

【DESCRIPTION】

【Invention Title】

SYSTEM FOR PROVIDING CURRENCY EXCHANGE SERVICE
USING DEPOSITOR IDENTIFICATION MAPPING SYSTEM

【Technical Field】

The present invention relates to a currency exchange service providing system using a depositor identification mapping system. More specifically, the present invention relates to a mapping system for identifying a depositor by matching the depositor with an amount upon currency exchange request, and a currency exchange service providing system using the depositor identification mapping system that allows an overseas traveler to withdraw an amount exchanged at a nearby affiliate store in real time.

【Background Art】

In general, currency exchange refers to exchange of the currency of a person's country for the currency of a country that the person visits (e.g., dollar and yen) when the person goes abroad. Generally, for currency exchange, a person directly visits a bank and performs a predetermined currency exchange

procedure, or performs a predetermined currency exchange procedure on the Internet, outputs (prints) supporting documents (e.g., details of currency exchange), and visits a bank branch to submit the output documents and receive money.

Therefore, in a conventional currency exchange service, a person is inconvenienced by having to visit a bank branch to request currency exchange and/or receive the requested amount. In addition, when exchange windows are crowded with people, waiting time is increased, which causes a person to experience inconvenience.

To solve these problems, Korean Patent Application Publication No. 10-2010-0059756 discloses a method of performing currency exchange using a mobile device including a step of receiving, by a server, predetermined currency exchange request information including a type and amount of currency to be exchanged and account (or card) information for withdrawing an amount of currency corresponding to the currency exchange request from a wireless terminal of a user requesting currency exchange; a step of, in the server, determining whether the amount corresponding to the currency exchange request may be withdrawn from the account (or card)

in cooperation with a financial server (or terminal) corresponding to the received account (or card) information, and performing currency exchange in response to the currency exchange request when withdrawal of the amount corresponding to the currency exchange request from the account (or card) is possible; and a step of associating a history of currency exchange performed in the server and the wireless terminal or user information of the wireless terminal or the account (or card) information and storing the associated content in a predetermined storage medium.

However, according to the above-described related art, when a currency exchange service is used online, it is difficult to distinguish persons with the same name or a large number of depositors. In addition, when an overseas traveler uses a currency exchange service at a bank, the traveler may have to pay high fees.

In particular, when a traveler uses a currency exchange service through a payment gateway (PG), a means such as a virtual account is used to distinguish depositors. In this case, an additional charge may be incurred, which may increase the burden on the traveler.

In addition, when a traveler needs additional currency exchange services while traveling abroad, the traveler can only use predetermined banks. Accordingly, the traveler cannot use currency exchange services immediately, and should visit an area where currency exchange services are available.

【Disclosure】

【Technical Problem】

Therefore, the present invention has been made in view of the above problems, and it is one object of the present invention to provide a mapping system for identifying a depositor by matching the depositor with an amount or unique code information upon currency exchange request, and a currency exchange service providing system using the depositor identification mapping system that allows an overseas traveler to withdraw and pay an amount exchanged at a nearby affiliate store in real time.

It is another object of the present invention to provide a currency exchange service providing system using a depositor identification mapping system that allows an overseas traveler to withdraw and pay an amount exchanged at a nearby affiliate store in real time.

【Technical Solution】

In accordance with one aspect of the present invention, provided is a currency exchange service providing system using a depositor identification mapping system including a mobile terminal carried by a user including a person preparing to travel overseas or a person traveling overseas; a membership registration unit for providing registration guide information for users and registration guide information for affiliate stores; a currency exchange request unit for setting a currency unit of the user's own country and a currency unit of a country to which the user travels, generating and transmitting currency exchange request information on a currency exchange amount of the currency unit of a country to which the user travels, and displaying information on the currency exchange amount and unique code information corresponding to the currency exchange amount; a currency exchange system for providing electronic money corresponding to the currency exchange amount to the mobile terminal depending on currency exchange information on the currency exchange request information transmitted from the currency

exchange request unit, an amount deposited by the user, or whether unique code information of the user regarding the deposit amount is issued, and interworked with a depositor identification mapping system depending on the total cost information for a plurality of users or whether the unique code information is identical; a depositor identification mapping system for generating the deposit amount information or unique code information of the user in cooperation with the currency exchange system and transmitting the information to the currency exchange system, and distinguishing users based on the deposit amount information and the unique code information; a withdrawal and payment request unit for generating a withdrawal or payment request signal or a withdrawal or payment request information so that real-time withdrawal and payment of a currency of a travel country exchanged through currency exchange are performed, generating a QR code for the withdrawal or payment request information, and providing location information of an affiliate store adjacent to the user when the QR code is generated and amount information on a withdrawable amount excluding an amount to be withdrawn; an information providing unit for

providing location information of an affiliate store where real-time withdrawal and payment are possible and information on an amount withdrawable in the affiliate store, and evaluating currency exchange and withdrawal; a database for storing data provided from the currency exchange system and the depositor identification mapping system; and an affiliate store management system for providing a currency of a travel country corresponding to a requested withdrawal amount after authentication of the user or performing payment approval when real-time withdrawal or payment request occurs through the withdrawal and payment request unit.

According to one embodiment of the present invention, the currency exchange request unit may set a currency unit for the user's own country and a currency unit for the country to be traveled to and provide information on an amount of a local currency to be deposited by the user in response to the currency exchange request information, and may further include a balance confirmation unit for providing information on a deposit amount of a local currency that has been previously deposited by the user and a currency exchange request history providing unit for providing information on the

details of currency exchange requested by the user.

