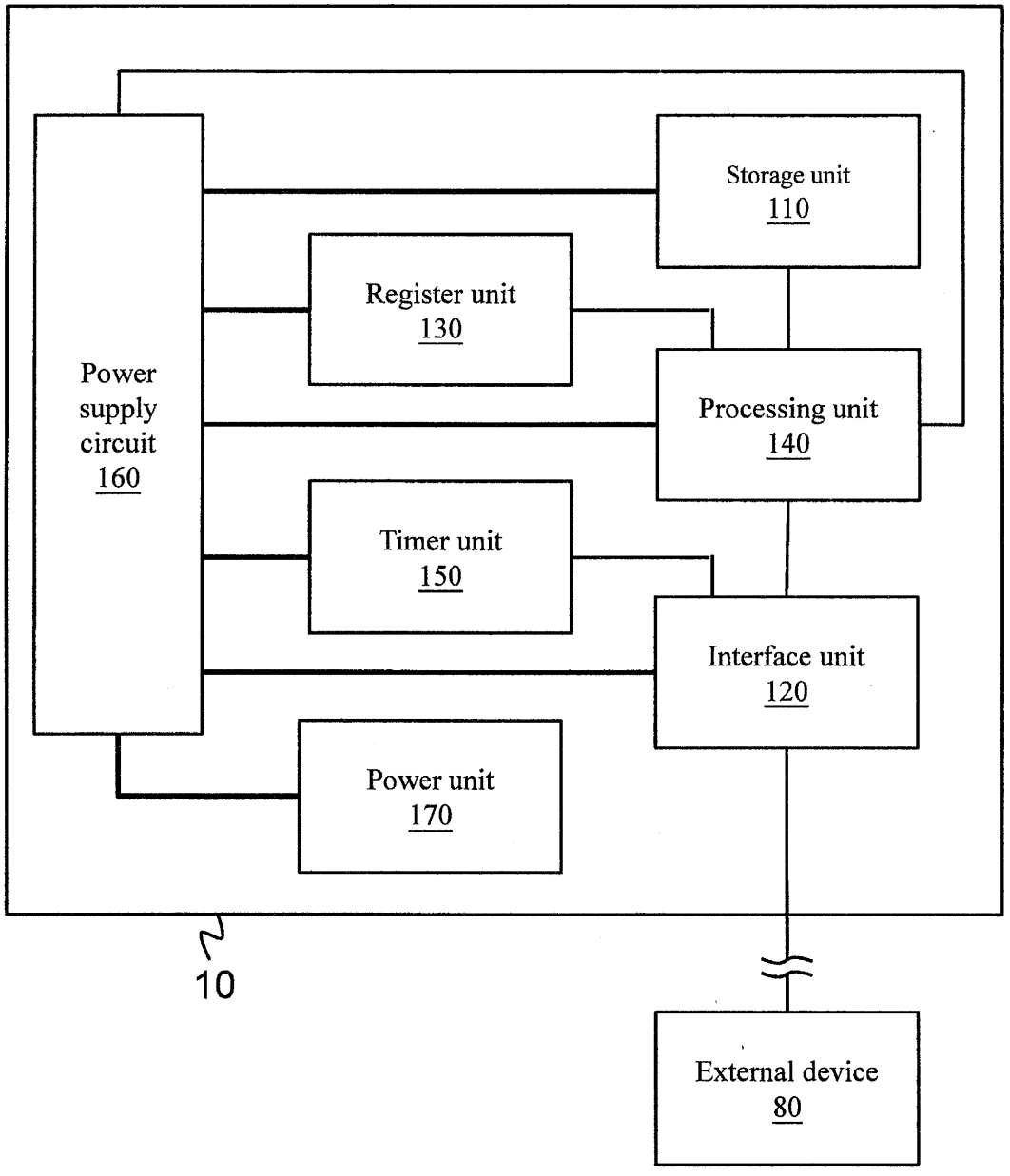
Storage unit
110
Register unit
130
Power
supply
circuit
160
Processing unit
140
Timer unit
150
Interface unit
120
Power unit
170
10
External device
80

