Infor LN Procurement User Guide for Purchase Vendor Rating

Publication Information

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About this document

This document provides an introduction to the <u>vendor rating</u> procedure, which is used to measure the performance of vendors. The process to set up and update the vendor ratings, the calculation of actual weightings, ratings for objective and subjective criteria, and the overall vendor rating for business partners are also detailed.

Assumed knowledge

Although you need no detailed knowledge of the LN software to read this guide, general knowledge of the Infor LN functionality will help you understand this guide.

References

Use this guide as the primary reference for purchase vendor rating. Use the current editions of these related references to research information that is not covered in this guide:

- *User Guide for Purchase Master Data U9817 US*
- *User Guide for Requests for Quotation (RFQs) U9821 US*
- *User Guide for Purchase Orders U9824 US*

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Chapter 1
Introduction

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Overview of vendor rating

If multiple purchase business partners are available from whom you can purchase raw materials and supplies, you must determine which business partner to use. To make an informed decision, you can use the vendor rating procedure to measure the performance of vendors based on a vendor rating.

Objective criteria and subjective criteria can be used to calculate vendor ratings. The objective criteria are ratings generated by LN and only depend on current data and a weighting factor. The subjective criteria ratings are based on data that you specify. The overall vendor rating is calculated by LN.

Note

Before you can calculate and view vendor ratings, purchase orders must be available and processed.

Setting up vendor ratings

Before you can use the vendor rating procedure, you must specify the following:
- Vendor rating parameters
- Objective scoring schemes
- Subjective criteria
- Subjective values
- A classification scheme

Calculating vendor ratings

After orders are processed and questionnaires are compiled, you can run the Update Vendor Rating (tdpur8850m000) session to calculate the vendor ratings.

In the Update Vendor Rating (tdpur8850m000) session, you can do a full update or a net update of the vendor rating.

Deleting vendor ratings

To remove vendor rating data, use the Delete Historical Ratings (tdpur8851m000). LN deletes all vendor rating data for the specified year or the period combination. The result is that all vendor rating data goes back to the same year or the same period combination.

Chapter 2
Setup

2

Setting up vendor ratings

Before you can use the vendor rating procedure, you must complete a number of steps.

Step 1: Procurement Parameters (tdpur0100m000)

Select the **Vendor Rating** check box in this session.

Step 2: Business Partner (tccom4100s000)

Vendor ratings are calculated for business partners that have the **Vendor Rating** check box selected for the various business partner roles. You can select the **Vendor Rating** check boxes in the following business-partner role sub-sessions that you can start from the Business Partner (tccom4100s000) session:

- Buy-from Business Partner (tccom4120s000)
- Ship-from Business Partner (tccom4121s000)
- Invoice-from Business Partner (tccom4122s000)
- Pay-to Business Partner (tccom4124s000)

Step 3:

If you select the **Vendor Rating** check box in this session, Infor LN selects:

- The **Vendor Rating** check box in the Purchase Order Lines (tdpur4101m000) session, when a purchase order line is created.
- The **Vendor Rating** check box in the Purchase Order Line History (tdpur4551m000) session and the record is considered when the vendor rating is updated.

Step 4: Vendor Rating Parameters (tdpur0100m800)

Use this session to specify the following:

- Weightings for the <u>objective criteria</u>

- The method to calculate the overall vendor rating, which can be **Moving Average**, or **Smoothing Factor**
- The basis or value for which the weighting of the vendor rating criteria takes place
- The <u>period table</u> that is used for vendor rating

Step 5: Vendor Rating Objective Scoring Scheme (tdpur8195m000)

Use the Vendor Rating Objective Scoring Scheme (tdpur8195m000) session to create the scheme of values for the objective criteria that are set in the Vendor Rating Parameters (tdpur0100m800) session. An objective criterion is a criterion for which the score is calculated directly from the data in the system.

