

# Implementation of Enterprise Resource Planning (ERP), and Customer Relationship Management (CRM) Systems to Support Business Operations in PT. Wira Pratama

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**Abstract**— This research was conducted to study the project approach and the solutions used from a case study of the implementation of the SAP Business One and SAP Sales Cloud systems at the company PT. Wira Pratama to answer business problems that occur, including problems related to information on sales prospect status, supply chain status information and company profitability conditions. The research was conducted through a qualitative approach with participatory observation methods on the system implementation consultants and company users. Based on the results of the review on the use of the system, the User has become more solid and professional due to the support of accurate data and information for decision making.

**Keywords**— SAP Business One, SAP Sales Cloud, function, business process, interfacing.

## I. INTRODUCTION

PT. Wira Pratama is a trading company engaged in the distribution of valves, pressure systems, and pumps from various brands. PT. Wira Pratama also carries out the assembly process based on customer requests. Currently, various industrial sectors have become customers, including the Oil & Gas, Petrochemical, Geothermal and Power Generation, Pulp and Paper, Biodiesel, Palm Oil Refinery, Chemical, Mining and Water Works industries.

In daily business operations, PT Wira Pratama have several main obstacles, such as:

1. Information related to the Leads prospect that is being held by the Sales department is difficult to know on a periodic basis.
2. Profitability information from a project is not accurate and cannot be known in real-time.
3. Difficulty in controlling the status of imported purchased goods because the purchasing system is not integrated with other departments, especially the Inventory and Sales sections.

Based on the operational problems, PT. Wira Pratama realizes that They needs a system that can integrate every part of the organization. PT. Wira Pratama decided to use SAP Business One as ERP system and SAP Sales Cloud as CRM system. With this research, it is hoped that the implementation approach taken, what solutions are provided from the two

systems and whether the use of the two systems can answer the problems in PT Wira Pratama.

## II. RESEARCH METHOD

The research conducted is descriptive with a qualitative approach, where the researcher makes participatory observations from System Consultant and Users of Wira Pratama who involved in the system implementation. In supporting this research, researchers also obtained primary data sources obtained from written documentation produced in the implementation of ERP systems and CRM systems in Wira Pratama, such as blueprint documents, functional design documents, report design documents, project management control documents and other documents.

## III. RESULT & DISCUSSION

### A. Scope of Implementation of Modules and Functions

The SAP Business One system is an ERP software developed by SAP which is intended for small and medium-sized companies to support better business operations because it provides modules and functions that are integrated with each other. PT. Wira Pratama implements the SAP Business One system with the following standard modules and functions.

In addition to the standard functions used in the SAP Business One system, there are several business processes that need to be customized to support operations in the Purchasing and Accounting sections, the following are additional functions that are customized:

#### 1. Add-on E-Faktur.

This additional function serves to create input tax reports and output tax reports in the form of a csv file that must be reported to the Indonesian tax directorate through the e-faktur system.

#### 2. Add-on Inbound Delivery.

The Inbound Delivery add-on is used to support the import purchase process, which is mostly done by PT Wira Pratama to meet stock of goods. With this add-on, Purchasing users can store information related to ready-to-ship goods, actual delivery time from the port of origin, estimated and actual time arrival at the port of destination, estimated and actual time arrival at the warehouse, detailed

container information and other information. others that are used to coordinate with the Sales and Finance departments. The use of Add-ons also brings benefits for the Warehouse section to know the arrival plan of goods in order to prepare the location for storing goods.