Fig. 1

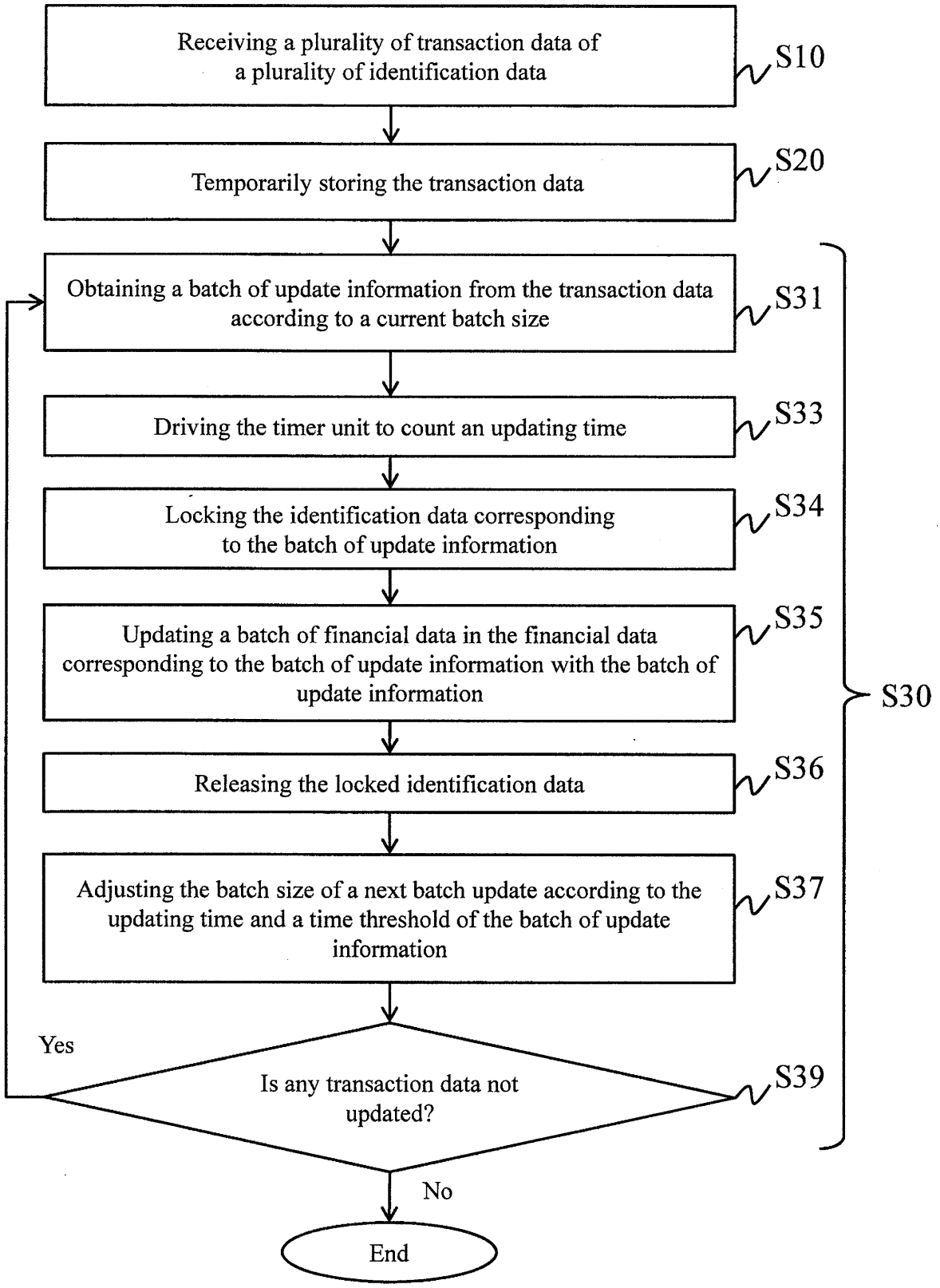
Receiving a plurality of transaction data of a plurality of identification data
S10
Temporarily storing the transaction data
S20
Obtaining a batch of update information from the transaction data according to a current batch size
S31
Driving the timer unit to count an updating time
S33
Locking the identification data corresponding to the batch of update information
S34
Updating a batch of financial data in the financial data corresponding to the batch of update information with the batch of update information
S35
Releasing the locked identification data
S36
Adjusting the batch size of a next batch update according to the updating time and a time threshold of the batch of update information
S37
S30
Yes
Is any transaction data not updated?
S39
No
End

