Odoo ERP Implementation: Procure-to-Pay Cycle

PT Bogasari (Hypothetical Client)
Odoo 16 (Purchase, Inventory, Invoicing)

Prepared by

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I. Executive Summary

This portfolio demonstrates a simulated implementation of the Odoo Purchasing Module designed for a large-scale food manufacturing scenario (modeled after PT Bogasari/Sari Roti). The project objective was to build a Proof of Concept (PoC) that streamlines the raw material supply chain, demonstrating how Odoo can handle complex manufacturing procurement needs.

II. Scenario & Business Challenges

In this hypothetical scenario, the company is modeled to operate with a multi-vendor strategy that requires precise system configuration. The simulated challenges addressed in this project include:

- Vendor Complexity: Managing a mix of suppliers for commodities (e.g., PT Baking for Wheat/Sugar) and premium ingredients (e.g., PT Kismis for Almonds/Cheese).

- Tax & Cost Configuration: Configuring the system to handle disparate price lists and automatically apply the 11% VAT (PPN) regulation.

- Stock Tracking: Resolving issues related to tracking stock levels across multiple purchasing waves as presented in the case study requirements.

III. Solution Implemented

To address the scenario requirements, I configured a comprehensive Procure-to-Pay workflow in Odoo involving:

- Database Configuration: Setting up a dedicated environment to manage specific vendor price lists and tax rules.

- Procurement Execution: Simulating distinct purchasing cycles (Purchase Orders) based on specific production demands.

- Validation Reporting: Generating comprehensive transaction reports including Purchase Orders, Goods Receipts, and Vendor Bills to validate inventory accuracy.

IV. Implementation Showcase
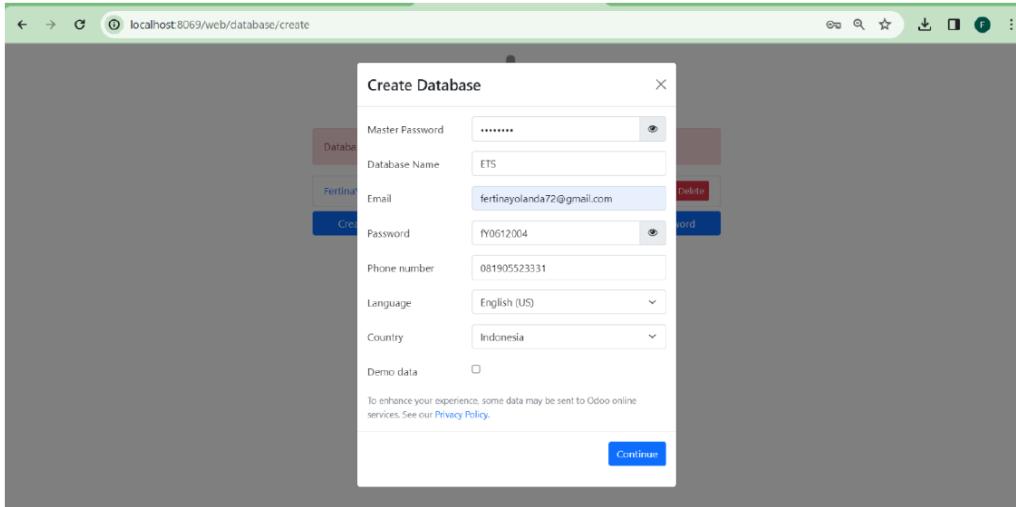
a) Database & Product Setup Configured the Master Product Data with specific attributes. Setup included distinct pricing for items such as Almonds (Rp 402,000) and Wheat to reflect the simulation's pricing structure

100002	Kurma	120.000	130.000	11%
100003	Kacang Almond	400.000	402.000	11%
100004	Coklat Putih	40.000	45.000	11%
100005	Coklat Hitam	50.000	65.000	11%
100006	Keju	320.000	330.00	11%

PT Baking

Kode Barang	Nama Barang	Harga Beli	Harga Jual	Pajak
200001	Gandum	15.000	17.500	11%
200002	Gula	24.000	29.000	11%
200003	Telor	30.000	37.000	11%
200004	Sosis	20.000	22.500	11%
200005	Santan	15.000	18.000	11%
200006	Margarin	25.000	28.000	11%

(pricing structure)