You must specify the Vendor Rating Objective Scoring Scheme (tdpur8195m000) session only if the following check boxes are selected in the Vendor Rating Parameters (tdpur0100m800) session:

- **Delivery Time**
- **Delivery Quantity**
- **Delivery Quality**
- **Order Confirmation**
- **Cost Performance**

If these check boxes are cleared in the Vendor Rating Parameters (tdpur0100m800) session, LN rates the objective values on a linear basis. In other words, if the objective scoring schemes are not used to convert objective values to rating percentages, a linear relationship exists between value and rating. Consequently, LN automatically calculates the rating for each objective criterion.

Step 6: Vendor Rating Subjective Criteria (tdpur8190m000)

If you want to use additional criteria to calculate vendor ratings alongside the objective criteria specified in the Vendor Rating Parameters (tdpur0100m800) session, specify subjective criteria in the Vendor Rating Subjective Criteria (tdpur8190m000) session. Subjective criteria are based on user judgements from a questionnaire, which you can print in the Vendor Rating Questionnaires (tdpur8454m000) and for which you can specify the results in the Questionnaire Results (tdpur8193m000) session.

You can use the Business Partners without Questionnaire (tdpur8452m000) session to print the business partners who do not have vendor rating questionnaire results for the specified year or the period combination.

Step 7: Vendor Rating Subjective Values (tdpur8192m000)

To use subjective criteria, you must assign values to vendors on the subjective criteria. You can specify these values in the Vendor Rating Subjective Values (tdpur8192m000) session.

Step 8: Vendor Classification Scheme (tdpur8194m000)

Once all the criteria are used to calculate and have an overall rating for a vendor, a classification scheme can equate the overall rating to a classification. Use the Vendor Classification Scheme (tdpur8194m000) session to specify a classification scheme.

Note

To calculate the vendor ratings, you must update the vendor ratings in the Update Vendor Rating (tdpur8850m000) session.

Chapter 3
Update and calculation

3

Calculating vendor ratings

To calculate the vendor ratings after orders are processed and questionnaires are compiled, you must update the vendor ratings. You can do a net update or a full update of vendor ratings.

Note

Because the full update process takes a lot of time, you are advised to only do a full update when:

■   You changed the parameters in the Vendor Rating Parameters (tdpur0100m800) session.

■   You no longer want to take into account the manual changes, which you can make in the Vendor Ratings by Period (tdpur8102m000), Vendor Ratings by Criterion (tdpur8102m100), and Objective Ratings (tdpur8106m000) sessions.

If you did not change parameters and also did not manually change the vendor ratings, calculating the vendor rating gives the same result for a full update and a net update.

Net update of vendor ratings

To do a net update of the vendor ratings, clear the **Full Update** check box in the Update Vendor Rating (tdpur8850m000) session. Consequently, only the purchase order lines that are newly processed in the Process Delivered Purchase Orders (tdpur4223m000) session and fall in the defined period, are taken into account.

The calculation is as follows:

```
NR = ((OR * V) + (nRL * nVL)) / (V + nVL)
```

Legend

NR   new rating
OR   old rating
nRL   rating of new purchase order line(s)
V   value on which the old rating was based

nVL   value of new purchase order line(s)

Full update of vendor ratings

To do a full update of the vendor ratings, select the **Full Update** check box in the Update Vendor Rating (tdpur8850m000) session. Consequently, all purchase order lines that are processed in the Process Delivered Purchase Orders (tdpur4223m000) session, and fall in the specified period, are taken into account in the calculation of vendor ratings. So, LN calculates new ratings that are fully based on the purchase order line history data.

When you do a full update of the vendor ratings, these calculation steps are performed:

1. **Calculating actual weightings**
   For more information, refer to *Calculating actual weightings (p. 15)*
2. **Calculating ratings for objective criteria**
   For more information, refer to *Calculating ratings for objective criteria (p. 19)*
3. **Calculating ratings for subjective criteria**
   For more information, refer to *Calculating ratings for subjective criteria (p. 27)*
4. **Updating overall vendor rating**
   For more information, refer to *Updating overall vendor rating (p. 31)*.

Note

You can use these sessions to view the calculated vendor ratings or manually modify the calculated vendor ratings:

- Vendor Ratings by Period (tdpur8102m000)
- Vendor Ratings by Criterion (tdpur8102m100)
- Graph Vendor Ratings (tdpur8701m000)

Chapter 4
Actual weightings

4

Calculating actual weightings

When you do a full update of the <u>vendor ratings</u> in the Update Vendor Rating (tdpur8850m000) session, the calculation of actual weightings is the first stage in the calculate/update vendor rating procedure.

