Title: METHOD FOR PROVIDING LOTTO TICKETS USING CREDIT CARD RECEIPTS

Abstract: A method for providing lotto tickets using credit card receipts, in which a Value Added Network (VAN) provider accumulates users' refunds for the use of funds for purchasing the lotto tickets, so that credit card receipts with lotto numbers printed thereon (which are equivalent to real lotto tickets) can be provided to credit card users and credit card users can be induced to make payments by credit cards. In this method, transaction approval data integrated with the number of duplications (203), sequence number data (201) and a lotto ticket number (202) is transmitted to the relay system of the VAN provider (100) during an approval process for the transaction of a credit card, the relay system transmits the transaction approval data integrated with the additional data to the traction approval terminal of an affiliated shop, and the traction approval terminal prints the transaction approval data integrated with the additional data on a credit card receipt (200).
METHOD FOR PROVIDING LOTTO TICKETS USING CREDIT CARD RECEIPTS

Technical Field

The present invention relates, in general, to a method for providing lotto tickets using credit card receipts and, more particularly, to a method for providing lotto tickets, which utilizes credit card receipts that are used as marketing means to perform consumer compensation and attract affiliated shops or users through a value-added network.

Background Art

Generally, the business of a Value-added Network (VAN) provider uses the card system of the VAN. In Korea, a VAN provider allows credit card users (consumers) to perform credit transactions through terminals placed in affiliated shops, thus guaranteeing the constant amount of sales of the affiliated shops, and obtaining various service charges (charges for the VAN, charges for a data communication channel, etc.) based on the operation of the VAN business from the owners of the affiliated shops through the guarantee of the constant amount of sales.

That is, a VAN provider functions to collect and
settle payment information between terminals (readers) placed in affiliated shops and a payment system of a credit card company (a sales slip purchasing company). Currently, most payment information generated when each user purchases a commodity and pays for the commodity is obtained over the VAN. Further, the VAN provider performs even functions, such as the inquiries about credit cards, cash cards, electronic money and checks, and the statistical management and settlement of payments, or a PayGate function.

In Korea, a VAN provider includes ten or more providers including Korea Financial Telecommunications & Clearings Institute, KS Net, NICE Information & Telecommunications, Korea Credit-Card Electronic Settlement (KOCES) service Co., Ltd., Smart Card Biz & Solution Provider (SMARTRO), and CCK VAN as well as Korea Information & Communication Co., Ltd. Recently, as large enterprises, such as the SK or LG Group, join VAN markets around distribution affiliated enterprises, the VAN markets have been reorganized into large group’s affiliated enterprises and conventional medium and small-sized enterprises.

In the meantime, a credit card is a payment means required to purchase necessities and benefit the user’s daily life as a consumer without cash. A credit card was first developed in the U.S., and has been changed from a traveler’s credit to a traveler’s check and changed from
the traveler's check to a credit card (or credit coin) around 1900, and then actively distributed to the latter half of 1920. However, the use of a credit card is strictly limited and depressed due to a financial depression ranging from the Great Depression in 1929 to the Second World War and the restriction of consumer financing. In such a use of a credit card, since the working funds of VAN providers PayGates or credit card companies are consequently yielded from the installment interest of consumers or the commissions of affiliated shops, there is a disadvantage in that it is difficult to provide corresponding services, or economical efficiency is deteriorated when a small amount is paid by credit card.

A conventional method of approving a credit card transaction is described in brief with reference to FIG. 1.

A user 1 is a credit card owner, who has a credit card issued from a credit card company 4, and an affiliated shop 2 includes therein a typical Credit Authorization Terminal (CAT), which accesses only a specific VAN provider 3 to transmit payment information. A CAT 2a and a relay system 3a of the VAN provider 3 are connected to each other through a telephone network, which is a predetermined network. The relay system 3a and a transaction approval system 4a of the corresponding credit card company 4 are connected to each other through a dedicated packet network.

The user presents a credit card in the affiliated
shop 2 so as to pay for a commodity or service.

The affiliated shop 2 utilizes the credit authorization terminal 2a so as to request or require the credit card company 4 to approve a transaction. At this time, the credit authorization terminal 2a combines user information registered in the user's credit card, transaction detail information generated in the credit authorization terminal 2a, with affiliated shop information, creates a transaction approval request message corresponding to the above integrated information, and then accesses the relay system 3a of the VAN provider 3 through the telephone network.