Fig. 2

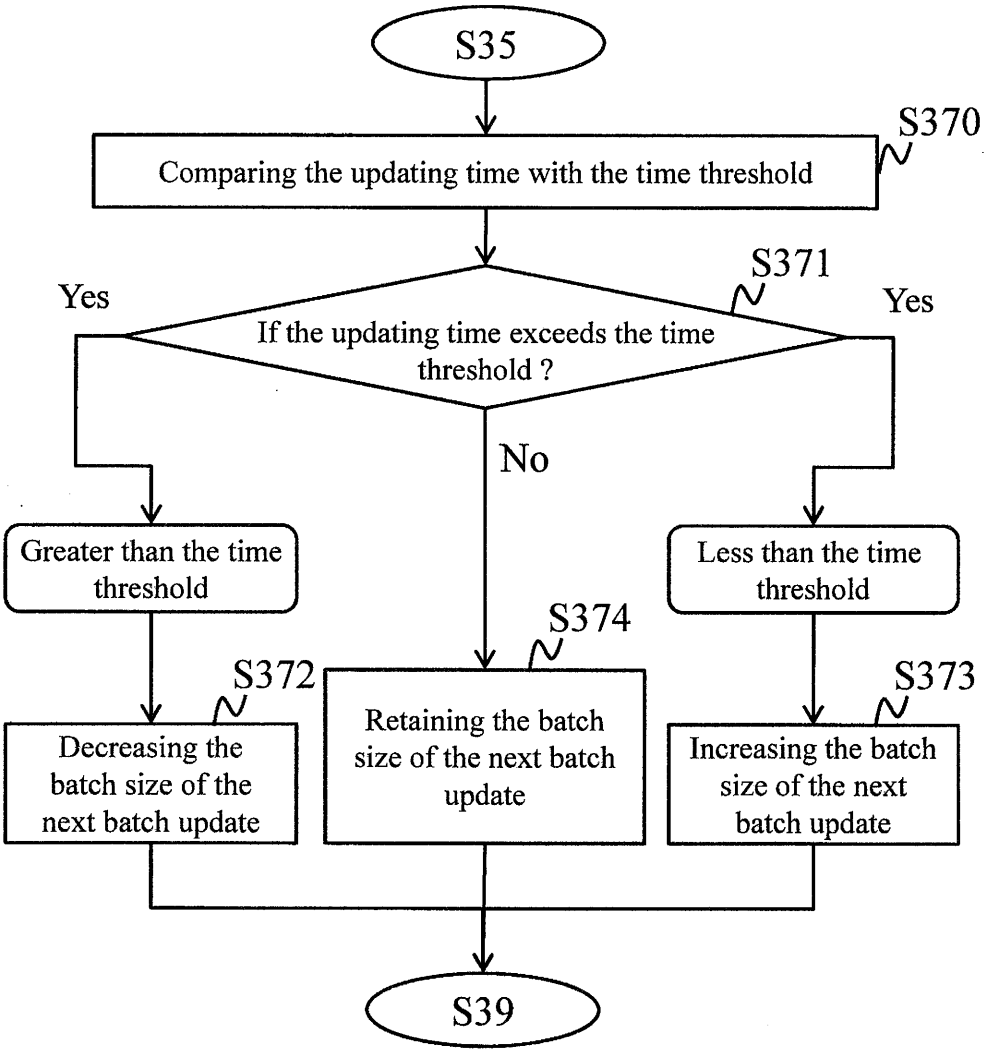
S35
S370
Comparing the updating time with the time threshold
S371
Yes
If the updating time exceeds the time threshold ?
Yes
No
Greater than the time threshold
Less than the time threshold
S374
S372
S373
Decreasing the batch size of the next batch update
Retaining the batch size of the next batch update
Increasing the batch size of the next batch update
S39

