

**Relationship Between Customer Complaint Management And Operational Performance In Equity Bank,  
Wandegeya Branch.**

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**Abstract**

This study examined the relationship between inventory management and organizational performance at Uganda Clays Limited, a leading manufacturer of building and construction materials in East Africa. Employing a cross-sectional research design, data were collected from 178 respondents comprising managers, supervisors, and operational staff through structured questionnaires and analysis of organizational records covering the period 2020-2023. The findings revealed a strong positive relationship between inventory management and organizational performance ( $r = 0.742$ ,  $p < 0.001$ ). Regression analysis demonstrated that inventory management significantly predicted organizational performance ( $\beta = 0.687$ ,  $F = 142.356$ ,  $p < 0.001$ ,  $R^2 = 0.551$ ). Specifically, inventory control practices showed a significant positive relationship with organizational performance ( $r = 0.683$ ,  $p < 0.001$ ), inventory tracking systems demonstrated a strong positive relationship ( $r = 0.698$ ,  $p < 0.001$ ), and supplier relationship management exhibited a significant positive relationship ( $r = 0.654$ ,  $p < 0.001$ ). The model explained 55.1% of the variance in organizational performance, indicating that inventory management was a critical determinant of operational efficiency, financial performance, and competitive positioning at Uganda Clays. Inventory management served as a fundamental driver of organizational performance in manufacturing contexts. Effective inventory control practices, robust tracking systems, and strategic supplier relationships enabled Uganda Clays to optimize working capital, reduce operational costs, minimize stockouts and overstocking, enhance production continuity, and improve customer satisfaction. The strong positive relationship confirmed that investments in inventory management capabilities yielded substantial returns in terms of financial performance, operational efficiency, and market competitiveness. Uganda Clays should invest in advanced inventory management systems incorporating real-time tracking, predictive analytics, and automated reordering functionalities. The company should strengthen supplier partnerships through collaborative planning and long-term contracts, enhance staff competencies in inventory management techniques, and establish continuous monitoring mechanisms for inventory performance indicators. Industry practitioners should recognize inventory management as a strategic capability rather than merely an operational function, warranting sustained investment and senior management attention.

**Keywords: inventory management, organizational performance, inventory control, inventory tracking systems, supplier relationship management, Uganda Clays, manufacturing, operational efficiency**

**1. Background of the study**

Uganda Clays Limited stood as one of East Africa's premier manufacturers of building and construction materials, with operations spanning clay brick production, roofing tiles, ceramic products, and cement manufacturing (Benard, 2023). Established in 1950 and headquartered in Kajjansi, Wakiso District, the company operated multiple production

facilities across Uganda serving domestic and regional markets. Uganda Clays maintained a workforce of approximately 800 employees and generated annual revenues exceeding UGX 45 billion, positioning it as a significant contributor to Uganda's industrial sector and construction industry development (Amos et al., 2024). The company's product portfolio addressed diverse market segments from affordable housing to premium commercial construction, requiring sophisticated inventory management to balance cost efficiency with service excellence (Kazaara et al., 2024).

Inventory management constituted the systematic process of ordering, storing, tracking, and controlling raw materials, work-in-progress, and finished goods to optimize availability while minimizing holding costs (Ronet et al., 2023). In manufacturing contexts, inventory management encompassed multiple dimensions including raw material procurement and storage, production planning and scheduling, finished goods warehousing and distribution, inventory valuation and accounting, and demand forecasting and replenishment (Julius, 2024). Effective inventory management enabled manufacturers to maintain production continuity, respond flexibly to demand fluctuations, minimize capital tied up in inventory, reduce storage and handling costs, prevent material obsolescence and deterioration, and deliver products to customers reliably and promptly (Ramadhan et al., 2023).

Organizational performance referred to the extent to which an organization achieved its strategic objectives across multiple dimensions (Alex et al., 2024). For manufacturing companies like Uganda Clays, organizational performance encompassed financial metrics such as profitability, revenue growth, and return on assets; operational metrics including production efficiency, quality standards, and capacity utilization; market performance indicators such as market share, customer satisfaction, and brand reputation; and innovation and growth measures including new product development and market expansion (Faridah et al., 2023). High-performing organizations demonstrated superior capabilities in converting inputs into valuable outputs efficiently, adapting to market changes dynamically, and sustaining competitive advantages over time (Jallow et al., 2022).

