Functional Documentation- Orderbook

1.0 Overview

Business Context and Application Overview

The Orderbook contains reports in BW providing an overview of Sales Orders, Purchase Orders (transfers), Sales Order Lines, Schedule Lines, Deliveries, and Invoices. The relevant data is sourced from SAP/ERP/PF1&WP1. These reports serve to various stakeholders, including those in business, top management, and finance. Additionally, there are reports designed to provide insights for the supply chain team.

Application User Profile

Target Users:

Business, Top management, and Finance

Pricing team

Supply chain team

VERSION	DATE	MODIFIED BY	DESCRIPTION
0.01	06.10.2023	Azadeh Nasiri	Initial draft

Application Type

Data Product Type	☐ Dashboard ☑ Report ☐ Advanced analytics ☐ AI ☐ Others <specify which one>
Technologies	☑ BW ☐ Tableau ☐ Qliksense ☐ Talend ☐ Dataiku ☐ Others <specify which one>
Data Sources *Note: list of all applications and various environment*	☑ SAP PF1 (Production environment) ☑ SAP WP1 ☐ SAP PI1 ☑ BW (versions) ☐ iCare CRM ☐ CORE CRM ☑ Others <NON SAP ERP >

2.0 Business Process

From a business perspective, the Orderbook provides users with estimated expected results in terms of **sales** for various timeframes: The current month, The month following the current month (M+1), Two months ahead (M+2), and Starting from the third month ahead (M+3 onwards).

These estimates includes both quantity and turnover, allowing users to have a view of sales in these timeframes.

The process begins with a customer service creating an order in SAP. This initial order document undergoes a series of steps, each managed by different teams at various points in time. For example, following the creation of the order document, the logistics team generates a delivery document related to the order. This step includes tasks such as planning for packing and picking, as well as any necessary preparations at the plant for transport. Subsequently, another team responsible for transport planning gets involved. They generate a shipment document that is related to the previously created delivery document. Consequently, a chain of documents is established, with each document following the other in sequence, each managed by different teams.

The Orderbook utilizes these documents to determine the best estimated invoicing date or the most accurate estimation for when the product will leave the plant. This determination is based on the most up-to-date and relevant information obtained from the interconnected documents.

It's important to note that these reports are highly dynamic due to the nature of our business processes. Orders can change, which impacts the results from one day to another. Therefore, the reports are loaded on a daily basis. As a result, we do not retain historical data, and we provide only snapshots based on new data loaded from SAP to BW.

3.0 Application Feature Overview

Orderbook reports included in the global sales folder in BW are categorized in three main folders as below.

1) SO folder

Related to Sales Orders: it is about sales order documents placed in SAP/PF1 system. These reports include sales orders which are Invoiced within the reporting period, Open (planned to be invoiced by the end of reporting period), Shipped but not yet billed (this includes items that have left as planned and are on the way to the customer; the invoicing timing may vary depending on the agreed incoterms).

2) PO folder

Related to Purchase Orders (transfers): it is about moving of orders from one plant to another, mainly called stock transfers. There are two types: a) int ernal that involves moving orders from one plant to another within the same company (UB document in SAP). 2) intercompany that involves moving orders from one plant to another, but in this case, the plants belong to different companies under the Solvay umbrella (NB document in SAP).

3) PO + SO (includes both)

For more details about sales order and purchase orders (transfers) see the links below.

Sales Order

Purchase Order (Transfers)

Category	Detailed		Technical name	Type
PO Purchase order (transfers)		Order Book: PO - Invoiced (Current Month)	BE_WBK_MVSDSO47_003	Invoiced
		Order Book: PO - To be Issued (Open Order)	BE_WBK_MVSDSO47_002	To be Issued
	×	Order Book (PO): To be Issued (Snapshot)	BE_WBK_MVSDSO47_001	To be Issued
SO Sales Order		Order Book: Invoiced (Current Month)	BE_WBK_MVSDSO41_SD008	Invoiced
		Order Book: To be Invoiced	BE_WBK_MVSDSO41_SD011	To be Invoiced
		Order Book: To be Invoiced (Open Order)	BE_WBK_MVSDSO41_SD006	To be Invoiced
		Order Book: To be Invoiced (Shipped not Billed)	BE_WBK_MVSDSO41_SD007	To be Invoiced
		Order Book: To be Issued	BE_WBK_MVSDSO41_SD012	To be Issued
		Order Book: To be Issued (Open Order)	BE_WBK_MVSDSO41_SD001	To be Issued
		Order Book: To be issued (Shipped Not Billed)	BE_WBK_MVSDSO41_SD002	To be Issued
	×	Order Book: To be invoiced (Snapshot)	BE_WBK_MVSDSO41_SD004	To be Invoiced
	×	Order Book: To be invoiced + Contribution WP1 (Snapshot)	BE_WBK_MVSDSO41_SD014	To be Invoiced
	×	Order Book: To be issued (Snapshot)	BE_WBK_MVSDSO41_SD003	To be Issued
	×	Order Book: To be Recognized (Snapshot)	BE_WBK_MVSDSO41_SD013	To be Recognized
SO+PO		Order Book (SO+PO): Invoiced	BE_WBK_MVSDSO49_SD004	Invoiced
		Order Book (SO+PO): To be Issued (Open Order)	BE_WBK_MVSDSO49_SD002	To be Issued
		Order Book (SO+PO): To be Issued (Shipped not Billed)	BE_WBK_MVSDSO49_SD003	To be Issued
	×	Order Book (SO+PO): To be Issued (Snapshot)	BE_WBK_MVSDSO49_SD001	To be Issued

