

Manufacturing + Stockyard ERP Transformation

A functional blueprint for connecting purchasing, inventory, production, stockyard operations, dispatch, accounting, reporting and customer access in one Odoo-driven workflow.

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FOCUS Manufacturing, Stockyard, Inventory & Finance	PLATFORM Odoo ERP

10+	3	1
Core functional areas	Key operating layers	Connected ERP flow

Core idea: replace fragmented manual operations with a controlled ERP process from purchase and inward movement through stockyard, production, dispatch, invoicing and reporting.

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Business Challenge

The requirement was not simply to install Odoo modules. The objective was to create a connected operating model for a manufacturing and stockyard business where physical stock, documents, dispatches and accounting records remain aligned.

Operational problem	Required control
Stock spread across products, attributes and rack locations	Real-time stock by product, attribute and rack
Manual stockyard allocation and movement	Structured inward, outward and internal rack movement
Purchase, GRN and finance handled as separate events	Connected purchase → receipt → bill workflow
Dispatch visibility limited	Vehicle, delivery status and documentation tracking
Approval and audit requirements	Role-based approvals with history
Customer calls for invoices, payments and delivery status	Secure portal / mobile access

Functional consulting approach

- Map the actual business flow before deciding where standard Odoo configuration is sufficient.
- Separate standard functionality, configuration, customisation and third-party integration requirements.
- Define roles, approvals, data ownership and document requirements at transaction level.
- Design acceptance criteria around measurable business outcomes such as stock accuracy, reporting readiness and approval control.

Key consulting decision: some requirements were explicitly identified as outside standard Odoo or requiring additional work, including offline operation, advanced dispatch management and certain integrations.

Functional Solution Architecture

The proposed Odoo design connects the business around a common transaction chain rather than isolated modules.

PURCHASE RFQ / PO / Vendor	INWARD GRN / Vehicle / Docs	STOCKYARD Rack / Attributes / Stock	SALES Quotation / SO / Approval
PRODUCTION BOM / MO / Work Centre	DISPATCH Vehicle / Status / Docs	ACCOUNTING Invoice / GST / Reconciliation	REPORTING KPIs / P&L; / Stock

Product & Inventory

- Attribute-driven products for dimensions, thickness, brand, colour, warranty and coil identification.
- Rack and bin structure with real-time product + attribute + location visibility.
- FIFO reservation, replenishment rules, stock adjustments and movement history.
- Digital attachment of invoices, test certificates, bills and e-way bills.

Purchase

- Vendor pricelist-driven RFQ generation and structured PO creation.
- GRN captures vehicle, transporter and supporting documents.
- Vendor ledger, pending bills and purchase reporting.

Sales & Approvals

- Quotation, sales order and proforma workflows with branded documents.
- Approval thresholds for high-value orders with approval history.
- Customer credit visibility and ageing.

Dispatch & Logistics

- Vehicle assignment and delivery status tracking.
- E-way bill data preparation and document attachment.
- Colour-coded pending / in-transit / delivered visibility and scheduling.

Manufacturing & Stockyard Operations

The manufacturing and stockyard layer was designed to keep physical execution and ERP records connected.

01

Stockyard management

Auto rack allocation after inward, stock balance by rack and attributes, daily stock reporting and powerful filters.

02

Manufacturing

Machine/work-centre onboarding, BOMs, operations, work orders and manufacturing orders with production analysis.

03

Inventory control

GRN, delivery orders, internal rack movements, physical-versus-system adjustment and FIFO reservation.

04

Document control

Attach invoices, quality certificates, bilty, e-way bills and customer acknowledgements at transaction level.

05

Dispatch control

Vehicle assignment, loaded/dispatched/delivered states, expected delivery date and late/on-time visibility.

Manufacturing control points

- Machines and work centres are onboarded so OEE and efficiency measures can be tracked.
- Approved BOMs define operations and work centres; manual MO creation remains possible where a BOM is not yet available.
- Work-order reporting and production analysis support management visibility.

Important scope boundary: Master Production Schedule and Shop Floor were identified as out of scope. Lot/serial numbers, expiry, landed cost, barcodes and packaging were also listed outside the inventory scope.

Finance, Reporting & Customer Access

The finance layer was designed around transaction accuracy and reduction of duplicate manual work.

Area	Functional design
Customer & vendor accounting	Ledgers, debit/credit visibility, reconciliation and ageing.
Tax	TDS/TCS automation and GST reporting readiness.
Billing	Customer invoices based on delivered quantity and vendor bills based on received quantity / GRN.
Banking	Bank integration and automated reconciliation with matching suggestions.
Profitability	P&L; visibility, including party and product-category perspectives.
Tally handoff	JSON/Excel export with voucher-wise mapping; column remapping may be required.

Management dashboards

- Sales: daily, monthly, yearly and cumulative performance.
- Inventory: valuation, turnover, ageing, slow-moving and non-moving stock.
- Finance: collections, outstanding, P&L; and profitability.
- Operations: dispatch status and key activity summaries.

Customer portal / mobile access

The proposed customer layer gives customers secure access to payment summaries, previous orders, invoice downloads, dispatch tracking and transaction history, with OTP-based login.

Implementation Logic & Acceptance Criteria

The implementation approach is deliberately structured to reduce ambiguity between business requirements, Odoo configuration and development work.

1	Discover Document business processes, data requirements, approvals, exceptions and reporting needs.
2	Fit-gap Classify each requirement as standard Odoo, configuration, customisation, integration or out of scope.
3	Design Define workflows, roles, locations, product structure, accounting rules and document requirements.
4	Build & configure Configure standard Odoo and prepare clear development tasks for non-standard requirements.
5	Validate Run realistic end-to-end scenarios across purchase, inventory, manufacturing, sales, dispatch and finance.
6	Go-live readiness Validate master data, user access, reports, documents, approvals and business acceptance criteria.

Acceptance criteria

- Physical stock should reconcile with ERP stock.
- GST reports should be generated without manual calculation.
- Auto-reconciliation target: at least 90% of payments.
- Dispatch dashboard should provide the required delivery visibility.
- All required documents should be digitally retrievable.
- Customer portal / app should synchronize with the ERP.
- P&L; should be available from the ERP without manual consolidation.
- Manager approval and rejection should work with a traceable workflow.

Customisation boundary: Offline mode was explicitly identified as unsupported by standard Odoo. Dispatch management, Power BI integration and certain Tally-output adjustments require additional work.

Outcome

The resulting design turns a fragmented manufacturing and stockyard operation into a single ERP-led process:
Purchase → Inward → Stockyard / Production → Sales → Dispatch → Accounting → Reporting → Customer Access.

This case study demonstrates functional consulting capability across requirements analysis, fit-gap assessment, process design, Odoo configuration planning, customisation definition and end-to-end validation.