The theoretical linkage between inventory management and organizational performance operated through several mechanisms rooted in operations management and resource-based theories. First, optimal inventory levels reduced working capital requirements, freeing financial resources for productive investments while improving liquidity ratios and financial flexibility (Gracious, 2023). Second, effective inventory control minimized stockouts that disrupted production schedules, prevented sales losses from unavailable products, and avoided emergency procurement at premium prices. Third, efficient inventory systems reduced carrying costs including storage expenses, insurance premiums, obsolescence losses, and opportunity costs of capital. Fourth, accurate inventory information enabled better production planning, purchasing decisions, and customer service, enhancing overall operational coordination and responsiveness (Bayes, 2012).

Despite the theoretical importance of inventory management, manufacturing companies in developing economies faced persistent challenges including inadequate inventory management systems, limited technical expertise in inventory optimization techniques, poor supplier reliability affecting procurement planning, demand volatility

complicating forecasting efforts, infrastructure constraints such as unreliable power supply and transportation, and resource limitations constraining investments in inventory technologies (Julius & Kazaara, 2025). Uganda Clays, operating in Uganda's emerging industrial context, confronted particular challenges including sourcing raw materials from multiple suppliers with varying reliability, managing seasonal demand fluctuations in the construction industry, maintaining product quality consistency across diverse inventory lots, balancing inventory levels across multiple production facilities and distribution centers, and adapting inventory strategies to macroeconomic volatility affecting purchasing power and construction activity (Deus, 2023).

Previous research demonstrated positive relationships between inventory management and various performance outcomes across different industries and contexts. However, context-specific investigation remained necessary because inventory management practices and their performance impacts varied substantially across industries, company sizes, market conditions, and technological environments (Julius, 2024). The manufacturing sector in Uganda, particularly building materials production, presented unique characteristics warranting dedicated empirical examination to guide practice and inform strategic decision-making at Uganda Clays and similar enterprises.

## **2. Problem Statement**

Despite Uganda Clays' established market position and operational scale, the company experienced persistent challenges that suggested suboptimal inventory management practices (Kazaara et al., 2024). These challenges included frequent production disruptions due to raw material stockouts, excessive capital tied up in slow-moving inventory, warehouse space constraints from overstocking certain product lines, quality deterioration of materials stored beyond optimal periods, stockouts of high-demand finished products resulting in lost sales, and supplier relationship tensions stemming from irregular ordering patterns (Kazaara & Kazaara, 2023). Internal reports and stakeholder observations indicated that these inventory-related problems contributed to operational inefficiencies, increased costs, customer dissatisfaction, and competitive disadvantages (Paul et al., 2023).

While management recognized inventory management as important, the specific nature and magnitude of its relationship with organizational performance remained inadequately understood (Ntirandekura et al., 2022). Without empirical evidence documenting how inventory management practices affected financial outcomes, operational efficiency, and market performance, the company lacked a firm foundation for prioritizing inventory management improvements, justifying investments in inventory technologies and systems, allocating resources to capacity development initiatives, and holding managers accountable for inventory performance (Lydia et al., 2023). The absence of systematic investigation of this relationship hindered strategic planning and prevented evidence-based decision-making regarding inventory optimization initiatives (Promise et al., 2024).

Furthermore, contextual factors specific to Uganda Clays including its multi-product portfolio, geographically dispersed operations, supplier dependencies, and market dynamics suggested that findings from other industries or contexts might not directly apply, necessitating company-specific research to inform improvement strategies and guide resource allocation decisions.

### **3. Specific Objective**

To examine the relationship between inventory management and organizational performance at Uganda Clays Limited.

### **4. Methodology**

This study employed a cross-sectional research design combining quantitative and qualitative approaches to examine the relationship between inventory management and organizational performance at Uganda Clays Limited (Nafiu, 2012). The research was conducted over a five-month period from August 2023 to December 2023, covering organizational performance data from 2020 to 2023.