Fig. 3

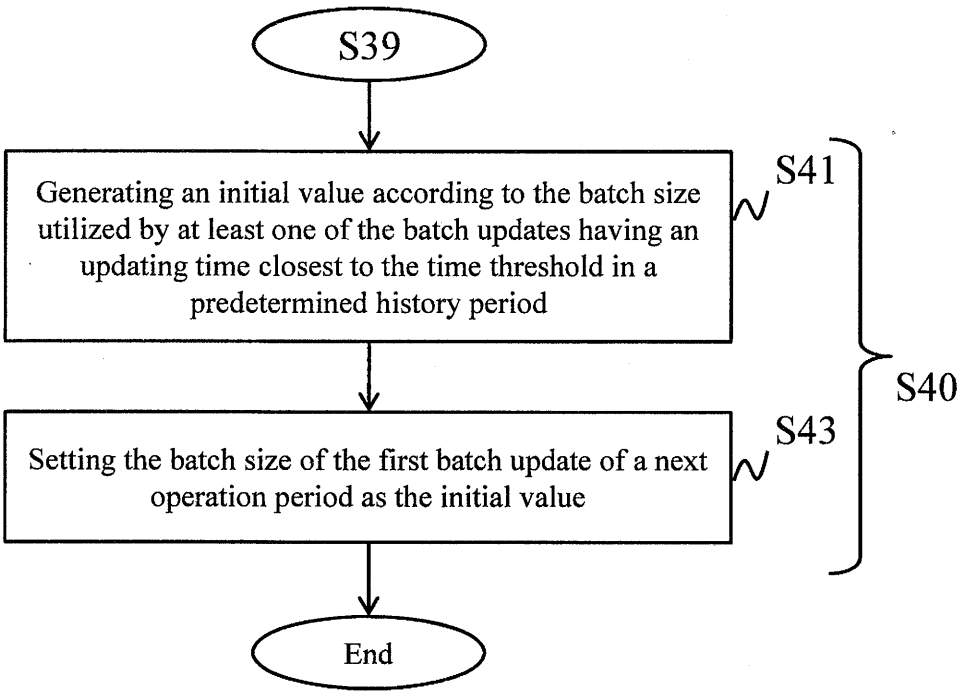
S39
Generating an initial value according to the batch size utilized by at least one of the batch updates having an updating time closest to the time threshold in a predetermined history period
S41
Setting the batch size of the first batch update of a next operation period as the initial value
S43
S40
End

