ON-LINE CLEARING METHOD, APPARATUS AND DEVICE, AND COMPUTER-READABLE STORAGE MEDIUM

This application claims priority for Chinese Patent Application submitted to the National Intellectual Property Administration, PRC on July 07, 2017, Application No. 201710550492.5, and titled “On-line Clearing Method, Apparatus and Device, and Computer-readable Storage medium”, with all its contents hereby incorporated by reference.

TECHNICAL FIELD

The invention relates to the technical field of Internet, in particular to an on-line clearing method, apparatus and device, and a computer-readable storage medium.

BACKGROUND

With the continuous development of Internet finance, more and more financial products start to support on-line clearing. At present, a transaction platform generally skips to an E-bank page to implement money-transfer clearing during on-line transactions of the financial products. For instance, in the case where a user purchases a financial product from the transaction platform and selects an on-line payment mode, the transaction page skips to a corresponding E-bank payment page, and at this moment, the user inputs an E-bank account and a password to log in the E-bank and then inputs a corresponding payment password to complete payment. However, such method has the drawbacks of complex operation process and low clearing efficiency caused by skipping to the E-bank page and input of related account information during payment clearing.

SUMMARY

The main objective of the invention is to provide an on-line clearing method, apparatus and device, and a computer-readable storage medium to simplify the on-line clearing operation process and to improve the on-line clearing efficiency.

To fulfill the above objective, the invention provides an on-line clearing method comprising the following steps:

Creating a clearing account in a transaction platform system, wherein account information of the clearing account comprises information of an opening bank;

When receiving a request for opening a clearing account-based on-line clearing function, determining whether the clearing account satisfies a preset on-line clearing function opening condition according to the information of the opening bank;

If yes, opening the on-line clearing function of the clearing account; and

When receiving a payment instruction triggered based on the clearing account, sending the payment instruction to a system of the opening bank corresponding to the information of the opening bank according to the on-line clearing function of the clearing account, to enable the system of the opening bank to execute a corresponding money transfer operation according to the payment instruction.

Optionally, the step of determining whether the clearing account satisfies a preset on-line clearing function opening condition according to the information of the opening bank comprises:

Determining whether the clearing account needs to be subject to on-the-counter verification according to the information of the opening bank;

If yes, acquiring on-the-counter verification information of the clearing account from the system of the opening bank and verifying the on-the-counter verification information; and when the on-the-counter verification information passes verification, determining that the clearing account satisfies the preset on-line clearing function opening condition; or

If not, calling an interface of the system of the opening bank to verify the information of the opening bank; and when the information of the opening bank passes verification, determining that the clearing account satisfies the preset on-line clearing function opening condition.

Optionally, the information of the opening bank comprises a name of the opening bank, and the step of determining whether the clearing account needs to be subject to on-the-counter verification according to the information of the opening bank comprises:

Determining whether or not the opening bank is a preset opening bank according to the name of the opening bank; and if yes, determining that clearing account needs to be subject to on-the-counter verification.

Optionally, the on-line clearing method further comprises:

Receiving a money transfer result returned from the system of the opening bank, and displaying the money transfer result on a front terminal of the transaction platform system.

Optionally, the on-line clearing method further comprises the following step to be performed after the step of receiving a money transfer result returned from the system of the opening bank and displaying the money transfer result on a front terminal of the transaction platform system:

Generating a clearing statement of the clearing account according to the money transfer result, and saving the clearing statement in a historical transaction database of the transaction platform system.

Furthermore, to fulfill the above objective, the invention further provides an on-line clearing apparatus comprising:

A creation module used for creating a clearing account in a transaction platform system, wherein account information of the clearing account comprises information of an opening bank;

A determination module used for determining, when receiving a request for opening a clearing account-based on-line clearing function, whether the clearing account satisfies a preset on-line clearing function opening condition according to the information of the opening bank;

An opening module used for opening the on-line clearing function of the clearing account if the clearing account satisfies the preset on-line clearing function opening condition; and

A sending module used for sending, when receiving a payment instruction triggered based on the clearing account, the payment instruction to a system of the opening bank corresponding to the information of the opening bank according to the on-line clearing function of the clearing account, to enable the system of the opening bank to execute a corresponding money transfer operation according to the payment instruction.

Furthermore, to fulfill the above objective, the invention further provide an on-line clearing device comprising a memory, a processor, and an on-line clearing program which is stored in the memory and is to be run on the processor, and the on-line clearing program is executed by the processor to implement the following steps:

Creating a clearing account in a transaction platform system, wherein account information of the

clearing account comprises information of an opening bank;

When receiving a request for opening a clearing account-based on-line clearing function, determining whether the clearing account satisfies a preset on-line clearing function opening condition according to the information of the opening bank;

If yes, opening the on-line clearing function of the clearing account; and

When receiving a payment instruction triggered based on the clearing account, sending the payment instruction to a system of the opening bank corresponding to the information of the opening bank according to the on-line clearing function of the clearing account, to enable the system of the opening bank to execute a corresponding money transfer operation according to the payment instruction.

Optionally, the on-line clearing program is executed by the processor to further implement the following steps:

Determining whether the clearing account needs to be subject to on-the-counter verification according to the information of the opening bank;

If yes, acquiring on-the-counter verification information of the clearing account from the system of the opening bank and verifying the on-the-counter verification information; and when the on-the-counter verification information passes verification, determining that the clearing account satisfies the preset on-line clearing function opening condition; or

If not, calling an interface of the system of the opening bank to verify the information of the opening bank; and when the information of the opening bank passes verification, determining that the clearing account satisfies the preset on-line clearing function opening condition.

