

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 14:19:04
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:

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 taxable_value
Line Item 1 GST Calculation	184282.56	184282.56	±0.05	taxable_value × gst_rate/100 should equal tax_amount
Invoice Taxable Value Sum	1023792.00	1023792.00	±0.05	Sum of all line item taxable_values should equal taxable_value
Invoice Tax Sum	184282.56	184282.56	±0.05	Sum of all line item taxes should equal tax_amount

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) = 1208074.56, but actual is 1208075.00

AI Validation Analysis:

This invoice validation analysis reveals a critical arithmetic discrepancy that requires immediate attention, despite the system's overall_passed: true flag.
While most line-item and tax calculations are accurate, the final invoice grand total is incorrect.

DUPLICATION DETECTION ANALYSIS

Analysis Metric	Result
Duplication Status	■ DUPLICATE DETECTED
Confidence Score	95.0%
Recommended Action	MARK_AS_DUPLICATE
Potential Matches Found	5
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	■ CONFIDENTIAL DUPLICATE
SBD/25-26/197	EXACT_INVOICE_NUMBER_SAME_COMPANY	95.0%	Invoice Number: SBD/25-26/197	■ CONFIDENTIAL DUPLICATE
SBD/25-26/197	EXACT_INVOICE_NUMBER_SAME_COMPANY	95.0%	Invoice Number: SBD/25-26/197	■ CONFIDENTIAL DUPLICATE
SBD/25-26/197	EXACT_INVOICE_NUMBER_SAME_COMPANY	95.0%	Invoice Number: SBD/25-26/197	■ CONFIDENTIAL DUPLICATE
SBD/25-26/197	EXACT_INVOICE_NUMBER_SAME_COMPANY	95.0%	Invoice Number: SBD/25-26/197	■ CONFIDENTIAL DUPLICATE

Analysis Summary:

Invoice Analysis: SBD/25-26/197 Supplier: iSKO ENGINEERING PVT LTD Amount: ■1,208,075.00
Found 5 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) ■ CONCLUSION: This invoice appears to be a DUPLICATE.

AI Duplication Analysis:

This analysis focuses on Invoice ID 8, identified as a high-confidence duplicate.

Invoice Details Under Review:

- Invoice ID: 8
- Invoice Number: SBD/25-26/197
- Supplier Name: ISKO ENGINEERING PVT LTD
- Total Value: ■1,208,075.00
- Invoice Date: 2025-03-05
- Line Items Count: 1

1.

Patterns Indicating Potential Duplicates & Logic Behind Detection

The system has identified Invoice ID 8 as a duplicate with a very high degree of certainty.

The core logic for this detection is based on the "EXACTINVOICENUMBERSAMECOMPANY" match type.

- Key Matching Fields:
 - * Invoice Number: "SBD/25-26/197"
 - * Supplier Company ID: 1 (representing "ISKO ENGINEERING PVT LTD")
 - * Supplier Name: "ISKO ENGINEERING PVT LTD"
- Evidence Supporting Duplication:

The analysis clearly states that Invoice ID 8 matches five other invoices (IDs 6, 4, 3, 2, 1) based on the following critical criteria:

... [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. Here are 4 specific, actionable recommendations based on the analysis:
5. 1.
Immediate Action: Place All Duplicates on Hold & Manual Review:

Business Impact Assessment:

AI Final Analysis:

Executive Summary: Invoice ID 8 - Critical Discrepancies and Duplication

This analysis reveals two critical issues for Invoice ID 8 (SBD/25-26/197 from ISKO ENGINEERING PVT LTD): a significant arithmetic discrepancy in the grand total and a high-confidence identification as a duplicate.

While the system initially flagged the invoice as overall_passed: true, this is misleading due to the final total calculation error.

Concise Explanation for Business Users:

Invoice ID 8 has two major problems requiring immediate attention.

First, despite individual line items being correct, the final grand total is miscalculated, meaning the invoice amount is incorrect.

Second, and more critically, this invoice is a highly probable duplicate.

It shares the exact same invoice number and supplier as five other invoices already in the system, strongly suggesting it's a repeated submission that could lead to double payment if not addressed.

Confidence Assessment:

We have 95% confidence that Invoice ID 8 is a duplicate.

This extremely high confidence level is based on an exact match of the invoice number ("SBD/25-26/197") and supplier ("ISKO ENGINEERING PVT LTD") with multiple existing records.

Key Action Items:

1.
Immediate Action: Place All Duplicates on Hold & Manual Review: Immediately put Invoice ID 8 and all other identified duplicates (IDs 6, 4, 3, 2, 1) on hold to prevent any payment processing.
Conduct a manual review of these invoices to determine their true status and validity.
2.
Investigate Arithmetic Discrepancy: Correct the grand total calculation for Invoice ID 8.
Investigate why the system's overall_passed flag was set to true despite this critical arithmetic error.
3.
Cross-Reference Payment Records: Verify payment status for all identified duplicate invoices

(Invoice ID 8 and IDs 6, 4, 3, 2, 1) to ensure no double payments have occurred or are pending.
4.

Enhance Duplicate Prevention Controls: Implement or strengthen automated duplicate prevention controls, particularly focusing on exact invoice number and supplier matches, to proactively flag such issues before they reach this stage.

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	8
Invoice Record	8
Supplier Company	1
Buyer Company	None

Processing Metadata:

- Processing Timestamp: 2025-11-08 14:19:04
- Source Filename: 1_1762591663330.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.