Fig. 4

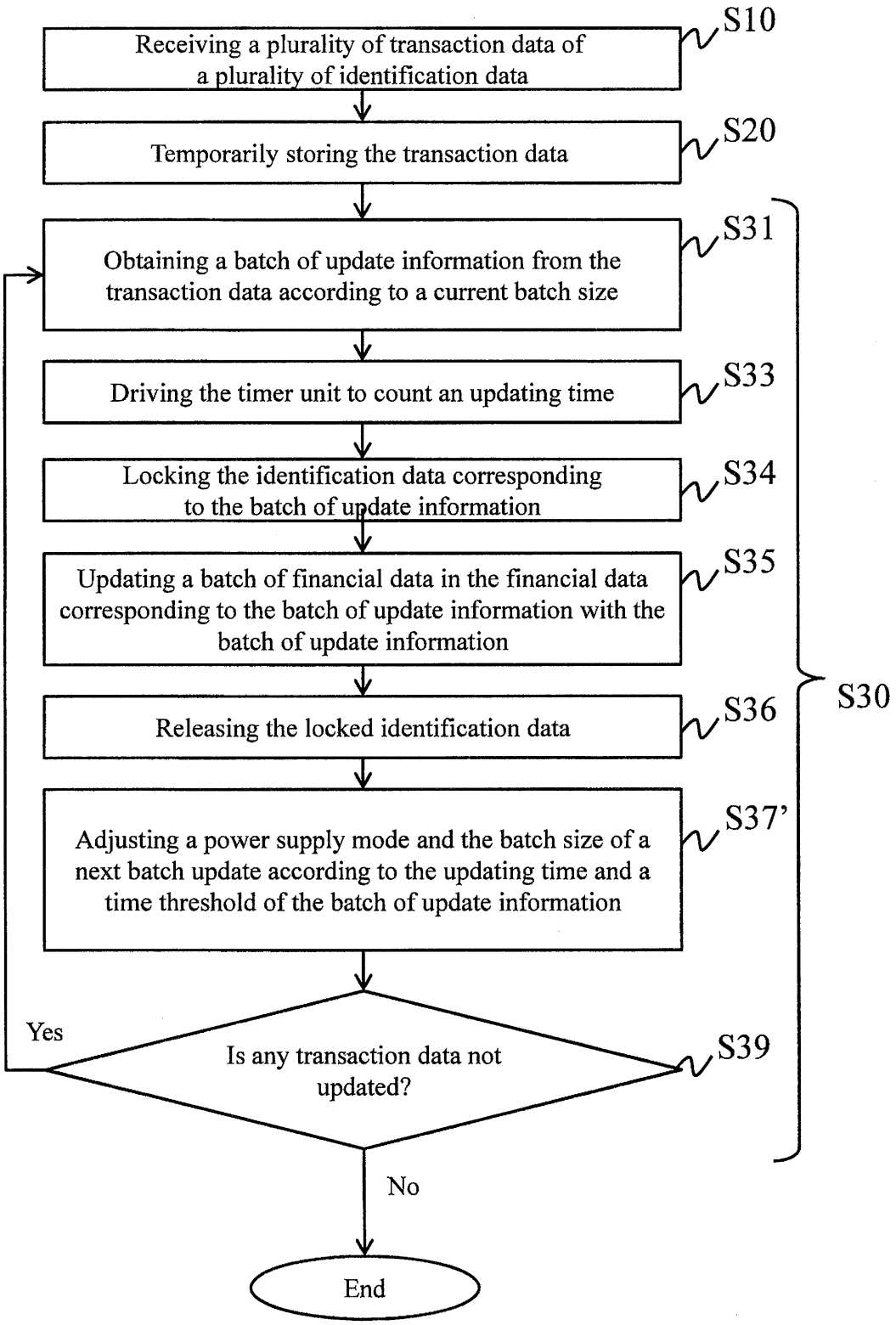
Receiving a plurality of transaction data of a plurality of identification data
S10
Temporarily storing the transaction data
S20
Obtaining a batch of update information from the transaction data according to a current batch size
S31
Driving the timer unit to count an updating time
S33
Locking the identification data corresponding to the batch of update information
S34
Updating a batch of financial data in the financial data corresponding to the batch of update information with the batch of update information
S35
Releasing the locked identification data
S36
Adjusting a power supply mode and the batch size of a next batch update according to the updating time and a time threshold of the batch of update information
S37'
S30
Is any transaction data not updated?
S39
Yes
No
End