Optionally, the information of the opening bank comprises a name of the opening bank, and the on-line clearing program is executed by the processor to further implement the following step:

Determining whether or not the opening bank is a preset opening bank according to the name of the opening bank; and if yes, determining that clearing account needs to be subject to on-the-counter verification.

Optionally, the on-line clearing program is executed by the processor to further implement the following step:

Receiving a money transfer result returned from the system of the opening bank, and displaying the money transfer result on a front terminal of the transaction platform system.

Optionally, the on-line clearing program is executed by the processor to further implement the following step:

Generating a clearing statement of the clearing account according to the money transfer result, and saving the clearing statement in a historical transaction database of the transaction platform system.

Furthermore, to fulfill the above objective, the invention further provides a computer-readable storage medium having an on-line clearing program stored therein, wherein the on-line clearing program is executed by a processor to implement the following steps:

Creating a clearing account in a transaction platform system, wherein account information of the clearing account comprises information of an opening bank;

When receiving a request for opening a clearing account-based on-line clearing function, determining whether the clearing account satisfies a preset on-line clearing function opening condition according to the information of the opening bank;

If yes, opening the on-line clearing function of the clearing account; and

When receiving a payment instruction triggered based on the clearing account, sending the payment instruction to a system of the opening bank corresponding to the information of the opening bank according to the on-line clearing function of the clearing account, to enable the system of the opening bank to execute a corresponding money transfer operation according to the payment instruction;

Optionally, the on-line clearing program is executed by the processor to further implement the following steps:

Determining whether the clearing account needs to be subject to on-the-counter verification according to the information of the opening bank;

If yes, acquiring on-the-counter verification information of the clearing account from the system of the opening bank and verifying the on-the-counter verification information; and when the on-the-counter verification information passes verification, determining that the clearing account

satisfies the preset on-line clearing function opening condition; or

If not, calling an interface of the system of the opening bank to verify the information of the opening bank; and when the information of the opening bank passes verification, determining that the clearing account satisfies the preset on-line clearing function opening condition.

Optionally, the information of the opening bank comprises a name of the opening bank, and the on-line clearing program is executed by the processor to further implement the following step:

Determining whether or not the opening bank is a preset opening bank according to the name of the opening bank; and if yes, determining that clearing account needs to be subject to on-the-counter verification.

Optionally, the on-line clearing program is executed by the processor to further implement the following step:

Receiving a money transfer result returned from the system of the opening bank, and displaying the money transfer result on a front terminal of the transaction platform system.

Optionally, the on-line clearing program is executed by the processor to further implement the following step:

Generating a clearing statement of the clearing account according to the money transfer result, and saving the clearing statement in a historical transaction database of the transaction platform system.

According to the invention, a clearing account is created in a transaction platform system, wherein account information of the clearing account comprises information of an opening bank; when a request for opening a clearing account-based on-line clearing function is received, whether the clearing account satisfies a preset on-line clearing function opening condition is determined according to the information of the opening bank; if yes, the on-line clearing function of the clearing account is opened; and when a payment instruction triggered based on the clearing account is received, the payment instruction is sent to a system of the opening bank corresponding to the information of the opening bank according to the on-line clearing function of the clearing account, to enable the system of the opening bank to execute a corresponding money transfer operation according to the payment instruction. In this way, users create a clearing account in the transaction platform

system and open an on-line clearing function of the clearing account, the transaction platform system directly sends a payment instruction to the system of the opening bank by means of the created clearing account during a subsequent transaction, to enable the system of the opening bank to execute a corresponding money transfer operation, and in this process, skipping to an E-bank for secondary account information input is not needed, so that the on-line clearing operation process is simplified, and the on-line clearing efficiency is improved.

BRIEF DESCRIPTION OF DRAWINGS

FIG. 1 is a device structural diagram of a hardware operating environment involved in embodiments of the invention;

FIG. 2 is a flow diagram of a first embodiment of an on-line clearing method of the invention;

FIG. 3 is a detailed flow diagram of the step of determining whether a clearing account satisfies a preset on-line clearing function opening condition according to information of an opening bank in FIG. 2;

FIG. 4 is a flow diagram of a second embodiment of the on-line clearing method of the invention;

FIG. 5 is a flow diagram of a third embodiment of the on-line clearing method of the invention.

The realization of the objective of the invention, and the functional characteristics and advantages of the invention are further explained with reference to the accompanying drawings.

DESCRIPTION OF EMBODIMENTS

It should be understood that the embodiments in the following description are only used for explaining the invention, and are not intended to limit the invention.

The main solution of the embodiments of the invention lies in that: a clearing account is created in a transaction platform system, wherein account information of the clearing account comprises information of an opening bank; when a request for opening a clearing account-based on-line clearing function is received, whether the clearing account satisfies a preset on-line clearing function opening condition is determined according to the information of the opening bank; if yes, the on-line clearing function of the clearing account is opened; and when a payment instruction triggered based on the clearing account is received, the payment instruction is sent to a system of the opening bank

corresponding to the information of the opening bank according to the on-line clearing function of the clearing account, to enable the system of the opening bank to execute a corresponding money transfer operation according to the payment instruction.

In the prior art, during on-line transactions of financial products, a transaction platform generally skips to an E-bank to implement a money transfer operation. This method has the drawbacks of complex operation process and low clearing efficiency caused by skipping to an E-bank page and input of related account information during payment clearing.