In this case, the transaction approval request message (combination of the user information, the transaction detail information and the affiliated shop information) generated in the credit authorization terminal 2a of the affiliated shop 2 is transmitted to the relay system 3a of the VAN provider 3.

The relay system 3a of the VAN provider 3, having received the transaction approval request message, reads credit card company information registered in the user information field of the transaction approval request message, and then transmits the combination of data related to the transaction approval request to the transaction approval system 4a of the corresponding credit card company 4.
The transaction approval system 4a of the credit card company 4, having received and stored the data related to the transaction approval request, compares the user information, transaction detail information and affiliated shop information, included in the transaction approval request, with the member data or affiliated shop data of the credit card company 4, and verifies whether the transaction between the user 1 and the affiliated shop 2 is valid if both the user 1 and the affiliated shop 2 have no reasons for disqualification as transaction members.

Thereafter, the transaction approval system 4a of the credit card company 4 returns approval data, which are result values for the transaction approval request (transaction approval result details), to the relay system 3a of the VAN provider that relays the transaction approval request through the packet network.

The relay system 3a of the VAN provider 3 stores the approval data, and returns the approval data to the corresponding credit authorization terminal 2a of the affiliated shop 2. The credit authorization terminal 2a informs the user of payment results on the basis of the returned approval data (transaction approval result details) by printing the approval data on a credit card receipt.

During this process, the affiliated shop 2 of Korea utilizes marketing means for attracting clients or
affiliated shops, such as Cashbag, bonus point, or mileage services, so as to encourage the use of credit cards or increase the amount of sales.

Typically, for the marketing means, there is used a method of accumulating an amount of money corresponding to about 1% of payment as cash, mileage or bonus point, and refunding the amount of money accumulated to the owner of the affiliated shop or the corresponding client, who is the user 1.

However, as described above, there is a disadvantage, from the standpoint of the user, in that a lot of time and consumption is required until an amount of money corresponding to 1% of the payment of the user is accumulated and then the accumulated amount reaches a predetermined refund. Further, there is a disadvantage, from the standpoint of an affiliated shop, in that, since the affiliated shop bears service charges, epoch-making marketing means for attracting more affiliated shops or clients than rival companies in spite of service charges are currently required.

That is, there has been urgently required a consumer compensation method capable of satisfying both a user and an affiliated shop using the conventional credit card transaction approval method.

In consideration of this compensation method, in the prior art, various methods of refunding lottery tickets as
consumer compensation means were disclosed. For example, there have been attempted a receipt lottery ticket issuing method of providing predetermined lottery prize money to a user depending on the winning result of a credit card slip number, or a method of simply printing a lottery number on the back of a Giro receipt and inducing a user to keep receipts.

That is, Korean Utility Model Registration No. 2002-39099 discloses a receipt having a function of a lottery, in which a lottery number used to get a certain amount of money depending on winning results is printed on one surface of a receipt paper on which entry details required to issue the receipt are printed. Since the lottery number used to get a prize or a certain amount of money depending on the winning results is printed on one surface of the receipt paper, the user keeps his or her receipts for a long time, thus reducing the generation of wastes, and minimizing a probability of disputes occurring between a supplier and a user.

However, the conventional receipt is disadvantageous in that a lottery number is simply printed on a receipt, but it cannot be used as a marketing means for attracting affiliated shops or clients, or means having competitive power in a situation where VAN markets are reorganized into large group’s affiliated enterprises and conventional medium and small-sized enterprises.
Further, the conventional receipt is disadvantageous in that, since large funds for lottery prizes to be provided through receipts are consequently made by consumers, affiliated shops or credit card companies, lottery prizes are made using only a limited amount of money and then is not large, so that the participation of clients in the lottery is decreased.

Further, another method of issuing a receipt lottery ticket is disclosed in Korean Pat. Appln. No. 2001-3937. This method includes the steps of registering and managing the detailed items of a member service provider, such as the business registration number, title and address of a shop, registering and managing the personal items of users, the users storing and managing predetermined information printed on receipts provided from the member service provider as approved lottery numbers after paying, and refunding cash or a prize to the users by drawing winning numbers among the authorized lottery numbers that are stored and managed.