TABLE I. Implemented SAP Business One System Modules and Functions Based on Project Kick-Off Meeting Document

No	Module	Function
1	Sales	Sales Order, Delivery, Return, A/R Down Payment Invoice, A/R Invoice, A/R Credit Memo dan Sales Report.
2	Purchasing	Purchase Request, Purchase Quotation, Purchase Order, Goods Receipt PO, Goods Return, A/P Down Payment Invoice, A/P Invoice, A/P Credit Memo, Landed Cost dan Purchase Report.
3	Inventory	Item Management, Item List, Price List, Batch Management, Bin Location, Goods Issue, Goods Receipt, Inventory Transfer Request, Inventory Transfer, Pick & Pack, Multiple Measurement dan Inventory Report.
4	Production	Bill of Materials, Production Order, Issue for Production, Receipt from Production, Item Cost Calculation dan Production Report.
5	MRP (Material Requirement Planning)	Forecast dan Order Recommendation
6	Banking	Incoming Payment, Outgoing Payment, Payment Wizard dan Check
7	Financials	Chart of Account, Journal Entries, Journal Voucher, Recurring Posting, Budget Management, Cost Accounting, Fixed Asset dan Financial Report.

3. Add-on Auto Goods Receipt PO.

This add-on is used to support the sales process by means of dropship for overseas customers. Sales by dropshipping are very profitable for PT Wira Pratama because they do not require forwarder fees and storage fees to bring goods to Indonesia, but goods from import suppliers will be sent directly to overseas customers.

In strengthening business operations in the Sales section, PT. Wira Pratama implements the SAP Sales Cloud system to record various information related to sales prospects that are project tender and retail sales. The following below are the functions used in the SAP Sales Cloud system:

TABLE II. Implemented SAP Sales Cloud System Functions Based on Project Kick-Off Meeting Document

No	Function
1	Account and Contact Person
2	Lead & Opportunity Management
3	Activity & Visit Management
4	Surveys
5	Sales Analytics
6	Sales Target Planning
7	Price Lists
8	Quotation Management
9	Mobility

B. Project Approach And Implementation Time

The implementation of the SAP Business One system and the SAP Sales Cloud system is carried out in 2 (two) phases. the first phase is implementation of the SAP Sales Cloud system and the second phase is implementation of the SAP

Business One system. Compared to the implementation of 1 (one) phase, implementation in 2 (two) phases is better done by considering the resources involved in the project which can focus more on implementing the system due to the large scope of implementation being carried out.

The implementation project for these two systems started in July 2019 with an implementation duration of 8 (eight) weeks for the SAP Sales Cloud system and 17 (seventeen) weeks for the SAP Business One system.

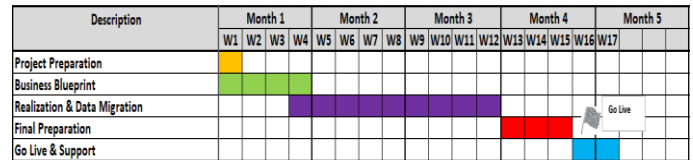


Fig. 1. SAP Business One System Implementation Project Timeline.

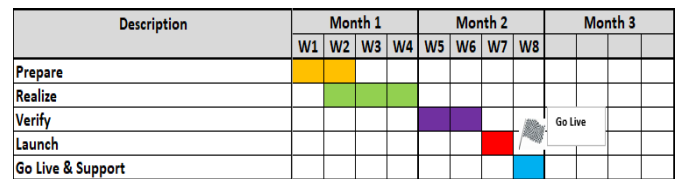


Fig. 2. SAP Sales Cloud System Implementation Project Timeline.

C. Business Process Using SAP Business One System and SAP Sales Cloud

In the use of the SAP Business One and SAP Sales Cloud systems, changes and adjustments occur from existing business process procedures. The following below is the business process flow of PT. Wira Pratama obtained from the blueprint document:

