

SAP data analytics master class
Live session 13: SO versus PO:
O02_01: retroactive, O02_02/
O02_13: low prices, O02_03:
Block/un-block, O02_04:
Extended payment terms,

26th May 2026

The Live Session will start soon

Objectives

The background of the slide is a grayscale collage of various business scenes. It includes several individuals in professional attire, some in meetings, some working at desks with computers, and one person talking on a mobile phone. The overall theme is corporate and professional.

Compare the sales order data to the purchase order data

Remember how to compute prices

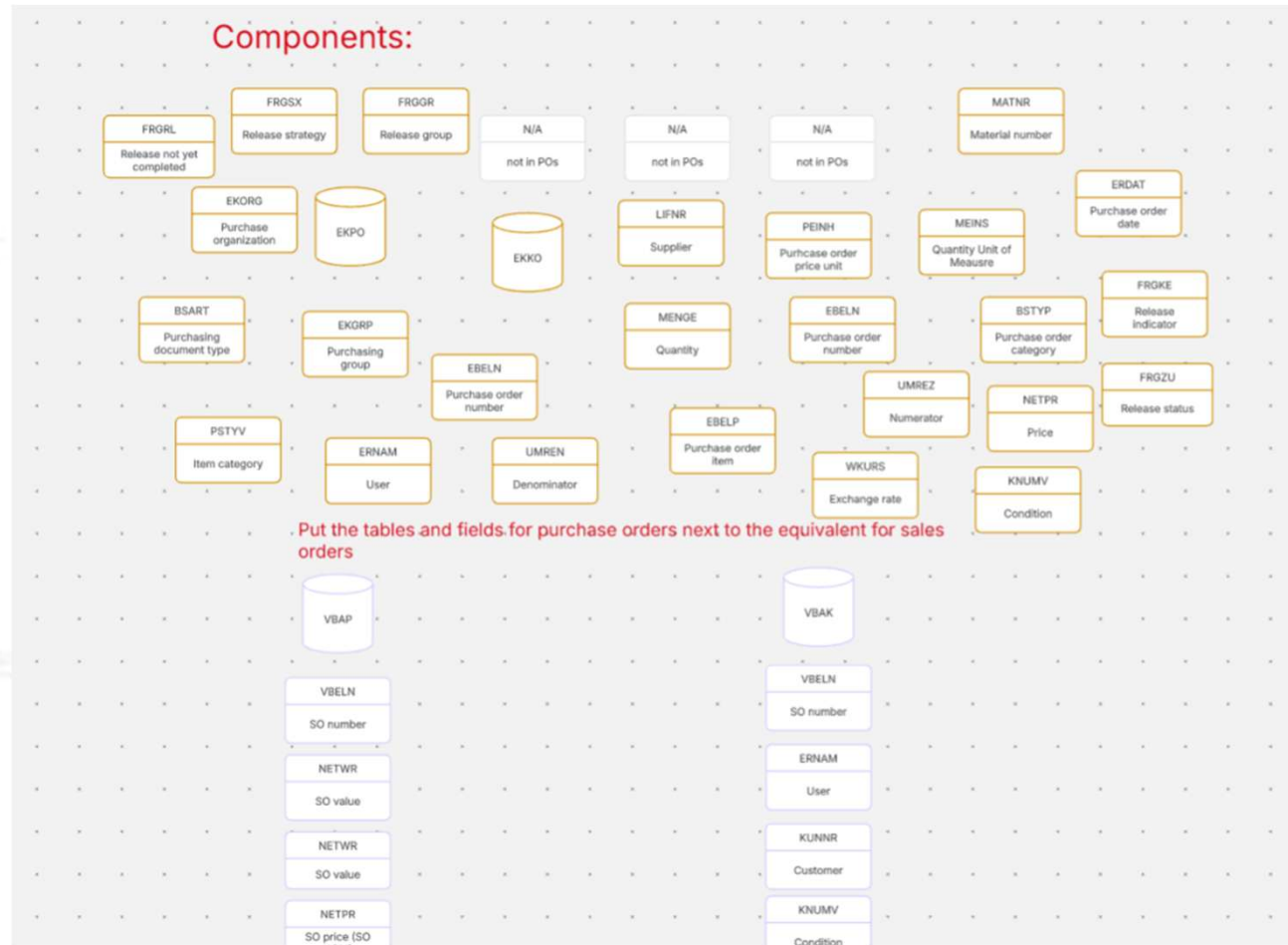
Remember how payment terms works

Remember how blocks work – change document tables

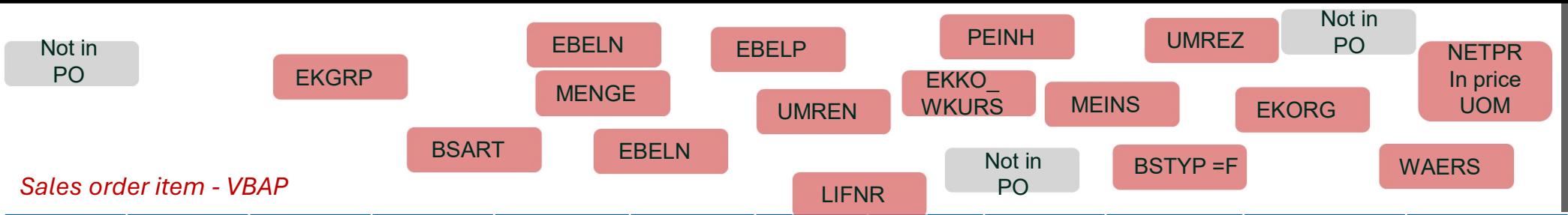
Understand the risks relating to sales orders

Sales orders compared to purchase orders

We can learn the sales order data quickly by comparing to the purchase order data



Sales orders compared to purchase orders



Sales order item - VBAP

VBELN	POSNR	NETWR	NETPR	KWMENG	KPEIN	VRKME	MATNR	PSTYV	UMZIZ	UMZIN	STCUR
Number	Item	Value	Price (in sales order UOM)	Sales order qty	Price unit	Sales order UOM	Material	Category	Numerator SO UOM to base	Denominator SO UOM to base	Exchange rate

Sales order header - VBAK

VBELN	ERNAM	KUNNR	KNUMV	VBTYP	AUART	ERDAT	VKORG	VKGRP	SPART	VTWEG	WAERK	KURST
Number	User	Customer	Condition	Category = C	Class	Date	Sales org.	Sales group	Division	Channel	Currency	Rate type

Price calculations: similar except PO was in price unit of measure & SO is in SO unit of measure