4.0 Functional Specification

4.1 General Data/Calculations

4.2 Process Detail

The "Sales and Distributions" folder within BW contains 14 workbooks, all related to orderbook data. These reports can be categorized into two main categories: "To be Invoiced" and "To be Issued."

1. **To be Invoiced:**
    - This category provides the best estimation of incoming results expected by the end of the current month and for future months.
    - It is based on the sales orders placed in the SAP system.
    - For each sales order, it determines the expected date for invoicing, also known as the billing date.
2. **To be Issued:**
    - This category is primarily intended for the supply chain team.
    - It offers the best estimation of deliveries to be issued by the end of the current month and for upcoming months.
    - It determines the expected date for issuing these deliveries or provides the best estimation of when the product will leave the plant.

4.2.1. Report/Process Definition

The details of the two main flows of the orderbook are as follows:

Orderbook: To be invoiced

> Orderbook: with Contribution Margin The Order Book with contribution margin (integrated or standard) is provided for the To Be Invoiced part, for the shipped not billed part and for the open order. You can find here details on the rules and calculations applied on the report.
>
> Orderbook: To Be Recognized It is initially requested by technology solution to see the sales result from financial perspective (not sales perspective). For that, when a sales order is delivered to the customer considered for revenue. There are criteria to consider a sale order as a recognized sales order to generate the report.

Orderbook: To be issued

Indexes

PUQ	Unit prompt quantity. It is the unit quantity chosen when the report is refreshed. Can be: KG, VKG, TO...
CP	Prompt Currency. It is the currency chosen when the report is refreshed. Can be USD, EUR, BRL...
CO	Order Currency. It is the currency which the sales order was placed.
CR	Reference Currency. It is the currency of the legal company responsible for the sales.

Gross Sales and Net Sales

The **Gross sales** value is available for the order line and for the billing line. Regarding the pricing conditions of each documents, the value corresponds to the basic price.
To determine the **Gross sales** we follow the rules below:
From the pricing conditions, considers the condition type which is in the condition class “B” (price).
The condition price must have an Account type.
The condition price cannot be a statistical condition.
The condition must to be active.

The **Net sales** is available for the order line and for the billing line. Regarding the pricing condition of each documents, the **Net sales** is calculated according to the following formula:
Net Sales = Gross Sales + Discounts&Surcharges + Rebates
NOTE: Commissions are not considered

More detail is available in: Gross Sales & Net Sales

Exchange Rate Method

Document type	Exchange rate
Sales Order	Exchange rate from the day the sales document was created
Open Order	Current Month: average monthly exchange rate M+1, M+2, M>2: forecasted exchange rate defined in BFC
Invoiced values	Exchange rate from the day the billing document was created

Order/Invoiced values in Reference Currency (CR)	The rate coming from the ERP: Based on the billing date for the invoiced value Based on the sales item creation date for order l