When you rescale the criteria weightings in the Normalize Criteria Weightings (tdpur8852m000) session, you can choose to:

- Fully update the weightings
- Recalculate the weighting for one subjective criterion

After the rescale, the weightings represent a true percentage. So, weightings are not changed relative to other weightings.

Full update

When you recalculate all criteria weightings, the calculation is as follows:

1. **Summing the weightings**
   The weightings for all the objective criteria and the level 0 subjective criteria are summed.

2. **Recalculating objective and level zero subjective criteria**
   The following recalculation takes place for the objective criteria and level zero subjective criteria:

   ```
   New weighting = (existing weighting/objective weightings and level
   zero subjective weightings) * 100
   ```

3. **Calculating subjective weightings with level one or higher**
   The subjective weightings with level one or higher are calculated in the same way as the recalculation of one criterion, which is stated below.

Recalculation for one subjective criterion

When you recalculate the weightings for one criterion, the calculation is as follows:

```
New weighting = (current weighting/sum of all weightings) * 100
```

If the selected subjective criterion has level one or higher, the following applies:

```
Sum of all weightings = sum of all the weightings whose parent is the selected
 subjective criterion.
```

Example

The existing objective weightings and subjective weightings are:

Objective criteria	Weighting
Delivery time	60
Quality	60
Order confirmation	10

Level	Subjective criteria	Weighting
0	Customer service	40
1	Call handling	14
1	Product knowledge	6
0	Delivery service	30
1	Flexibility	25
1	Paperwork quality	15

Full update

1. Sum of all objective weightings and level 0 subjective weightings = 60 + 60 + 10 + 40 + 30 = 200.
2. The new weightings are:
   - **Delivery time**
     60/200 * 100 = 30%
   - **Quality**
     60/200 * 100 = 30%
   - **Order confirmation**
     10/200 * 100 = 5%
   - **Customer service**
     40/200 * 100 = 20%

- **Delivery service**
  30/200 * 100 = 15%

3. The subjective weightings of level one or higher are recalculated for customer service as stated below.

Recalculation for one criterion

Normalization of, for example, the weightings for customer service:

- Total of weightings = 14 + 6 = 20.
- New call handling weighting = (14/20) * 100 = 70%.
- New product knowledge weighting = (6/20) * 100 = 30%.

Chapter 5
Ratings for objective criteria

5

Calculating ratings for objective criteria

When you do a full update of the <u>vendor ratings</u> in the Update Vendor Rating (tdpur8850m000) session, the calculation of the ratings for the <u>objective criteria</u> is the second stage in the calculate/update vendor rating procedure.

To calculate objective criteria ratings, LN uses the data from the Purchase Order Line History (tdpur4551m000) session. Only purchase orders that are processed in the Process Delivered Purchase Orders (tdpur4223m000) session and are in the specified period, are taken into account.

To calculate the objective criteria ratings, these calculation steps are performed:

Step 1: Calculating objective values per criterion

For more information, refer to *Calculating ratings for objective criteria (step 1) (p. 19)*.

Step 2: Converting objective values to ratings per criterion

For more information, refer to *Calculating ratings for objective criteria (step 2) (p. 21)*.

Step 3: Creating a rating record for each purchase order line

For more information, refer to *Calculating ratings for objective criteria (step 3) (p. 23)*.

Steps

Calculating ratings for objective criteria (step 1)

The first step that LN carries out in the calculate objective criteria ratings process, is the determination of objective values.