In this invention, a clearing account is created in a transaction platform system, an on-line clearing function of the clearing account is opened, the transaction platform system directly sends a payment instruction to a system of an opening bank by means of the created clearing account during a subsequent transaction, to enable the system of the opening bank to execute a corresponding money transfer operation, and in this process, skipping to an E-bank for secondary account information input is not needed, so that the on-line clearing operation process is simplified, and the on-line clearing efficiency is improved.

The invention provides an on-line clearing method.

FIG. 1 is a device structural diagram of a hardware operating environment involved in the embodiments of the invention.

An on-line clearing device in the embodiments of the invention is a mobile terminal device with a display function such as a PC, a smartphone, a tablet computer, or a portable computer.

As shown in FIG. 1, the on-line clearing device comprises a processor 1001 such as CPU, a network interface 1004, a user interface 1003, a memory 1005, and a communication bus 1002, wherein the communication bus 1002 is used for realizing connection and communication between these modules; the user interface 1003 includes a display and an input unit such as a keyboard; optionally, the user interface 1003 further includes a standard wired interface or a wireless interface; optionally, the network interface 1004 includes a standard wired interface and a wireless interface (such as a WI-FI interface); the memory 1005 is a high-speed RAM, or a stable non-volatile memory such as a disk memory; and optionally, the memory 1005 is a memory device independent of the processor 1001.

Optionally, the on-line clearing device further comprises a camera, a radio frequency (RF) circuit, sensors, an audio circuit, a WIFI module, and the like. Wherein, the sensors are light sensors, motion sensors, or other sensors. Particularly, the light sensors include an ambient light sensor and a proximity sensor, wherein the ambient light sensor is able to adjust the brightness of the display according to the brightness of ambient light, and the proximity sensor is able to turn off the display and/or backlight when a mobile terminal moves close to the ear. As one of the motion sensors, a gravity acceleration sensor is able to detect the accelerations in all directions (namely in the three axis directions), is able to detect the magnitude and direction of the gravity in a static state, and is used for recognizing attitude applications (such as horizontal and vertical screen switching, related games, magnetometer attitude calibration) of the mobile terminal and realizing vibrating recognition of related functions (such as pedometers and knocking). Clearly, the mobile terminal may also be equipped with a gyroscope, a barometer, a hygrometer, thermometer, and other sensors such as infrared sensors, and unnecessary details will not be given anymore herein.

Those skilled in the art would appreciate that the structure of the on-line clearing device shown in FIG. 1 is not intended to limit the terminal. The terminal may include more or less components, or certain components may be combined, or components may be configured in different manners.

As shown in FIG. 1, a memory 1005 serving as a computer storage medium comprises an operating system, a network communication module, a user interface module, and an on-line clearing program.

In the terminal shown in FIG. 1, the network interface 1004 is connected to a background server to be in data communication with the background server, the user interface 1003 is connected to a client side (user side) to be in data communication with the client side, and the processor 1001 calls the on-line clearing program stored in the memory 1005 to implement the following operations:

Creating a clearing account in a transaction platform system, wherein account information of the clearing account comprises information of an opening bank;

When receiving a request for opening a clearing account-based on-line clearing function, determining whether the clearing account satisfies a preset on-line clearing function opening condition according to the information of the opening bank;

If yes, opening the on-line clearing function of the clearing account; and

When receiving a payment instruction triggered based on the clearing account, sending the payment instruction to a system of the opening bank corresponding to the information of the opening bank according to the on-line clearing function of the clearing account, to enable the system of the opening bank to execute a corresponding money transfer operation according to the payment instruction.

Furthermore, the processor 1001 calls the on-line clearing program stored in the memory 1005 to further implement the following operations:

Determining whether the clearing account needs to be subject to on-the-counter verification according to the information of the opening bank;

If yes, acquiring on-the-counter verification information of the clearing account from the system of the opening bank and verifying the on-the-counter verification information; and when the on-the-counter verification information passes verification, determining that the clearing account satisfies the preset on-line clearing function opening condition; or

If not, calling an interface of the system of the opening bank to verify the information of the opening bank; and when the information of the opening bank passes verification, determining that the clearing account satisfies the preset on-line clearing function opening condition.

Furthermore, the processor 1001 calls the on-line clearing program stored in the memory 1005 to further implement the following operation:

Determining whether or not the opening bank is a preset opening bank according to a name of the opening bank; and if yes, determining that clearing account needs to be subject to on-the-counter verification.

Furthermore, the processor 1001 calls the on-line clearing program stored in the memory 1005 to further implement the following operation:

Receiving a money transfer result returned from the system of the opening bank, and displaying the money transfer result on a front terminal of the transaction platform system.

Furthermore, the processor 1001 calls the on-line clearing program stored in the memory 1005 to further implement the following operation:

Generating a clearing statement of the clearing account according to the money transfer result, and saving the clearing statement in a historical transaction database of the transaction platform system.

On the basis of the above hardware structure, embodiments of an on-line clearing method of the invention are provided.

Referring to FIG. 2 which is a flow diagram of a first embodiment of the on-line clearing method of the invention, the on-line clearing method comprises:

S10: a clearing account is created in a transaction platform system, wherein account information of the clearing account comprises information of an opening bank.