4.2.2. KPI's/Calculations/Indicators

ASP: Average Sales Price = Order line Net value / Order line QTY
Estimated Contribution Margin (Open Order): Turnover To be Invoiced current Month (-) Unit Costs * Quantity To be Invoiced current Month
Invoiced Gross Sales M: Gross Revenue invoiced on the month M
Open Order Cust. pick-up Net value M: Total on revenue for sales orders not yet issued and not yet invoiced, with the TO BE INVOICED DATE on the month M. Just for the shipping conditions = Customer Pick up. This works as an alert to show how much from the Open Orders Qty M have a risk to not be invoiced by the end of month M
Open Order Cust. pick-up QTY M: Total on quantity for sales orders not yet issued and not yet invoiced, with the TO BE INVOICED DATE on the month M. Just for the shipping conditions = Customer Pick up. This works as an alert to show how much from the Open Orders Qty M have a risk to not be invoiced by end of the month M
Open Order M Last 5 days Net value: Total on revenue for sales orders not yet issued and not yet invoiced, with the TO BE INVOICED DATE in the past 5 days
Open Order M Last 5 days QTY: Total on quantity for sales orders not yet issued and not yet invoiced, with the TO BE INVOICED DATE in the past 5 days
Open Order Net value M: Total on Revenue for sales orders not yet issued and not yet invoiced, with the TO BE INVOICED DATE on the month M
Open Order QTY M: Total on quantity for sales orders not yet issued and not yet invoiced, with the TO BE INVOICED DATE on the month M
Open Order with conf. qty M: Total on quantity for sales orders not yet issued and not yet invoiced, with the TO BE INVOICED DATE on the month M. It shows how much from the Open Orders Qty M have a confirmed quantity after ATP analysis
Open Order with conf. qty Net value M: Total on Revenue for sales orders not yet issued and not yet invoiced, with the TO BE INVOICED DATE on the month M. It shows how much from the Open Orders Qty M have a confirmed quantity after ATP analysis
Shipped not Billed Net Value M: Total on revenue for sales orders that have been issued (with Actual GI Date) on the month M, but not yet invoiced
Shipped not Billed QTY M: Total on quantity for sales orders that have been issued (with Actual GI Date) on the month M, but not yet invoiced
To Be Invoiced Net value < M: Total on revenue for sales orders not yet issued and not yet invoiced, with the TO BE INVOICED DATE on the past. This brings in evidence sales orders that must be changed or closed
To Be Invoiced Net value M: Total on revenue for sales orders not yet issued and not yet invoiced, with the TO BE INVOICED DATE on the month M. This brings in evidence sales orders that must be changed or closed
To Be Invoiced Net value M+1: Total on Revenue for sales orders not yet issued and not yet invoiced, with the TO BE INVOICED DATE on the month M+1
To Be Invoiced Net value M+2: Total on revenue for sales orders not yet issued and not yet invoiced, with the TO BE INVOICED DATE on the month M+2
To Be Invoiced Net value M>2: Total on Revenue for sales orders not yet issued and not yet invoiced, with the TO BE INVOICED DATE on the month M+3 on
To Be Invoiced QTY < M: Total on quantity for sales orders not yet issued and not yet invoiced, with the TO BE INVOICED DATE on the past. This brings in evidence sales orders that must be changed or closed
To Be Invoiced QTY M: Total on quantity for sales orders not yet issued and not yet invoiced, with the TO BE INVOICED DATE on the month M. This brings in evidence sales orders that must be changed or closed
To Be Invoiced QTY M+1: Total on quantity for sales orders not yet issued and not yet invoiced, with the TO BE INVOICED DATE on the month M+1
To Be Invoiced QTY M+2: Total on quantity for sales orders not yet issued and not yet invoiced, with the TO BE INVOICED DATE on the month M+2

To Be Invoiced QTY M>2: Total on quantity for sales orders not yet issued and not yet invoiced, with the TO BE INVOICED DATE from the month M+3 on
To be Invoiced Total Net value: Total on revenue that remains to be delivered. To calculate it, subtract the Order line quantity to what was already issued or invoiced multiplied by the order line price
To be Invoiced Total QTY: Total on quantity that remains to be delivered. To calculate it, subtract the Order line quantity to what was already issued or invoiced.
To Be Issued Net value M+1: Total on revenue for sales orders with the TO BE ISSUED date on the month M+1
To Be Issued Net value M+2: Total on revenue for sales orders with the TO BE ISSUED date on the month M+2
To Be Issued Net value M>2: Total on revenue for sales orders with the TO BE ISSUED date on the month M+3 on
To Be Issued QTY M+1: Total on quantity for sales orders with the TO BE ISSUED date on the month M+1
To Be Issued QTY M+2: Total on quantity for sales orders with the TO BE ISSUED date on the month M+2
To Be Issued QTY M>2: Total on quantity for sales orders with the TO BE ISSUED date on the month M+3 on
TOTAL ASP: Total Average Sales Price = Total Net value / Total QTY
TOTAL CONF ASP: Total Average Sales Price = TOTAL CONF Net value / TOTAL CONF QTY
TOTAL CONF Net value: Open order with conf qty Net value M + Shipped not billed Net value M + Invoiced Gross sales M
TOTAL CONF QTY: Invoiced QTY M + Shipped not billed QTY M + Open order with conf qty QTY M
TOTAL Net value: Invoiced Gross Sales M + Shipped not Billed Net Value M + OPEN ORDER Net value M

5.0 Non-functional Descriptions

5.1 Usability

5.2 Regulatory Compliance

5.3 Security

5.4 Performance

5.5 Reliability

5.6 Scalability

5.7 Compatibility

5.8 Availability

5.9 Refresh of the Data

Daily basis is refreshed (there is no history for orderbook reports)