Fig. 5

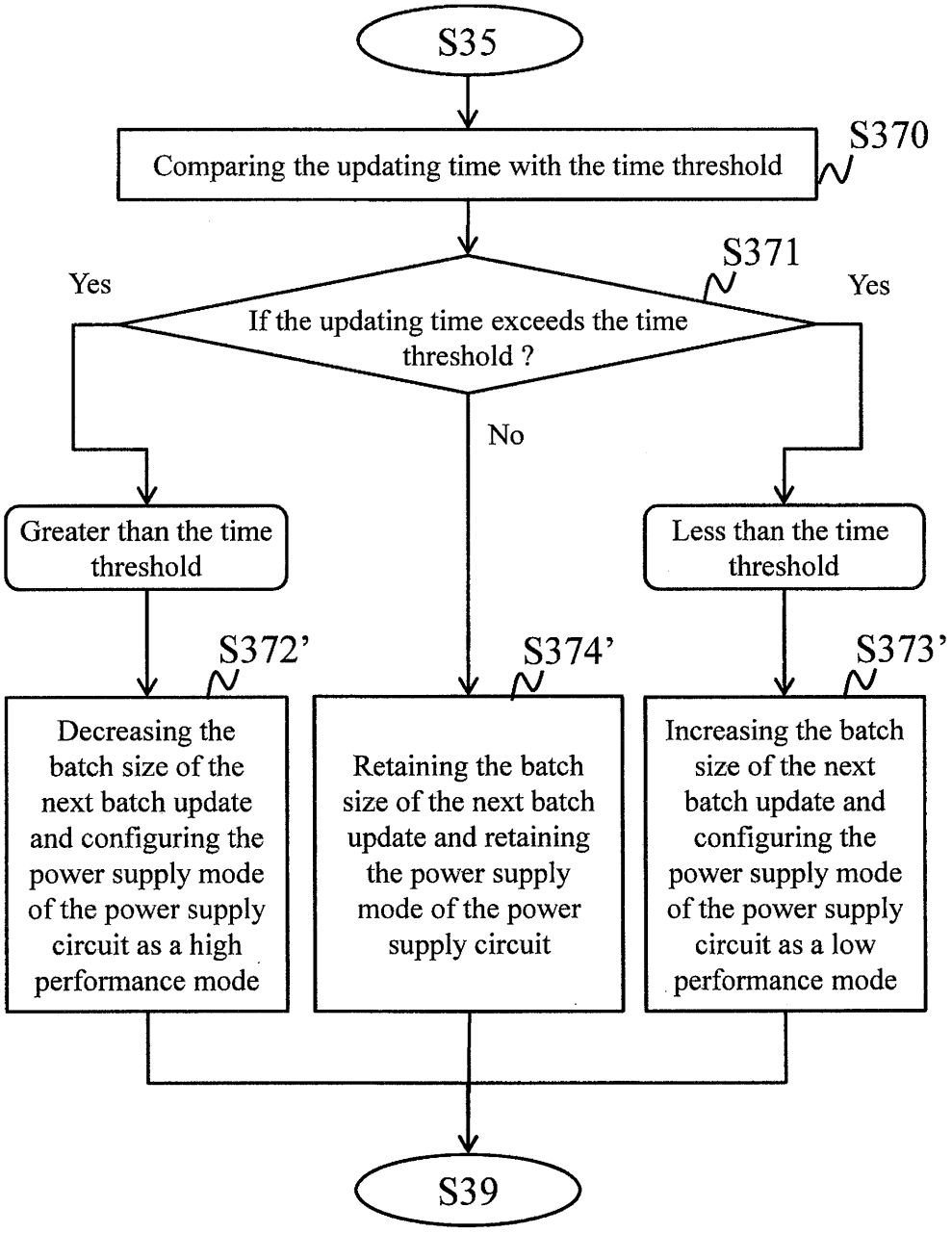
S35
Comparing the updating time with the time threshold
S370
S371
Yes
If the updating time exceeds the time threshold ?
Yes
No
Greater than the time threshold
Less than the time threshold
S372'
S374'
S373'
Decreasing the batch size of the next batch update and configuring the power supply mode of the power supply circuit as a high performance mode
Retaining the batch size of the next batch update and retaining the power supply mode of the power supply circuit
Increasing the batch size of the next batch update and configuring the power supply mode of the power supply circuit as a low performance mode
S39