TABLE III. Business Processes in Every Part of the Company's Organization

No	Department	Business Process Name
1	Sales	<ul style="list-style-type: none"> <li>• Sales local without down payment</li> <li>• Sales local with term of payment is Cash Before Delivery</li> <li>• Sales local with down payment</li> <li>• Sales local – collect the invoice after doing partial delivery is done</li> <li>• Sales with retention</li> <li>• Sales export with down payment 100%</li> <li>• Sales export with dropship delivery</li> <li>• Sales service (such as airfreight fee, certification fee and packaging fee)</li> <li>• Sales service for item with non-guarantee</li> <li>• Sales service for item with guarantee</li> <li>• Return item before invoice</li> <li>• Return item after invoice</li> <li>• Return item after payment</li> </ul>
2	Purchasing	<ul style="list-style-type: none"> <li>• Purchase local regular</li> <li>• Purchase local with TOP is cash before delivery</li> <li>• Purchase local with retention</li> <li>• Purchase local with down payment</li> <li>• Purchase service (certification, packing dan testing)</li> <li>• Purchase import – invoice after receiving item</li> <li>• Purchase import with down payment 100%</li> <li>• Purchase import with partial down payment</li> <li>• Purchase import for consignment item</li> <li>• Return item before invoice</li> <li>• Return item after invoice</li> <li>• Return item after payment</li> </ul>

No	Department	Business Process Name
3	Gudang	<ul style="list-style-type: none"> <li>Goods Receipt for Adjustment</li> <li>Goods Issue for item sparepart and accessories</li> <li>Goods Issue for sample item</li> <li>Inventory Transfer between warehouse and bin location</li> <li>Stock Opname</li> </ul>
4	Assembly	<ul style="list-style-type: none"> <li>Production Order-Assembly</li> <li>Production Order-Disassembly</li> <li>Production Order-without change the Item Key</li> <li>Production Order-Service Order</li> </ul>
5	Finance	<ul style="list-style-type: none"> <li>A/R Invoice and Incoming Payment (Cash/Bank Transfer/Giro)</li> <li>A/R Invoice and Incoming Payment - Customer not yet known</li> <li>Incoming Payment –Principal Commision</li> <li>Incoming Payment – Wajib Pungut</li> <li>A/P Invoice and Outgoing Payment Vendor (Cash/Bank Transfer/Giro)</li> <li>Outgoing Payment with different currency</li> <li>Outgoing Payment with employee cash advance</li> <li>Outgoing Payment with petty cash of branch</li> </ul>
6	Accounting	<ul style="list-style-type: none"> <li>Recurring Journal</li> <li>Journal Template</li> <li>Exchange Rate Differences</li> <li>Budgeting</li> <li>Purchase fixed asset</li> <li>Sales fixed asset</li> <li>Period End Closing</li> </ul>

D. Interfacing Between SAP Business One System and SAP Sales Cloud

Cooperation and coordination between Sales and back-end departments (purchasing, finance and logistics) is very important for Wira Pratama. This is done as a commitment promised by the Sales department to the Customer can be fulfilled regarding the availability of goods and timeliness in sending goods to the Customer. Based on this, it is necessary to have system interfacing between the SAP Business One and SAP Sales Cloud systems. Interfacing objects in both systems include product items, customer accounts, customer contact, pricing and sales quotations.

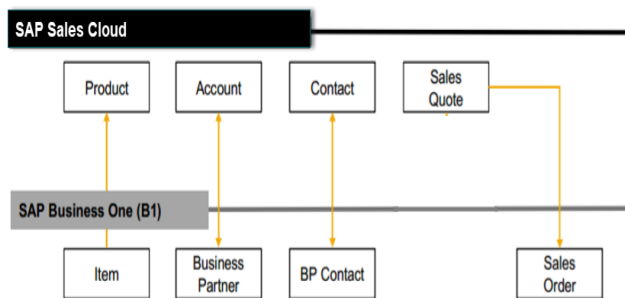


Fig. 3. Interfacing Objects Between SAP Business One System and SAP Sales Cloud

The following is a detailed specification of each object that needs interfacing:

1. Product

Interfacing type: one way from SAP Business One system to SAP Sales Cloud system.

TABLE IV. Mapping Object Field “Product”

Item Field (SAP Business One)	Product Field (SAP Sales Cloud)
Item Code	Product ID
Item Group	Product Category ID
Item Name	Description
UoM	Measurement

2. Account

Interfacing type: two-way, from the SAP Business One system to the SAP Sales Cloud system and vice versa.

