Company X
Implementation of Odoo

A story of implementation of Odoo open-source ERP in a small sugar manufacturing company.

This case was depersonalized due to the NDA signed.
The Problem

X is a small company located in Kyiv. Their area is producing different products from Sugar and selling those to the customers. Also, the company has its own small plantation in Africa where granulated sugar is produced to be transported to Ukraine.

Accounting in the company was very fragmented. Sales department used the countrywide e-document system; stock and purchase had their simple spreadsheets and reported to the company owner. Accounting and HR separately used their own small accounting systems. Manufacturing also was controlled separated from all other departments. Technology engineer controlled specifications and bill of materials. Manufacturing Engineer planned to work without any connection with Sales and Purchase, based only on the monthly plan, and what was available in stock based on the printed spreadsheet provided by stock. Also, the company used its own self-developed software for logistics. It stored transport routes cars and addresses without any information about clients or delivered cargo.

The main goal of ERP implementation was consolidated information.

- Accountant will have information about all financial information from sales, purchase and inventory valuation. And will be able to get information or print report without disturbing other departments
- The sales department will have quick and correct information about inventory and produced goods. The very complex form of sale orders of the countrywide e-document system will be filled by automated script without taking time of salespersons.
- Stock, purchase, manufacturing and sales department can coordinate their plans using all information from one database.
- Manufacturing Engineer will get work orders from sales instead inspecting and deciding what to produce by itself. So the decision will be based on customers request. Also, this will affect to purchase with the same.

The client made the decision to use Odoo ERP system by its own initiative.
The Team

- Project Manager
- Consultant / Trainer
The Case Study

Business Analysis

As with any ERP implementation we started by analysing functional correspondence of Odoo with client needs. The target was to understand what business apps provided by Odoo can be used from start and where customization or additional development needed.
<table>
<thead>
<tr>
<th>BUSINESS PROCESS</th>
<th>DETAILS</th>
<th>CUSTOMIZATION</th>
<th>ADD. DEV.</th>
<th>OLD DATA MIGR-ION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>Chart of account, invoicing</td>
<td>+</td>
<td>-</td>
<td>++</td>
</tr>
<tr>
<td>Accounting / Bank Statement</td>
<td>Integration with client bank software</td>
<td>+</td>
<td>++</td>
<td>-</td>
</tr>
<tr>
<td>Sales</td>
<td>Quotations, orders, integration with stock</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sales /e-document</td>
<td>Integration with ComarchEDI</td>
<td>+</td>
<td>+++</td>
<td>-</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>Bills of material, work orders, planning</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Purchase</td>
<td>Purchase orders, specific reports</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Stock</td>
<td>Inventorization, data migration</td>
<td>+</td>
<td>-</td>
<td>+++</td>
</tr>
<tr>
<td>Fleet management</td>
<td>Integration with internal logistics software. In future implementing all functionality in Odoo</td>
<td>-</td>
<td>+++</td>
<td>-</td>
</tr>
<tr>
<td>HR</td>
<td>Not planned to implement</td>
<td>-</td>
<td>-</td>
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</table>

The analysis showed that main development will be on software integration:

1. Generating and sending bank statement in special bank client software.
2. Sales orders transfer to ComarchEDI system and getting information about payments and
3. Integration with internal logistics system.
4. Designing of several reports.

And these features were fully implemented in Odoo.
Technical Requirements

All technical issues were handled by the company owner. Odoo server was running on a local Windows server, with all necessary software installed. Integration with a website or using Odoo CMS was not planned.

UI Design and Frontend Development

Because Odoo is ready “out of the box” application, User Interface and frontend development were reduced to configuring XML files of web forms and some minor HTML.
The process of Odoo customization was divided into 3 parts: Configuring and training, Integration development, and data migration.

At first, Odoo was configured to correspond company standard business processes and employees were learned basics of interface and functionality:

- Stock inventorisation
- Bank reconciliation
- Managing customers and vendors with multiple addresses.
- Basics of reporting
- Bills of material (manufacturing specification)
- Manufacturing.
- Fleet management

Simultaneously the following development was done:
- Adaptation of several reports to be the same as spreadsheets. The client wanted to minimize changes in documentation.
- Integration with bank client software. Bank statements in specific format were imported/exported
- Integration with ComarchEDI. All newly approved sales orders were transferred in ComarchEDI, and all additional documents such as invoices, delivery orders created by customers were automatically transferred in Odoo.
- Logistics module. Freight Management module was used to provide all necessary functionality with minor issues and configuration.
After this steps data migration was performed. Here we faced several issues:

- Database normalization. Duplicates of products and customers were removed.
- Fixed valuation difference between stock and accounting.
- The fixed mishmash of units of measure which caused valuation difference between stock, sales, and purchase.

Testing & Bugfix

It was low-budget project and testing was done by users in the testing database located at same server where production was. Odoo have its internal testing framework based on Python unittest2. And all tests were performed manually.
Challenges & Solutions

During implementation we faced and solved several issues:

- **1. Clutter in data**
  
  Data registration in the company was very fragmented. We had up to 4 sources of stock from accounting, stock, sales and purchase, each with different values. Because of this data migration become most long and hard part of the project.

- **2. User intolerance**
  
  End users from accounting and sales departments had an initial negative impression on the idea of new system implementation. They had their habits of using the previous system. This affected the project as additional changes in a user interface to be similar to their old systems. But when started working in the new system, this impression changed to the opposite.

- **3. Logistics module issues**
  
  “Freight Management” module used for cargo vehicles routing was third-party module incompatible with standard “Fleet Management” module. Several changes in the code were performed to get all functions desired by the client. After that company stopped using their internal logistics software.

- **4. ComarchEDI integration**
  
  Integration with ComarchEDI was most difficult part of the project. The company was strongly connected to this system. Developers created several Odoo cron task to transfer data between two systems. There were issues with ComarchEDI API and data format, but in the result, all user input was done in Odoo.