These objective criteria are calculated:
- **Delivery Time**
- **Delivery Quantity**
- **Delivery Quality**
- **Order Confirmation**
- **Cost Performance**

Delivery Time

```
Actual Receipt Date  - Current Planned Delivery Date
```

> **Note**
>
> - The current planned delivery date is the highest of the delivery dates. As a result, this can be the planned delivery date or the confirmed delivery date.
> - A negative delay means an early shipment

Delivery Quantity

```
((Approved Quantity + Rejected Quantity) / Ordered Quantity) * 100
```

Delivery Quality

```
((Approved Quantity + Rejected Quantity for which the own company is
responsible) / (Approved Quantity + Rejected Quantity)) * 100
```

> **Note**
>
> If the **Responsibility** field is set to **Own Company** in the Quarantine Inventory Disposition (whwmd2172m000) session, the delivery quality rating is not negatively affected.
>
> However, the responsibility for the rejected quantity is taken into account only if these are applicable:
>
> - The **Quarantine Inventory** check box is selected and the **Payable to Supplier** check box is cleared in the Inventory Handling Parameters (whinh0100m000) session.
> - The **Responsibility** field is manually specified for the rejected quantity in the Quarantine Inventory Disposition (whwmd2172m000) session.
> - The rejected quantity can be deleted before vendor ratings are updated.

> **Tip**
>
> Do not specify a partial responsibility for the rejected quantity. If the rejected quantity is handled in batches and the supplier is responsible for two pieces and your own company for three pieces, only the responsibility for the last batch is stored in history. Therefore, the delivery quality cannot be correctly calculated.

Example

Total rejected quantity: 10 pcs

The rejected quantity is processed in these batches:

- 3 pcs destroyed, responsibility is **Own Company**
- 5 pcs destroyed, responsibility is **Supplier**
- 2 pcs destroyed, responsibility is **Own Company**

In history, the following is registered: 10 pcs destroyed, responsibility is **Own Company**.

Therefore, the responsibility value is reliable only when the responsibility is the same for the total rejected quantity.

Order Confirmation

```
Order Confirmation Date - Purchase Order Entry Date (= delay)
```

Cost Performance

```
(Purchase unit price / Average purchase price) * 100
```

Calculating ratings for objective criteria (step 2)

The second step that LN carries out in the calculate objective criteria ratings process, is the conversion of the objective values to ratings.

LN rates the objective values according to the settings of these check boxes in the **Maintain Scoring Schemes** group box of the Vendor Rating Parameters (tdpur0100m800) session:

- **Delivery Time**
- **Delivery Quantity**
- **Delivery Quality**
- **Order Confirmation**
- **Cost Performance**

If these check boxes are selected, LN rates the calculated objective values based on an objective scoring scheme, as specified in the Vendor Rating Objective Scoring Scheme (tdpur8195m000) session.

If these check boxes are cleared, LN rates the objective values on a linear basis.

Objective scoring scheme

You can assign scoring values to an objective criterion in the Vendor Rating Objective Scoring Scheme (tdpur8195m000) session. You can link rating percentages to the scoring values.

LN searches for an objective scoring scheme, which is used for the conversion of scoring values to rating percentages, in this sequence:

1. LN searches for an objective scoring scheme for the business partner/item combination.
2. If no scheme is present for the business partner/item combination, LN searches for an objective scoring scheme for the business partner.
3. If no scheme is present for the business partner, LN searches for an objective scheme for the item.
4. If no scheme is present for the item, LN gets the default objective scoring scheme of the objective criterion.

Example 1

Criterion Type	Delivery	
Unit	Days	
Value	Percentage	Values for which the percentage applies
-5	10%	<= -5
-1	50%	-4 to -1
0	100%	0
5	40%	1 to 5
100	30%	6 to 100

If the order is 6 days late, the business partner receives a rating of 30% for the purchase order line.

Example 2

Criterion Type	Quality	
Value	Percentage	Values for which the percentage applies
20%	0%	0% - 20%
80%	50%	21% - 80%

90%	75%	81% - 90%
100%	100%	91% - 100%

If 25% of the delivered items is rejected and 75% is approved, the business partner receives a rating of 50% for the purchase order line.

After this conversion, LN carries out the third step in the calculate-objective-criteria-ratings procedure: the creation of a rating record per purchase order line in the Objective Ratings (tdpur8106m000) session.

Linear basis

If the check boxes in the **Maintain Scoring Schemes** group box of the Vendor Rating Parameters (tdpur0100m800) session are cleared, which means the objective scoring schemes are not used to convert objective values to rating percentages, a linear relationship exists between value and rating. Therefore, LN calculates the rating for each objective criteria as stated below.