However, the conventional receipt lottery ticket issuing method is problematic in that it just uses the business registration number of a member service provider or the approval number of a credit card used in the member service provider as lottery winning numbers, but it does not propose any consumer compensation means or method for specifying a VAN provider, or providing a large amount of
money as a lottery prize to a credit card user or affiliated shop even though the user pays a small amount.

Disclosure of the Invention

Accordingly, the object of the present invention to solve the above problems is to provide a method for providing lotto tickets using credit card receipts, which allows a VAN provider to accumulate and manage refunds to consumers as funds required to purchase lotto tickets, thus providing to users credit card receipts on which a set of lotto numbers equal to that of original lotto tickets is printed on, and inducing credit card users to pay a small amount by credit cards.

In order to accomplish the above object, the present invention provides a method for providing lotto tickets using credit card receipts, in which a credit authorization terminal transmits a transaction approval request message, created by combining user information, transaction detail information and affiliated shop information with each other, to a relay system of a Value-added Network (VAN) provider, the relay system of the VAN provider transmits the transaction approval request message to a transaction approval system of a corresponding financial company, and the transaction approval system of the financial company compares the transaction approval request message with data
of the financial company to verify whether the corresponding transaction is valid, and then returns approval data to the relay system of the VAN provider, comprising the relay system of the VAN provider storing the approval data in an approval data database (DB); a lotto number extraction module of a lotto ticket provision server of the VAN provider extracting the number of duplications, sequence number indication data and data on a set of duplicated lotto numbers from a lotto ticket management DB; a data combining module of the lotto ticket provision server combining the number of duplications, the sequence number indication data and the duplicated lotto number set data with affiliated shop approval data; the relay system of the VAN provider returning the lotto ticket-combined approval data to the corresponding credit authorization terminal of the affiliated shop; and the credit authorization terminal outputting the returned lotto ticket-combined approval data to a credit card receipt.

Brief Description of the Drawings

FIG. 1 is a block diagram of a conventional method of approving a credit card transaction;

FIG. 2 is a network configuration view showing a method for providing lotto tickets using credit card receipts according to an embodiment of the present
invention;

FIG. 3 is a flowchart of the lotto ticket provision method using credit card receipts by a VAN provider of FIG. 2; and

FIG. 4 is a plan view showing a receipt on which lotto ticket information is printed by the lotto ticket provision method according to the present invention.

Best Mode for Carrying Out the Invention

The above object, features and constructions of the present invention will be more clearly understood from the following detailed description of preferred embodiments taken in conjunction with the accompanying drawings.

Further, it should be noted that the same reference numerals are used throughout the different drawings to designate the same or similar components for convenience of description and understanding of the present invention.

As shown in FIG. 2, a method for providing lotto tickets using credit card receipts according to the present invention is characterized that it allows a VAN provider 100, to which the present invention is to be provided, to provide a consumer compensation service differing from that of other VAN providers while minimizing additional system construction costs, at the time of utilizing a conventional credit card infrastructure, thus providing excellent
competitive power, inducing a credit card owner 10 to pay a small amount, and providing an outstanding marketing means for attracting clients to an affiliated shop 20.

For these characterizations, the configuration of a network and system in which the present invention is implemented is described in connection with the prior art.

A user, who is a financial card or credit card owner 10, owns a credit card (financial card) issued from a financial company or credit card company 30, and the affiliated shop 20 is provided with a credit authorization terminal having a predetermined device to access the VAN provider 100 according to the present invention and transmit information.

Further, the VAN provider 100 includes a relay system connected to the credit authorization terminal through a telephone network, and further includes a lotto ticket provision server 110 interworking with the relay system. In this case, the relay system is connected to the transaction approval system of at least one credit card company 30 through a dedicated packet network. The lotto ticket provision server 110 is connected to the lotto ticket selling system of a lotto ticket selling site 40 through a dedicated packet network. Properly, the lotto ticket selling system of the lotto ticket selling site 40 is connected to the lotto ticket management system of a lotto ticket management bank 50 through a dedicated packet
network.

Especially, the lotto ticket provision server 110 of the VAN provider 100 includes a lotto ticket purchase module, a lotto number duplication module, a consumer refund versus lotto ticket management module, a lotto number extraction module, a data combining module, and a settlement management module.

In this case, the respective modules are stored in a memory in the form of a program, and interwork with the relay system through a processor that is connected to the memory to execute the stored module program. Parts interworking with the relay system will be described in detail through the entire flowchart (FIG. 3 or 4), which will be described later.

