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Gap Analysis Report

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This comprehensive document outline the standard ERPNext processes, the client’s current business processes, the client’s required processes, the identified gaps, and the necessary customizations.

# 1. Selling Module

## Standard ERPNext Process

### 1. Customer Creation:

- Go to CRM > Customer > New.

- Enter customer details (name, contact, address).

- Save and submit.

### 2. Sales Order Creation:

- Go to Selling > Sales Order > New.

- Select the customer.

- Enter items (product, quantity, price).

- Save and submit.

### 3. Sales Order Processing:

- Convert Sales Order to Delivery Note.

- Convert Delivery Note to Sales Invoice.

- Record payment against Sales Invoice.

## Current Process

### 1. Order Reception and Entry:

- Receives order from customer via phone.

- Enters order details in an Excel sheet.

### 2. Customer and Transaction Management:

- Maintains customer details and transaction records in Excel.

### 3. Production Planning and Inventory Check:

- Manually checks inventory.

- Plans production based on inventory and pending orders.

## Client's Required Process

### 1. Customer Creation During Order Entry:

- Enter customer details and payable/receivable amount while creating an order.

- Simplified process to create new customers directly from the order entry screen.

### 2. Order Entry with Specific Details:

- Enter wire gauge, number of wires, PVC color, length.

- Add order to pending list.

### 3. Production Planning:

- Check inventory levels.

- Create production plans from pending orders.

- Notify if materials are insufficient and generate a list of required materials.

## Gaps Identified

### - Customer Creation Gap:

- Standard: Separate customer creation process.

- Requirement: Integrated customer creation during order entry.

### - Order Entry Gap:

- Standard: Simple item entry without detailed specifications.

- Requirement: Detailed specifications for wires (gauge, number of wires, PVC color, length).

### - Production Planning Gap:

- Standard: Manual inventory check and production planning.

- Requirement: Automated inventory check and material requirement calculation.

## Customization Details

### 1.1 Customer Creation During Order Entry

- What Needs to be Customized: Integration of customer creation into the Sales Order entry process.

- How to Customize:

- Modify the Sales Order form to include a "Create New Customer" button.

- When clicked, this button should open a pop-up form to enter customer details.

- After entering details, the new customer should be saved and selected automatically for the current Sales Order.

- Why It Needs to be Customized: Streamlines the process by allowing users to create and link a new customer directly from the order entry, reducing the need for separate steps and minimizing data entry errors.

### 1.2 Detailed Order Entry

- What Needs to be Customized: Addition of custom fields in the Sales Order form for wire specifications (wire gauge, number of wires per wire, PVC color, length).

- How to Customize:

- Go to Customize Form > Sales Order.

- Add custom fields for wire gauge, number of wires, PVC color, and length.

- Modify the print format to include these details in the Sales Order document.

- Why It Needs to be Customized: Allows the client to capture detailed specifications required for manufacturing, ensuring accurate order processing and production.

### 1.3 Production Planning from Orders

- What Needs to be Customized: Automated production planning from pending orders with inventory checks.

- How to Customize:

- Develop a custom script or workflow that:

- Fetches pending orders.

- Checks inventory levels for required materials.

- Notifies the user if materials are insufficient and generates a material request list.

- Integrate this script with a custom button on the pending orders list.

- Why It Needs to be Customized: Facilitates efficient production planning by ensuring materials are available before starting production, reducing delays and manual effort.

# 2. Purchasing Module

## Standard ERPNext Process

### 1. Supplier Creation:

- Go to Buying > Supplier > New.

- Enter supplier details (name, contact, address).

- Save and submit.

### 2. Purchase Order Creation:

- Go to Buying > Purchase Order > New.

- Select supplier.

- Enter items (product, quantity, price).

- Save and submit.

### 3. Receiving Goods:

- Convert Purchase Order to Purchase Receipt.

- Update stock levels.

### 4. Invoicing:

- Convert Purchase Receipt to Purchase Invoice.

- Record payment against Purchase Invoice.

## Current Process

### 1. Vendor and Subcontractor Management:

- Maintains vendor and subcontractor details in Excel.

### 2. Material Procurement:

- Orders copper rods from suppliers and directs delivery to subcontractors.

- Subcontractors notify client upon receipt, and client maintains records in Excel.

### 3. Financial Record-Keeping:

- Tracks payables and receivables for suppliers and subcontractors in Excel.

## Client's Required Process

### 1. Vendor Creation:

- Enter vendor details, including payable/receivable amount.

### 2. Raw Material Procurement:

- Enter purchase details (vendor, material, quantity, price, delivery location - subcontractor or store).

