

## *Odoo Management Software Evaluation*

### 1 Purpose

Odoo is an all-in-one open source management software that includes ERP, CRM, eCommerce and CMS. It offers 30 core modules with 3000+ community apps that provides various functions to customize the business needs and automate the business processes, so no more interfaces between different software are required. Open source model of Odoo has attracted thousands of developers and business experts to build all these apps, it provides a great usability that scales across all apps. Odoo has 850 partners and attracted more than 3 million users so far, claiming to be one of the top free open source ERP software.

For this evaluation, we will first introduce the Open Source Odoo management software, and its main components; second, based on its open source feature, we will evaluate its potential applications in the university scenarios and see how students could learn and benefit from it. Finally, we will do the SWOP analysis and the evaluation matrix scores.

### 2 The Odoo Management Software

Odoo is a comprehensive business applications including Sales, CRM, Project management, Warehouse management, Manufacturing, Financial management, and Human Resources etc. It is an all-in-one management software that offers a range of business applications that can form a complete suite of enterprise management applications targeting companies of all sizes.

Odoo offers a community version and a commercial version. The community version is the open source free version while the enterprise version are charged at a certain cost and provides more features and services, see appendix I for a complete comparison of the community version and the enterprise version. For instance, in Odoo 11, the accounting module which is essential to an ERP system is hidden in the community version, so users will need to enable and connect the functions manually.

#### 2.1 Why choose Odoo

Why do so many users choose Odoo management software? According to the users' feedback, these have been the predominant reasons:

- **Comprehensive and modular:** Odoo is an all-in-one business software including CRM, Website/e-Commerce, billing, accounting, manufacturing, warehouse and project management, and inventory. The main Odoo components are the OpenObject framework, about 30 core modules and more than 3000 community modules.
- **Low cost of ownership and no lock-in:** cost of installing, configuring and running an ERP system is expensive. There is no license fee to run Odoo Community version, so users can save the cost for implementation and customization. And because it is open source software, user can download Odoo free of charge, test it and use it.
- **Customizable:** Odoo is flexible to customize to users' needs. With so many modules, the user can choose the ones that fits with their business requirements.
- **Updated technology:** Odoo is based on a technology stack which is modern and up-to-date. And with its open source community, it is actively maintained by a large base of developers to meet customer's needs and provide new applications.

## 2.2 Odoo Installation

Odoo has two editions: the community and the enterprise version. The enterprise version is available as Software-as-a-Service and accessing the source code is restricted to enterprise customers and partners. The community version is freely available to anyone.

There are multiple ways to install Odoo.

- Online: Odoo provides an online demo instance, which is very useful to get a quick idea of the product. The enterprise SaaS version is also online, which provides 15 days free trial, after that user will need to purchase the applications through subscription.
- Source installation: Odoo provides packaged installer for both the community and enterprise versions. It allows multiple running Odoo versions on the same machine, which is helpful for developing modules and can be used as a base for production deployment.
- Docker: Odoo also supports Docker image. Docker is a tool designed to make it easier to create, deploy and run applications by using containers.

## 2.3 Odoo Features

Odoo covers all sorts of business operations, from project management, CRM, and HR to inventory control and omnichannel sales. As an all-in-one business management solution, the table below lists the three major features from Business Management, Customer Relationship Management and Enterprise Resource Planning from three perspectives:

<b>Business Management Features:</b>		
Billing & Invoicing	CRM	Employee Management
Financial Management	Inventory Management	Marketing Management
Point of Sale (POS)	Purchasing	Time&Expense Tracking
Training Management	Vendor Management	
<b>Customer Relationship Management Features</b>		
Call Logging	Product Catalog	Contact Management
Project Management	Customer Support	Quotes/Proposals
Lead Scoring	Referral Tracking	List Management
Marketing Automation	Territory Management	
<b>Enterprise Resource Planning Features</b>		
Accounting Management	Inventory Management	CRM
Project Management	Dashboard	Purchasing
Distribution Management	Sales Management	Enterprise Asset Management
Supply Chain Management	Financial Management	Warehouse Management
HR Management		

Table 1 Odoo Features

All these features are implemented through various Odoo applications. Odoo has diversified applications from sales, operations, productivity tools, website tools, Odoo Studio and also many third-party applications. For example, users can easily build an online retail website with eCommerce and the website builder. Figure 1 below lists the major applications.