- **Delivery Time**
  ((Receipt date - current planned delivery date) / item lead time) * 100
- **Delivery Quantity**
  (Approved quantity / ordered quantity) * 100
- **Delivery Quality**
  ((Approved quantity + rejected quantity for which the own company is responsible) / (approved quantity + rejected quantity)) * 100
- **Order Confirmation**
  100 - ((Order confirmation date - order date) / (planned delivery date - order date)) * 100
- **Cost Performance**
  (Purchase price / average purchase price) * 100

Note

- If the **Responsibility** field in the Quarantine Inventory Disposition (whwmd2172m000) session is set to Own Company, the delivery quality rating is not negatively affected.
- If the average purchase price is 0, the cost performance rating will be 0.
- If any of the ratings above is greater than 100, the rating = 200 - rating.
- If any of the ratings above is smaller than 0, the rating = 0.

Calculating ratings for objective criteria (step 3)

The third step that LN carries out in the calculate objective criteria ratings process, is the creation of rating records for each purchase order line in the Objective Ratings (tdpur8106m000) session.

In the Objective Ratings (tdpur8106m000) session, the ratings for all objective criteria are displayed. Also, the overall rating for the concerned purchase order line is displayed.

> **Note**
>
> Subjective criteria are not taken into account in the calculation of the objective criteria ratings and the overall rating per purchase order line. The overall vendor rating for each business partner per period can be calculated only after the subjective criteria ratings are also calculated.

Calculation of overall rating purchase order line

The overall rating for the purchase order line is calculated as follows:

```
Overall rating purchase order line = sum (objective rating * weighting)
```

LN retrieves the weightings of the objective criteria from the Vendor Rating Parameters (tdpur0100m800) session. The weightings are recalculated to true percentages, which are taken into account.

Calculation of new objective criterion rating

Each time you add a new line, LN automatically updates the objective criteria ratings for each business partner/criterion combination in these sessions:

- Vendor Ratings by Period (tdpur8102m000)
- Vendor Ratings by Criterion (tdpur8102m100)

The new rating is the running average, which is calculated as follows:

```
NR = ((ER * EV) + (R * V)) / (EV + V)
```

Legend

NR	Newly calculated objective criterion rating
ER	Rating for all existing purchase order lines of the purchase order, excluding the newly added line
EV	Total value of all existing purchase order lines of the purchase order, excluding the newly added line
R	Rating for the newly added purchase order line
V	Value of the newly added purchase order line

> **Note**
>
> The value can be of the following types, according to the setting of the **Weighting Method** field in the Vendor Rating Parameters (tdpur0100m800) session:
> - **Turnover**
> - **Piece Count**
> - **Order Lines**

Update of total values

The total values (also called: running totals) of the three above mentioned value types, are automatically updated when you add an order line. The total values are updated by business partner in these sessions:

- Vendor Ratings by Period (tdpur8102m000)
- Vendor Ratings by Criterion (tdpur8102m100)

The total values of the three value types are always updated, regardless of the used weighting methods. So, if you have a hundred business partners in a specific period, three hundred running totals must be updated.

Chapter 6
Ratings for subjective criteria

6

Calculating ratings for subjective criteria

When you do a full update of the <u>vendor ratings</u> in the Update Vendor Rating (tdpur8850m000) session, the calculation of the ratings for the <u>subjective criteria</u> is the third stage in the calculate/update vendor rating procedure.

To calculate the subjective criteria ratings:

1. The subjective values for each business partner are retrieved from the Questionnaire Results (tdpur8193m000) session.

2. Percentage values, which are stated in the Vendor Rating Subjective Values (tdpur8192m000) session, are assigned to the corresponding subjective values.

3. The average rating for each subjective criterion is calculated per business partner.

The overall rating of a business partner/subjective criterion combination is calculated as follows:

```
Overall rating per criterion = SUM / OCC
```

Legend

SUM   All percentage values that are assigned to one business partner/subjective criterion combination.

OCC   The number of times that percentage values are assigned for the business partner/subjective criterion combination. A not applicable value is not taken into account.

