# COMPREHENSIVE INVOICE ANALYSIS REPORT

| | |
|---|---|
| **Invoice Number:** | SBD/25-26/197 |
| **Supplier:** | ISKO ENGINEERING PVT LTD |
| **Total Amount:** | ■1,208,075.00 |
| **Processing Date:** | 2025-11-08 14:22:44 |
| **Document Type:** | B2B_INVOICE |
| **AI Confidence:** | 52.5% |

| | |
|---|---|
| **Validation Status:** | ■ VALID |
| **Duplication Status:** | ■ DUPLICATE |
| **Tests Performed:** | 5 validation tests |
| **Processing Status:** | ■ COMPLETED |

# EXECUTIVE SUMMARY

**Invoice Assessment:** REQUIRES REVIEW
**Processing Confidence:** 52.5%
**Recommendation:** MARK_AS_DUPLICATE

## Key Findings:

- ■ All arithmetic validations passed successfully
- ■ Potential duplicate detected (95.0% confidence)
- ■ 5 AI recommendations provided

## Business Impact:

The validation and duplication analysis has identified a critical issue: 7 instances of the exact same invoice (Invoice ID 9, invoice number "SBD/25-26/197" from "ISKO ENGINEERING PVT LTD", valued at ■1,208,075.00).

The high confidence score of 95% strongly indicates these are indeed duplicates.

This finding carries significant business implications across financial, operational, and compliance domains.

Business Impact Assessment

1.

Financial Risk Level: High

The financi... [See AI Reasoning section for full analysis]

# INVOICE DETAILS

| Field | Value |
|---|---|
| Invoice Number | SBD/25-26/197 |
| Invoice Date | 2025-03-05 |
| Supplier Name | ISKO ENGINEERING PVT LTD |
| Supplier GSTIN | 24AAGCI9537F1ZG |
| Buyer Name | |
| Taxable Value | ∎1,023,792.00 |
| Total Tax | ∎184,282.56 |
| Total Amount | ∎1,208,075.00 |
| Payment Terms | 30 DAYS |

## Line Items Details:

| Item | HSN Code | Qty | Unit Price | Taxable Value | GST Rate | GST Amount |
|---|---|---|---|---|---|---|
| Item 1: BASKET... | 84049000 | 6.00 | ∎170,632.00 | ∎1,023,792.00 | 18.0% | ∎184,282.56 |

# ARITHMETIC VALIDATION ANALYSIS

| Validation Metric | Result |
|---|---|
| Total Tests Performed | 5 |
| Tests Passed | 4 |
| Tests Failed | 1 |
| Tax-related Failures (Ignored) | 1 |
| Critical Non-tax Failures | 0 |
| Suggestions Provided | 5 |
| Overall Status | ■ VALID |
| Note | Tax-related validation failures are ignored |

## ■ *Valid Checks Log:*

| Test Name | Expected | Actual | Tolerance | Description |
|---|---|---|---|---|
| Line Item 1 Total | 1023792.00 | 1023792.00 | ±0.05 | quantity × unit_price should equal taxab... |
| Line Item 1 GST Calculation | 184282.56 | 184282.56 | ±0.05 | taxable_value × gst_rate/100 should equa... |
| Invoice Taxable Value Sum | 1023792.00 | 1023792.00 | ±0.05 | Sum of all line item taxable_values shou... |
| Invoice Tax Sum | 184282.56 | 184282.56 | ±0.05 | Sum of all line item taxes should equal ... |

## *Detailed Validation Results:*

| Test Name | Status | Expected | Actual | Error Message |
|---|---|---|---|---|
| Line Item 1 Total | ■ PASS | 1023792.00 | 1023792.00 | |
| Line Item 1 GST Calculation | ■ PASS | 184282.56 | 184282.56 | |
| Invoice Taxable Value Sum | ■ PASS | 1023792.00 | 1023792.00 | |
| Invoice Tax Sum | ■ PASS | 184282.56 | 184282.56 | |
| Invoice Grand Total | ■ FAIL | 1208074.56 | 1208075.00 | Taxable(1023792.0) + Tax(184282.56) = 1208074 |