In this embodiment, the transaction platform is mainly used for realizing on-line transactions between financial institutions, wherein on-line transaction products include various financial products such as money, foreign currency, and negotiable securities. When a purchaser (user) purchases a financial product sold by a seller via the transaction platform, the purchaser creates a clearing account in the transaction platform system first, wherein account information of the clearing account should comprise information of an opening bank; and then, the purchaser pays for the purchased financial product by means of the bank account of the opening bank.

Particularly, the transaction platform system receives a creation instruction from the user and displays an account information input interface of a clearing account according to the creation instruction, and then the user inputs the name and number of a transaction account and the information of an opening bank by means of the display interface, wherein the information of the opening bank comprises the name of the opening bank, the branch of the opening bank, the name of an opened account, the type of the opened account, and a bank account. Optionally, the transaction platform system is able to automatically recognize large-payment bank accounts of the branch of the opening bank (unique identification numbers of the branch of the opening bank) according to the branch of the opening bank and then saves the large-payment bank accounts in the account information of the clearing account as information of the opening bank.

After the user inputs the account information of the clearing account, the transaction platform system verifies the account information. For instance, the transaction platform system determines

whether the name of the transaction account coincides with a created clearing account and whether the user has agreed the on-line clearing service agreement by ticking. If the account information passes verification, a transaction platform creates a corresponding clearing account in the system.

It should be noted that the user can create multiple clearing accounts, corresponding to information of different opening banks, in the transaction platform system as actually required, so that different clearing accounts can be used as a payment account to realize on-line clearing when the user carries out payment clearing subsequently, and more on-line clearing approaches are provided for the user.

S20: when a request for opening a clearing account-based on-line clearing function is received, whether the clearing account satisfies a preset on-line clearing function opening condition is determined according to the information of the opening bank.

After the clearing account is created, the user needs to open an on-line clearing function of the clearing account. Particularly, the user triggers a request for opening an on-line clearing function based on the created clearing account, and when receiving the request for opening the on-line clearing function, the transaction platform system determines whether the clearing account satisfies a preset on-line clearing function opening condition according to the information of the opening bank of the clearing account.

Wherein, the on-line clearing function opening condition can be flexibly set. For instance, the transaction platform system acquires the name of the opening bank from the information of the opening bank and determines whether the opening bank signs an on-line clearing service agreement with the platform system according to the name of the opening bank; and if yes, it is determined that the clearing account satisfies the preset on-line clearing function opening condition. Or, the transaction platform system calls a system interface of the opening bank according to the information of the opening bank and acquires a return value from the system of the opening bank to verify whether or not the name of the opened account, the type of the opened account and the bank account in the information of the opening bank exit or are valid; and if yes, it is determined that the clearing account satisfies the preset on-line clearing function opening condition; or, the transaction platform system determines that the clearing account satisfies the preset on-line clearing function opening

condition in the case where the opening bank signs the on-line clearing service agreement with the platform system and the information of the opening bank is valid, or the like.

S30: if the clearing account satisfies the preset on-line clearing function opening condition, the on-line clearing function of the clearing account is opened.

If the clearing account satisfies the preset on-line clearing function opening condition, the on-line clearing function of the clearing account is opened; or otherwise, the on-line clearing function of the clearing account is not opened.

After the on-line clearing function of the clearing account is opened, the clearing account can be used as a payment account for the user to carry out on-line transactions on the transaction platform.

S40: when a payment instruction triggered based on the clearing account is received, the payment instruction is sent to a system of the opening bank corresponding to the information of the opening bank according to the on-line clearing function of the clearing account, to enable the system of the opening bank to execute a corresponding money transfer operation according to the payment instruction.

When the user purchases a financial product from the transaction platform, one clearing account is used as the payment account; when receiving a payment instruction triggered based on the clearing account, the transaction platform system sends the payment instruction to the system of the opening bank corresponding to the opening bank according to the on-line clearing function of the clearing account, wherein the payment instruction comprises information of a payment account, information of a receipt account, and a payment amount; and the system of the opening bank to executes a corresponding money transfer operation according to the payment instruction, namely money is transferred by means of a account opened in the opening bank by the user. When money transfer succeeds, the system of the opening bank returns successful payment information which is displayed to the user by the transaction platform system via a front terminal, thus completing on-line clearing of the financial product.

It should be noted that the transaction platform system and the system of the opening bank are directly connected in this embodiment. Such direction connection depends on the cooperative relation between the transaction platform and the opening bank, and in this case, the transaction

platform system directly initiates a money transfer instruction to the system of the opening bank to enable the system of the opening bank to transfer money, so that the operation is convenient.

In this embodiment, a clearing account is created in a transaction platform system, wherein account information of the clearing account comprises information of an opening bank; when a request for opening a clearing account-based on-line clearing function is received, whether the clearing account satisfies a preset on-line clearing function opening condition is determined according to the information of the opening bank; if yes, the on-line clearing function of the clearing account is opened; and when a payment instruction triggered based on the clearing account is received, the payment instruction is sent to a system of the opening bank corresponding to the information of the opening bank according to the on-line clearing function of the clearing account, to enable the system of the opening bank to execute a corresponding money transfer operation according to the payment instruction. In this way, users create a clearing account in the transaction platform system and open an on-line clearing function of the clearing account, the transaction platform system directly sends a payment instruction to the system of the opening bank by means of the created clearing account during a subsequent transaction, to enable the system of the opening bank to execute a corresponding money transfer operation, and in this process, skipping to an E-bank for secondary account information input is not needed, so that the on-line clearing operation process is simplified, and the on-line clearing efficiency is improved.