Example 1

A business partner is rated on two subjective criteria by several employees:

- CS = Customer service
- DS = Delivery service

Subjective Criteri-on	Subjective Value	% value	Employee
CS	Average	50	Arthur
DS	Excellent	80	Arthur
CS	Good	60	Bob
DS	Good	60	Bob
CS	Poor	40	Carol
DS	Not applicable	**	Carol

The overall ratings for the business partner/subjective criterion combination are:

- CS = (50 + 60 + 40) / 3 = 50%
- DS = (80 + 60) / 2 = 70%

After the calculation, the ratings are displayed in these sessions:

- Vendor Ratings by Period (tdpur8102m000)
- Vendor Ratings by Criterion (tdpur8102m100)

Example 2

The same example is used as stated above, but this time the subjective criterion CS contains three subcriteria. The subcriteria have the following weightings:

Subcriteria	Weighting
Flexibility	0.4
Call Handling	0.2
Support	0.4

These percentage values are assigned:

Subjective Criterion	Subjective Value	% Value	Employee
Flexibility	Average	50	Arthur
Call Handling	Excellent	80	Arthur
Support	Poor	40	Arthur
DS	Excellent	80	Arthur
Flexibility	Good	60	Bob
Call Handling	Average	50	Bob
Support	Good	60	Bob
DS	Good	60	Bob
Flexibility	Poor	40	Carol
Call Handling	Excellent	80	Carol
Support	(not appl.)	0	Carol
DS	(not appl.)	0	Carol

1. **Calculating the overall ratings**
   LN calculates the overall ratings for the business partner/subjective criterion combination.
   - Flexibility = (50+60+40)/3 = 50%
   - Call Handling = (80+50+80)/3 = 70%
   - Support = (40+60)/2 = 50%
   - DS = (80+60)/2 = 70%
2. **Calculating the rating of the parent subjective criteria**
   Parent criteria rating = sum (child criteria % values * weightings)
   - Flexibility = 50% * 0.4 = 20
   - Call handling = 70% * 0.2 = 14
   - Support = 50% * 0.4 = 20
   - CS rating = 20 + 14 + 20 = 54%

3. **Writing the ratings**

   After the calculation, LN writes the ratings to these sessions:
   - Vendor Ratings by Period (tdpur8102m000)
   - Vendor Ratings by Criterion (tdpur8102m100)

Chapter 7
Overall vendor rating

7

Updating overall vendor rating

When you do a full update of the <u>vendor ratings</u> in the Update Vendor Rating (tdpur8850m000) session, the calculation of the overall vendor rating for each <u>business partner</u> is the fourth stage in the calculate/update vendor rating procedure.

The following methods, which you specify in the **Methods/Factors** field of the Vendor Rating Parameters (tdpur0100m800) session, are used to calculate the overall vendor ratings:

- **Moving Average**
  For more information, refer to *Moving average (p. 32)*
- **Smoothing Factor**
  For more information, refer to *Smoothing factor (p. 33)*

The overall vendor rating is calculated in the Update Vendor Rating (tdpur8850m000) session and displayed in the Vendor Ratings by Period (tdpur8102m000) and Vendor Ratings by Criterion (tdpur8102m100) sessions.

Before LN calculates the overall vendor rating, the period rating for the newest business partner/period combination is calculated. LN calculates the period rating for the business partner/period combination as follows:

```
Period rating = sum (CR * AW)
```

Legend

CR Both the objective ratings and the subjective ratings for the newest business partner/period combination are taken into account. The objective ratings are retrieved from the Objective Ratings (tdpur8106m000) session and the subjective ratings from the Vendor Ratings by Period (tdpur8102m000) and Vendor Ratings by Criterion (tdpur8102m100) sessions.

AW The actual weightings are calculated in the first stage of the calculate/update vendor rating procedure. The objective criteria weightings are retrieved from the Vendor Rating Parameters (tdpur0100m800) session and the subjective criteria weightings from the Vendor Rating Subjective Criteria (tdpur8190m000) session.