According to one embodiment of the present invention, the currency exchange system may include a charge comparison unit for providing bank charge information on a currency exchange amount included in the currency exchange request information, information on a charge incurred when the currency exchange service providing system is used, and information on differences in charges obtained by comparing the respective charge information; a currency exchange amount calculation unit for providing information on total costs incurred in each case when currency exchange is performed using the bank and the currency exchange service providing system based on charge information calculated through the charge comparison unit; a currency exchange information providing unit for providing information on total costs for a local currency generated when currency exchange is performed, information on a currency exchange amount for a travel country generated after currency exchange is performed, information on an account in which the total costs for a local currency are deposited, and currency exchange information including depositor information, and for transmitting a signal

requesting generation of unique code information for the user in cooperation with the depositor identification mapping system when, among a plurality of users, countries to be traveled to are different but deposit amounts of total costs for local currency are identical to each other; and a currency exchange control unit for controlling components constituting the currency exchange system, confirming whether the total costs for a local currency are deposited when a currency exchange request signal is transmitted from the mobile terminal, and providing electronic money corresponding to a currency exchange amount to the mobile terminal when the deposit is confirmed.

According to one embodiment of the present invention, the currency exchange system may be interworked with the depositor identification mapping system to distinguish a depositor who deposited the deposit amount among a plurality of users when countries to be traveled to are different but deposit amounts of total costs for local currency are the same.

According to one embodiment of the present invention, the depositor identification mapping system may be interworked with the currency exchange

system and the mobile terminal so that deposit amounts of total costs for a local currency to be deposited by the users provided from the currency exchange system and unique code information for the deposit amounts are generated, and the deposit amounts and the unique code information are matched with CSV files to distinguish the users.

According to one embodiment of the present invention, the withdrawal and payment request unit may be configured to allow withdrawal reservation for a withdrawal request, and at the time of withdrawal reservation, may allow a user to designate an affiliate store where withdrawal is performed, and at the same time, may generate withdrawal QR codes including information on an amount to be withdrawn.

According to one embodiment of the present invention, the withdrawal and payment request unit may generate a QR code for the withdrawal or payment request information, and may provide location information of an affiliate store adjacent to a user when generating the QR code and amount information on a withdrawable amount excluding an amount to be withdrawn.

According to one embodiment of the present

invention, the affiliate store management system may include a withdrawal amount setting unit for providing information on an amount withdrawable from an affiliate store, and setting or changing a limit of the withdrawable amount; an affiliate store display unit for displaying withdrawal request information provided from the withdrawal and payment request unit; a scanning unit for scanning QR codes output in the mobile terminal; and a management control unit for comparing withdrawal or payment request information provided from the scanning unit and withdrawal or payment request information displayed on the affiliate store display unit to determine whether the two pieces of information are identical to each other, and providing a requested withdrawal amount or performing payment approval according to a result of the comparison.

【Advantageous effects】

According to an embodiment of the present invention, currency exchange of an amount exceeding expenses necessary for overseas travel can be prevented, and travel expenses can be withdrawn and paid in real time with a low charge when traveling overseas. Therefore, inconvenience associated with currency

exchange can be minimized while traveling overseas.

According to an embodiment of the present invention, cash withdrawal and purchase of and payment for products are available in real time by providing information on an amount withdrawable from an affiliate store interworked with a currency exchange service providing system without using a separate currency exchange service, availability of payment, and the location of the affiliate store, thereby promoting consumption and maximizing the profit of the affiliate store.

According to an embodiment of the present invention, since different currency exchange charges for each country can be unified, consumers can exchange money for a low currency exchange fee, and can enjoy overseas travel with a minimal cost.

According to an embodiment of the present invention, travelers can make withdrawals regardless of time and place while traveling overseas, and can make payment in real time in affiliate stores, thereby improving convenience of travel.

【Description of Drawings】

FIG. 1 is a schematic block diagram of a currency exchange service providing system using a depositor

identification mapping system according to one embodiment of the present invention.

FIG. 2 is a schematic block diagram of a currency exchange system according to one embodiment of the present invention.

FIG. 3 is a schematic block diagram of a depositor identification mapping system according to one embodiment of the present invention.

FIG. 4 is a schematic block diagram of an affiliate store management system according to one embodiment of the present invention.

FIGS. 5 to 20 are exemplary diagrams illustrating screen information implemented by a currency exchange service providing system using a depositor identification mapping system according to one embodiment of the present invention.

