1159543 - Modules for reading sales prices

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Component	LO-MD-RPC (Retail Pricing)		

Please find the original document at https://launchpad.support.sap.com/#/notes/ 1159543

Symptom

In the sales price calculation environment, there are some function modules that can also be used by other applications for reading sales prices.

This note lists the modules with their scope of functionality to help you choose the most suitable module for sales price determination in a specific application.

Basic advantages and disadvantages of the module:

The correct choice if you are interested in the sales price that is currently valid (that is, for a defined key date):

- SALES_PRICE_READ:

    - Works with standard pricing (function module PRICING) and therefore has an affect on performance.

    - Returns ALL condition types of the pricing procedure.

    - Returns scales.

- SALES_PRICE_DIRECTLY_READ:

    - Delivers optimal performance compared to SALES_PRICE_READ since it reads the condition table entries directly (with the module CONDITION_RECORD_READ) and does not call the function module PRICING.

    - Customizing for the sales price calculation must be maintained for the module to be used. The module reads the prices (condition type, pricing procedure, and so on) according to how they are saved in the sales price calculation.

    - Returns only the SALES PRICES from the sales price calculation.

    - Does not return scales.

The correct choice if you are interested in sales prices within a time interval (or analysis period):

- SALES_CONDITIONS_READ:

- Affects performance since it in turn calls the module SALES_PRICE_READ, which works with the standard module PRICING (see above).

- Returns only the sales conditions (?).

- Returns scales.

- SALES_CONDITIONS_DIRECTLY_READ:

  - Called via call of the module SALES_CONDITIONS_READ with the parameter PI_DIRECT_READ = 'X'.

  - Optimal performance: Direct access to the condition tables with the module CONDITION_RECORD_READ.

  - Can also return scales when you implement Note 1045588 or if you have Release 500.

  1. Function module SALES_PRICE_READ

Also refer to the function module documentation for the module:

'..... You use this function module for determining sales prices (sales conditions) from the master conditions. The import structure PI_I_SPR contains the information, for which material and for which organizational level the sales prices should be determined. The export structure PESPR transfers data from the import structure, in part supplemented on the basis of a check of the organizational structure. In addition, the structure contains information on the sales price conditions found......'

At least the following fields must be filled in the import structure PI_I_SPR:

MATNR: Material number
An organizational unit for which prices should be found:
VKORG: Sales organization
VTWEG: Distribution channel
WERKS: Plant OR (plant and price list are not allowed at the same time)
PLTYP: Price list
Also:
PRSDT: Key date on which a price should be found
TABKZ: Indicator (entries should be made in the export tables).

Functioning of the module:

First, a pricing procedure must be determined, based on which the sales price is determined:

Either a pricing procedure is assigned to the module in PI_ISPR-VKALS or a pricing procedure is determined as follows:

The procedure from Customizing is used (transaction VOK0 -> Pricing procedure -> Proc.determination or transaction OVKK) -> key distribution chain, document pricing procedure A, and a customer pricing procedure (determined as follows):

- Anonymous customers are determined from the control of the POS inbound profile of the reference site of the distribuition chain (in the plant data); in Customizing: Sales and Distribution -> POS Interface -> Inbound -> Aggregated Sales Control or Control Sales As Per Receipts.

- If this is not maintained, then the reference site is used as the customer. The customer pricing procedure in the sales area data (KNVV-KALKS) entered there is used if it is maintained; otherwise, the initial value of the customer pricing procedure is used.

- If there is no Customizing entry in this key, then the procedure VKP001 is used for a consumer distribution chain; procedure VKP002 is used for a distribution center distribution chain.

The communication structures KOMK and KOMP are then filled.

Finally, the module for determining the conditions is called in a procedure (function module PRICING).

In the end, the export structures PE_I_SPR, PE_I_KOMK, and PE_I_KOMP, and the table PE_T_KOMV are filled with the returned condition records, and (possibly) PE_T_SCALE is filled with the returned scale records.

   1. Function module SALES_PRICE_DIRECTLY_READ

Also refer to the function module documentation for the module:

'..... The sales price is not determined by pricing, but directly by an analysis of the condition table entries. This also gives rise to the name of this function module.

For the transferred organizational level, the system first determines the condition type for the sales or promotion price during pricing. In addition, the system fills the communication structures at the same time as the pricing. The determination of the sales prices is then carried out using the function module CONDITION_RECORD_READ...... '

Unlike the function module SALES_PRICE_READ, the module SALES_PRICE_DIRECTLY_READ does not carry out a performance-intensive pricing with the function module PRICING.