In the meantime, the characteristic roles and functions of the respective modules are described below so as to allow a typical programmer to easily understand and create the modules.

The lotto ticket purchase module functions to be allocated a predetermined number of sets of original lotto numbers from the lotto ticket selling system of the lotto ticket selling site 40 through a typical electronic commerce implementing means and method and to store the sets of lotto numbers as data when the operator of the VAN provider 100 pays.

The lotto ticket selling site 40 is a service
provider for handling the purchase of lotto tickets through
the Internet, which includes, in Korea, an Empas Lotto site
(http://lottery.empas.com), a lotto645 site
(http://lotto645.com), etc.

Data on sets of original lotto numbers (hereinafter
referred to as "lotto number sets") corresponding to
payment provided from the lotto ticket selling site 40 are
stored in a lotto number database (DB) 121 by the lotto
ticket purchase module. Original lotto tickets are stored
in a safe, a safe region, etc. designated by an insurance
company so as to ensure fairness.

The lotto number DB 121 stores therein original lotto
number sets from Monday to a time point when ticket selling
is stopped on Saturday, with respect to each sequence
number.

The lotto number duplication module functions to
individually extract lotto number sets from the lotto
number DB 121, duplicate each of lotto number sets by the
predetermined number of duplications so that a plurality of
lotto tickets having the same lotto number set exist, or
duplicate each of lotto number sets according to
duplication number types, and then store the duplicated
lotto number sets in the lotto ticket management DB 123.

That is, the lotto ticket duplication module of the
following Table 1 shows that, when the original lotto
number sets, purchased and stored as data, are data
corresponding to a hundred thousand sheets of tickets (two hundred million Korean Won), each lotto number set is duplicated by the predetermined number of duplications N.

Table 1

<table>
<thead>
<tr>
<th>The number of duplications</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number of original lotto number sets</td>
<td>100,000</td>
</tr>
<tr>
<td>The number of duplicated lotto number sets</td>
<td>100,000 ( \cdot N )</td>
</tr>
<tr>
<td>Theoretical prize money distribution ratio</td>
<td>( 1/N )</td>
</tr>
</tbody>
</table>

In Table 1, if the number of duplications is designated as 20, there are 20 duplicated lotto tickets having a lotto number set equal to each original lotto number set. If the corresponding lotto number set is determined to be winning numbers within a predetermined rank in a drawing performed on Saturday afternoon, and prize money is determined, 20 users are paid prize money at a ratio of 1/20, respectively.

In the meantime, as shown in the following Table 2, the lotto number duplication module duplicates original lotto number sets, for example, original lotto number set data corresponding to a hundred thousand sheets of tickets, in which respective lotto number sets are differentially duplicated according to various preset duplication number types.

Table 2

<table>
<thead>
<tr>
<th>Duplication number type</th>
<th>( N=100 )</th>
<th>( N=50 )</th>
<th>( N=20 )</th>
<th>( N=1 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>The number of original lotto number sets</td>
<td>50,000</td>
<td>30,000</td>
<td>15,000</td>
<td>5,000</td>
</tr>
<tr>
<td>The number of duplicated lotto number sets</td>
<td>5,000,000</td>
<td>1,500,000</td>
<td>300,000</td>
<td>5,000</td>
</tr>
<tr>
<td>Theoretical prize money distribution ratio</td>
<td>1/100</td>
<td>1/50</td>
<td>1/20</td>
<td>1/1</td>
</tr>
</tbody>
</table>

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That is, since the present invention differentially duplicates a total of original lotto number sets according to the duplication number types, the prize money distribution ratio can be decreased or increased depending on the number of duplications.

In the meantime, through a contract between the credit card owner 10, the credit card company 30, and the affiliated shop 20, actual prize money per credit card owner 10 can be divided at the distribution ratio represented by predetermined percentages into a dividend of the credit card owner related to the lotto ticket receipt, a dividend of the affiliated shop, and a refund to social welfare (service) organizations.

Actual prize money for each credit card owner corresponds to 90% of the theoretical prize money distribution ratio (prize money/N) per one person, the dividend of the corresponding affiliated shop corresponds to 5% thereof, and a refund to the social welfare organizations corresponds to 5% thereof.