【Best mode】

A currency exchange service providing system using a depositor identification mapping system includes a mobile terminal carried by a user including a person preparing to travel overseas or a person traveling overseas;

a membership registration unit for providing registration guide information for users and

registration guide information for affiliate stores;

a currency exchange request unit for setting a currency unit of the user's own country and a currency unit of a country to which the user travels, generating and transmitting currency exchange request information on a currency exchange amount of the currency unit of a country to which the user travels, and displaying information on the currency exchange amount and unique code information corresponding to the currency exchange amount;

a currency exchange system for providing electronic money corresponding to the currency exchange amount to the mobile terminal depending on currency exchange information on the currency exchange request information transmitted from the currency exchange request unit, an amount deposited by the user, or whether unique code information of the user regarding the deposit amount is issued, and interworked with a depositor identification mapping system depending on the total cost information for a plurality of users or whether the unique code information is identical;

a depositor identification mapping system for generating the deposit amount information or unique code information of the user in cooperation with the

currency exchange system and transmitting the information to the currency exchange system, and distinguishing users based on the deposit amount information and the unique code information;

a withdrawal and payment request unit for generating a withdrawal or payment request signal or a withdrawal or payment request information so that real-time withdrawal and payment of a currency of a travel country exchanged through currency exchange are performed, generating a QR code for the withdrawal or payment request information, and providing location information of an affiliate store adjacent to the user when the QR code is generated and amount information on a withdrawable amount excluding an amount to be withdrawn;

an information providing unit for providing location information of an affiliate store where real-time withdrawal and payment are possible and information on an amount withdrawable in the affiliate store, and evaluating currency exchange and withdrawal;

a database for storing data provided from the currency exchange system and the depositor identification mapping system; and

an affiliate store management system for providing

a currency of a travel country corresponding to a requested withdrawal amount after authentication of the user or performing payment approval when real-time withdrawal or payment request occurs through the withdrawal and payment request unit.

【Mode for Invention】

As shown in figures, a currency exchange service providing system 100 of the present invention may be an application installed in a mobile terminal 10 such as a smartphone or a tablet PC carried by a user, and may provide a currency exchange system 160 for allowing a user including a person preparing to travel overseas or a person traveling overseas to exchange money into a currency of a country to be traveled to through the mobile terminal 10 capable of wireless communication. In addition, according to the currency exchange service providing system 100, when a local currency is needed during overseas travel, a user may withdraw money in real time through an affiliate store management system 180, or may directly pay at an affiliate store.

In addition, when a plurality of users applies for currency exchange for the same amount, the currency exchange service providing system 100 of the present

invention may provide a depositor identification mapping system 170 for matching information on deposit amounts issued to the users or unique code information and CSV files for amounts deposited to distinguish the users. Thus, the currency exchange service providing system 100 may provide a service system allowing currency exchange, withdrawal, and real-time payment at a low charge.

The currency exchange service providing system 100 of the present invention includes a membership registration unit 110, a currency exchange request unit 120, a withdrawal and payment request unit 130, an information providing unit 140, a database 150, the currency exchange system 160, the depositor identification mapping system 170, and the affiliate store management system 180.

The membership registration unit 110 is responsible for membership registration of users and affiliate store owners who wish to use the currency exchange service providing system 100 through the mobile terminal 10. As shown in FIG. 5, registration guide information for users and registration guide information for affiliate stores are separately provided.

When membership registration of a user (traveler)

or an affiliate store is completed, the membership registration unit 110 transmits information on the registration to a database unit 150 to store the information, and provides login information for using the currency exchange service providing system 100.

As shown in FIG. 6, when a user registers membership through registration guide information for users using the mobile terminal 10 and travels while carrying the mobile terminal 10, the membership registration unit 110 is responsible for displaying main information for users providing menu information about currency exchange, withdrawal, and real-time payment.

In addition, as shown in FIG. 7, when membership registration is performed through registration guide information for affiliate stores, the membership registration unit 110 is configured so that main information for affiliate stores providing information on an amount withdrawable through an affiliate store terminal interworked with the affiliate store management system 180 and information on processes such as application, completion, and cancellation of withdrawal and payment is displayed.

The currency exchange request unit 120 generates currency exchange request information for allowing users who have logged in to exchange money in a currency unit for a country to be traveled to, and transmits the generated currency exchange request information to a currency exchange service 160. As shown in FIG. 8, the currency exchange request unit 120 is configured so that a currency unit for a user's own country (hereinafter referred to as a currency of a user's own country) and a currency unit for a country to be traveled to (hereinafter referred to as a currency of a travel country) may be set.

For example, when a user is a Korean, a currency unit for a user's own country is set to won (KRW). When a travel country is Hong Kong, a currency of a travel country is set to Hong Kong dollar (HKD).

In addition, in the currency exchange request unit 120, a currency exchange amount input interface for entering an amount for a currency of a travel country to be exchanged is provided. When a currency exchange amount of a currency of a travel country to be exchanged is input through the currency exchange amount input interface, the currency exchange

request unit 120 provides information on an amount of a local currency to be deposited corresponding to the input currency exchange amount for a currency of a travel country.

That is, as shown in FIG.9, the currency exchange request unit 120 of the present invention generates currency exchange request information including information about a country where a user travels, information on a currency unit of the country, and information on a currency exchange amount of the currency of the travel country to be exchanged, and transmits the generated currency exchange request information to the currency exchange system 160 to be described below. Then, information on an amount of a local currency to be deposited by the user with respect to the currency exchange amount and unique code information of the user are provided from the currency exchange system 160, and the information is displayed through the mobile terminal 10 of the user.

For example, when a currency exchange amount for a currency of a travel country to be exchanged is 10,000 (HKD) and the currency exchange amount is input, the currency exchange request unit 120 is interworked with the currency exchange service 160 to be described below so that a total amount of

1,444,797(KRW) for information on an amount of a local currency to be deposited by a user is displayed, and information on an amount of a local currency for a currency of a travel country to be exchanged may be confirmed.

In addition, when screen information of the currency exchange request unit 120 is provided through the mobile terminal 10, the currency exchange request unit 120 of the present invention includes a balance confirmation unit so that a user may confirm deposit balance information of a local currency previously deposited, and may grasp information on costs to be actually deposited before depositing an amount of a local currency provided from the currency exchange request unit 120.