How do we calculate the price in base unit of measure?

Because price is *per* item, we take the *reciprocal* of the conversion ratios for multiplication to the price *per* item

Price in base UOM = $(EKPO_NETPR / EKPO_PEINH) * (EKPO_BPUMN / EKPO_BPUMZ)$

Price in base UOM = $(VBAP_NETPR / VBAP_KPEIN) * (VBAP_UMZIN / VBAP_UMZIZ)$

VBAP only has sales order to base conversion factors – it doesn't need price to base conversion factors

Sales order price is in sales order unit of measure – not price unit of measure

Sales order tests – retroactive sales orders

What is the risk for retroactive sales orders

Additional risk here?



Table 3/ Invoices relating to retroactive sales orders

Download

Incoming ...	Sales order	Value (loc...)	Value (US...)	Sales ord...	Days diffe...	Days diffe...	User type	Custome...	Creation date	Billing date	Billing do...
3000-0000-00...	0000021990-0...	1,600.00	1,600.00	20220301	28	03. <30 days	-	-	20220301	20220201	F2-

Sales order tests – retroactive sales orders

O02_01:Retroactive sales orders

- Compare to goods issues
- Compare to billing documents

MKPF_LE_VBELN = LIPS_VBELN
MSEG_MATNR = LIPS_MATNR

LIPS_VGBEL = VBAP_VBELN
LIPS_VGPOS = VBAP_POSNR

MSEG/MKPF – a bit like
BSAK/BSIK/BSAD/BSID --- we
have to split it into those
relating to purchase orders
and those relating to sales
orders

EKPO_EBELN = MSEG_EBELN
EKPO_EBELP=MSEG_EBELP

For purchase orders we can
link directly to the stock
movements – for sales orders,
we go via the deliveries