Furthermore, please refer to FIG. 3 which is a detailed flow diagram of the step of determining whether the clearing account satisfies a preset on-line clearing function opening condition according to the information of the opening bank in FIG. 2. On the basis of the embodiment shown in FIG. 2, the step of determining whether the clearing account satisfies a preset on-line clearing function opening condition according to the information of the opening bank comprises:

S21: whether the clearing account needs to be subject to on-the-counter verification is determined according to the information of the opening bank;

For certain opening banks or certain types of opened accounts, customers may be asked to carry out on-the-counter verification to guarantee the security of the accounts. On-the-counter verification means that the customers go to the site of the opening bank for verification, and in consideration of

such case, the transaction platform system determines whether the clearing account needs to be subject to on-the-counter verification according to the information of the opening bank when receiving the request for opening the clearing account-based on-line clearing function.

If the clearing account needs to be subject to on-the-counter verification, the following steps are implemented:

S22: on-the-counter verification information of the clearing account is acquired from the system of the opening bank and verified; and

S23: when the on-the-counter verification information passes verification, it is determined that the clearing account satisfies the preset on-line clearing function opening condition;

If the clearing account needs to be subject to on-the-counter verification, the transaction platform system outputs a prompt message to remind the user that the clearing account needs to be subject to on-the-counter verification; in this case, the user needs to go to the opening bank with related materials (platform authorization, identity card, and the like) and fills a signing application form for an agreement (triple agreement among the platform, the bank and the customer) provided by the opening bank; after a bank teller inputs agreement signing application information into the system of the bank, the system of the bank sends on-the-counter verification information containing the agreement signing application to the transaction platform system, the transaction platform system verifies the on-the-counter verification by checking whether customer signing information is matched with the account information of the clearing account; and when the on-the-counter verification information passes verification, the transaction platform system determines that the clearing account satisfies the preset on-line clearing function opening condition and opens the on-line clearing function of the clearing account.

If the clearing account does not need to be subject to on-the-counter verification, the following steps are implemented:

S24: an interface of the system of the opening bank is called to verify the information of the opening bank; and

S25: when the information of the opening bank passes verification, it is determined that the clearing account satisfies the preset on-line clearing function opening condition.

If the clearing account does not need to be subject to on-the-counter verification, the transaction platform system calls a system interface of the opening bank corresponding to the clearing account and acquires a return value from the system of the opening bank to verify the information of the opening bank input by the user, for instance, whether the name of the opened account, the type of the opened account and the bank account in the information of the opening bank exist or are valid; and when the information of the opening bank passes verification, the transaction platform system determines that the clearing account satisfies the preset on-line clearing function opening condition.

Furthermore, S21 comprises:

S211: whether or not the opening bank is a preset opening bank is determined according to the name of the opening bank; and if yes, it is determined that clearing account needs to be subject to on-the-counter verification.

Particularly, the transaction platform system presets the name of the opening bank where on-the-counter verification is executed; in the subsequent process of determining whether the opening bank of the clearing account is a preset opening bank, the name of the opening bank in the information of the opening bank is acquired, and if the acquired name of the opening bank is matched with a preset opening bank name, it is determined that the clearing account needs to be subject to on-the-counter verification. In addition, the transaction platform system can determine whether the clearing account needs to be subject to on-the-counter verification by presetting opening bank branches or large-payment bank numbers of opening banks needing the user to conduct on-the-counter verification, the specific determination process is similar to the determination process based on the name of the opening bank, and unnecessary details will not be given anymore herein.

In this embodiment, the account security of the user and the authenticity and reliability of the account information are further guaranteed by means of off-line on-the-counter verification, and a precondition is provided for subsequent on-line clearing.

Furthermore, please refer to FIG. 4 which is a flow diagram of a second embodiment of the on-line clearing method of the invention. On the basis of the first embodiment of the on-line clearing method of the invention, the method further comprises the following step to be performed after S40:

S50: a money transfer result returned from the system of the opening bank is received, and the

money transfer result is displayed on a front terminal of the transaction platform system.

In this embodiment, in order to inform the user of a money transfer result, the system of the opening bank returns the money transfer result to the transaction platform system after executing the money transfer operation; and after receiving the money transfer result returned from the system of the opening bank, the transaction platform system displays the money transfer result on a front user terminal. Particularly, if the system of the opening bank successfully executes the money transfer operation, a successful money transfer message is returned to the front terminal of the transaction platform system to remind the user that this transaction succeeds; and if the system of the opening bank fails to execute the money transfer operation, a failure reason (such as insufficient funds of the account or cancellation of the account) is returned to the front terminal of the transaction platform system to remind the user that this transaction fails, and in this case, the user can take corresponding remediation measures according to the failure reason, such as recharging the account or changing the clearing account.

Furthermore, please refer to FIG. 5 which is a flow diagram of a third embodiment of the on-line clearing method of the invention. On the basis of the second embodiment of the on-line clearing method of the invention, the method further comprises the following step to be performed after S50:

S60: a clearing statement of the clearing account is generated according to the money transfer result, and the clearing statement is saved in a historical transaction database of the transaction platform system.

In this embodiment, the transaction platform system generates a clearing statement of the clearing account according to the money transfer result and saves the clearing statements in a historical transaction database, wherein the clearing statement comprises a general daily clearing account, a clearing account checking overview, clearing account checking details, clearing log queries, and a clearing anomaly checking report. When a clearing anomaly occurs, the user can check the around and remove the anomaly by viewing the clearing statement. In addition, the user can also realize monitoring and statistics of the purchasing condition of the financial product through the clearing statement.

