[0001] be in the future. It is important to consider multiple different sources of data from different accounts, such as real-time consumer spending, rentals, digital wallets accounts so as to obtain a more complete collection of data about a specific consumer.

[0002] A need therefore exists to provide methods for conducting a user-approved transaction using one of a plurality of accounts that addresses one or more of the above problems.

[0003] Furthermore, other desirable features and characteristics will become apparent from the subsequent detailed description and the appended claims, taken in conjunction with the accompanying drawings and this background of the disclosure.

SUMMARY

[0004] According to a first aspect, an apparatus for conducting a user-approved transaction using one of a plurality of accounts linked to an account identifier is provided, the apparatus comprising at least one processor; and at least one memory including computer program code; the at least one memory and the computer program code configured to, with at least one processor, cause the apparatus at least to: retrieve historical transaction data, the historical transaction data relating to a plurality of historical transactions conducted using at least one of the plurality of accounts; analyze the retrieved historical transaction data to predict a future transaction amount to be made by at least one of the plurality of accounts within a predetermined time period; determine one of the plurality of accounts to be used to be used for conducting the transaction, the determined account having an amount equal to or more than the predicted future transaction amount; conduct the user-approved transaction within the predetermined time period using the determined account; determine a plurality of weights; and assign each of the plurality of weights to the retrieved historical transaction data so as to predict a future transaction amount to be made by at least one of the plurality of accounts within a predetermined time period.

[0005] According to a second aspect, a computer-implemented method for conducting a user-approved transaction using one of a plurality of accounts linked to an account identifier, the method comprising retrieving historical transaction data, the historical transaction data relating to a plurality of historical transactions conducted using at least one of the plurality of accounts; analyzing the retrieved historical transaction data to predict a future transaction amount to be made by at least one of the plurality of accounts within a predetermined time period; determining one of the plurality of accounts to use for conducting the user-approved transaction, the determined account having an amount equal to or more than the predicted future transaction amount; conducting the user-approved transaction within the predetermined time period using the determined account; and determining a plurality of weights; wherein the step of analysing the retrieved historical transaction data includes assigning each of the plurality of weights to the retrieved historical transaction data so as to predict a future transaction amount to be made by at least one of the plurality of accounts within a predetermined time period.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] Embodiments of the invention will be better understood and readily apparent to one of ordinary skill in the art from the following written description, by way of example only, and in conjunction with the drawings, in which:

[0007] Figure 1 shows a block diagram of a transaction system 100 within which transaction data can be received.

[0008] Figure 2 shows a flow chart illustrating a computer-implemented method for conducting a user-approved transaction using one of a plurality of accounts linked to an account identifier according to an example embodiment.

[0009] Figure 3 shows a schematic diagram of a computer system suitable for use in executing the method depicted in Figure 2.

[0010] Figure 4 shows an exemplary computing device to realize a server for the payment network server 108 shown in Figure 1.

CLAIMS

1. An apparatus for conducting a user-approved transaction using one of a plurality of accounts linked to an account identifier, the apparatus comprising:

at least one processor; and

at least one memory including computer program code;

the at least one memory and the computer program code configured to, with at least one processor, cause the apparatus at least to:

retrieve historical transaction data, the historical transaction data relating to a plurality of historical transactions conducted using at least one of the plurality of accounts;

analyze the retrieved historical transaction data to predict a future transaction amount to be made by at least one of the plurality of accounts within a predetermined time period;

determine one of the plurality of accounts to be used to be used for conducting the transaction, the determined account having an amount equal to or more than the predicted future transaction amount;

conduct the user-approved transaction within the predetermined time period using the determined account;

determine a plurality of weights; and

assign each of the plurality of weights to the retrieved historical transaction data so as to predict a future transaction amount to be made by at least one of the plurality of accounts within a predetermined time period.

2. The apparatus according to claim 1, wherein the at least one memory and the computer program code is further configured with the at least one processor to:

retrieve the historical transaction data periodically.

3. The apparatus according to claim 1 or 2, wherein the at least one memory and the computer program code is further configured with the at least one processor to:

identify an account characteristic based on the accounts; and

determine the account identifier based on the account characteristic.

4. The apparatus according to any one of claims 1-3, wherein the at least one memory and the computer program code is further configured with the at least one processor to:

retrieve fixed transaction data relating to fixed transactions that are completed on a periodic basis.

5. The apparatus according to any one of claims 1-4, wherein the at least one memory and the computer program code is further configured with the at least one processor to:

update a transaction database to include additional transaction data when an additional transaction is made using one of the plurality of accounts;

retrieve the additional transaction data; and

analyze the additional transaction data.

6. The apparatus according to any one of claims 1-5, wherein the at least one memory and the computer program code is further configured with the at least one processor to:

transfer funds from the other payment accounts to the determined account so that funds in the determined account is more than or equal to an amount predicted to be made from the determined account.

7. The apparatus according to any one of claims 1-6, wherein the at least one memory and the computer program code is further configured with the at least one processor to:

apply a mathematical model to the historical transaction data.

8. The apparatus according to claim 7, wherein the mathematical model comprises fuzzy logic and/or a regression model.

9. A computer-implemented method for conducting a user-approved transaction using one of a plurality of accounts linked to an account identifier, the method comprising:

retrieving historical transaction data, the historical transaction data relating to a plurality of historical transactions conducted using at least one of the plurality of accounts;

analyzing the retrieved historical transaction data to predict a future transaction amount to be made by at least one of the plurality of accounts within a predetermined time period;

determining one of the plurality of accounts to use for conducting the user-approved transaction, the determined account having an amount equal to or more than the predicted future transaction amount;

conducting the user-approved transaction within the predetermined time period using the determined account; and

determining a plurality of weights;

wherein the step of analysing the retrieved historical transaction data includes assigning each of the plurality of weights to the retrieved historical transaction data so as to predict a future transaction amount to be made by at least one of the plurality of accounts within a predetermined time period.

10. The method according to claim 9, wherein the step of retrieving the historical transaction data is done periodically.

11. The method according to claim 9 or 10, further comprising:

identifying an account characteristic based on the accounts; and

determining the account identifier based on the account characteristic.

12. The method according to any one of claims 9-11, wherein the step of retrieving historical transaction data comprises retrieving fixed transaction data relating to fixed transactions that are completed on a periodic basis.

13. The method according to any one of claims 9-12, further comprising

updating a transaction database to include additional transaction data when an additional transaction is made using one of the plurality of accounts, wherein retrieving historical transaction data includes retrieving the additional transaction data and wherein analyzing the retrieved transaction data includes analyzing the additional transaction data.

14. The method according to any one of claims 9-13, further comprising transferring funds from the other payment accounts to the determined account so that funds in the determined account is more than or equal to an amount predicted to be made from the determined account.

15. The method according to any one of claims 9-14, wherein analyzing the historical transaction data comprises applying a mathematical model to the historical transaction data.

16. The method according to claim 15, wherein the mathematical model comprises fuzzy logic and/or a regression model.

17. The method according to claim 16, further comprising

determining a plurality of weights;

wherein the step of analysing the retrieved historical transaction data includes assigning each of the plurality of weights to the retrieved historical transaction data so as to predict a future transaction amount to be made by at least one of the plurality of accounts within a predetermined time period.

18. A computer-readable storage medium having stored thereon computer program code which when executed by a computer causes the computer to execute a method in accordance with any one of claims 9 to 17.