Fig. 6

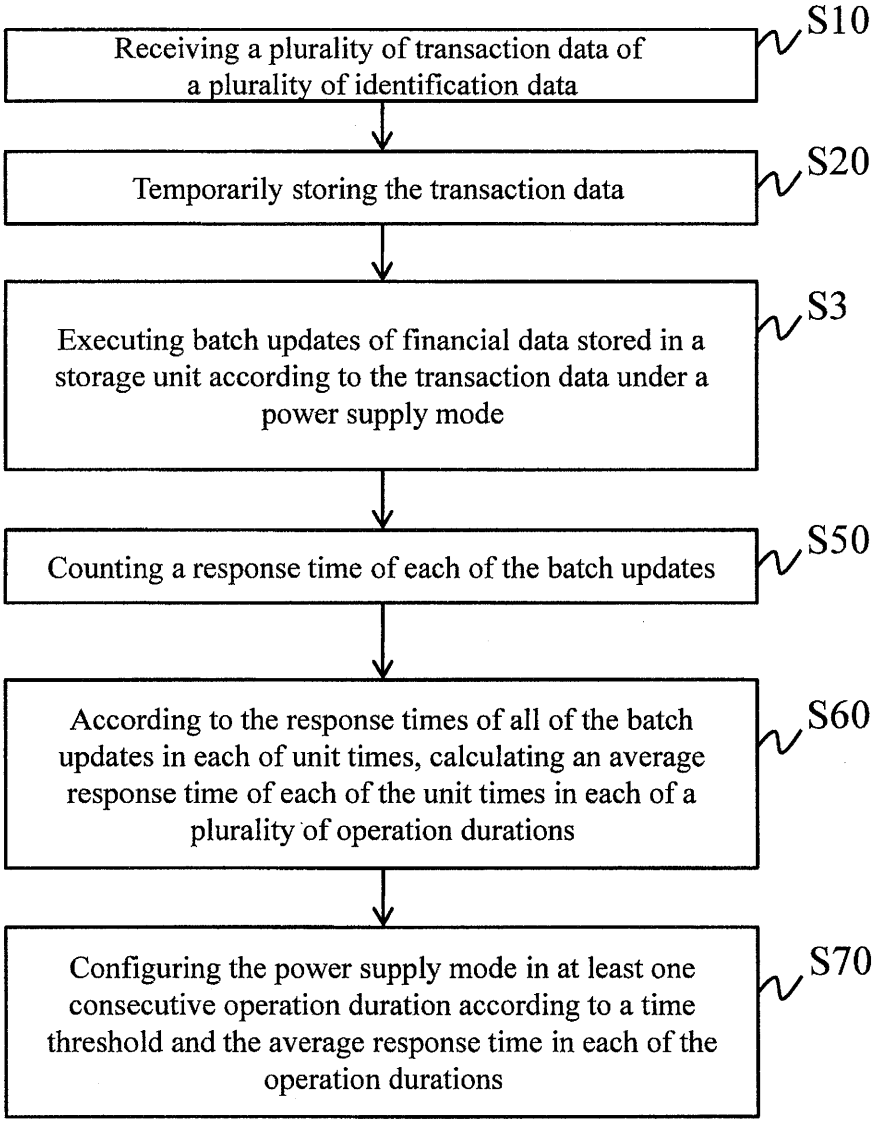
Receiving a plurality of transaction data of a plurality of identification data
S10
Temporarily storing the transaction data
S20
Executing batch updates of financial data stored in a storage unit according to the transaction data under a power supply mode
S3
Counting a response time of each of the batch updates
S50
According to the response times of all of the batch updates in each of unit times, calculating an average response time of each of the unit times in each of a plurality of operation durations
S60
Configuring the power supply mode in at least one consecutive operation duration according to a time threshold and the average response time in each of the operation durations
S70