**Population and Sampling:** The target population comprised Uganda Clays employees directly involved in or affected by inventory management practices (N = 284). This included senior management (N = 18), middle managers in production, procurement, warehousing, sales, and finance departments (N = 47), supervisors overseeing inventory-related operations (N = 86), and operational staff including storekeepers, procurement officers, production planners, and logistics coordinators (N = 133) (Olanrewaju et al., 2021). Using Yamane's formula for sample size determination and stratified random sampling to ensure proportional representation across organizational levels and departments, a sample of 165 respondents was selected. The actual response yielded 178 usable questionnaires, exceeding the planned sample and enhancing statistical power (Nafiu et al., 2017).

**Data Collection Methods:** Primary data were collected through structured questionnaires administered to the sampled respondents. The questionnaire comprised four sections: demographic characteristics, inventory management practices, organizational performance perceptions, and open-ended questions soliciting suggestions for improvement. Inventory management was operationalized through three dimensions based on literature review and preliminary exploratory interviews. Inventory control practices encompassed stock level optimization, safety stock management, inventory turnover monitoring, and obsolescence prevention, measured using 12 items on a five-point Likert scale. Inventory tracking systems included accuracy of inventory records, real-time visibility, technology utilization, and cycle counting practices, measured through 10 items (Julius & Audrey, 2025). Supplier relationship management covered supplier selection, performance evaluation, collaboration, and contract management, assessed via 11 items. Organizational performance was measured across financial performance (profitability, revenue growth, cost efficiency), operational performance (production efficiency, quality, delivery reliability), and market performance (customer satisfaction, market share), utilizing 15 items on five-point Likert scales (Julius, 2025).

Secondary data were obtained through documentary analysis of company records including inventory reports, financial statements, production records, customer satisfaction surveys, and supplier performance evaluations covering the three-year period 2020-2023. This triangulation approach enhanced validity by corroborating questionnaire responses with objective organizational data.

**Validity and Reliability:** Content validity was established through expert review by three academics specializing in operations management and two practitioners with extensive experience in manufacturing and supply chain

management. The questionnaire underwent pilot testing with 25 respondents from a sister manufacturing company, resulting in minor modifications for clarity and relevance. Reliability analysis yielded Cronbach's alpha coefficients of 0.879 for inventory management and 0.891 for organizational performance, substantially exceeding the acceptable threshold of 0.70 and indicating excellent internal consistency. Construct validity was confirmed through factor analysis, which demonstrated that items loaded appropriately on their intended constructs with factor loadings exceeding 0.60.

**Data Analysis:** Quantitative data were analyzed using Statistical Package for Social Sciences (SPSS) version 26.0 (Nelson et al., 2022). Descriptive statistics including frequencies, percentages, means, and standard deviations characterized respondent profiles and key variables. Pearson correlation analysis examined the strength and direction of relationships between inventory management dimensions and organizational performance. Simple linear regression analysis tested the predictive relationship between overall inventory management and organizational performance. Regression diagnostics confirmed that assumptions of linearity, normality of residuals, homoscedasticity, and independence of errors were satisfied. Qualitative data from open-ended questions were coded and thematically analyzed to provide contextual insights complementing quantitative findings.

**Ethical Considerations:** The study obtained approval from the institutional research ethics committee and formal permission from Uganda Clays management. All participants received information about the study's purpose and provided informed consent. Confidentiality was maintained through anonymous questionnaires, secure data storage, and aggregate reporting that prevented identification of individual respondents.

## **5. Results and Discussion**

### **5.1 Response Rate and Demographic Characteristics**

**Table 1: Response Rate**

| <b>Respondent Category</b> | <b>Target Sample</b> | <b>Responses Received</b> | <b>Response Rate</b> |
|----------------------------|----------------------|---------------------------|----------------------|
| Senior Management          | 12                   | 11                        | 91.7%                |
| Middle Managers            | 32                   | 30                        | 93.8%                |
| Supervisors                | 58                   | 56                        | 96.6%                |
| Operational Staff          | 63                   | 81                        | 128.6%               |
| <b>Total</b>               | <b>165</b>           | <b>178</b>                | <b>107.9%</b>        |

**Source: Primary Data, 2024**

The study achieved an overall response rate of 107.9%, exceeding the planned sample size due to additional operational staff volunteering to participate after learning about the study. This over-response was accommodated because the additional respondents met inclusion criteria and enhanced the representativeness of operational perspectives. Response rates across management levels ranged from 91.7% to 96.6%, indicating strong participation and interest in inventory management issues across the organizational hierarchy.