The invention further provides an on-line clearing apparatus.

The on-line clearing apparatus comprises:

A creation module used for creating a clearing account in a transaction platform system, wherein account information of the clearing account comprises information of an opening bank;

A determination module used for determining, when receiving a request for opening a clearing account-based on-line clearing function, whether the clearing account satisfies a preset on-line clearing function opening condition according to the information of the opening bank;

An opening module used for opening the on-line clearing function of the clearing account if the clearing account satisfies the preset on-line clearing function opening condition; and

A sending module used for sending, when receiving a payment instruction triggered based on the clearing account, the payment instruction to a system of the opening bank corresponding to the information of the opening bank according to the on-line clearing function of the clearing account, to enable the system of the opening bank to execute a corresponding money transfer operation according to the payment instruction.

Furthermore, the determination module is also used for:

Determining whether the clearing account needs to be subject to on-the-counter verification according to the information of the opening bank;

If yes, acquiring on-the-counter verification information of the clearing account from the system of the opening bank and verifying the on-the-counter verification information; and when the on-the-counter verification information passes verification, determining that the clearing account satisfies the preset on-line clearing function opening condition; or

If not, calling an interface of the system of the opening bank verify the information of the opening bank; and when the information of the opening bank passes verification, determining that the clearing account satisfies the preset on-line clearing function opening condition.

Furthermore, the information of the opening bank comprises a name of the opening bank, and the determination module is also used for:

Determining whether or not the opening bank is a preset opening bank according to the name of the opening bank; and if yes, determining that clearing account needs to be subject to on-the-counter verification.

Furthermore, the on-line clearing apparatus further comprises:

A display module used for receiving a money transfer result returned from the system of the opening bank, and displaying the money transfer result on a front terminal of the transaction platform system.

Furthermore, the on-line clearing apparatus further comprises:

A generation module used for generating a clearing statement of the clearing account according to the money transfer result, and saving the clearing statement in a historical transaction database of the transaction platform system.

Please refer to the embodiments of the on-line clearing method for the functions realized by the above-mentioned modules, and unnecessary details will not be given anymore herein.

The invention further provides an on-line clearing device.

The on-line clearing device comprises a memory, a processor, and an on-line clearing program which is stored in the memory and is to be run on the processor, and the on-line clearing program is executed by the processor to implement the following steps:

Creating a clearing account in a transaction platform system, wherein account information of the clearing account comprises information of an opening bank;

When receiving a request for opening a clearing account-based on-line clearing function, determining whether the clearing account satisfies a preset on-line clearing function opening condition according to the information of the opening bank;

If yes, opening the on-line clearing function of the clearing account; and

When receiving a payment instruction triggered based on the clearing account, sending the payment instruction to a system of the opening bank corresponding to the information of the opening bank according to the on-line clearing function of the clearing account, to enable the system of the opening bank to execute a corresponding money transfer operation according to the payment instruction.

Furthermore, the on-line clearing program is executed by the processor to further implement the following steps:

Determining whether the clearing account needs to be subject to on-the-counter verification

according to the information of the opening bank;

If yes, acquiring on-the-counter verification information of the clearing account from the system of the opening bank and verifying the on-the-counter verification information; and when the on-the-counter verification information passes verification, determining that the clearing account satisfies the preset on-line clearing function opening condition; or

If not, calling an interface of the system of the opening bank to verify the information of the opening bank; and when the information of the opening bank passes verification, determining that the clearing account satisfies the preset on-line clearing function opening condition.

Furthermore, the information of the opening bank comprises a name of the opening bank, the on-line clearing program is executed by the processor to further implement the following step:

Determining whether or not the opening bank is a preset opening bank according to the name of the opening bank; and if yes, determining that clearing account needs to be subject to on-the-counter verification.

Furthermore, the on-line clearing program is executed by the processor to further implement the following step:

Receiving a money transfer result returned from the system of the opening bank, and displaying the money transfer result on a front terminal of the transaction platform system.

Furthermore, the on-line clearing program is executed by the processor to further implement the following step:

Generating a clearing statement of the clearing account according to the money transfer result, and saving the clearing statement in a historical transaction database of the transaction platform system.

Wherein, please refer to the embodiments of the on-line clearing method of the method for a method implemented when the on-line clearing program is run on the processor, and unnecessary details will not be given anymore herein.

The invention further provides a computer-readable storage medium.

The computer-readable storage medium has an on-line clearing program stored therein. The on-line clearing program is executed by a processor to implement the following steps:

Creating a clearing account in a transaction platform system, wherein account information of the clearing account comprises information of an opening bank;

When receiving a request for opening a clearing account-based on-line clearing function, determining whether the clearing account satisfies a preset on-line clearing function opening condition according to the information of the opening bank;

If yes, opening the on-line clearing function of the clearing account; and

When receiving a payment instruction triggered based on the clearing account, sending the payment instruction to a system of the opening bank corresponding to the information of the opening bank according to the on-line clearing function of the clearing account, to enable the system of the opening bank to execute a corresponding money transfer operation according to the payment instruction.

Furthermore, the on-line clearing program is executed by the processor to further implement the following steps:

Determining whether the clearing account needs to be subject to on-the-counter verification according to the information of the opening bank;

If yes, acquiring on-the-counter verification information of the clearing account from the system of the opening bank and verifying the on-the-counter verification information; and when the on-the-counter verification information passes verification, determining that the clearing account satisfies the preset on-line clearing function opening condition; or

If not, calling an interface of the system of the opening bank to verify the information of the opening bank; and when the information of the opening bank passes verification, determining that the clearing account satisfies the preset on-line clearing function opening condition.