In addition, the currency exchange request unit 120 receives amount information for difference in charges from a charge comparison unit 220 of the currency exchange system 160 to be described below and displays the amount information.

In addition, the currency exchange request unit 120 may further include a currency exchange request history providing unit for providing information on the details of currency exchange requested by a user.

For example, the currency exchange request history

providing unit is configured so that the details of a user's currency exchange request are displayed in numerical values, and time information of the currency exchange request, information on a local currency for a currency exchange amount, and information on a currency of a travel country are provided when the displayed area is touched.

In addition, when currency exchange request information is transmitted, the currency exchange system 160 of the present invention is interworked with the currency exchange request unit 120 so that a guidance message for the currency exchange request information is transmitted to the currency exchange request unit 120 to update the details of the currency exchange request, and at the same time, currency exchange data including charge information generated when currency exchange is performed is generated, the currency exchange data is transmitted to the mobile terminal 10, and electronic money corresponding to a currency of a travel country according to currency exchange is issued.

The currency exchange system 160 includes a currency exchange interface unit 210, the charge comparison unit 220, a currency exchange amount

calculation unit 230, a currency exchange information providing unit 240, and a currency exchange control unit 250.

The currency exchange interface unit 210 consists of input modules allowing users to input additional currency exchange for a currency exchange amount of a currency of a travel country and modification, deletion, and addition of the currency exchange data using the currency exchange system 160.

As shown in FIG. 10, the charge comparison unit 220 provides information on a charge incurred when currency exchange is performed through a bank and information on a charge incurred when currency exchange is performed using the currency exchange service providing system 100 of the present invention based on currency exchange request information transmitted through the currency exchange request unit 120.

The charge comparison unit 220 is responsible for comparing a bank charge and a charge according to the present invention, and providing amount information for difference in the charges to the currency exchange request unit 120. Accordingly, a user may confirm that a charge incurred when currency exchange is performed is reduced.

The currency exchange amount calculation unit 230 is configured so that total costs incurred when currency exchange is performed through a bank and total costs incurred when currency exchange is performed through the currency exchange service providing system 100 of the present invention are calculated based on charge comparison information calculated through the charge comparison unit 220, and the calculated cost information is provided through the mobile terminal 10.

As shown in FIG. 11, the currency exchange information providing unit 240 provides information on total costs for a local currency generated when currency exchange is performed, information on a currency exchange amount for a travel country generated after currency exchange is performed, and currency exchange information including information on an account in which the total costs for a local currency are deposited, depositor information, and the like.

As shown in FIG. 12, the currency exchange information providing unit 240 transmits information on processes from application of currency exchange to completion of currency exchange to the mobile terminal 10, and the information is displayed on the

mobile terminal 10 in real time.

As shown in FIG. 13, the currency exchange information providing unit 240 may provide information on a withdrawable amount for a currency exchange amount, and may be configured in the same manner as an electronic wallet, which is a conventional mobile application. In addition, the currency exchange information providing unit 240 may be interworked with the withdrawal and payment request unit 130 so that the withdrawal and payment request unit 130 is driven under the control of the currency exchange control unit 250 when the withdrawable amount is touched.

The currency exchange control unit 250 controls components constituting the currency exchange system 160, and is interworked with the currency exchange request unit 120 and the mobile terminal 10 to transmit currency exchange data including currency exchange request information, cost information, and currency exchange information.

In addition, when a currency exchange request signal is transmitted from the mobile terminal 10, the currency exchange control unit 250 transmits the currency exchange request signal to a user identification unit 330 included in the depositor

identification mapping system 170 so that generation of unique code information on a user requesting currency exchange is requested and the generated unique code information is displayed, and at the same time, the generated unique code information is transmitted to the mobile terminal 10 and displayed through the currency exchange request unit 120.

In addition, when a signal for a currency exchange request is transmitted through the mobile terminal 10, the currency exchange control unit 250 of the present invention confirms whether total costs for a local currency are deposited. Then, when the deposit is confirmed, the currency exchange control unit 250 generates electronic money corresponding to a currency exchange amount and performs control so that the electronic money may be provided through the currency exchange information providing unit 240.

When generation of currency exchange data is completed, the currency exchange system 160 of the present invention transmits the currency exchange data to the database 150 to store the currency exchange data. Upon user request, the currency exchange system 160 may make a list of the currency exchange data and provide the list.

In addition, when information on total costs for a

local currency generated when currency exchange is performed is provided through the currency exchange information providing unit 240, the currency exchange control unit 250 of the present invention is interworked with the depositor identification mapping system 170 to distinguish a plurality of users, and provides information on total costs for a local currency provided through the depositor identification mapping system 170.

That is, according to the present invention, among a plurality of users using the currency exchange system 160, when countries to be traveled to are different but deposit amounts of total costs for local currency are identical to each other, the depositor identification mapping system 170 distinguishes the users, thereby preventing occurrence of monetary accidents related to currency exchange and reducing charges of distinguishing the users.

The depositor identification mapping system 170 sets deposit amounts of total costs for local currency to be deposited by a plurality of users differently, generates information on the set deposit amounts as CSV files, and matches the

deposit amounts deposited by the users and the CSV files to distinguish the users based on information on the deposit amounts deposited by the users.