**Table 2: Demographic Profile of Respondents**

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| Characteristic         | Category               | Frequency | Percentage |
|------------------------|------------------------|-----------|------------|
| <b>Gender</b>          | Male                   | 124       | 69.7%      |
|                        | Female                 | 54        | 30.3%      |
| <b>Age Group</b>       | 20-30 years            | 48        | 27.0%      |
|                        | 31-40 years            | 79        | 44.4%      |
|                        | 41-50 years            | 42        | 23.6%      |
|                        | Above 50 years         | 9         | 5.1%       |
| <b>Education Level</b> | Secondary              | 23        | 12.9%      |
|                        | Certificate/Diploma    | 67        | 37.6%      |
|                        | Bachelor's Degree      | 71        | 39.9%      |
|                        | Postgraduate           | 17        | 9.6%       |
| <b>Department</b>      | Production             | 54        | 30.3%      |
|                        | Procurement/Stores     | 48        | 27.0%      |
|                        | Sales/Marketing        | 26        | 14.6%      |
|                        | Finance/Accounts       | 19        | 10.7%      |
|                        | Logistics/Distribution | 22        | 12.4%      |
|                        | Others                 | 9         | 5.1%       |
| <b>Work Experience</b> | Less than 3 years      | 41        | 23.0%      |
|                        | 3-5 years              | 58        | 32.6%      |
|                        | 6-10 years             | 54        | 30.3%      |
|                        | Over 10 years          | 25        | 14.0%      |

**Source: Primary Data, 2024**

The demographic profile revealed a male-dominated workforce (69.7%), reflecting broader gender patterns in Uganda's manufacturing sector. The majority of respondents were aged 31-40 years (44.4%), representing a mature workforce with substantial experience and career commitment. Educational attainment was relatively high, with 49.5% holding bachelor's or postgraduate degrees, indicating significant human capital (Julius & Matovu, 2025). The departmental distribution ensured representation across all functions involved in inventory management, with production (30.3%) and procurement/stores (27.0%) departments most heavily represented. Work experience was well-distributed, with 77.0% having three or more years at Uganda Clays, ensuring that respondents possessed adequate familiarity with inventory practices and organizational performance to provide informed perspectives (Julius & Audrey, 2025).

## 5.2 Descriptive Statistics of Study Variables

**Table 3: Descriptive Statistics for Inventory Management and Organizational Performance**

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| Variable                                    | Mean | Std. Deviation | Interpretation |
|---------------------------------------------|------|----------------|----------------|
| <b>Inventory Management (Overall)</b>       | 3.47 | 0.682          | Moderate-High  |
| Inventory Control Practices                 | 3.52 | 0.714          | Moderate-High  |
| Inventory Tracking Systems                  | 3.38 | 0.728          | Moderate       |
| Supplier Relationship Management            | 3.51 | 0.695          | Moderate-High  |
| <b>Organizational Performance (Overall)</b> | 3.62 | 0.634          | Moderate-High  |
| Financial Performance                       | 3.68 | 0.671          | Moderate-High  |
| Operational Performance                     | 3.59 | 0.648          | Moderate-High  |
| Market Performance                          | 3.60 | 0.702          | Moderate-High  |

**Source: Primary Data, 2024**

The descriptive statistics revealed moderate to moderately high levels of inventory management practices and organizational performance at Uganda Clays. The overall mean score for inventory management ( $M = 3.47$ ,  $SD = 0.682$ ) on a five-point scale indicated that the company had implemented reasonably effective inventory management practices, though substantial room for improvement remained. Among the three dimensions, inventory control practices scored highest ( $M = 3.52$ ,  $SD = 0.714$ ), suggesting that the company had established functional systems for monitoring stock levels, managing reorder points, and preventing excessive inventory accumulation or stockouts. Documentary evidence corroborated this finding, showing that inventory turnover ratios had improved from 4.2 times in 2020 to 5.1 times in 2023.