TABLE V. Mapping Object Field “Account”

Account Field (SAP Sales Cloud)	Account Field (SAP Business One)
ID	BP Code
Name	BP Name
Phone	BP Phone
Fax	BP Fax
Website	BP Website
Address[]	Ship To/Bill To
Contact[]	BP Contact
Parent Company (account)	Parent Company

3. Contact

Interfacing type: two-way, from the SAP Business One system to the SAP Sales Cloud system and vice versa.

TABLE VI. Mapping Object Field “Contact”

Contact Field (SAP Sales Cloud)	Contact Person Field (SAP Business One)
ID	Person ID
Name	Person Name
Phone	Person Phone
Email	Person E-mail
Mobile	Person Mobile
Title	Person Title
Job	Person Job
Function	Person Function
Address[]	Person Address
Account - ID	BP Code

4. Sales Quote

Interfacing type: one way from SAP Sales Cloud system to SAP Business One system.

TABLE VII. Mapping Object Field “Sales Quote”

Sales Quote Header (SAP Sales Cloud)	Sales Order (SAP Business One)
ID (no Quotation)	Quotation Number
Account	Customer Code
Ship-to (address)	Ship To
Request Date	Document Date
Payment Term	Payment Term
Delivery Date	Delivery Date
Posting Date (only admin SO can input)	Posting Date (PO Date confirmation by sales)
Overall Discount (Percentage)	Discount Percentage
Discount Amount (fixed value)	Discount Amount
Customer PO Number (input by AE)	Customer reference number
Currency	Currency
VAT information (Option: Non VAT out, with VAT out, bounded zone)	VAT information (Accounting will identified VAT at Invoice Transaction)

Sales Quote Detail (SAP Sales Cloud)	Sales Order (SAP Business One)
Product – ID	Item Code
Product – Description	Item Name
Price	Unit Price
Quantity	Quantity
Discount (Percentage)	Discount (Percentage)
Vendor Price	Vendor Price
AE Price	AE Price
Vendor Name	Vendor Name

**E. Success Factors for SAP Business One and SAP Sales Cloud System Implementation**

In implementing both of systems, System Consultant and Users of Wira Pratama work together in paying attention to 4 (four) factors so that the Go-Live system process can run well and successfully, following below:

**1. Data Factor**

Master data (item master, customer master, vendor master and others) and opening balance data (data ending stock balance, accounts receivable balance, accounts payable balance and other general ledger account balances) are well prepared and accurate. User understands that if the data entered into the system is incorrect and inaccurate data, then the resulting information will be incorrect and invalid for use.

Users are required from Wira Pratama that is specifically responsible for collecting master data and opening balance data and both parties always hold regular meetings to discuss the status of master data collection and opening balance data.

**2. System Factor**

System Consultant who carries out the implementation performs the configuration, setting and development of the system properly by running an internal testing procedure mechanism through a comprehensive testing scenario. The process of implementing the User Acceptance Test (UAT) is carried out with focus and seriousness by Users to produce a system with goods quality.

**3. Infrastructure Factor**

The condition of the User's computer meets the standard hardware specifications of both the system and the computer network along with the internet connection runs stably so that there are no problems in the future after the

Go-Live system.

**4. Resource Factor**

Each User participates in training activities and is directed to be able to understand the use of the system and understand the business processes that occur within the company.

**IV. CONCLUSION**

Based on the process of reviewing the use of the system by System Consultant, which was carried out through observation, interviews with Users. PT. Wira Pratama obtained positive results due to improvements in procedures and speed in obtaining information related to information on the development of tender prospects, information on the purchase status of imported goods, information on the profitability of a project and other information used for decision making. Before using the SAP Business One and SAP Sales Cloud systems, the Sales, Purchasing and Logistics departments always had misunderstandings that created a bad and unhealthy working atmosphere. But now the working atmosphere is starting to change to be solid and professional working relationship has begun.

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