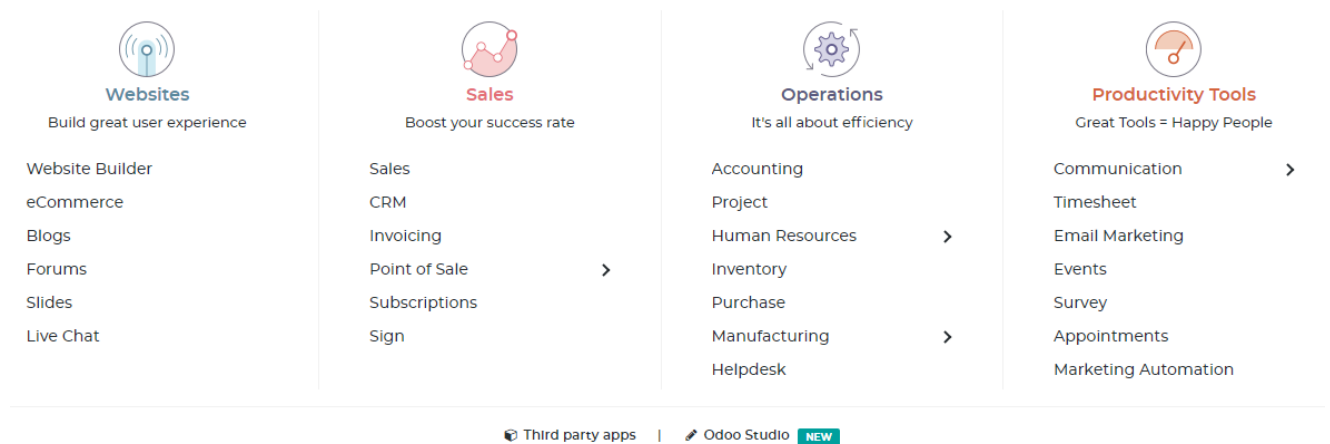


Figure 1 Odoo Applications

## 2.4 Odoo Application Scenarios

A predominant benefit of the Odoo business management solution is its highly modular feature. There are over 1000 modules to start with, and the user is free to add more while using it. So user can start from basic implementation, gradually extend the applications as the needs growing.

Odoo Website Builder can be a suitable starting point for online business. With the Odoo Website builder, customer just need to drag and drop the components, add text and images, a very professional looking website can be made with limited IT knowledge. Besides, customers can always add more features as it grows. There are different ways to extend the website, to integrate with other Odoo application such as eCommerce, eBay and Event, it could be an online shop; add Blogs, Forums, Q&A, it can be a complete content management system. Odoo is so diversified to suit different business needs.

## 2.5 Odoo Pricing

Odoo community version is free to download with limited functionalities and support, users need to install, configure, customize, update and manage the platform with self service.

Odoo enterprise version offers different level of pricing plan. It starts from 15 days free trial, the first app is free for customers, then there is a subscription fee per user per month per app, table 2 lists the different levels of the price plan. The fee varies quite a bit according to each application, the CRM application costs 16 euro per month per user, while the extra integration with Ebay module costs 64 euro per month per user. However, users have the flexibility to expand the application as the needs grow, which means they can always start from the basic functionalities first. Odoo enterprise, although starts with a free trial, the cost can grow quite high. For instance, for a 50 users' subscription of CRM, Invoicing, Sales, Website, eCommerce, Point of Sale, Accounting and Inventory, total seven applications, the annual subscription fee is €12,144 for new customer.

Free Plan	Online – €22/user/month/app
<ul style="list-style-type: none"> <li>• 1 App</li> <li>• Cloud Hosting or on-premise</li> </ul>	<ul style="list-style-type: none"> <li>• More than 1 app</li> <li>• Pay as You Grow</li> <li>• Cloud Hosting or on-premise</li> <li>• Implementation service available separately</li> <li>• Customization</li> <li>• Support</li> </ul>

Table 2. Odoo Price Plan

Odoo also provides implementation services for customers, which include 4 different levels of implementation packages: Basic, Standard, Custom and Pro. The prices are mainly decided by how complex the system is and how long the implementation time will be, together with whether any specialized customization and development are needed. The prices range between € 3100.00 and €19800.00. There is also a 30 percent discount for new customers.

### 3 Impact on Organisation

Odoo is an all-in-one business management application. As we have discussed in the previous section, it is highly modular and it suits all kinds of business needs. Because of the per application per user per month subscription module, the cost of using Odoo will be quite expensive as more Odoo applications adopted and the growing number of users. Being a university with 6000+ employees, it doesn't work out economically and effectively to use Odoo as an overall business management application for the university. However, Odoo's wide choices of the applications will be useful for some smaller scale business management applications.

- The small scale of business management applications, e.g. annual leave management: within IT Services, we still use paper based annual leave sheet. It is possible to use the Odoo leave management application to build an annual leave management software for the internal use of IT Services. It will help to keep track of the vacation days taken by each employee. Employees enter their requests and managers approve and validate them. Managers will get a view of their whole team leave in one complete view, to keep the team well organized and to easily forecast the distribution of tasks during the absence of their members.

