, stronger market performance, and sustainable organisational growth of paint manufacturing firms in Rivers State.

**Recommendations**

1. Paint manufacturing firms should clearly standardise and communicate paint prices across all product grades and package sizes, to reduce customer confusion thereby enhancing their market performance.

2. There should be implementation of a centralised pricing policy to ensure uniform prices across all sales channels and regions, thereby reducing internal conflicts and enhancing operational efficiency.
3. Paint manufacturing firms should integrate cost accounting and pricing systems to ensure quoted and invoiced prices correctly reflect production and distribution costs, thereby reducing errors and improving overall performance

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