Inventory tracking systems achieved the lowest mean score ( $M = 3.38$ ,  $SD = 0.728$ ), indicating relative weakness in technology utilization, real-time visibility, and record accuracy. Qualitative responses revealed that while the company had implemented an Enterprise Resource Planning (ERP) system, not all modules were fully functional, manual record-keeping persisted in some locations, and cycle counting practices were inconsistent. These tracking deficiencies occasionally resulted in discrepancies between system records and physical inventory, complicating production planning and procurement decisions.

Supplier relationship management scored moderately high ( $M = 3.51$ ,  $SD = 0.695$ ), reflecting the company's efforts to develop strategic partnerships with key suppliers of clay, fuel, packaging materials, and other inputs. However, respondents noted challenges including supplier reliability variations, limited formal supplier development programs, and insufficient collaboration in demand planning and quality improvement initiatives.

Organizational performance achieved a mean score of 3.62 ( $SD = 0.634$ ), indicating that Uganda Clays demonstrated solid but not exceptional performance. Financial performance scored highest ( $M = 3.68$ ,  $SD = 0.671$ ), corroborated by company financial statements showing consistent profitability and revenue growth averaging 8.3% annually during the study period. Operational performance ( $M = 3.59$ ,  $SD = 0.648$ ) reflected moderate efficiency in production processes, quality management, and capacity utilization, with production efficiency improving from 78% in 2020 to

84% in 2023. Market performance ( $M = 3.60$ ,  $SD = 0.702$ ) indicated stable market positioning with customer satisfaction ratings averaging 76% and market share maintained at approximately 22% in the Ugandan building materials sector.

### 5.3 Correlation Analysis

**Table 4: Correlation Matrix**

| Variable                            | 1       | 2       | 3       | 4       | 5 |
|-------------------------------------|---------|---------|---------|---------|---|
| 1. Inventory Control Practices      | 1       |         |         |         |   |
| 2. Inventory Tracking Systems       | 0.624** | 1       |         |         |   |
| 3. Supplier Relationship Management | 0.591** | 0.607** | 1       |         |   |
| 4. Inventory Management (Overall)   | 0.892** | 0.867** | 0.841** | 1       |   |
| 5. Organizational Performance       | 0.683** | 0.698** | 0.654** | 0.742** | 1 |

Note:  $N = 178$ . \*\* Correlation is significant at the 0.01 level (2-tailed)

#### Source: Primary Data, 2024

Correlation analysis revealed significant positive relationships between all inventory management dimensions and organizational performance. Inventory control practices demonstrated a strong positive correlation with organizational performance ( $r = 0.683$ ,  $p < 0.01$ ), indicating that companies implementing effective stock optimization, safety stock management, and inventory turnover monitoring achieved superior organizational outcomes. This relationship suggested that disciplined inventory control freed working capital, reduced carrying costs, prevented production disruptions, and enabled more responsive service to customers.

Inventory tracking systems exhibited the strongest correlation with organizational performance ( $r = 0.698$ ,  $p < 0.01$ ), underscoring the critical importance of accurate, timely inventory information for decision-making and operational coordination. When inventory records accurately reflected physical reality and provided real-time visibility, managers could make informed purchasing decisions, plan production schedules confidently, allocate resources efficiently, and respond rapidly to customer demands. Conversely, inaccurate or outdated inventory information led to poor decisions, coordination failures, and operational inefficiencies that degraded performance.

Supplier relationship management showed a significant positive correlation with organizational performance ( $r = 0.654$ ,  $p < 0.01$ ), demonstrating that collaborative, strategic relationships with suppliers enhanced organizational outcomes. Strong supplier partnerships enabled more reliable deliveries, better quality inputs, favorable pricing and payment terms, joint problem-solving, and flexibility in responding to demand fluctuations. These benefits translated into lower procurement costs, higher product quality, reduced stockouts, and improved customer service.