Example

The following criteria apply to a business partner in the newest period:

Criterion	Rating	Actual Weighting
Delivery time	90	30%
Quality	80	40%
Customer Service	50	20%
Delivery Service	70	10%

The period rating for this business partner/period combination is calculated as follows:

```
Overall rating = (90 * 30%) + (80 * 40%) + (50 * 20%) + (70 * 10%) = 76%
```

LN writes the results of this calculation to these sessions:
- Vendor Ratings by Period (tdpur8102m000)
- Vendor Ratings by Criterion (tdpur8102m100)

In this case, the **Criterion Type** and **Criterion** fields are blank in the Vendor Ratings by Period (tdpur8102m000) and Vendor Ratings by Criterion (tdpur8102m100) sessions to make clear that the displayed vendor rating is the overall rating for the business partner/period combination.

Moving average

One of the two methods to calculate the overall vendor ratings is **Moving Average**.

If the method is **Moving Average**, in the **Moving Average Periods** field of the Vendor Rating Parameters (tdpur0100m800) session, you must specify the number of periods that are taken into account.

LN calculates the overall vendor rating for the specified number of periods for each business partner as follows:

```
New overall vendor rating = sum (PR * PV) / sum (PV)
```

Legend

PR   The period rating per business partner/period combination.

PV   The total value of the period.

LN retrieves the value type that is taken into account, from the **Weighting Method** field of the Vendor Rating Parameters (tdpur0100m800) session.

Example

- The period rating that is calculated for the newest period is 85%.
- The value for the newest period is 1000 pieces.
- The number of **Moving Average Periods** is three.
- The previous two period ratings were as follows:

Period rating	Value period 1
70%	2000
-	**Value period 2**
80%	1500

New overall vendor rating:

```
(85 * 1000) + (70 * 2000) + (80 * 1500)) / (1000 + 2000 + 1500) = 77%
```

LN writes the result of this calculation to the Vendor Ratings by Period (tdpur8102m000) and Vendor Ratings by Criterion (tdpur8102m100) sessions.

Smoothing factor

One of the two methods to calculate the overall vendor ratings is **Smoothing Factor**.

If the method is **Smoothing Factor**, in the **Smoothing Factor** field of the Vendor Rating Parameters (tdpur0100m800) session, you must specify the factor.

LN calculates the overall vendor rating for each business partner as follows:

```
New overall vendor rating =
((OR * OV * (1 - F)) + (PR * NV * F)) / ((OV * (1 - F)) + (NV * F))
```

Legend

OR	The existing overall vendor rating of the business partner.
OV	The value on which the old rating was based.
NV	The total value of the period. The value type is retrieved from the **Weighting Method** field in the Vendor Rating Parameters (tdpur0100m800) session.
F	Smoothing factor that is specified in the Vendor Rating Parameters (tdpur0100m800) session.
PR	The vendor rating for the newest business partner/period combination.

Example

- The existing overall vendor rating is 70%.
- The old value on which the existing rating is based is 8000 pieces.
- The **Smoothing Factor** is 0.8.
- The new value for the new period is 1000 pieces.
- The period rating calculated for the newest period is 85%.

New overall vendor rating:

```
((70 * 8000 * (1 - 0.8)) + (85 * 1000 * 0.8)) / ((8000 * (1 - 0.8)) + (1000
 * 0.8)) = 75%
```

Appendix A
Glossary

A

business partner

A party with whom you carry out business transactions, for example, a customer or a supplier. You can also define departments within your organization that act as customers or suppliers to your own department as business partners.

The business partner definition includes:

- The organization's name and main address.
- The language and currency used.
- Taxation and legal identification data.

You address the business partner in the person of the business partner's contact. The business partner's status determines if you can carry out transactions. The transactions type (sales orders, invoices, payments, shipments) is defined by the business partner's role.

objective criterion

A criterion for which the score is calculated automatically from the data in the system.

period table

A table that consists of any number of time units, for example, months or weeks.

A period is used to define the time horizon during which, for example, a schedule is valid.

subjective criterion

A criterion whose score and rating are calculated based on user judgements (subjective values) assigned to the criterion.

Subjective criteria are taken into account in vendor rating.

vendor rating

A classification of a supplier based on certain criteria. These criteria can be based on deliveries (on time, sufficient quality) and on other factors.

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