- Incomplete purchasing order list with options to complete or delete orders.

### 3. Stock Update:

- Update stock levels at subcontractors or main store upon receipt.

- Track inventory levels at subcontractor locations.

## Gaps Identified

### - Vendor Creation Gap:

- Standard: Separate vendor creation process.

- Requirement: Integrated vendor creation with financial details.

### - Purchase Order Creation Gap:

- Standard: Simple order entry without specifying delivery locations.

- Requirement: Detailed order entry with delivery location (subcontractor or store).

### - Stock Update Gap:

- Standard: Stock updates only at the main store.

- Requirement: Track inventory levels at subcontractor locations.

## Customization Details

### 2.1 Integrated Vendor Creation

- What Needs to be Customized: Integration of vendor creation into the Purchase Order entry process.

- How to Customize:

- Modify the Purchase Order form to include a "Create New Vendor" button.

- When clicked, this button should open a pop-up form to enter vendor details.

- After entering details, the new vendor should be saved and selected automatically for the current Purchase Order.

- Why It Needs to be Customized: Simplifies the procurement process by allowing users to create and link a new vendor directly from the Purchase Order entry, reducing the need for separate steps and minimizing data entry errors.

### 2.2 Detailed Purchase Order Entry

- What Needs to be Customized: Addition of custom fields in the Purchase Order form for delivery location (subcontractor or store).

- How to Customize:

- Go to Customize Form > Purchase Order.

- Add a custom field for delivery location with options (subcontractor or store).

- Modify the print format to include this detail in the Purchase Order document.

- Why It Needs to be Customized: Ensures accurate delivery instructions are captured and communicated to suppliers, reducing errors in material delivery.

### 2.3 Inventory Management at Subcontractor Locations

- What Needs to be Customized: Tracking of inventory levels at subcontractor locations.

- How to Customize:

- Set up subcontractor locations as warehouses in ERPNext.

- Customize stock entry and transfer forms to include these subcontractor warehouses.

- Modify inventory reports to include stock levels at subcontractor locations.

- Why It Needs to be Customized: Enables accurate tracking of materials and finished goods at subcontractor locations, ensuring proper inventory management and accountability.

# 3. Manufacturing Module

## Standard ERPNext Process

### 1. Bill of Materials (BOM) Creation:

- Go to Manufacturing > Bill of Materials > New.

- Enter item, raw materials, and operations.

- Save and submit.

### 2. Production Order Creation:

- Go to Manufacturing > Production Order > New.

- Select BOM, quantity, and target warehouse.

- Save and submit.

### 3. Material Issue and Manufacturing:

- Issue materials as per BOM.

- Track manufacturing progress.

### 4. Finished Goods Receipt:

- Receive finished goods into stock.

- Update inventory levels.

## Current Process

### 1. Production Planning:

- Manually plans production based on orders and inventory.

- Issues raw materials to subcontractors.

### 2. Subcontractor Management:

- Tracks subcontractor inventory and processes (drawing wires).

- Maintains records of subcontractor transactions and inventory in Excel.

## Client's Required Process

### 1. Production Planning from Orders:

- Create production plans from pending orders.

- Check inventory levels and notify if materials are insufficient.

### 2. Subcontractor Management:

- Issue raw materials to subcontractors.

- Track drawing process (gauge size, cost of drawing).

- Update inventory upon receipt of finished goods.

## Gaps Identified

### - Production Planning Gap:

- Standard: Manual production planning and inventory checks.

- Requirement: Automated production planning from pending orders with inventory checks.

### - Subcontractor Management Gap:

- Standard: Basic subcontracting without detailed tracking.

- Requirement: Detailed tracking of subcontracting processes, including raw material issuance and receipt of finished goods.

## Customization Details

### 3.1 Automated Production Planning

- What Needs to be Customized: Automated production planning

from pending orders with inventory checks.

- How to Customize:

- Develop a custom script or workflow that:

- Fetches pending orders.

- Checks inventory levels for required materials.

- Notifies the user if materials are insufficient and generates a material request list.

- Integrate this script with a custom button on the pending orders list.

- Why It Needs to be Customized: Facilitates efficient production planning by ensuring materials are available before starting production, reducing delays and manual effort.

### 3.2 Detailed Subcontractor Management

- What Needs to be Customized: Detailed tracking of subcontracting processes, including raw material issuance and receipt of finished goods.

- How to Customize:

- Set up subcontractor locations as warehouses in ERPNext.

- Customize the stock entry form to include subcontractor details.

- Develop custom workflows for issuing raw materials to subcontractors and tracking the drawing process.