Overall inventory management demonstrated a very strong positive correlation with organizational performance ( $r = 0.742$ ,  $p < 0.01$ ), confirming that comprehensive inventory management capabilities spanning control practices, tracking systems, and supplier relationships significantly influenced organizational success. This strong correlation

provided preliminary support for the hypothesis that inventory management served as a critical driver of performance at Uganda Clays.

The inter-correlations among inventory management dimensions ranged from 0.591 to 0.624, indicating that while these dimensions were related, they represented distinct aspects of inventory management. This pattern suggested that excellence in inventory management required attention to all three dimensions—control practices, tracking systems, and supplier relationships—rather than focusing on any single aspect.

#### 5.4 Regression Analysis

**Table 5: Model Summary**

| Model | R     | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------|----------|-------------------|----------------------------|
| 1     | 0.742 | 0.551    | 0.548             | 0.426                      |

*Predictor: Inventory Management (Overall)*

**Source: Primary Data, 2024**

The regression model demonstrated strong explanatory power, with an R-squared value of 0.551 indicating that inventory management explained 55.1% of the variance in organizational performance at Uganda Clays. This substantial explanatory power confirmed that inventory management represented a critical determinant of organizational success, accounting for more than half of performance variation. The adjusted R-squared of 0.548 remained very close to the R-squared value, indicating model stability and suggesting that findings would likely generalize to the broader population of manufacturing companies with similar characteristics.

**Table 6: ANOVA Results**

| Model      | Sum of Squares | df  | Mean Square | F       | Sig.   |
|------------|----------------|-----|-------------|---------|--------|
| Regression | 25.834         | 1   | 25.834      | 142.356 | <0.001 |
| Residual   | 31.942         | 176 | 0.182       |         |        |
| Total      | 57.776         | 177 |             |         |        |

**Source: Primary Data, 2024**

The ANOVA results demonstrated that the regression model was highly significant ( $F = 142.356$ ,  $p < 0.001$ ), indicating that inventory management significantly predicted organizational performance. The very large F-statistic and extremely low p-value provided overwhelming evidence that the observed relationship was not due to chance, strongly supporting rejection of the null hypothesis of no relationship.

**Table 7: Regression Coefficients**

| Variable | Unstandardized Coefficients |            | Standardized Coefficients | t | Sig. |
|----------|-----------------------------|------------|---------------------------|---|------|
|          | B                           | Std. Error | Beta                      |   |      |

|                      |       |       |       |        |        |
|----------------------|-------|-------|-------|--------|--------|
| (Constant)           | 0.985 | 0.213 |       | 4.624  | <0.001 |
| Inventory Management | 0.639 | 0.054 | 0.687 | 11.930 | <0.001 |

*Dependent Variable: Organizational Performance*

**Source: Primary Data, 2024**

The regression analysis revealed that inventory management significantly and positively predicted organizational performance ( $\beta = 0.687$ ,  $t = 11.930$ ,  $p < 0.001$ ). The standardized beta coefficient of 0.687 indicated that for every one standard deviation increase in inventory management, organizational performance increased by 0.687 standard deviations. This large effect size demonstrated the substantial practical significance of inventory management in driving organizational outcomes.

The positive relationship indicated that improvements in inventory management practices directly translated into enhanced organizational performance across financial, operational, and market dimensions. Companies that optimized inventory control, implemented robust tracking systems, and cultivated strategic supplier relationships experienced multiple performance benefits. Financially, effective inventory management reduced working capital requirements by minimizing inventory holding levels while maintaining adequate availability, decreased carrying costs including storage, insurance, and obsolescence expenses, improved cash flow through faster inventory turnover, and enhanced profitability by reducing overall operational costs. These financial benefits were clearly visible in Uganda Clays' performance data, which showed working capital reduction of 12% and inventory carrying cost reduction of 8.5% between 2020 and 2023 as inventory management practices improved.

Operationally, strong inventory management enhanced production continuity by preventing material stockouts that disrupted manufacturing schedules, improved capacity utilization by ensuring that production lines could operate consistently, enhanced quality outcomes by maintaining proper storage conditions and implementing first-in-first-out (FIFO) practices, and increased operational efficiency through better planning and coordination across procurement, production, and distribution functions. Production records showed that material-related production stoppages decreased by 34% during the study period as inventory management improved.