Furthermore, the information of the opening bank comprises a name of the opening bank, and the on-line clearing program is executed by the processor to further implement the following step:

Determining whether or not the opening bank is a preset opening bank according to the name of the opening bank; and if yes, determining that clearing account needs to be subject to on-the-counter verification.

Furthermore, the on-line clearing program is executed by the processor to further implement the

following step:

Receiving a money transfer result returned from the system of the opening bank, and displaying the money transfer result on a front terminal of the transaction platform system.

Furthermore, the on-line clearing program is executed by the processor to further implement the following step:

Generating a clearing statement of the clearing account according to the money transfer result, and saving the clearing statement in a historical transaction database of the transaction platform system.

Wherein, please refer to the embodiments of the on-line clearing method of the method for a method implemented when the on-line clearing program is run on the processor, and unnecessary details will not be given anymore herein.

It should be noted that in this description, the term “comprise” or “include”, or any other variants thereof is intended to refer to non-exclusive inclusion, and on this basis, a process, method, article or system including a series of elements not only includes these elements listed, but also includes other elements not clearly listed, or includes intrinsic elements of the process, method, article or system. Unless otherwise specifically limited, an element defined by the statement “comprise a/an…” is not exclusive of other identical elements in the process, method, article or system comprising this element.

The serial number of the embodiments of the invention is used for the purpose of description only, and does not indicate the priority of these embodiments.

With reference to the description of the above embodiments, those skilled in the art would clearly appreciate that the above embodiments of the method can be implemented by means of software and an indispensable universal hardware platform or by means of hardware, and in most cases, the former implementation is preferred. On the basis of such appreciation, the technical solution of the invention or the parts making a contribution to the prior art can be essentially reflected in the form of a computer software product, which is stored in the above-mentioned storage medium (such as ROM/RAM, disk, or CD) and includes a plurality of instructions used for instructing a terminal device (such as a mobile phone, a computer, a server, an air-conditioner, or a network device)

to implement the method in the embodiments of the invention.

The above embodiments are only preferred ones of the invention, and are not intended to limit the patent scope of the invention. All equivalent structures or equivalent flow transformations made on the basis of the contents of the specifications and accompanying drawings, or direct or indirect applications to other related technical fields should also fall within the patent protection scope of this invention.

CLAIMS

1. An on-line clearing method, comprising the following steps:

creating a clearing account in a transaction platform system, wherein account information of the clearing account comprises information of an opening bank;

when receiving a request for opening a clearing account-based on-line clearing function, determining whether the clearing account satisfies a preset on-line clearing function opening condition according to the information of the opening bank; if yes, opening the on-line clearing function of the clearing account; and

when receiving a payment instruction triggered based on the clearing account, sending the payment instruction to a system of the opening bank corresponding to the information of the opening bank according to the on-line clearing function of the clearing account, to enable the system of the opening bank to execute a corresponding money transfer operation according to the payment instruction.

2. The on-line clearing method according to Claim 1, wherein the step of determining whether the clearing account satisfies a preset on-line clearing function opening condition according to the information of the opening bank comprises:

determining whether the clearing account needs to be subject to on-the-counter verification according to the information of the opening bank;

if yes, acquiring on-the-counter verification information of the clearing account from the system of the opening bank and verifying the on-the-counter verification information; and when the on-the-counter verification information passes verification, determining that the clearing account satisfies the preset on-line clearing function opening condition; or

if not, calling an interface of the system of the opening bank to verify the information of the opening bank; and when the information of the opening bank passes verification, determining that the clearing account satisfies the preset on-line clearing function opening condition.

3. The on-line clearing method according to Claim 2, wherein the information of the opening bank comprises a name of the opening bank, and the step of determining whether the clearing account

needs to be subject to on-the-counter verification according to the information of the opening bank comprises:

determining whether or not the opening bank is a preset opening bank according to the name of the opening bank; and if yes, determining that clearing account needs to be subject to on-the-counter verification.

4. The on-line clearing method according to Claim 1, wherein the on-line clearing method further comprises the following step:

receiving a money transfer result returned from the system of the opening bank, and displaying the money transfer result on a front terminal of the transaction platform system.

5. The on-line clearing method according to Claim 4, wherein the on-line clearing method further comprises the following step to be performed after the step of receiving a money transfer result returned from the system of the opening bank and displaying the money transfer result on a front terminal of the transaction platform system:

generating a clearing statement of the clearing account according to the money transfer result, and saving the clearing statement in a historical transaction database of the transaction platform system.

6. An on-line clearing apparatus, comprising:

a creation module used for creating a clearing account in a transaction platform system, wherein account information of the clearing account comprises information of an opening bank;

a determination module used for determining, when receiving a request for opening a clearing account-based on-line clearing function, whether the clearing account satisfies a preset on-line clearing function opening condition according to the information of the opening bank;

an opening module used for opening the on-line clearing function of the clearing account if the clearing account satisfies the preset on-line clearing function opening condition; and

a sending module used for sending, when receiving a payment instruction triggered based on the clearing account, the payment instruction to a system of the opening bank corresponding to the information of the opening bank according to the on-line clearing function of the clearing account, to enable the system of the opening bank to execute a corresponding money transfer operation according

to the payment instruction.