Sales order tests – low value/ low value generic

Chart 2/ Number of sales orders with low value
Per material

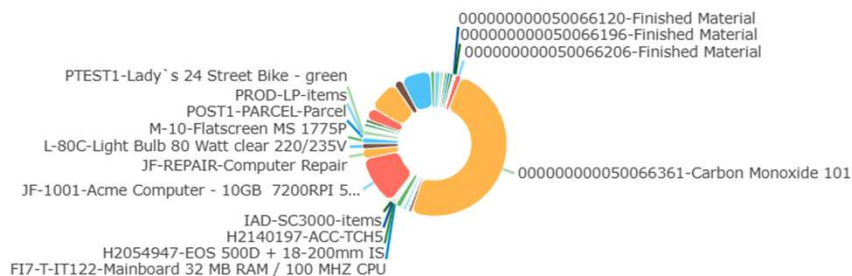


Chart 3/ Number of sales orders with low value
Per material group

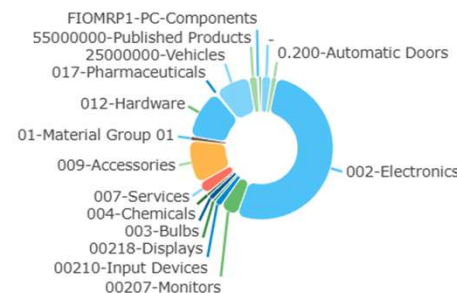


Table 1/ Sales orders with low value

Download

Select for...	Comment	User	Customer	Company	Sales order	Value (local)	Value (USD) ↑	Low value threshold	Sales ord...	Time
<input type="checkbox"/>		STUDENT042-...	0000009170-	3000-BestRun...	0000022025-1...	-3,000.00	-3,000.00	100.00	20220506	131
<input type="checkbox"/>		STUDENT042-...	0000009170-	3000-BestRun...	0000022024-1...	-3,000.00	-3,000.00	100.00	20220506	130
<input type="checkbox"/>		STUDENT038-	T-S66A13-	1000-BestRun	0000022348-11	0.00	0.00	100.00	20230524	113

Sales order tests – low value/ low value generic

20260526_01_HowWouldYouDetermineLowValue?

1. How would you determine low value? (Multiple choice)

- Compare to other customers
- Compare to the same material for the same customer
- Compare to other entities
- Compare to the Cost Of Goods Sold
- Compare to the market price

Sales order tests – low value/ low value generic

O02_02: Low value sales orders

O02_05: Low value sales orders with generic materials



Reduce price



Black market

Sales order tests – low value/ low value generic

20260521_02_HowWouldYouRateTheRisk?

1. How would you rate the risk for low value sales orders? (Rank order)

	01: Very important	02: Quite important	03: Not so important	04: Not important
Loss of revenue: Reduced finances for re-investment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Black market: quality control/ brand erosion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Corruption: fine from SEC under FCPA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Negative margin: Erosion of working capital	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fine for dumping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Brand erosion: reduced perception of value	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Sales order tests – low value/ low value generic

20260526_03_HowToDeterminelfItIsGeneric?

1. How can you determine if a sales order is for a generic material? (Multiple choice)

- Multiple sales orders with same material number and widely varying price per base unit of measure
- Material category is for generic material (MARA_ATTYP = 01)
- Key word search: Check if the material description matches a key word
- Artificial Intelligence: statistical comparison to a list of words that mean generic: Check if the material description sounds generic
- Artificial Intelligence: basic model: meaning search to a list of words that mean generic: check if the material description sounds generic
- Artificial Intelligence: LLM model: (Gemma/ openAI) check if the material description sounds generic