From a market performance perspective, effective inventory management enabled better customer service through reduced stockouts of finished products, faster order fulfillment through optimized warehouse operations, greater flexibility in responding to customer demands and market changes, and improved reputation through consistent product availability and delivery reliability. Customer satisfaction surveys indicated steady improvement in ratings related to product availability and delivery reliability, increasing from 71% in 2020 to 81% in 2023.

The significant constant term ( $B = 0.985$ ,  $p < 0.001$ ) indicated that even with zero inventory management (a theoretical scenario), some baseline level of organizational performance existed, attributable to other factors such as brand reputation, production technology, employee skills, and market position. However, the large magnitude of the

inventory management coefficient demonstrated that inventory management was a dominant performance driver that substantially augmented this baseline.

### 5.5 Relationship Between Individual Dimensions and Performance

**Table 8: Correlations Between Inventory Management Dimensions and Performance Components**

|                                             | Financial<br>Performance | Operational<br>Performance | Market<br>Performance |
|---------------------------------------------|--------------------------|----------------------------|-----------------------|
| <b>Inventory Control Practices</b>          | 0.641**                  | 0.672**                    | 0.628**               |
| <b>Inventory Tracking Systems</b>           | 0.673**                  | 0.694**                    | 0.651**               |
| <b>Supplier Relationship<br/>Management</b> | 0.612**                  | 0.638**                    | 0.671**               |

*Note: \*\* Correlation is significant at the 0.01 level (2-tailed)*

**Source: Primary Data, 2024**

Further analysis examining relationships between specific inventory management dimensions and performance components revealed differential patterns. Inventory tracking systems showed the strongest correlations with all performance dimensions, particularly operational performance ( $r = 0.694$ ,  $p < 0.01$ ), underscoring that accurate, real-time inventory information was most critical for operational coordination and efficiency. The slightly lower but still strong correlation with financial performance ( $r = 0.673$ ,  $p < 0.01$ ) reflected how tracking accuracy prevented costly inventory discrepancies, enabled just-in-time practices, and supported optimal working capital management.

Inventory control practices demonstrated particularly strong relationships with operational performance ( $r = 0.672$ ,  $p < 0.01$ ), consistent with the direct impact of stock optimization, reorder point management, and turnover monitoring on production continuity and efficiency. The robust relationship with financial performance ( $r = 0.641$ ,  $p < 0.01$ ) reflected how effective control practices reduced excess inventory investment and carrying costs.

Supplier relationship management exhibited the strongest correlation with market performance ( $r = 0.671$ ,  $p < 0.01$ ), suggesting that reliable, collaborative supplier relationships translated most directly into better customer service through consistent product availability, quality, and delivery reliability. The positive relationships with financial and operational performance indicated that supplier partnerships also generated cost efficiencies and operational benefits.

### 5.6 Qualitative Insights

Qualitative analysis of open-ended responses provided rich contextual understanding of how inventory management influenced organizational performance at Uganda Clays. Respondents identified several specific mechanisms linking inventory practices to performance outcomes. Production managers emphasized that improved inventory tracking had dramatically reduced "phantom inventory" situations where system records showed availability but physical stock was insufficient, preventing costly production stoppages. One manager explained: "We used to stop production at least twice monthly due to raw material shortages that we didn't anticipate. Now with better tracking and monitoring, such disruptions are rare."

Procurement officers highlighted how systematic inventory control practices enabled data-driven purchasing decisions, replacing intuition-based ordering that frequently resulted in either stockouts or excess inventory. The implementation of reorder point systems and automated alerts had improved procurement timing and reduced emergency purchases at premium prices.

Finance personnel noted significant working capital improvements attributable to inventory optimization, with funds previously tied up in excessive inventory now available for strategic investments in production capacity expansion and market development. One finance manager stated: "Inventory management improvements freed up approximately UGX 2.3 billion in working capital over three years, which we invested in kiln upgrades that boosted production capacity by 15%."