Fig. 7

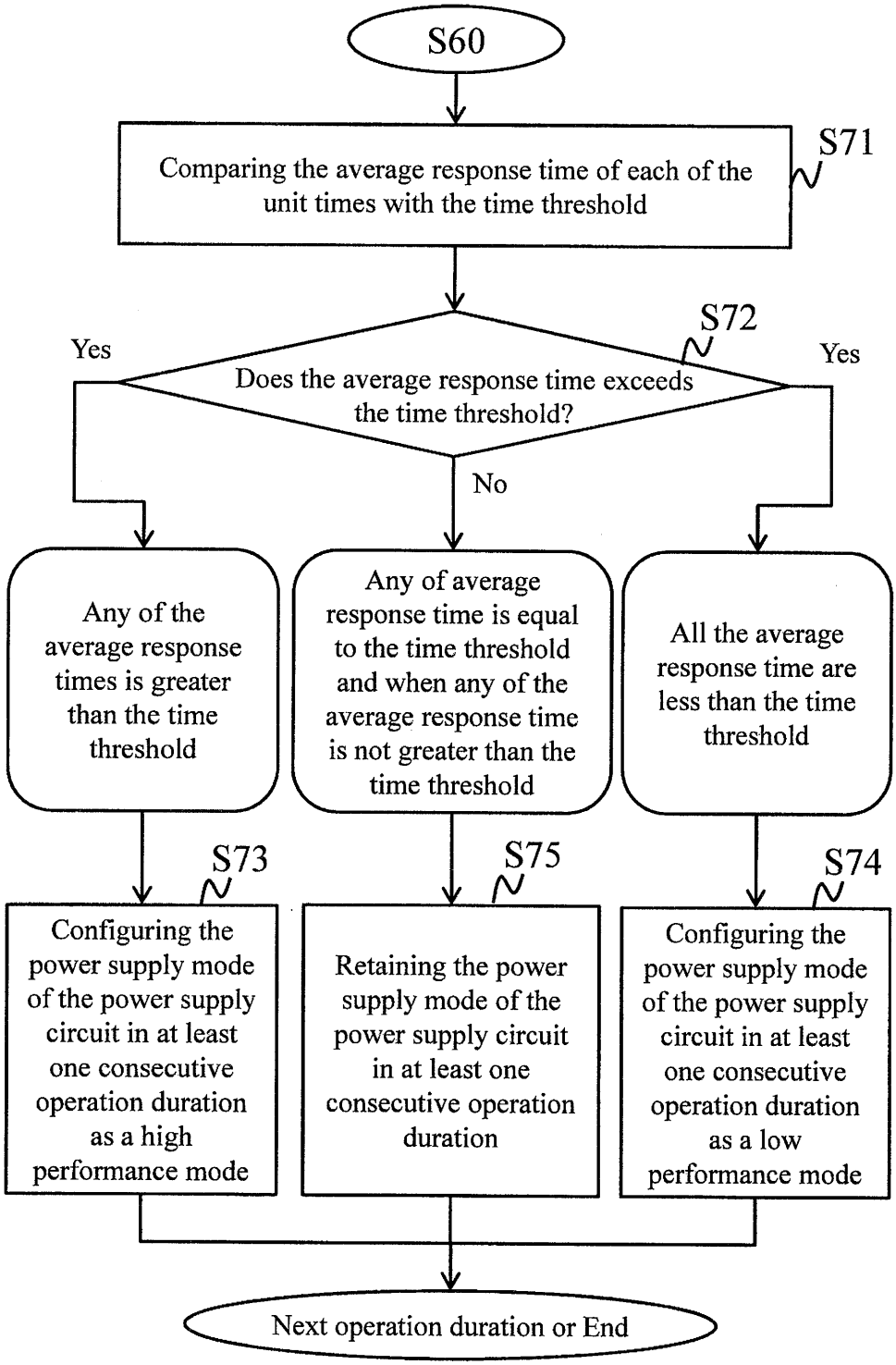
S60
Comparing the average response time of each of the unit times with the time threshold
S71
S72
Does the average response time exceeds the time threshold?
Yes
Yes
No
Any of the average response times is greater than the time threshold
Any of average response time is equal to the time threshold and when any of the average response time is not greater than the time threshold
All the average response time are less than the time threshold
S73
S75
S74
Configuring the power supply mode of the power supply circuit in at least one consecutive operation duration as a high performance mode
Retaining the power supply mode of the power supply circuit in at least one consecutive operation duration
Configuring the power supply mode of the power supply circuit in at least one consecutive operation duration as a low performance mode
Next operation duration or End

Fig. 8