- Update inventory upon receipt of finished goods from subcontractors.

- Why It Needs to be Customized: Ensures accurate tracking and management of subcontractor processes, improving accountability and efficiency.

# 4. Stock Module

## Standard ERPNext Process

### 1. Stock Entry:

- Go to Stock > Stock Entry > New.

- Select purpose (Material Receipt, Material Issue, Manufacture, etc.).

- Enter items and quantities.

- Save and submit.

### 2. Stock Reconciliation:

- Go to Stock > Stock Reconciliation > New.

- Enter warehouse, item, and quantity.

- Save and submit.

### 3. Warehouse Management:

- Set up warehouses for different locations.

- Track stock levels in each warehouse.

## Current Process

### 1. Inventory Check and Update:

- Manually checks inventory for pending orders.

- Updates inventory levels based on manual records.

### 2. Subcontractor Inventory Management:

- Maintains inventory levels at subcontractor locations in Excel.

## Client's Required Process

### 1. Automated Inventory Check and Update:

- Automated inventory checks for pending orders.

- Update inventory levels at subcontractor locations.

## Gaps Identified

### - Inventory Check Gap:

- Standard: Manual inventory checks for orders.

- Requirement: Automated inventory checks for pending orders.

### - Stock Update Gap:

- Standard: Stock updates only at the main store.

- Requirement: Track inventory levels at subcontractor locations.

## Customization Details

### 4.1 Automated Inventory Checks

- What Needs to be Customized: Automated inventory checks for pending orders.

- How to Customize:

- Develop a custom script or workflow that:

- Fetches pending orders.

- Checks inventory levels for required materials.

- Notifies the user if materials are insufficient and generates a material request list.

- Integrate this script with a custom button on the pending orders list.

- Why It Needs to be Customized: Ensures materials are available before production starts, reducing delays and manual effort in checking inventory levels.

### 4.2 Inventory Management at Subcontractor Locations

- What Needs to be Customized: Tracking of inventory levels at subcontractor locations.

- How to Customize:

- Set up subcontractor locations as warehouses in ERPNext.

- Customize stock entry and transfer forms to include these subcontractor warehouses.

- Modify inventory reports to include stock levels at subcontractor locations.

- Why It Needs to be Customized: Enables accurate tracking of materials and finished goods at subcontractor locations, ensuring proper inventory management and accountability.

# 5. Accounting Module

## Standard ERPNext Process

### 1. Invoice Creation:

- Go to Accounting > Sales Invoice or Purchase Invoice > New.

- Select customer or supplier.

- Enter items, quantities, and prices.

- Save and submit.

### 2. Payment Entry:

- Go to Accounting > Payment Entry > New.

- Select type (Receive, Pay).

- Link to invoice and record payment details.

- Save and submit.

### 3. Financial Reporting:

- Generate standard reports like Balance Sheet, Profit and Loss, Accounts Receivable, Accounts Payable.

## Current Process

### 1. Financial Tracking:

- Tracks detailed payables and receivables for customers, vendors, and subcontractors in Excel.

### 2. Custom Financial Records:

- Maintains detailed records of financial transactions in Excel.

### Client's Required Process

1. Integrated Financial Tracking:

- Track detailed payables and receivables for customers, vendors, and subcontractors.

### 2. Custom Financial Reports:

- Generate reports tailored to the client’s specific needs.

## Gaps Identified

### - Financial Tracking Gap:

- Standard: Basic financial tracking without detailed linking.

- Requirement: Integrated financial tracking for detailed payables and receivables.

### - Financial Reporting Gap:

- Standard: Standard financial reports.

- Requirement: Custom financial reports tailored to the client’s specific needs.

## Customization Details

### 5.1 Integrated Financial Tracking

- What Needs to be Customized: Integrated financial tracking for detailed payables and receivables for customers, vendors, and subcontractors.

- How to Customize:

- Customize the Accounts Receivable and Accounts Payable modules to link with the customized Sales Order, Purchase Order, and subcontracting workflows.

- Develop custom reports that aggregate financial data from these linked processes.

- Why It Needs to be Customized: Ensures comprehensive financial tracking and reporting, providing a clear picture of the client’s financial status.

### 5.2 Custom Financial Reports

- What Needs to be Customized: Custom financial reports tailored to the client’s specific needs.

- How to Customize:

- Use ERPNext’s Report Builder to create custom financial reports.

- Develop scripts or custom print formats for specific report layouts and data aggregations as required by the client.

- Why It Needs to be Customized: Provides the client with financial insights and data visualizations that are directly relevant to their business needs.