For example, for users A and B who travel in different countries, when information on total deposit amounts provided through the currency exchange amount calculation unit 230 of the currency exchange system 160 is equal to each other as 1,459,245 (KRW), the depositor identification mapping system 170 recalculates a total deposit amount for user A to 1,459,244 (KRW) and transmits the information to the mobile terminal 10 of user A through the currency exchange information providing unit 240, and recalculates a total deposit amount for user B to 1,459,246 (KRW) and transmits the information to the mobile terminal 10 of user B. At the same time, the depositor identification mapping system 170 generates information on the recalculated total deposit amounts as CSV files.

Then, when users A and B deposit the recalculated total deposit amounts to accounts provided from the currency exchange information providing unit 240, the recalculated total deposit amounts are matched with the CSV files and deposit confirmation information is provided to the currency exchange

control unit 250 of the currency exchange system 160 so that electronic money corresponding to a currency exchange amount for a currency of a travel country of user A may be provided to user A who deposited 1,459,244 (KRW), and electronic money corresponding to a currency exchange amount for a currency of a travel country of user B may be provided to user B who deposited 1,459,246 (KRW).

Therefore, the deposit amounts that are set differently function as virtual accounts, thereby reducing charges required for creating virtual accounts for distinguishing a plurality of users and preventing occurrence of monetary incidents.

In addition, the depositor identification mapping system 170 of the present invention assigns unique code information to a plurality of users requesting currency exchange, and distinguishes the users based on the unique code information.

In this case, the unique code information may be a six-digit number or a combination of numbers and letters, without being limited thereto.

The depositor identification mapping system 170 of the present invention includes a deposit information providing unit 310, a deposit confirmation unit 320,

the user identification unit 330, a deposit notification unit 340, and a mapping control unit 350.

The deposit information providing unit 310 is interworked with the currency exchange information providing unit 240 to recalculate the deposit amounts of users who have deposited the same amount, and transmits deposit amount information on recalculated total costs to the currency exchange information providing unit 240 and at the same time, generates CSV files for the deposit amount information.

Here, the deposit information providing unit 310 sets a lower limit and an upper limit of deposit amounts for total costs provided to a plurality of users. When the deposit amounts are out of the above range, the deposit information providing unit 310 transmits information on this to the currency exchange control unit 250 to request change of account information for the deposit amounts.

For example, when the number of users who deposit the same deposit amount is 200 or less, it is possible to change account information within a specific range of a deposit amount (e.g., when a deposit amount is 1,459,245 (KRW), a lower limit is

-100(KRW)(1,459,145(KRW)) and an upper limit is +100(KRW)(1,459,345(KRW)).

However, when the number of users who deposit the same deposit amount exceeds 200, changed deposit account information is provided to the 201st and subsequent users.

In this case, when the deposit information providing unit 310 provides deposit amounts for recalculated total costs to the currency exchange information providing unit 240, the deposit information providing unit 310 may simultaneously provide a guidance message informing change information generated in the depositor identification mapping system 170.

The deposit confirmation unit 320 confirms whether an amount is deposited to account information provided through the currency exchange information providing unit 240. When the deposit is confirmed, the user identification unit 330 distinguishes users. When the distinction process is completed, information on this is transmitted to the currency exchange control unit 250, and currency exchange is performed.

However, when deposit is not performed after a certain period of time, deposit request guidance

message is sent through the deposit notification unit 340.

When information on deposit amounts of total costs recalculated through the deposit information providing unit 310 is transmitted to the currency exchange information providing unit 240, the deposit confirmation unit 320 preferably confirms whether deposit has been performed at a predetermined time interval.

When a signal requesting generation of unique code information according to a currency exchange request signal received from the currency exchange control unit 250 is transmitted, the user identification unit 330 generates unique code information and transmits the unique code information to the currency exchange control unit 250, and at the same time, transmits the unique code information to the deposit information providing unit 310 to generate deposit amount information for the recalculated total costs and CSV files.

The user identification unit 330 matches information on an amount deposited through the deposit confirmation unit 320 and unique code information generated in response to a currency exchange request with CSV files generated in the

deposit information providing unit 310 to distinguish depositors who have deposited the same amount, and transmits information on this to the deposit confirmation unit 320, so that electronic money is issued according to currency exchange.

In this case, the user identification unit 330 of the present invention may match any one of information on a deposited amount and unique code information with CSV files. Preferably, the user identification unit 330 confirms unique code information corresponding to information on a deposited amount and unique code information transmitted to the deposit information providing unit 310, and then perform matching only when the two pieces of unique code information are the same.

When the deposit confirmation unit 320 has not confirmed whether a user who requested currency exchange deposits money, the deposit notification unit 340 transmits deposit request guidance message requesting deposit to the mobile terminal 10 of the user.

The mapping control unit 350 controls operation of the depositor identification mapping system 170, and is interworked with the currency exchange control unit 250 of the currency exchange system 160 to

control operation of the depositor identification mapping system 170 depending on whether users who have deposited the same amount are created.

The mapping control unit 350 transmits CSV files generated through the deposit information providing unit 310, data about a deposit amount confirmed through the deposit confirmation unit 320 and deposit information including deposit time, and unique code information generated upon currency exchange request to the database unit 150 so that the CSV files, the data, and the unique code information are stored in the database unit 150. In addition, the mapping control unit 350 may perform control so that information on deposit details is provided upon user's request.