(Create Database)

b) Workflow 1: Premium Material Procurement (PT Kismis) Executed a purchasing scenario for premium ingredients. The workflow showcases the creation of PO #P00023, followed by the Goods Receipt (WH/IN/00007) and Vendor Bill generation. The system correctly calculated the 11% VAT (Rp 1,149,500) for the transaction

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SPB #P00023

Representatif Purchasing:	Tanggal Pemesanan:
PT Bogasari	30/03/2024 11:28:57

Deskripsi	Pajak	Tanggal Permintaan	Jml	Harga Satuan	Jumlah
Kismis	PT1	26/03/2024 00:00:00	20,00 kg	90.000,00	Rp 1.800.000,00
Coklat putih	PT1	26/03/2024 00:00:00	20,00 kg	40.000,00	Rp 800.000,00
Coklat hitam	PT1	26/03/2024 00:00:00	25,00 kg	50.000,00	Rp 1.250.000,00
Keju	PT1	26/03/2024 00:00:00	15,00 kg	320.000,00	Rp 4.800.000,00
Kurma	PT1	26/03/2024 00:00:00	15,00 kg	120.000,00	Rp 1.800.000,00

Jumlah Sebelum Pajak	Rp 10.450.000,00
Pajak	Rp 1.149.500,00
Total	Rp 11.599.500,00

(Purchase Order)

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Alamat Penjual: **Alamat Gudang:**
PT Kismis   **PT Bogasari**
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                            Gading Serpong
                            Tangerang
                            Indonesia
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WH/IN/00007

Order: **Tanggal Pengiriman:**
P00023   26/03/2024 00:00:00

Produk	Dipesan	Terkirim
Kismis	20,00 kg	0,00 kg
Coklat putih	20,00 kg	0,00 kg
Coklat hitam	25,00 kg	0,00 kg
Keju	15,00 kg	0,00 kg
Kurma	15,00 kg	0,00 kg

(Shipping Order)

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PT Kismis

Tagihan Vendor TAGIH/2024/03/0006

Tanggal: **Sumber:**
26/03/2024   P00023

Deskripsi	Jumlah	Harga Satuan	Pajak	Jumlah
P00023: Kismis	20,00 kg	90.000,00	PT1	Rp 1.800.000,00
P00023: Coklat putih	20,00 kg	40.000,00	PT1	Rp 800.000,00
P00023: Coklat hitam	25,00 kg	50.000,00	PT1	Rp 1.250.000,00
P00023: Keju	15,00 kg	320.000,00	PT1	Rp 4.800.000,00
P00023: Kurma	15,00 kg	120.000,00	PT1	Rp 1.800.000,00

Jumlah Sebelum Pajak	Rp 10.450.000,00
Pajak	Rp 1.149.500,00
Total	Rp 11.599.500,00
Dibayar pada 26/03/2024	Rp 11.599.500,00
Belum Dibayar	Rp 0,00

(Invoice)

c) Workflow 2: Commodity Procurement (PT Baking) Managed a bulk purchasing simulation for high-volume items like Wheat and Sugar. The process validated the receipt of goods (WH/IN/00009) and completed the payment cycle of Rp 6,160,500, demonstrating full traceability.

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PT Baking
harvest

SPB #P00024

Representatif Purchasing: Tanggal Pemesanan:
PT Bogasari   31/03/2024 14:05:52

Deskripsi	Pajak	Tanggal Permintaan	Jml	Harga Satuan	Jumlah
Gandum	PT1	26/03/2024 10:12:00	10,00 kg	15.000,00	Rp 150.000,00
Gula	PT1	26/03/2024 10:12:00	100,00 kg	24.000,00	Rp 2.400.000,00
Telor	PT1	26/03/2024 10:12:00	50,00 kg	30.000,00	Rp 1.500.000,00
Sosis	PT1	26/03/2024 10:12:00	10,00 kg	20.000,00	Rp 200.000,00
Margarin	PT1	26/03/2024 10:12:00	40,00 kg	25.000,00	Rp 1.000.000,00
Santan	PT1	26/03/2024 10:12:00	20,00 L	15.000,00	Rp 300.000,00

Jumlah Sebelum Pajak	Rp 5.550.000,00
Pajak	Rp 610.500,00
Total	Rp 6.160.500,00

(Purchase Order)

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Alamat Penjual:
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Alamat Gudang:
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WH/IN/00009