Payment terms

O02_04: Extended payment terms

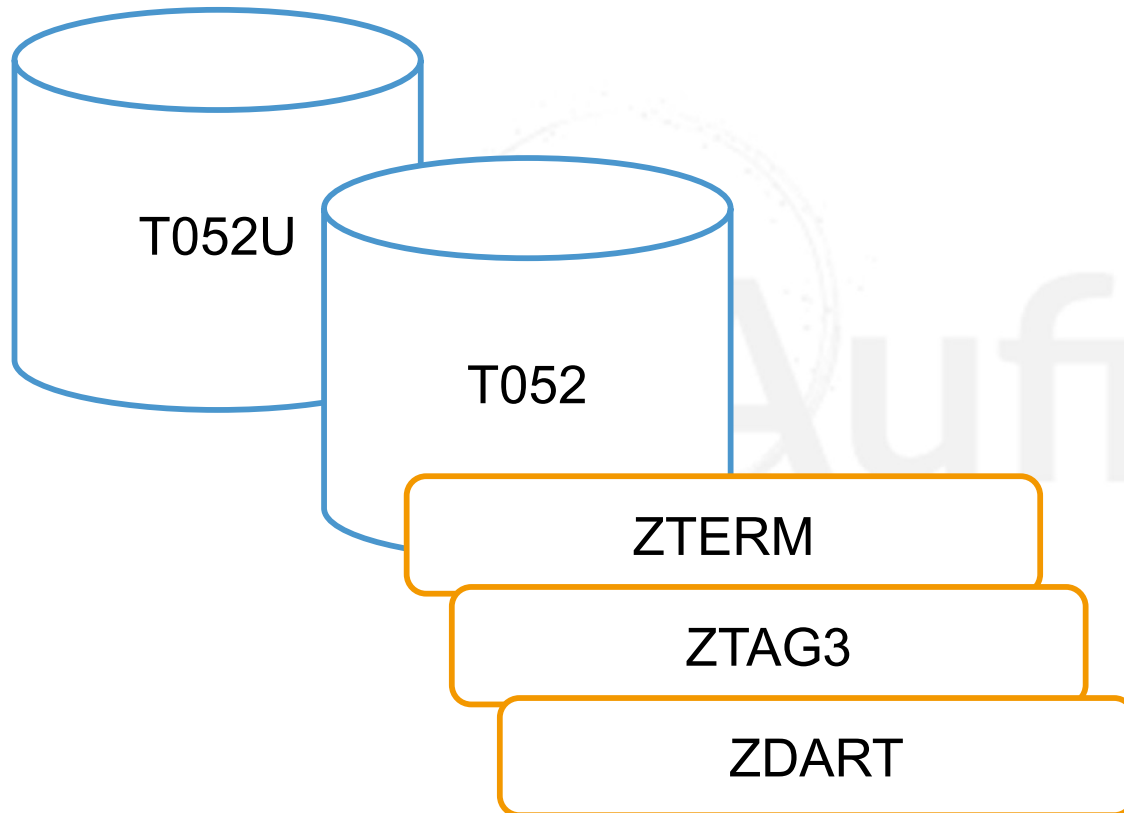
Letting customers pay late – could be considered a bribe!

Table 1/ Detailed list of sales orders with extended payment terms

Download

Select for...	Comment	User	Customer	Company	Sales order	Value (loc...	Value (US...	Days to d...	Days to d...	Payment ...	Payment ...	Differenc...	Differ	
<input type="checkbox"/>			STUDENT069-...	T-S66A13-	1000-BestRun...	0000022332-10	180,000.00	266,400.00	90	30	14 days 3%, 3...	14 days 3%, 3...	60	06
<input type="checkbox"/>			STUDENT069-...	T-S66A13-	1000-BestRun...	0000022330-10	360,000.00	532,800.00	90	30	14 days 3%, 3...	14 days 3%, 3...	60	06
<input type="checkbox"/>			STUDENT045-...	0000001000-	1000-BestRun...	0000022537-10	13,500,000.00	12,825,000.00	90	30	14 days 3%, 3...	14 days 3%, 3...	60	06
<input type="checkbox"/>			STUDENT055-...	T-S66B01-	1000-BestRun...	0000022358-10	60,000.00	88,800.00	90	30	14 days 3%, 3...	14 days 3%, 3...	60	06
<input type="checkbox"/>			STUDENT055-...	T-S66B01-	1000-BestRun...	0000022357-10	60,000.00	88,800.00	90	30	14 days 3%, 3...	14 days 3%, 3...	60	06