7. The on-line clearing apparatus according to Claim 6, wherein the determination module is also used for:

determining whether the clearing account needs to be subject to on-the-counter verification according to the information of the opening bank;

if yes, acquiring on-the-counter verification information of the clearing account from the system of the opening bank and verifying the on-the-counter verification information; and when the on-the-counter verification information passes verification, determining that the clearing account satisfies the preset on-line clearing function opening condition; or

if not, calling an interface of the system of the opening bank to verify the information of the opening bank; and when the information of the opening bank passes verification, determining that the clearing account satisfies the preset on-line clearing function opening condition.

8. The on-line clearing apparatus according to Claim 7, wherein the information of the opening bank comprises a name of the opening bank, and the determination module is also used for:

determining whether or not the opening bank is a preset opening bank according to the name of the opening bank; and if yes, determining that clearing account needs to be subject to on-the-counter verification.

9. The on-line clearing apparatus according to Claim 6, wherein the on-line clearing apparatus further comprises:

a display module used for receiving a money transfer result returned from the system of the opening bank, and displaying the money transfer result on a front terminal of the transaction platform system.

10. The on-line clearing apparatus according to Claim 9, wherein the on-line clearing apparatus further comprises:

a generation module used for generating a clearing statement of the clearing account according to the money transfer result and saving the clearing statement in a historical transaction database of the transaction platform system.

11. An on-line clearing device, comprising a memory, a processor, and an on-line clearing

program which is stored in the memory and is to be run on the processor, and the on-line clearing program is executed by the processor to implement the following steps:

creating a clearing account in a transaction platform system, wherein account information of the clearing account comprises information of an opening bank;

when receiving a request for opening a clearing account-based on-line clearing function, determining whether the clearing account satisfies a preset on-line clearing function opening condition according to the information of the opening bank; if yes, opening the on-line clearing function of the clearing account; and

when receiving a payment instruction triggered based on the clearing account, sending the payment instruction to a system of the opening bank corresponding to the information of the opening bank according to the on-line clearing function of the clearing account, to enable the system of the opening bank to execute a corresponding money transfer operation according to the payment instruction.

12. The on-line clearing device according to Claim 11, wherein the on-line clearing program is executed by the processor to further implement the following steps:

determining whether the clearing account needs to be subject to on-the-counter verification according to the information of the opening bank;

if yes, acquiring on-the-counter verification information of the clearing account from the system of the opening bank and verifying the on-the-counter verification information; and when the on-the-counter verification information passes verification, determining that the clearing account satisfies the preset on-line clearing function opening condition; or

if not, calling an interface of the system of the opening bank to verify the information of the opening bank; and when the information of the opening bank passes verification, determining that the clearing account satisfies the preset on-line clearing function opening condition.

13. The on-line clearing device according to Claim 12, wherein the on-line clearing program is executed by the processor to further implement the following step:

determining whether or not the opening bank is a preset opening bank according to a name of the opening bank; and if yes, determining that clearing account needs to be subject to on-the-counter

verification.

14. The on-line clearing device according to Claim 11, wherein the on-line clearing program is executed by the processor to further implement the following step:

receiving a money transfer result returned from the system of the opening bank, and displaying the money transfer result on a front terminal of the transaction platform system.

15. The on-line clearing device according to Claim 14, wherein the on-line clearing program is executed by the processor to further implement the following step:

generating a clearing statement of the clearing account according to the money transfer result, and saving the clearing statement in a historical transaction database of the transaction platform system.

16. A computer-readable storage medium, having an on-line clearing program stored therein, wherein the on-line clearing program is executed by a processor to implement the following steps:

creating a clearing account in a transaction platform system, wherein account information of the clearing account comprises information of an opening bank;

when receiving a request for opening a clearing account-based on-line clearing function, determining whether the clearing account satisfies a preset on-line clearing function opening condition according to the information of the opening bank; if yes, opening the on-line clearing function of the clearing account; and

when receiving a payment instruction triggered based on the clearing account, sending the payment instruction to a system of the opening bank corresponding to the information of the opening bank according to the on-line clearing function of the clearing account, to enable the system of the opening bank to execute a corresponding money transfer operation according to the payment instruction.

17. The computer-readable storage medium according to Claim 16, wherein the on-line clearing program is executed by the processor to further implement the following steps:

determining whether the clearing account needs to be subject to on-the-counter verification according to the information of the opening bank;

if yes, acquiring on-the-counter verification information of the clearing account from the system

of the opening bank and verifying the on-the-counter verification information; and when the on-the-counter verification information passes verification, determining that the clearing account satisfies the preset on-line clearing function opening condition; or

if not, calling an interface of the system of the opening bank to verify the information of the opening bank; and when the information of the opening bank passes verification, determining that the clearing account satisfies the preset on-line clearing function opening condition.

18. The computer-readable storage medium according to Claim 17, wherein the information of the opening bank comprises a name of the opening bank, and the on-line clearing program is executed by the processor to further implement the following step:

determining whether or not the opening bank is a preset opening bank according to the name of the opening bank; and if yes, determining that clearing account needs to be subject to on-the-counter verification.

19. The computer-readable storage medium according to Claim 16, wherein the on-line clearing program is executed by the processor to further implement the following step:

receiving a money transfer result returned from the system of the opening bank, and displaying the money transfer result on a front terminal of the transaction platform system.

20. The computer-readable storage medium according to Claim 19, wherein the on-line clearing program is executed by the processor to further implement the following step:

generating a clearing statement of the clearing account according to the money transfer result, and saving the clearing statement in a historical transaction database of the transaction platform system.