



Odoo Module Of Employee Performance  
Evaluation Case Study: Sudanese Thermal Power  
Generation Company(STPG)

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Setelnesa Dirar

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# Odoo Module Of Employee Performance Evaluation

Case Study: Sudanese Thermal Power Generation Company(STPG)

## ABSTRACT

This project aims to strengthen the use of the specialized unit of Odoo ERP,( Employee Performance Evaluation Module) in the field of business because of its effectiveness in the process of measuring and evaluating the employee's performance and thus improve and develop the production in the company as a whole. In the design phase, the architecture design of the system was analyzed, and in the implementation stage, we reviewed the most important processes required when downloading and customizing Odoo module.

The proposed unit of the system was applied after determining the required standards for each job and allocating them according to the requirements of the company, this study adopts the applied scientific analytical method.

The customized module (Odoo Appraisal ) has been applied at Sudanese Thermal Power Generation Company (STPG), the most important results: the proposed customized module proved its success in achieving the objectives of evaluation and improvement and thus improves the overall performance and increase the production of the company.

## KEYWORDS

ERP, Odoo Module, Performance Appraisal, Employee Evaluation

## 1 INTRODUCTION

Enterprise Resource Planning(ERP) software attempts to integrate all departments and functions of a company onto a single integrated computer system by automating the workflows so that the various departments can more easily share information and communicate with each other. A simple ERP software is typically divided into one module per department, e.g. finance, human resources ,helpdesk, marketing, sales, production, warehouse, etc. It supports workflows internal to each module but can manage the customer orders between departments. ERPs were originally part of the back-office and did not handle front-office processes like customer selling or customer trouble ticketing. All these front-office customer related processes can be designated under the term of Customer Relationship Management (CRM) and should

be ideally integrated in ERPs .(Todor Stoilov, Krasimira Stoilova, 2014)

ERP works as a central system, which integrates all traditional enterprise management functions: finance, human resources management, project management, data management, warehouse management, customer relationship management, supplier relationship management, e-business and the internet function . An ERP system can provide the organization with central availability of information and efficiently provisioning of accurate data, communication and service to all customers. ERP systems use database technology and control the information for the company business . ERP applies client/server architecture, using Internet, relational databases and mainframe operating systems . Enterprise resource planning targets the optimization of the company management. The software is decentralized, connects the departments of the enterprise and shares common data with an integrated ERP. (Todor Stoilov, Krasimira Stoilova, 2014)

In spite of the remarkable technological development in business management and running within the companies and relying almost entirely on the software and systems implementation mechanism in the management and organization of the business movement as an example of enterprise resource planning systems ERP But there are some sections within the companies are completing many of their activities By traditional old ways that may not be commensurate with the size of the business and the speed of market transformation which negatively affects the overall performance of the company or enterprise. One of the most negatively affected sections in the case of non-modern business processes is the human resources department which, in turn, deals with all sections of the company depending on the nature of its work as a central section within any business entity, and due to the novelty of various business processes, the lack of alignment with the resources section For the human being of this century the department will lose many of the developments that will negatively affect the evaluation of the employees and make the most of their potential and the work mechanisms of this pivotal section, this can be avoided through the Enterprise Resource Management Program, which is recognized by (ERP) system. (ALMOASHER BUSINESS, 2017)

Employee performance appraisal is a vital process that must be adopted by all the organization for optimizing their performance. Of course, the regular assessment of human resources can bring many benefits. ERP software is widely used today to automate and simplify the appraisal process . (Saritha, 2017)

## 1.1 RESEARCH IMPORTANCE

The importance of the project come from the importance of evaluating and measuring employee performance as it is a continuous process to obtain information about the employee to improve his performance in the future.

## 1.2 Research Objectives

1. To identify the criteria of employee appraisal
2. Customize odoo software to fulfill proposed module based on identified criteria
3. To apply the proposed module and interpret the results

## 1.3 SCOPE OF WORK

This project is a case study of the Sudanese Thermal Power Generating Company which aims to strengthen the use of Employee Performance Evaluation Module (Performance Appraisal) in companies.

## 2 literature review

Performance is the most important aspect in the world of software in general, this study concerned with the concept of performance from a functional point of view, for example this study uses Odoo ERP to perform a certain function (process of evaluating employee) and this is a difference from previous studies that did not care in term of functional aspect. More research is required in this field.

### 2.1 Key Performance Indicator (KPI)

A Key Performance Indicator is a measurable value that demonstrates how effectively a company is achieving key business objectives. Organizations use KPIs at multiple levels to evaluate their success at reaching targets. High-level KPIs may focus on the overall performance of the business, while low-level KPIs may focus on processes in departments such as sales, marketing, HR, support and others. (Kirka)

Here are a couple other definitions:

Oxford's Dictionary definition of KPI: A quantifiable measure used to evaluate the success of an organization, employee, etc. in meeting objectives for performance.

Investopedia's definition of KPI: A set of quantifiable measures that a company uses to gauge its performance over time.