In addition, the currency exchange service providing system 100 of the present invention includes the withdrawal and payment request unit 130 for generating a withdrawal request signal and withdraw information to withdraw a currency of a country exchanged through currency exchange, allowing a user to make real-time payment without a separate authentication process when purchasing products in an affiliate store, and displayed

through main information for users.

As shown in FIGS. 14 and 15, the withdrawal and payment request unit 130 provides a withdrawal amount interface for inputting an amount to be withdrawn and information about a user's current location, and at the same time, may also provide map information and location information of affiliate stores located near the user.

In this case, the withdrawal and payment request unit 130 may be interworked with the information providing unit 140 to provide location information of affiliate stores. In particular, the withdrawal and payment request unit 130 may provide location information of affiliate stores where an amount input by a user can be withdrawn.

In addition, the withdrawal and payment request unit 130 of the present invention may sort location information of affiliate stores in order according to the distance between a user and each of the affiliate stores.

In addition, the withdrawal and payment request unit 130 of the present invention may be configured to allow withdrawal reservation for a withdrawal request, and at the time of withdrawal reservation, may allow a user to designate an affiliate store

where withdrawal is performed and input an amount to be withdrawn.

In this case, withdrawal QR codes including location information of a designated affiliate store where withdrawal will be performed and information on a withdrawal amount may be generated.

When setting and inputting of a withdrawal amount is completed through the withdrawal amount interface, the withdrawal and payment request unit 130 generates withdrawal request information including user's membership information, withdrawal request time, and a withdrawal amount, and the generated withdrawal request information may be confirmed by a user through the mobile terminal 10.

In this case, as shown in FIG. 16, the withdrawal and payment request unit 130 allows a user to confirm an address, operation time, and an evaluation score of an affiliate store where an amount of money will be withdrawn, thereby ensuring secure transactions.

In addition, as shown in FIG. 17, the withdrawal and payment request unit 130 may generate withdrawal request information in the form of QR codes.

In this case, when the withdrawal and payment request unit 130 of the present invention generates

QR codes, the withdrawal and payment request unit 130 preferably provides location information of affiliate stores adjacent to a user, that is, location information of the closest affiliate store to a user among affiliate stores where an amount of money can be withdrawn and image information on the appearance of the affiliate store. Therefore, a user may quickly find the affiliate store based on the information.

In addition, the withdrawal and payment request unit 130 transmits the withdrawal request information to the affiliate store management system 180. Preferably, the withdrawal and payment request unit 130 is configured so that, when a currency of a travel country is withdrawn through a scanning unit 440 of the affiliate store management system 180 to be described below, QR codes provided through the mobile terminal 10 and withdrawal request information transmitted to the affiliate store management system 180 are read and user authentication is performed.

In addition, the withdrawal and payment request unit 130 of the present invention is configured so that, when withdrawal request is completed, withdrawal request information is generated in

response to the withdrawal request and stored in the database unit 150, and the withdrawal request information is listed and provided upon user's request.

In addition, as shown in FIG. 18, the withdrawal and payment request unit 130 of the present invention may provide a confirmation message for a final withdrawal amount, and at the same time, may further provide a charge guidance message informing that a predetermined charge may be incurred when withdrawal is performed, but the present invention is not limited thereto.

In addition, the withdrawal and payment request unit 130 of the present invention may provide information on a withdrawable amount excluding an input withdrawal amount.

In addition, the withdrawal and payment request unit 130 of the present invention is configured to allow real-time payment when a user purchases products of an affiliate store using the currency exchange service providing system 100 of the present invention.

As shown in FIGS. 19 and 20, the withdrawal and payment request unit 130 includes a payment amount

input unit for inputting an amount to be paid so that real-time payment may be performed without a separate authentication process. In addition, the withdrawal and payment request unit 130 provides information about an amount that a user is currently holding so that the user may check availability of payment. When an amount to be paid is input, the withdrawal and payment request unit 130 generates QR codes for payment.

Therefore, when a user purchases products at an affiliate store, the user presents generated QR codes, and the QR codes is read and payment is completed. As a result, the convenience of payment may be improved.

In this case, the withdrawal and payment request unit 130 of the present invention may be configured to generate QR codes for payment depending on whether an amount to be paid is input, without being limited thereto. The withdrawal and payment request unit 130 may further include a bar code reading unit for reading bar code information of a product to be purchased so that QR codes for payment may be automatically generated based on price information of the product.

In addition, the currency exchange service providing system 100 of the present invention includes the information providing unit 140 including an affiliate store information providing unit composed of an affiliate store location guide unit for providing location information of affiliate stores where real-time withdrawal or payment may be performed when withdrawal is requested in a currency of a travel country through the withdrawal and payment request unit 130 during traveling and an affiliate store withdrawal information guide unit for providing information on an amount withdrawable in the affiliate store.

In addition, the information providing unit 140 includes a user information providing unit composed of a user withdrawal information guide unit for providing information on a withdrawable amount and a user location guide unit for providing information on a current location of a user.

In addition, the information providing unit 140 includes an evaluation unit for performing evaluation of the currency exchange service providing system 100 of the present invention after currency exchange is completed and evaluation for an affiliate store after a currency exchange amount is

withdrawn in real time in an affiliate store.

In this case, as shown in FIG. 21, the evaluation unit may be configured so that evaluation is performed using satisfaction expressed in number of stars or numerical values and comments.