## *AI Validation Analysis:*

# DUPLICATION DETECTION ANALYSIS

| Analysis Metric | Result |
|---|---|
| Duplication Status | ■ DUPLICATE DETECTED |
| Confidence Score | 95.0% |
| Recommended Action | MARK_AS_DUPLICATE |
| Potential Matches Found | 6 |
| Analysis Method | Enhanced AI-Powered Detection |

## *Potential Duplicate Matches:*

| Original Invoice | Match Type | Confidence | Matching Fields | Recommendation |
|---|---|---|---|---|
| SBD/25-26/197 | EXACT_INVOICE_NUMBER_SAME_COMPANY | 95.0% | Invoice Number: SBD/25-26/197, Same Company | CONFIRMED_DUPLICATE |
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| SBD/25-26/197 | EXACT_INVOICE_NUMBER_SAME_COMPANY | 95.0% | Invoice Number: SBD/25-26/197, Same Company | CONFIRMED_DUPLICATE |
| SBD/25-26/197 | EXACT_INVOICE_NUMBER_SAME_COMPANY | 95.0% | Invoice Number: SBD/25-26/197, Same Company | CONFIRMED_DUPLICATE |

## *Analysis Summary:*

Invoice Analysis: SBD/25-26/197 Supplier: iSKO ENGINEERING PVT LTD Amount: ■1,208,075.00
Found 6 potential duplicate(s): 1. SBD/25-26/197 (Confidence: 95.0%, Type:
EXACT_INVOICE_NUMBER_SAME_COMPANY) 2. SBD/25-26/197 (Confidence: 95.0%, Type:
EXACT_INVOICE_NUMBER_SAME_COMPANY) 3. SBD/25-26/197 (Confidence: 95.0%, Type:
EXACT_INVOICE_NUMBER_SAME_COMPANY) 4. SBD/25-26/197 (Confidence: 95.0%, Type:
EXACT_INVOICE_NUMBER_SAME_COMPANY) 5. SBD/25-26/197 (Confidence: 95.0%, Type:
EXACT_INVOICE_NUMBER_SAME_COMPANY) 6. SBD/25-26/197 (Confidence: 95.0%, Type:
EXACT_INVOICE_NUMBER_SAME_COMPANY) ■ CONCLUSION: This invoice appears to be a
DUPLICATE.

## *AI Duplication Analysis:*

This analysis focuses on Invoice ID 9, with invoice number "SBD/25-26/197" from "ISKO
ENGINEERING PVT LTD", valued at ■1,208,075.00.
1.
Patterns Indicating Potential Duplicates
The duplication detection results present a clear and strong pattern indicative of duplicate invoices:
• Exact Invoice Number Match: The primary and most compelling pattern is the exact match of the
invoice_num ("SBD/25-26/197") across multiple entries.
This is the strongest single indicator of a duplicate.
Same Supplier: All matching invoices originate from the exact same supplier* ("ISKO
ENGINEERING PVT LTD").
This eliminates the possibility of different suppliers using coincidentally similar invoice numbers.
The system also confirms the suppliercompanyid is identical (ID 1) for all instances.
• Multiple Instances: The system identified 6 other invoices (IDs 1, 2, 3, 4, 6, 8) that are identical to
Invoice ID 9 in terms of invoice number and supplier.
This means there ... [Analysis truncated for space]

# AI REASONING & RECOMMENDATIONS

| AI Analysis Metric | Result |
|---|---|
| Overall Confidence | 52.5% |
| Analysis Type | Comprehensive Validation & Duplication |
| Processing Status | Completed Successfully |
| Recommendations Generated | 5 |

## *AI-Generated Recommendations:*

1. Investigate potential duplicate submission

2. Cross-reference with payment records

3. Implement additional duplicate prevention controls

4. Based on the critical findings of 7 exact duplicate invoices with a 95% confidence score and a high financial risk, here are 5 specific, actionable recommendations:

5. 1.
Immediate Payment Hold & Forensic Investigation:

## *Business Impact Assessment:*

The validation and duplication analysis has identified a critical issue: 7 instances of the exact same invoice (Invoice ID 9, invoice number "SBD/25-26/197" from "ISKO ENGINEERING PVT LTD", valued at ■1,208,075.00).
The high confidence score of 95% strongly indicates these are indeed duplicates.
This finding carries significant business implications across financial, operational, and compliance domains.
Business Impact Assessment
1.
Financial Risk Level: High
The financial risk associated with this duplication is substantial and immediate.
• Direct Financial Loss (Overpayment): Assuming only one of the seven invoices is legitimate, the company faces a potential overpayment of ■7,248,450.00 (6 duplicate invoices x ■1,208,075.00).
If all 7 were paid, the total outflow for a single transaction would be ■8,456,525.00.
This represents a significant and avoidable loss of capital.
• Cash Flow Impact: Unnecessary payments tie up working capital, reducing liquidity and potentially impacting the company's ability to fund other critical operations or investments.
• Recovery Costs: Even if detected post-payment, recovering overpaid funds can be a complex, time-consuming, and costly process, involving administrative effort, potential legal fees, and strained supplier relationships.
There's no guarantee of full recovery.
• Fraud Risk: The presence of multiple exact duplicates (7 instances) elevates the risk beyond simple administrative error to potential fraud.
This could be an attempt by the supplier to illicitly gain funds or an internal actor manipulating the system.
Unchecked, this pattern could indicate a systemic vulnerability to fraudulent activities.
• Reputational Damage: Discovery of significant overpayments, especially if they become public or lead to disputes, can damage the company's reputation with its suppliers, investors, and other stakeholders, impacting trust and future business relationships.
2.
Process Efficiency Impact: Significant Negative Impact
The existence of these duplicates highlights severe inefficiencies within the current Accounts

Payable (AP) process.
• Wasted Resources: Each duplicate invoice requires processing steps, including data entry, routing for approvals, reconciliation, and potentially payment initiation.
This consumes valuable AP staff time and system resources that could be better utilized for legitimate transactions.
• Increased Workload & Backlogs: AP teams are burdened with investigating, reconciling, and correcting errors related to duplicates, diverting their focus from processing valid invoices efficiently.
This can lead to processing backlogs and delays for other critical payments.
• Error Correction Overhead: Reversing payments, adjusting ledger entries, and communicating with suppliers about overpayments are complex and time-consuming tasks, adding significant overhead compared

## *AI Final Analysis:*

Executive Summary: Critical Duplicate Invoice Alert
Analysis has identified a critical issue: seven exact duplicate invoices for "SBD/25-26/197" from "ISKO ENGINEERING PVT LTD", each valued at ∎1,208,075.00.
We have 95% confidence that these are indeed duplicate entries, based on exact matches of invoice number and supplier across all instances.
This represents a high financial risk, with a potential overpayment of ∎7,248,450.00 if all duplicates are processed, and raises significant concerns regarding potential fraud and severe operational inefficiencies.
Key Action Items: Immediate action is required to place a payment hold on these invoices and initiate a forensic investigation to determine the root cause and prevent further financial loss.

# TECHNICAL DETAILS & DATABASE INFORMATION

## *Document Classification:*

| Classification Attribute | Value |
|---|---|
| Document Type | B2B_INVOICE |
| Classification Confidence | 95.5% |
| Keywords Detected | invoice, bill, gstin, gst, invoice no, bill no, taxable value, cgst, sgst, |
| Processing Method | AI-Powered Classification |

## *Database Records Created:*

| Record Type | Database ID |
|---|---|
| Document Record | 9 |
| Invoice Record | 9 |
| Supplier Company | 1 |
| Buyer Company | None |

## *Processing Metadata:*

- Processing Timestamp: 2025-11-08 14:22:44
- Source Filename: 1_1762591878382.pdf
- Processing Time: Not recorded
- Errors Encountered: 0

This report was generated by the Intelligent Invoice Processing System. All analysis results are based on AI-powered validation and duplication detection algorithms.