

Overview of all Cases and Events

	Disco	Pm4py
Events	319233	319233
Cases	15182	15182
Variants	4228	4228
Activities	38	38
Median case duration	63.4 d	63.42 days
Mean case duration	75 d	74.96 days
Start	23.01.2001 23:59:00	23.01.2001 23:59:00
End	09.04.2020 23:59:00	09.04.2020 23:59:00
Min case duration	0 millis	0 seconds
Max case duration	17 years. 362 days (=6.567 days)	6,567.75 days

Events	319,233
Cases	15,182
Activities	38
Median case duration	63.4 d
Mean case duration	75 d
Start	23.01.2001 23:59:00
End	09.04.2020 23:59:00

“Because the purchase-to-pay process requires a payment to meet the customer's obligation, the Clear Invoice activity was seen as necessary for compliance.” (source: <https://icpmconference.org/2019/wp-content/uploads/sites/6/2019/07/BPI-Challenge-Student-Submission-4.pdf#page=2.70>)

→end event for successful cases is clear invoice

Overview of successful Cases and Events

	Disco	pm4py
Events	135978 (42,61%)	
Cases	9258 (60,98%)	9676
Activities	35	
Median case duration	79.1 d	80.56 days
Mean case duration	13.2 wks	101.22 days = 14.43 weeks
Start	10.04.2001 23:59:00	23.01.2001 22:59:00
End	17.01.2019 14:41:00	09.04.2020 21:59:00
Min case duration	7 days, 22 hours (=7,9167 days)	7.94 days (= 7 days, 22 hours, 33 minutes, 36 seconds)
Max case duration	17 years. 278 days (=6.487,25)	6567.75 days (= 17 years, 362,75 days)

Events	135,978
Cases	9,258
Activities	35
Median case duration	79.1 d
Mean case duration	13.2 wks
Start	10.04.2001 23:59:00
End	17.01.2019 14:41:00

→conclusion: no successful cases after 17.01.2019? No, succesful cases till the end

Therefore, unsuccessful Cases and Events

Events	183255 (57,42%)
Cases	5924 (39,02%)

What kinds of events do we have (38 in total):

Cancel Goods Receipt
Cancel Invoice Receipt
Cancel Subsequent Invoice
Change Approval for Purchase Order
Change Delivery Indicator
Change Final Invoice Indicator
Change Price
Change Quantity
Change Rejection Indicator
Change Storage Location
Change payment term
Clear Invoice
Create Purchase Order Item
Create Purchase Requisition Item
Delete Purchase Order Item
Reactivate Purchase Order Item
Receive Order Confirmation
Record Goods Receipt
Record Invoice Receipt
Record Service Entry Sheet
Record Subsequent Invoice
Release Purchase Order
Remove Payment Block
SRM: Awaiting Approval
SRM: Change was Transmitted
SRM: Complete
SRM: Created
SRM: Deleted
SRM: Document Completed
SRM: Held
SRM: In Transfer to Execution Syst.
SRM: Incomplete
SRM: Ordered
SRM: Transaction Completed
SRM: Transfer Failed (E.Sys.)
Set Payment Block
Vendor creates debit memo
Vendor creates invoice

5 Start Events:

	Disco	pm4py
Vendor creates invoice	15.862	356
Create Purchase Requisition Item	15.182	1.219
Create Purchase Order Item	1.220	13.035
SRM: Created	767	564
Vendor creates debit memo	680	8

→ All occurrences of start events are included here, even when a start event occurs as the second activity (in contrast to the Python results)

Activity	▲ Frequency	Relative frequency
Vendor creates invoice	15,862	4.97 %
Create Purchase Order Item	15,182	4.76 %
Create Purchase Requisition Item	1,220	0.38 %
SRM: Created	767	0.24 %
Vendor creates debit memo	680	0.21 %

24 End Events:

	Disco	pm4py
Clear Invoice	13,695	9.258
Record Goods Receipt	75,900	2.319
Record Invoice Receipt	18,937	1.330
Record Service Entry Sheet	164,975	921
Delete Purchase Order Item	330	302
Remove Payment Block	2,491	256
Create Purchase Order Item	15,182	220
Cancel Goods Receipt	949	168
Cancel Invoice Receipt	825	84
Change Price	1,231	74
Set Payment Block	61	58
SRM: Transfer Failed (E.Sys.)	45	44
SRM: Change was Transmitted	611	38
Change Delivery Indicator	205	33
SRM: In Transfer to Execution Syst.	887	26
Change Quantity	992	20
SRM: Deleted	156	9
Change Approval for Purchase Order	40	6
SRM: Transaction Completed	7	5
Vendor creates invoice	15,862	5
Cancel Subsequent Invoice	23	3
Vendor creates debit memo	680	1
Change Final Invoice Indicator	3	1
Reactivate Purchase Order Item	9	1
Clear Invoice (DOPPELT)	13,695	9.258
Record Goods Receipt	75,900	2.319
Record Invoice Receipt	18,937	1.330
Record Service Entry Sheet	164,975	921
Delete Purchase Order Item	330	302
Remove Payment Block	2,491	256

Activity	▲ Frequency	Relative frequency
Record Service Entry Sheet	164,975	51.68 %
Record Goods Receipt	75,900	23.78 %
Record Invoice Receipt	18,937	5.93 %
Vendor creates invoice	15,862	4.97 %
Create Purchase Order Item	15,182	4.76 %
Clear Invoice	13,695	4.29 %
Remove Payment Block	2,491	0.78 %
Change Price	1,231	0.39 %
Change Quantity	992	0.31 %
Cancel Goods Receipt	949	0.3 %
SRM: In Transfer to Execution Syst.	887	0.28 %
Cancel Invoice Receipt	825	0.26 %
Vendor creates debit memo	680	0.21 %
SRM: Change was Transmitted	611	0.19 %
Delete Purchase Order Item	330	0.1 %
Change Delivery Indicator	205	0.06 %
SRM: Deleted	156	0.05 %
Set Payment Block	61	0.02 %
SRM: Transfer Failed (E.Sys.)	45	0.01 %
Change Approval for Purchase Order	40	0.01 %
Cancel Subsequent Invoice	23	0.01 %
Reactivate Purchase Order Item	9	0 %
SRM: Transaction Completed	7	0 %
Change Final Invoice Indicator	3	0 %

Apart from the standard attributes, the log contains the following attributes:

Resource
lifecycle: transition
Cumulative net worth (EUR)
User
variant
variant-index
creator
(case) Company
(case) Document Type
(case) GR-Based Inv. Verif.
(case) Goods Receipt
(case) Item
(case) Item Category
(case) Item Type
(case) Name
(case) Purch. Doc. Category name
(case) Purchasing Document
(case) Source
(case) Spend area text
(case) Spend classification text
(case) Sub spend area text
(case) vendor

Additional findings

Value	▲ Frequency
NONE	181,965

→ more than half of the cases have the value “NONE” for user