SALES_PRICE_DIRECTLY_READ instead calls the function module CONDITION_RECORD_READ, which processes the access sequences to the sales price. It does not use a pricing procedure.

Another important difference between SALES_PRICE_DIRECTLY_READ and SALES_PRICE_READ is that SALES_PRICE_DIRECTLY_READ does not read or return scales.

In the import structure PI_I_SPR, at least the same fields as in the module SALES_PRICE_READ must be filled: More detailed description: See above.

Functioning of the module:

The condition types that are relevant for the sales price are determined first. This is done based on the sales price calculation Customizing tables TWKAO, TWKG, TWLFE, and TWKZ.

The communication structures KOMK and KOMP are then filled.

The internal table T_KSCHL is then processed with the relevant condition types and the function module CONDITION_RECORD_READ is read for each condition - reads the condition record directly from the database.

Finally, the export structures PE_I_SPR, PE_I_KOMK and PE_I_KOMP, and the table PE_T_VAKE are filled with the returned condition records.

1. Function module SALES_CONDITIONS_READ

Also refer to the function module documentation for the module:

'..... The temporal development of several condition types can be determined simultaneously with this module.....'

At least the following fields must be filled in the import structures:

PI_KVEWE, PI_KAPPL, and PI_DATAB: These fields are filled with default values.
PI_INCFI: Must be selected
PI_MATNR: Article number
PI_WERKS: Plant
The required condition types can be transferred to the module in the table PI_T_KSCHL; if this table is empty, the condition types are read using the POS procedure of the specified branch (function module POS_CUST_ALLOWED_COND_READ).
The system returns the condition records (that have been found) in the table PE_T_SACO.

Furthermore, the module may return the following tables:

PE_T_TAXK: Table with tax codes
PE_T_SCALE: Table with scales
PE_T_KONDN: Table with returned free goods
PE_T_KONDNS: Table with free goods scales

Functioning of the module:

The system first determines the required condition types using the POS procedure of the specified site if the conditions were not assigned to the module in the table PI_T_KSCHL.

The internal work structure PISPR is filled.

The system determines a sales price determination procedure that contains the required condition types. The system proceeds as follows during procedure determination in the module SALES_PRICE_READ:

The procedure from Customizing is used (transaction VOK0 -> Pricing procedure -> Proc.determination or transaction OVKK) -> key distribution chain, document pricing procedure A, and a customer pricing procedure (determined as follows):

- Anonymous customers are determined from the control of the POS inbound profile of the reference site of the distribuition chain (in the plant data); in Customizing: Sales and Distribution -> POS Interface -> Inbound -> Aggregated Sales Control or Control Sales As Per Receipts.

- If this is not maintained, then the reference site is used as the customer. The customer pricing procedure in the sales area data (KNVV-KALKS) entered there is used if it is maintained; otherwise, the initial value of the customer pricing procedure is used.

- If there is no Customizing entry in this key, then the procedure VKP001 is used for a consumer distribution chain; procedure VKP002 is used for a distribution center distribution chain.

The entered condition types and the condition types of the procedure are compared.

A table is set up with periods in which the conditions must be determined; they lie between the PI_DATAB (date from) assigned to the module or the calculated PI_DATAB (date from), and the specified PI-DATBI (date to).

In the end, the condition records are either read directly from the condition tables using the module SALES_CONDITIONS_DIRECTLY_READ (if the import parameter PI_DIRECT_READ is set) or they are determined using the module SALES_CONDITIONS_READ_KVEWE_A.

    1. Function module SALES_CONDITIONS_DIRECTLY_READ

Notes:

The function module SALES_CONDITIONS_DIRECTLY_READ is called from the function module SALES_CONDITIONS_READ if the import parameter PI_DIRECT_READ is set. Read the description for SALES_CONDITIONS_READ with regard to filling the import parameter.

The module SALES_CONDITIONS_DIRECTLY_READ is "scales-enabled" when you implement Note 1045588 or as of Release 500.

Functioning of the module:

The module determines the required condition records directly using the module CONDITION_RECORD_READ from the condition tables.

Other Terms

Pricing, sales price calculation

Reason and Prerequisites

Consulting note:
This note is released internally only and summarizes information about different sales price determination function modules.
In addition, a module for purchase price determination is presented.

Solution

Select one of the function modules described above that meets your requirements for reading sales prices.

Other Components

Component	Description
IS-R-BD-RPC	Retail-Pricing