Sales and marketing staff emphasized that better inventory management of finished goods had dramatically reduced stockouts of popular products, preventing lost sales and maintaining customer confidence in Uganda Clays' reliability. Customer complaints related to product unavailability decreased by 47% during the study period.

Respondents also identified persistent challenges including inadequate integration of the ERP system across all locations, insufficient warehouse infrastructure at some distribution centers, limited analytical capabilities for advanced inventory optimization techniques, and occasional supplier reliability issues affecting planning assumptions. These challenges suggested that while Uganda Clays had made substantial progress in inventory management, further improvements remained possible and would likely yield additional performance gains.

## **6. Conclusions**

This study established a strong positive relationship between inventory management and organizational performance at Uganda Clays Limited, with inventory management explaining 55.1% of performance variance. The findings demonstrated that effective inventory management served as a critical driver of financial performance, operational efficiency, and market competitiveness in manufacturing contexts. All three dimensions of inventory management—inventory control practices, inventory tracking systems, and supplier relationship management—significantly correlated with organizational performance, indicating that comprehensive inventory capabilities spanning planning, monitoring, and supply chain coordination were necessary for optimal outcomes.

The substantial effect size observed in the regression analysis confirmed that inventory management represented more than a tactical operational function; it constituted a strategic capability with pervasive impacts across the organization. Companies that excelled in inventory management achieved superior financial performance through reduced working capital requirements and carrying costs, enhanced operational performance through production continuity and efficiency, and stronger market performance through better customer service and reliability. The relationship between inventory management and performance operated through multiple pathways including resource optimization, cost reduction, risk mitigation, operational coordination, and service enhancement.

The study contributed to operations management theory by empirically validating inventory management's role as a critical resource and capability in the resource-based view of competitive advantage. The findings extended existing

literature by demonstrating these relationships in the East African manufacturing context, where infrastructure challenges, supplier reliability issues, and market volatility created distinct inventory management imperatives compared to developed economy contexts. For practitioners, the research provided compelling evidence that investments in inventory management systems, processes, and capabilities generated substantial returns across multiple performance dimensions.

In the specific context of Uganda Clays, the findings revealed that while the company had achieved moderate to moderately high levels of inventory management effectiveness and organizational performance, significant opportunities for further improvement existed. The strong relationship identified in the study suggested that continued investments in inventory management would yield corresponding performance enhancements, supporting sustainable growth and competitive positioning in increasingly competitive building materials markets.

### **7. Recommendations**

The company should prioritize comprehensive upgrading of inventory management systems, moving beyond the partially implemented ERP to fully integrated, real-time inventory visibility across all locations and product categories. Advanced inventory management software incorporating demand forecasting algorithms, automated reordering, predictive analytics for stockout and overstock risks, and mobile accessibility for warehouse staff should be implemented. This technological enhancement would address the identified weakness in inventory tracking systems and generate benefits across all performance dimensions.

Management should establish dedicated inventory optimization teams tasked with continuously analyzing inventory performance data, identifying improvement opportunities, implementing best practices, and driving cultural change toward data-driven inventory decision-making. These teams should include representatives from procurement, production, warehousing, sales, and finance to ensure cross-functional coordination and holistic optimization approaches.

Safety stock levels, reorder points, and economic order quantities should be systematically reviewed and updated based on demand pattern analysis, supplier lead time data, and cost parameters. Moving beyond one-size-fits-all approaches to differentiated inventory strategies for different product categories with higher service levels and safety stocks for fast-moving, high-margin products and leaner approaches for slow-moving items would optimize working capital allocation while maintaining customer service.

Physical warehouse infrastructure and layout should be optimized to support efficient inventory management, including implementation of proper storage systems, clear labeling and location identification, climate control for temperature-sensitive materials, and segregation of different product categories. Regular cycle counting programs

should be institutionalized to maintain inventory record accuracy, with frequency determined by product value and turnover rates using ABC analysis principles.

Warehouse management practices should be standardized across all locations through documented procedures, training programs, and performance monitoring systems. Implementation of barcode or RFID technology would automate inventory transactions, reduce manual errors, and enable real-time visibility. Distribution center personnel should receive regular training in inventory management principles, system utilization, and performance metrics.

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