In addition, the currency exchange service providing system 100 of the present invention includes the database 150 for storing membership information and affiliate store information generated at the time of membership registration, which is provided through the membership registration unit 110, currency exchange data provided by the currency exchange system 160, and deposit information, unique code information, and data about CSV files provided from the depositor identification mapping system 170.

As shown in FIGS. 22 to 25, the affiliate store management system 180 is configured so that, when users using the currency exchange service providing system 100 request real-time withdrawal or payment through the withdrawal and payment request unit 130, after user authentication, a currency of a travel country corresponding to the requested withdrawal amount is provided or real-time payment is performed,

and a withdrawal or payment request signal provided from the withdrawal and payment request unit 130 is transmitted only to a terminal of an affiliate store registered through the membership registration unit 110.

The affiliate store management system 180 may be a POS terminal located in an affiliate store or an affiliate store terminal including a mobile terminal for affiliate stores, and includes a withdrawal amount setting unit 410, an affiliate store display unit 420, an affiliate store interface unit 430, the scanning unit 440, and an affiliate store DB 450.

In addition, a management control unit 460 for performing transmission and reception of data by connecting the affiliate store management system 180 and the currency exchange service providing system 100 is included.

The withdrawal amount setting unit 410 provides information on a withdrawable amount in an affiliate store, and sets or changes limits of the provided withdrawable amount.

That is, as shown in FIG. 22, the withdrawal amount setting unit 410 includes a withdrawable amount providing unit for providing information of a withdrawable amount (cash balance) and a menu unit

for setting information on the withdrawable amount.

In addition, the withdrawal amount setting unit 410 provides information (sent back to your bank account) on an accumulated amount provided to users below the withdrawable amount providing unit, thereby confirming reliability of an affiliate store.

The withdrawal amount setting unit 410 is preferably configured so that, when setting of a withdrawable amount is changed, information on the changed withdrawable amount is transmitted to the affiliate store DB 450 to store the information and at the same time, the information is transmitted to the information providing unit 140 through the management control unit 460 to inform users about the information.

As shown in the lower part of FIG. 22, the affiliate store display unit 420 is configured so that withdrawal request information provided from the withdrawal and payment request unit 130 is displayed so that information on a user who requested withdrawal is confirmed.

In addition, as shown in FIG. 23, to provide users withdrawal services, information on a withdrawable balance is displayed in the affiliate store display unit 420 of the present invention.

In addition, when the affiliate store display unit 420 receives information on cancellation of withdrawal or payment from the withdrawal and payment request unit 130, the affiliate store display unit 420 may display the information. In this case, information on amounts withdrawn by users (in a left part in FIG. 20) or payment approval information (in a right part in FIG. 20) is displayed in an accumulated form. Accordingly, in addition to information on deposit amounts for withdrawal services, payment approval information may be confirmed in an affiliate store. In addition, information on the number of users used withdraw and payment services, amounts withdrawn, and withdrawal time may be confirmed individually.

The affiliate store interface unit 430 includes input modules for inputting data about setting of withdrawable amounts and change of affiliate store information.

As shown in FIG. 24, when a user visits an affiliate store for real-time withdrawal, the scanning unit 440 scans QR codes for withdrawal or QR codes for payment output in the mobile terminal 10 of the user and transmits the QR codes to the management control unit 460.

In the affiliate store DB 450, withdrawal and payment request information provided from the withdrawal and payment request unit 130, information on withdrawal amounts provided according to the withdrawal and payment request information, and approved payment information are stored. In addition, information of a user who has failed authentication through the management control unit 460 is stored in the affiliate store DB 450.

As shown in FIG. 25, the management control unit 460 controls operation of the affiliate store management system 180, and compares withdrawal or payment request information provided from the mobile terminal 10 of a user provided from the scanning unit 440 and withdrawal or payment request information provided from the withdrawal and payment request unit 130 and displayed on the affiliate store display unit 420 to determine whether the two pieces of information are the same. Then, according to the result of comparison, the management control unit 460 performs control so that a requested withdrawal amount is provided or payment approval is performed.

Terms "include" and "have" are intended to mean that a component may be included unless otherwise

specifically stated. Accordingly, the terms should not be construed as excluding other elements but may be construed to further include other elements. Unless otherwise defined, all terms (including technical and scientific terms) used herein have the same meaning as commonly understood by one of ordinary skill in the art to which this disclosure belongs.

In addition, the above description is illustrative of the technical idea of the present invention. Therefore, those skilled in the art will appreciate that various modifications and changes may be made without departing from the essential characteristics of the present invention. In addition, the embodiments disclosed in the present invention are intended to illustrate rather than limit the scope of the present invention. Therefore, the scope of the present invention is not limited by these embodiments. The scope of protection of the present invention should be defined by the following claims, and all technical ideas within the claims should be construed as being included in the scope of the present invention.

【Industrial Applicability】

Currency exchange of an amount exceeding expenses necessary for overseas travel can be prevented, and travel expenses can be withdrawn and paid in real time with a low charge when traveling overseas. Therefore, inconvenience associated with currency exchange can be minimized while traveling overseas, and a currency exchange charge can be reduced, allowing a traveler to enjoy overseas travel with a minimal cost.