In the meantime, the consumer refund versus lotto ticket management module functions to calculate a consumer (credit card owner) compensation on the basis of any one of the credit and monthly disbursement of the credit card owner 10, and classify and arrange lotto number sets having the small number of duplications to correspond to the magnitude of calculated compensation.
If the consumer compensation calculated by the consumer refund versus lotto ticket management module is relatively low, the consumer refund versus lotto ticket management module selects a lotto number set having the relatively large number of duplications and arranges the selected lotto number set in a predetermined data field.

In contrast, if the calculated consumer compensation is high, the consumer refund versus lotto ticket management module selects a lotto number set having the relatively small number of duplications and arranges the selected lotto number set in a predetermined data field.

Therefore, in the lotto ticket provision method of the present invention, the winning probabilities of the arranged lotto number sets are the same, but the theoretical prize money distribution ratio is relatively high or low, thus providing a consumer compensation service to correspond to a credit card user paying a large amount of money.

The lotto number extraction module functions to randomly extract a lotto number set, the number of duplications corresponding thereto, and sequence number indication data from the same data field of the lotto number sets classified and arranged, through the use of a typical random function.

In particular, the lotto number extraction module does not extract a lotto number set, but extracts an
information sentence from the lotto ticket management DB when consumer compensation is negative through the modification of a program.

Further, the lotto number extraction module can print or cannot print the same lotto number set on receipts (sales slips) of the same credit card owner within a predetermined period, or can print the same or different lotto number sets using a random function. Such a function can be easily and programmably achieved by applying a program condition value to a random function and designating the program condition value, recording and managing a corresponding lotto number set issued to the credit card owner 10 in a card owner DB 128 of the corresponding credit card owner 10, and searching the card owner DB 128 for the same lotto number set to determine whether the same lotto number set exists after extracting the lotto number set.

The data combining module functions to combine the number of duplications of the same lotto number set, sequence number indication data, and the lotto number set duplicated by the duplication number with the approval data of the affiliated shop.

The settlement management module functions to manage lotto ticket purchasing costs, charges for VAN, charges for data communication channel, etc.

The lotto ticket provision server 110 includes the
lotto number DB 121, the lotto ticket management DB 123, an affiliated shop DB 124, a consumer compensation DB 125, a settlement DB 126, a transmission result DB 127, and the card owner DB 128 that are controlled by a DataBase Management System (DBMS) 120 to execute arrangement, processing, extraction, recording and storage.

Further, the lotto ticket provision server 110 further includes a typical Web site and Internet information server operated by a wired and wireless combination engine that provides services of providing contents, reporting lottery winning results, registering members, paying prize money, and introducing lotto tickets using credit card receipts with respect to the affiliated shop 20 and the credit card owner 10 through the typical wired/wireless Internet 131.

Further, the lotto ticket provision server 110 further includes a typical Short Message Service (SMS)/email server 130 to transmit a text message through a typical Mobile Originated (MO)-SMS service, that is, a bi-directional text mail service, over the wired/wireless Internet 131 on the basis of the phone number of a wireless terminal 11 recorded in the card owner DB 128.

In this case, the SMS/email server 130 is provided with a general program and a communication infrastructure used to transmit email or text message, and informs the user of lottery winning results or simultaneously transmit
mobile receipt data, in which the number of duplications and the sequence number indication data are combined with the lotto number set duplicated by the duplication number, to the wireless terminals 11 of a plurality of credit card owners 10, using the general program and the communication infrastructure. Such simultaneous transmission technology uses typical wired/wireless communication technology.

Hereinafter, a schematic method for providing lotto tickets using credit card receipts is described depending on the sequence of numbers indicated by circles on the network configuration view of the present invention.

① The VAN provider 100 pays money to the lotto ticket selling site 40, and transmits a predetermined amount of purchased lotto number set data to the lotto ticket selling system of the lotto ticket selling site 40 through a dedicated packet network.

② The lotto ticket selling site 40 transmits lotto number request data to the lotto ticket management system of the lotto ticket management bank 50, with the payment of the VAN provider 100.

③ The lotto ticket management bank 50 extracts lotto number sets corresponding to a paid amount using a lotto number selection program, with the payment of the lotto ticket selling site 40, and transmits the extracted lotto number sets to the lotto ticket selling system of the lotto ticket selling site 40.
The lotto ticket selling site 40 prints the lotto number sets as lotto ticket output slips using a typical lotto number output program, and transmits the printed lotto ticket output slips and the lotto number sets to the operator of the VAN provider 100. The operator of the VAN provider 100 receives the lotto ticket output slips off-line, and receives the lotto number sets in the format of Excel or DB files through the dedicated packet network.