Using Odoo to develop smaller scale business management applications, there are two major benefits as the following:

- Efficient: Odoo applications are already developed, so they will save a lot of time and resources for development. The active open source community also provides a huge knowledge database and support. Odoo is highly modular, and flexible to extend.
- Economical: the cost of using Odoo in smaller scale and targeted area is very cheap, as the first app is free for customers.

Odoo also has an education programme (<https://www.odoo.com/page/education-program>). It is free for teachers and students with unlimited database, apps and users. Teachers simply need to create an instance – set up a sample company, publish the course – share the company set up and training course, share with the students – students can learn the real operation and launch their own instance too. Odoo Education provides the real hand-on experience in business management software, and there are over 300 teachers already use Odoo in their teaching. Odoo Education could be used as a real business management software example in teaching business operation, logistics and business management subjects etc.. There is one thing needed to be noted for Odoo Education, it can only use for educational purpose, and the databases are limited to 10 months. 10 months after the creation of a database, it will be erased automatically. Odoo community version is an open source software, so students with technical backgrounds can also benefit from the Odoo community version by installing, customizing and developing for the Odoo community version.

### 3.1 SWOT Analysis

#### STRENGTHS

- covers all sorts of business operations, from project management, CRM, and HR to inventory control and omnichannel sales
- highly modular: there are over 1000 modules to start with, and the user is free to add more while using it
- lowering total cost of ownership: start with the core functions and add more as the needs grow
- Flexibility to tailor the system to the organization's needs, and keep pace with the alterations in the business process
- Online community support seems mature and well listed

#### OPPORTUNITIES

- Open source ERP system, there are 850 partners and attracted more than 3 million users so far
- One of the top providers for free open source ERP
- Free education version to attract more users and developers
- Allow users with limited development knowledge to quickly build fully functioning applications
- Increase development teams productivity & project delivery times

#### WEAKNESSES

- Although designed to be relatively easy to use, there is a steep learning curve to integrate and customize the system
- Documentation needs improvement. Most documents and answers are not centralized but scattered between Youtube, and Odoo Community and GitHub although they have been building a training portal
- May not be suitable for developing medium to large scale web projects
- Upgrading to new versions is painful
- Sometimes data structure seems to change from version to version and this may become confusing for the user, specially when functionalities are being impacted at the same time
- Support is very hard to get, although Odoo is growing this area

#### THREATS

- Dedicated resource for developing and adopting Odoo
- Comprehensive commercial ERP solutions from Oracle, SAP etc.
- Competition from other open source ERP providers
- Only trained developers/users would be able to integrate and customize Odoo applications

## 4 Conclusion and Recommendations

Odoo is an all-in-one open source management software which offers 30 core modules with 3000+ community apps that provides various functions to customize the business needs and automate the business processes. Odoo has a free open source community version and an enterprise version which charges a certain cost and provides more features and services. The open source model of Odoo has attracted thousands of developers and business experts to build all these apps, which now has 850 partners and attracted more than 3 million users so far.

As discussed in the sections before, the main features of Odoo including comprehensive and modular, low cost of ownership and no lock-in, customizable and updated technology, has attracted customers of all sizes, and Odoo is claiming to be one of the top free open source ERP software.

Odoo enterprise version uses the per application per user per month subscription module, the cost of using Odoo will be quite expensive as more Odoo applications adopted and the growing number of users. Being a university with 6000+ employees, it doesn't work out economically and effectively to use Odoo as an overall business management application for the university. However, Odoo's wide choices of the applications will be useful for some smaller scale business management applications, for example, the annual leave management within the department. There are two major benefits when using Odoo to develop smaller scale business management applications:

- Efficient: Odoo applications are already developed, so they will save a lot of time and resources for development. The active open source community also provides a huge knowledge database and support. Odoo is highly modular, and flexible to extend.
- Economical: the cost of using Odoo in smaller scale and targeted area is very cheap, as the first app is free for customers.

Odoo has an education programme (<https://www.odoo.com/page/education-program>), which is free for teachers and students with unlimited database, apps and users. Odoo Education provides the real hand-on experience in business management software, and there are over 300 teachers already use Odoo in their teaching. Odoo Education could be used as a real business management software example in teaching business operation, logistics and business management subjects etc.. Odoo community version is an open source software, so students with technical backgrounds can also benefit from the Odoo community version by installing, customizing and developing for the Odoo community version.

## 5 Evaluation Matrix Scores

Area	Scoring System	Score	Reason
Maturity	1 = Idea 5 = Mainstream Product	5	Odoo has 30 core modules and 3000+ community modules, has a network of 850 partners and attracted more than 3 million users so far.
Technology (Adoption Timescales)	1 = > 3 years 5 = < 3 months	5	Odoo is highly modular, it is quick to adopt for smaller scale and targeted applications.
Business Process	1 = > 3 years 5 = < 3 months	4	There is little to change in terms of business process, although some training may be necessary.