Reminder of the tables for payment terms



Block unblock

O02_03: Transactions whilst blocked

Block- unblock logic – same as for suppliers

Download

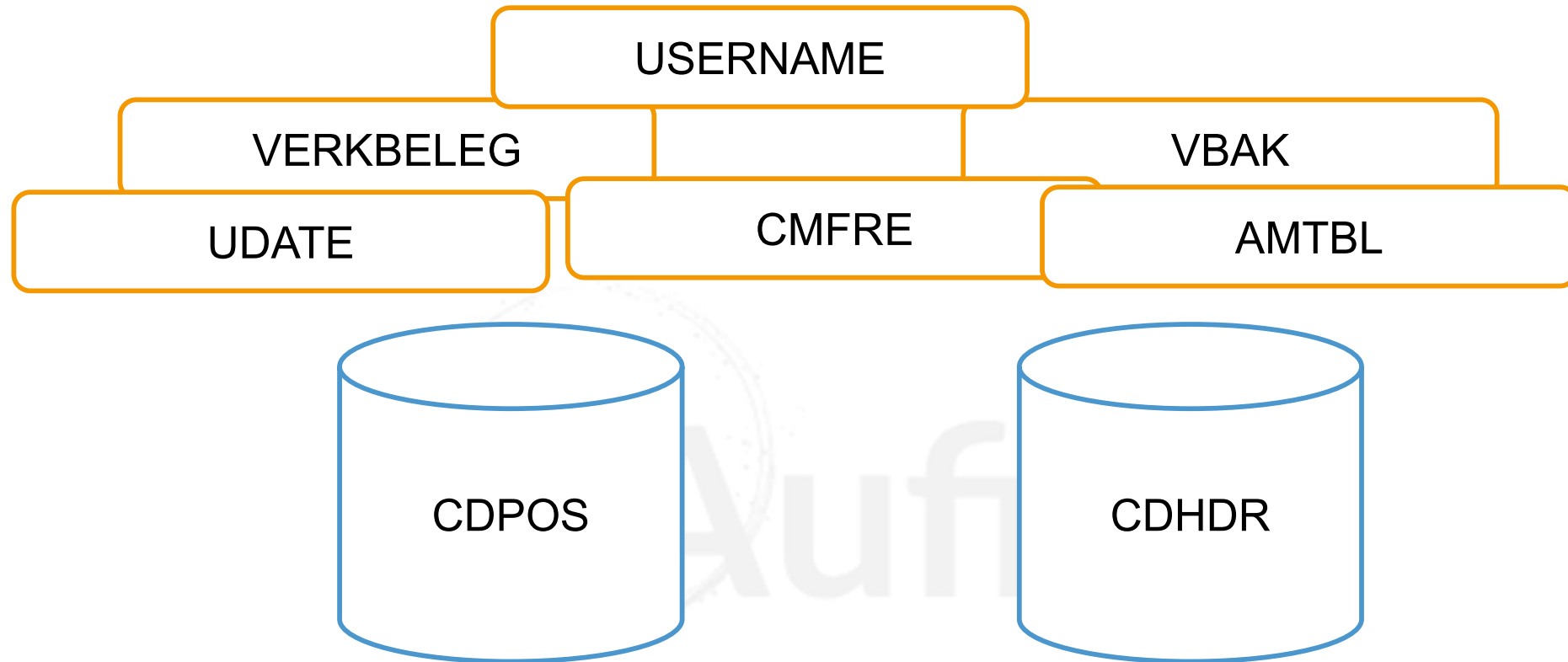
Select for...	Comment	User	Customer	Company	Sales order	Value (loc...	Value (US...	Block flag...	Block flag...	Sales ord...	Central d...	Central d...	Centra
<input type="checkbox"/>			STUDENT069-...	0000100411-T...	1000-BestRun...	0000022366-10	9,000.00	13,320.00	KNA1_SPERR	Central postin...	20230610		

Table 2/ Block/ unblock information

Download

Select for...	Comment	User	Customer	Change document ...	Table name	Field name	Update date	Value old	Value new
<input type="checkbox"/>			STUDENT016	0000100411	0001522353	KNA1	SPERR	20230830	X
<input type="checkbox"/>			STUDENT076	0000100411	0001504316	KNA1	SPERR	20221217	X

Change tables for block/ unblock



Questions?