The credit card owner 10 presents his or her credit card in the affiliated shop 20 to request purchasing, the credit authorization terminal of the affiliated shop 20 transmits a transaction approval request message to the relay system of the VAN provider 100, the relay system of the VAN provider 100 reads credit card company information recorded in a user information field of the transaction approval request message and transmits a combination of data related to the transaction approval request to the transaction approval system of the corresponding credit card company 30 so as to request an approval, and the transaction approval system of the credit card company 30 verifies whether a corresponding financial transaction is valid, and returns approval data to the relay system of the VAN provider 100 relaying the transaction approval request through the packet network.

When the approval data are returned from the transaction approval system of the credit card company 30,
the relay system of the VAN provider 100 stores the returned approval data in the approval data DB 122. The lotto number extraction module of the lotto ticket provision server 110 of the VAN provider 100 extracts data including any one of the number of duplications, the sequence number indication data and the duplicated lotto number set from the lottery ticket management DB. The data combining module, interworking with the lotto number extraction module, combines at least one number of duplications, the sequence number indication data, and the lotto number set duplicated by the duplication number with affiliated shop approval data. Thereafter, the relay system of the VAN provider 100 returns the lotto ticket-combined approval data to the corresponding credit authorization terminal of the affiliated shop 20, and stores the transmission log of the lotto ticket-combined approval data in the transmission result DB 127.

The credit authorization terminal of the affiliated shop 20 prints payment results, the number of duplications, the sequence number, and the lotto number set, which is duplicated by the duplication number to have the same lotto number set in proportion to the duplication number, to correspond to the lotto ticket-combined approval data on a credit card receipt on the basis of the lotto ticket-combined approval data. Even though the affiliated shop operator transmits or does not transmit a receipt to
the user, lotto winning results are transmitted to winning persons by email or text message after drawing. Thereafter, prize money corresponding to the number of duplications or prize money distribution ratio is deposited in the settlement bank of the credit card owner 10, or deposited in the credit card owner’s desired bank account.

In FIG. 3, the operation flow of a program between the lotto ticket provision server and the relay system of the VAN provider is illustrated by example.

The lotto ticket purchase module of the lotto ticket provision server receives a predetermined number of original lotto number sets in the form of data from the lotto ticket selling system of the lotto ticket selling site or the lotto ticket management system of the lotto ticket management bank at step S10, and stores the received original lotto number sets in the lotto number DB for each sequence number at step S11.

As described above, the lottery ticket duplication module of the lotto ticket provision server extracts original lotto number sets and duplicates the extracted lotto number sets by the predetermined number of duplications at step S12, and stores the duplicated lotto number sets in the lotto ticket management DB for each sequence number and each number of duplications at step S13.

The relay system of the VAN provider receives
affiliated shop approval request (requirement) data from
the affiliated shop, and transmits the affiliated shop
approval request data to a credit card company
corresponding to the approval request data. Thereafter,
when the affiliated shop approval data are received from
the credit card company, the relay system stores the
received approval data in the approval data DB at steps S14
to S16.

The lotto number extraction module of the lotto
ticket provision server extracts data including any one of
the number of duplications, the sequence number indication
data and the lotto number set from the lotto ticket
management DB at step S17.

As described above, the data combining module of the
lotto ticket provision server combines the number of
duplications, the sequence number and the duplicated lotto
number set with the affiliated shop approval data at step
S18.

The relay system of the VAN provider returns the
lotto ticket-combined approval data to the corresponding
credit authorization terminal of the affiliated shop and
stores the transmission log of the lotto ticket-combined
approval data in the transmission result DB at step S19.

In this case, as shown in FIG. 4, on a sales slip for
financial transactions, such as a credit card receipt 200,
there are printed various transaction approval result
details, the number of duplications 203, a lotto number set 202 and a sequence number 201 to correspond to the lotto ticket-combined approval data. Such a credit card receipt 200 is transmitted to the credit card owner.