Macmillan's Dictionary definition of KPI: A way of measuring the effectiveness of an organization and its progress towards achieving its goals . (Kirka)

## 3 METHODOLOGY

Human resource management systems are very important in the contemporary era because most of the functionalities taking place within the organization are controlled and maintained by it respectively. Human resource operations are more commonly deciphered as those management skills which is required to administer and organize the working of employees within a

particular enterprise. Moreover, the three pivotal objectives of this department are to assist in the recruitment of staff members, manage the compensation and other benefits regarding the employees, and craft a timesheet solution for the distribution of work among the different departments. (ComstarISA, 2018)

In a nutshell, we can easily deduce that Odoo Human Resources software is exquisite and cost-effective. It feasibly streamlines the recruitment and new talent in order to offer the enterprise with prosperity and popularity. (ComstarISA, 2018)

### 3.1 The Architectural Design of the Odoo

OpenERP is a multitenant, three-tier architecture. The application tier itself is written as a core, multiple additional modules can be installed to create a particular configuration of OpenERP.

The core of OpenERP and its modules are written in Python. The functionality of a module is exposed through XML-RPC (and/or NET-RPC depending on the server's configuration). Modules typically make use of OpenERP's ORM to persist their data in a relational database (PostgreSQL). Modules can insert data in the database during installation by providing XML, CSV, or YML files. (doc.odoo.com)

### 3.2 MVC architecture

According to Wikipedia, "a Model-view-controller (MVC) is an architectural pattern used in software engineering. In complex computer applications that present lots of data to the user, one often wishes to separate data (model) and user interface (view) concerns, so that changes to the user interface do not impact the data handling, and that the data can be reorganized without changing the user interface. The model-view-controller solves this problem by decoupling data access and business logic from data presentation and user interaction, by introducing an intermediate component: the controller." (doc.odoo.com)

### 3.3 Evaluation Criteria

For employee evaluation, there are three types of comparisons that can be made to measure performance, You can compare people to one another, compare a person's current performance to their own past performance, or compare people's performance to consistent criteria. These criteria are determined by the company and each standard has a set of associated indicators (questions).

## 4 IMPLEMENTATION & RESULTS

The system is implemented in the Human Resources section in Sudanese Thermal Power Generating Company (STPG), it consists of the Presidency and the external power plants.

### 4.1 Setting up a host for the Odoo server

We will prefer using Debian/Ubuntu for our Odoo server, even though you will still be able to work from your favorite desktop system, be it Windows, Macintosh, or Linux.

Odoo can run on a variety of operating systems, so why pick Debian at the expense of other operating systems? Because Odoo

is developed primarily with the Debian/Ubuntu platform in mind, it supports Odoo better. It will be easier to find help and additional resources if working with Debian/Ubuntu.

Odoo is guaranteed to work with the current stable version of Debian or Ubuntu. these are Debian 7 “Wheezy” and Ubuntu 14.04 “Trusty Tahr”. Both ship with Python 2.7, necessary to run Odoo. (Reis, 2015)

## 4.2 Installing Odoo from source

Ready-to-install Odoo packages can be found at [nightly.odoo.com](http://nightly.odoo.com), available as Windows (.exe), Debian (.deb), CentOS (.rpm), and source code tarballs (.tar.gz). As developers, we will prefer installing directly from the GitHub repository. This will end up giving us more control over versions and updates.

We can use this script. It shows us how to install Odoo from source in a Debian

system:

```
$ sudo apt-get update && sudo apt-get upgrade # Install system updates
```

```
$ sudo apt-get install git # Install Git
```

```
$ mkdir ~/odoo-dev # Create a directory to work in
```

```
$ cd ~/odoo-dev # Go into our work directory
```

```
$ git clone https://github.com/odoo/odoo.git -b 8.0 # Get Odoo source code
```

```
$ ./odoo/odoo.py setup_deps # Installs Odoo system dependencies
```

```
$ ./odoo/odoo.py setup_pg # Installs PostgreSQL & db superuser for unix
```

User

At the end, Odoo should be ready to be used. The ~ symbol is a shortcut for your home directory (for example, /home/odoo).

To start an Odoo server instance, just run odoo.py:

```
$ ~/odoo-dev/odoo/odoo.py
```

By default, Odoo instances listen from port 8069, so if we point a browser to <http://<server-address>:8069> we will reach that instance. When we are accessing it for the first time, it will show us an assistant to create a new database. (Reis, 2015)

## 4.3 RESULTS

The application of the module has answered the questions of the research. ERP appraisal module improves the evaluating process and management, since the follow up of employee and the appraisal of his performance done automatically according to his record based on identified criteria. The module reviews the performance of the employees over a given period of time. Besides, it judges the gap between the actual and the desired performance. Therefore, it is possible to overcome the personal mistakes of the evaluators. The application of the module aids to diagnose the strengths and weaknesses of the individuals so as to identify the training and development needs of the future, this helps to strengthen the relationship and communication between superior – subordinates and management. Consequently, the module will obviously help the management in exercising organizational control and enhanced the effectiveness of the organization.

## 5 conclusion

This project dealt with an important function of the human resources department in the Enterprises and companies, which is the process of evaluating the employee's performance, where (Odoo Module for Employee Performance Evaluation) was used to measure the employee's performance. The assessment was simple, effective, fair, accepted and satisfactory to all. and the results proved that ( Odoo Module for Employee Performance Evaluation ) is achieving the goals of evaluation and improvement.

In conclusion, the focus of this research was human resources, specially the appraisal of employees; we still need more researches and projects in different part of HR functions and the other functional areas as well.

## 6 RECOMMENDATION

1. Distance from personal bias in the performance appraisal process
2. Regular periodic assessment should be made to improve the overall performance of the company
3. There is a need for further research and future projects to study different size of companies.
4. Integrating IRF(Intelligent Recommendation Framework) with ERP systems provides further improvements in an integrated way

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