(Adoption Timescales)			
Adoption Overview	1 = v long time 5 = very short	4	Consider the technology and business adoption together, it is relatively quick to adopt Odoo in small and targeted application.
Existing Technology (Impact)	1 = v large impact 5 = very little	5	Odoo is not going to be the main business management software for the university, but only for smaller scale and targeted applications.
Resources Required	1 = v large impact 5 = very little	3	Resources will be required for software customization and training. When audio is used as educational resources, lecturers will also need to set up the course material.
Scope	1=very difficult 5=very easy	3	Aid can be used as educational resourced or customized as a targeted business application
Usability	1=very difficult 5=very easy	3	It can be difficult to understand and choose from a large number of applications. Start from the basic, gradually build up, and always refer to the knowledge database and the open source community.
Security	1 = very poor 5 = excellent	3	Using standard business application security measures
Innovation Value	1 = low innov. 5 = high innov.	4	It is innovative to use Odoo as an education resource for business students and technical students. It can also be effective in smaller scale and targeted applications.
Cost Effectiveness	1=very expensive 5=very cost effective	3	Odoo education is free to teachers and students. Odoo Community is free with limited functions and support. Odoo Enterprise is charged based on per app per user per month model.
Adoption Readiness Score	<20 - not ready 20-29 - emerging 30-39 - Adoptable >39 Fully Ready	33	<i>Odoo is an all-in-one open source management software which offers 30 core modules with 3000+ community apps. It is highly comprehensive and modular. Odoo Education could be used as an educational resource for getting hands on experience in business application. Odoo could also be efficient and economical in developing the smaller scale and targeted area applications in the university.</i>
<b>Note:</b> Rows that have no highlight colour indicate the score value is not added to the adoption readiness total. Instead, the overview score for that area is used as part of the total score.			

## Appendix I. Odoo Editions

	Enterprise	Community
<b>General</b>		
Functional support	✓	✗
Version Upgrades	✓	✗
Bugfix Guarantee	✓	✗
<b>User interface</b>		
Desktop	✓	✓
Mobile version	✓	✗
<b>Studio</b>		
Screen Customization	✓	✗
Report Designer	✓	✗
Menus Editor	✓	✗
Apps Creator	✓	✗
<b>Accounting</b>		
Invoicing & Payments	✓	✓
Full Accounting	✓	✗
<b>Project Management</b>		
Tasks	✓	✓
Timesheets	✓	✗
Forecasts	✓	✗
<b>Sales Management</b>		
CRM	✓	✓
Sales	✓	✓
Customer Portal	✓	✓
VoIP Integration	✓	✗
eSignature	✓	✗
Subscriptions	✓	✗
Digital products	✓	✗
Helpdesk	✓	✗
<b>Human Resources</b>		
Employee Directory	✓	✓
Expenses	✓	✓
Leaves	✓	✓
Recruitments	✓	✓
Appraisals	✓	✗
Departments Dashboard	✓	✗
<b>Inventory</b>		
Inventory Management	✓	✓
Purchase Management	✓	✓
Barcode support	✓	✗
Shipping: UPS, Fedex, DHL, USPS	✓	✗



Multi-company flows	✓	✗
<b>Manufacturing</b>		
MRP	✓	✓
MRP II (Work center Control Panel and Scheduling)	✓	✗
PLM	✓	✗
Maintenance	✓	✗
Quality	✓	✗
Shipping: UPS, Fedex, DHL, USPS	✓	✗
<b>Website Builder</b>		
Website Builder	✓	✓
Blogs	✓	✓
Presentations	✓	✓
Themes	Extra Fee	Extra Fee
Form Builder	✓	✗
Call-to-Actions Blocks	✓	✗
Versioning	✓	✗
A/B Testing	✓	✗
<b>E-commerce</b>		
Full eCommerce	✓	✓
Shipping Integration	✓	✗
eBay Connector	✓	✗
Amazon Connector (coming soon)	✓	✗
<b>Point of Sale</b>		
Point of Sale	✓	✓
PoS Restaurants	✓	✓
Loyalty cards	✓	✗
<b>Marketing</b>		
Events	✓	✓
Expenses	✓	✓
Email Marketing	✓	✓
Live Chat	✓	✓
Marketing Automation	✓	✗
Lead Scoring	✓	✗
Email Marketing Templates	✓	✗
<b>Miscellaneous</b>		
Chat	✓	✓
Google Spreadsheet Integration	✓	✓
Fleet	✓	✓
Notes	✓	✓
Appointments	✓	✗