[Description of Symbols]

10: MOBILE TERMINAL

100: CURRENCY EXCHANGE SERVICE PROVIDING SYSTEM

110: MEMBERSHIP REGISTRATION UNIT

120: CURRENCY EXCHANGE REQUEST UNIT

130: WITHDRAWAL AND PAYMENT REQUEST UNIT

140: INFORMATION PROVIDING UNIT

150: DATABASE UNIT

160: CURRENCY EXCHANGE SYSTEM

170: DEPOSITOR IDENTIFICATION MAPPING SYSTEM

180: AFFILIATE STORE MANAGEMENT SYSTEM

210: CURRENCY EXCHANGE INTERFACE UNIT

220: CHARGE COMPARISON UNIT

230: CURRENCY EXCHANGE AMOUNT CALCULATION UNIT

240: CURRENCY EXCHANGE INFORMATION PROVIDING UNIT

250: CURRENCY EXCHANGE CONTROL UNIT

310: DEPOSIT INFORMATION PROVIDING UNIT

320: DEPOSIT CONFIRMATION UNIT

330: USER IDENTIFICATION UNIT

340: DEPOSIT NOTIFICATION UNIT

350: MAPPING CONTROL UNIT

410: WITHDRAWAL AMOUNT SETTING UNIT

420: AFFILIATE STORE DISPLAY UNIT

430: AFFILIATE STORE INTERFACE UNIT

440: AFFILIATE STORE DB

450: MANAGEMENT CONTROL UNIT

【CLAIMS】

1. A currency exchange service providing system using a depositor identification mapping system, comprising:

a mobile terminal carried by a user comprising a person preparing to travel overseas or a person traveling overseas;

a membership registration unit for providing registration guide information for users and registration guide information for affiliate stores;

a currency exchange request unit for setting a currency unit of the user's own country and a currency unit of a country to which the user travels, generating and transmitting currency exchange request information on a currency exchange amount of the currency unit of a country to which the user travels, and displaying information on the currency exchange amount and unique code information corresponding to the currency exchange amount;

a currency exchange system for providing electronic money corresponding to the currency exchange amount to the mobile terminal depending on currency exchange information on the currency exchange request information transmitted from the

currency exchange request unit, an amount deposited by the user, or whether unique code information of the user regarding the deposit amount is issued, and interworked with a depositor identification mapping system depending on the total cost information for a plurality of users or whether the unique code information is identical;

a depositor identification mapping system for generating the deposit amount information or unique code information of the user in cooperation with the currency exchange system and transmitting the information to the currency exchange system, and distinguishing users based on the deposit amount information and the unique code information;

a withdrawal and payment request unit for generating a withdrawal or payment request signal or a withdrawal or payment request information so that real-time withdrawal and payment of a currency of a travel country exchanged through currency exchange are performed, generating a QR code for the withdrawal or payment request information, and providing location information of an affiliate store adjacent to the user when the QR code is generated and amount information on a withdrawable amount excluding an amount to be withdrawn;

an information providing unit for providing location information of an affiliate store where real-time withdrawal and payment are possible and information on an amount withdrawable in the affiliate store, and evaluating currency exchange and withdrawal;

a database for storing data provided from the currency exchange system and the depositor identification mapping system; and

an affiliate store management system for providing a currency of a travel country corresponding to a requested withdrawal amount after authentication of the user or performing payment approval when real-time withdrawal or payment request occurs through the withdrawal and payment request unit.

2. The currency exchange service providing system according to claim 1, wherein the currency exchange system comprises a charge comparison unit for providing bank charge information on a currency exchange amount comprised in the currency exchange request information, information on a charge incurred when the currency exchange service providing system is used, and information on

differences in charges obtained by comparing the respective charge information;

a currency exchange amount calculation unit for providing information on total costs incurred in each case when currency exchange is performed using the bank and the currency exchange service providing system based on charge information calculated through the charge comparison unit;

a currency exchange information providing unit for providing information on total costs for a local currency generated when currency exchange is performed, information on a currency exchange amount for a travel country generated after currency exchange is performed, information on an account in which the total costs for a local currency are deposited, and currency exchange information comprising depositor information, and for transmitting a signal requesting generation of unique code information for the user in cooperation with the depositor identification mapping system when, among a plurality of users, countries to be traveled to are different but deposit amounts of total costs for local currency are identical to each other; and

a currency exchange control unit for controlling components constituting the currency exchange system, confirming whether the total costs for a local currency are deposited when a currency exchange request signal is transmitted from the mobile terminal, and providing electronic money corresponding to a currency exchange amount to the mobile terminal when the deposit is confirmed.

3. The currency exchange service providing system according to claim 1, wherein the depositor identification mapping system is interworked with the currency exchange system and the mobile terminal so that deposit amounts of total costs for a local currency to be deposited by the users provided from the currency exchange system and unique code information for the deposit amounts are matched with CSV files, and the users are distinguished based on the deposit amount information and the unique code information.

4. The currency exchange service providing system according to claim 1, wherein the affiliate store management system comprises a withdrawal amount setting unit for providing information on an amount

withdrawable from an affiliate store, and setting or changing a limit of the withdrawable amount;

an affiliate store display unit for displaying withdrawal request information and payment request information provided from the withdrawal and payment request unit;

a scanning unit for scanning QR codes output in the mobile terminal; and

a management control unit for comparing withdrawal or payment request information provided from the scanning unit and withdrawal or payment request information displayed on the affiliate store display unit to determine whether the two pieces of information are identical to each other, and providing a requested withdrawal amount or performing payment approval according to a result of a comparison.