Order: Tanggal Pengiriman:
P00024   31/03/2024 14:08:08

Produk	Dipesan	Terkirim
Gandum	10,00 kg	10,00 kg
Gula	100,00 kg	100,00 kg
Telor	50,00 kg	50,00 kg
Sosis	10,00 kg	10,00 kg
Margarin	40,00 kg	40,00 kg
Santan	20,00 L	20,00 L

(Shipping Order)

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Tagihan Vendor TAGIH/2024/03/0007

Tanggal:
26/03/2024

Sumber:
P00024

Deskripsi	Jumlah	Harga Satuan	Pajak	Jumlah
P00024: Gandum	10,00 kg	15.000,00	PT1	Rp 150.000,00
P00024: Gula	100,00 kg	24.000,00	PT1	Rp 2.400.000,00
P00024: Telor	50,00 kg	30.000,00	PT1	Rp 1.500.000,00
P00024: Sosis	10,00 kg	20.000,00	PT1	Rp 200.000,00
P00024: Margarin	40,00 kg	25.000,00	PT1	Rp 1.000.000,00
P00024: Santan	20,00 L	15.000,00	PT1	Rp 300.000,00

Jumlah Sebelum Pajak	Rp 5.550.000,00
Pajak	Rp 610.500,00
Total	Rp 6.160.500,00
Dibayar pada 26/03/2024	Rp 6.160.500,00
Belum Dibayar	Rp 0,00

(Invoice)

d) Inventory Replenishment Simulation Tested the system's reordering capabilities by executing repeat orders (PO #P00025 and PO #P00027) on different dates (March 29th & 31st) to simulate continuous supply chain activity.

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PT Kismis

SPB #P00025

Representatif Purchasing:
PT Bogasari

Tanggal Pemesanan:
31/03/2024 14:13:07

Deskripsi	Pajak	Tanggal Permintaan	Jml	Harga Satuan	Jumlah
Kurma	PT1	29/03/2024 12:00:47	10,00 kg	120.000,00	Rp 1.200.000,00
Kismis	PT1	29/03/2024 12:00:47	20,00 kg	90.000,00	Rp 1.800.000,00
Coklat hitam	PT1	29/03/2024 12:00:47	12,00 kg	50.000,00	Rp 600.000,00
Coklat putih	PT1	29/03/2024 12:00:47	32,00 kg	40.000,00	Rp 1.280.000,00
Kacang almond	PT1	29/03/2024 12:00:47	12,00 kg	400.000,00	Rp 4.800.000,00

Jumlah Sebelum Pajak	Rp 9.680.000,00
Pajak	Rp 1.064.800,00
Total	Rp 10.744.800,00

(Repeat Order 1 PO)

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SPB #P00027

| Representatif Purchasing: | Tanggal Pemesanan: |
| PT Bogasari | 31/03/2024 14:18:42 |

Deskripsi	Pajak	Tanggal Permintaan	Jml	Harga Satuan	Jumlah
Telor	PT1	29/03/2024 12:15:30	23,00 kg	30.000,00	Rp 690.000,00
Margarin	PT1	29/03/2024 12:15:30	17,00 kg	25.000,00	Rp 425.000,00
Sosis	PT1	29/03/2024 12:15:30	32,00 kg	20.000,00	Rp 640.000,00
Gandum	PT1	29/03/2024 12:15:30	50,00 kg	15.000,00	Rp 750.000,00
Santan	PT1	29/03/2024 12:15:30	40,00 L	15.000,00	Rp 600.000,00
Gula	PT1	29/03/2024 12:15:30	30,00 kg	24.000,00	Rp 720.000,00

Jumlah Sebelum Pajak	Rp 3.825.000,00
Pajak	Rp 420.750,00
Total	Rp 4.245.750,00

(Repeat Order 2 PO)

V. Key Takeaways

- System Competency: Demonstrated ability to configure Odoo for multi-vendor environments.

- Process Automation: Successfully automated tax calculations (11% VAT) and 3-way matching (PO, Receive, Bill) within the simulation.

Jumlah Sebelum Pajak	Rp 10.450.000,00
Pajak	Rp 1.149.500,00
Total	Rp 11.599.500,00

- Inventory Accuracy: Achieved real-time stock visibility through validated Goods Receipts.

Dipesan	Terkirim
23,00 kg	23,00 kg
17,00 kg	17,00 kg
32,00 kg	32,00 kg
50,00 kg	50,00 kg
40,00 L	40,00 L
30,00 kg	30,00 kg