Thereafter, when the lotto winning results are announced on TV, the Internet, or Web sites, the operator of the VAN provider presents the original lotto tickets to receive prize money from the lotto ticket management bank, searches any one of the lotto number DB, the lotto ticket management DB and the card owner DB through the DB management system to extract winner information, the number of duplications, and the information of the corresponding affiliated shop where the winner used, informs the credit card owner of the winning results by email or text message, and allows prize money to be automatically transferred to the account of the credit card owner by a prize money distribution ratio or allows the credit card owner to personally receive the prize money, as described above.

Industrial Applicability

As described above, the present invention provides a method for providing lotto tickets using credit card receipts, which is advantageous in that a VAN provider purchases actual lotto tickets and provides a right to get the prize money of the lotto tickets to a credit card owner.
in the form of credit card owner compensation.

Further, the lotto ticket provision method using credit card receipts according to the present invention is advantageous in that, since a set of lotto numbers is printed whenever the credit card owner pays money by credit card, an affiliated shop naturally induces a user to use his or her credit card, and the amount of sales of the affiliated shop is increased.

Further, the lotto ticket provision method using credit card receipts according to the present invention is advantageous in that it can solve a problem that a lotto ticket cannot be conventionally provided to a credit card owner until certain bonus points, cash-bag points or mileages are accumulated, and can provide a lotto number set having a winning probability equal to that of a typical lotto number set to a credit card owner when the credit card owner uses his or her credit card even though the credit card owner uses a small amount by credit card, thus encouraging the credit card owner to use a small amount by credit card.

Especially, the lotto ticket provision method using credit card receipts according to the present invention is advantageous in that, since it is performed in real time by the lotto ticket provision server of a VAN provider, the present invention can construct a system using a conventional credit card infrastructure without change, and
it allows the VAN provider, to which the present invention is to be applied, to provide consumer compensation services differing from those of other VAN providers while minimizing additional costs required to construct the system, thus providing outstanding competitive power to the VAN provider of the present invention.

The lotto ticket provision method using credit card receipts according to the present invention is advantageous in that it can provide lotto tickets even though excessive funds required to purchase lotto tickets are not unreasonably imputed to credit card companies, VAN providers, affiliated shops or credit users, and it can allot some of the prize money as a refund for the development of affiliated shops and social welfare (service) organizations, thus acting a part to construct a clear credit society and a sound economy.

Although the preferred embodiments of the present invention have been disclosed for illustrative purposes, those skilled in the art will appreciate that various modifications, additions and substitutions are possible, without departing from the scope and spirit of the invention. Such modifications and substitutions would be considered to belong to the accompanying claims. That is, those skilled in the art will appreciate that an embodiment in which lotto number sets duplicated by the predetermined number of duplications are printed on Giro receipts,
Automatic Teller Machine (ATM) receipts, ATM inquiry receipts, or sales slips for various financial transactions in a similar manner as the present invention would belong to the accompanied claims.
Claims

1. A method for providing lotto tickets using credit card receipts, in which a credit authorization terminal transmits a transaction approval request message, created by combining user information, transaction detail information and affiliated shop information with each other, to a relay system of a Value-added Network (VAN) provider, the relay system of the VAN provider transmits the transaction approval request message to a transaction approval system of a corresponding financial company, and the transaction approval system of the financial company compares the transaction approval request message with data of the financial company to verify whether the corresponding transaction is valid, and then returns approval data to the relay system of the VAN provider, comprising:

the relay system of the VAN provider storing the approval data in an approval data database (DB);

a lotto number extraction module of a lotto ticket provision server of the VAN provider extracting the number of duplications, sequence number indication data and data on a set of duplicated lotto numbers from a lotto ticket management DB;

a data combining module of the lotto ticket provision server combining the number of duplications, the sequence
number indication data and the duplicated lotto number set
data with affiliated shop approval data;
the relay system of the VAN provider returning the
lotto ticket-combined approval data to the corresponding
credit authorization terminal of the affiliated shop; and
the credit authorization terminal outputting the
returned lotto ticket-combined approval data to a credit
card receipt.

2. The lotto ticket provision method according to
claim 1, further comprising a lotto number duplication
module of the lotto ticket provision server individually
extracting sets of original lotto numbers from a lotto
number DB, duplicates the original lotto number sets by the
predetermined number of duplications so that a plurality of
duplicated lotto tickets having the same lotto number set
exist or duplicates the original lotto number sets
according to duplication number types, and stores the
duplicated lotto number set data in the lotto ticket
management DB.

3. A server for providing lotto tickets, which is
connected to at least one credit authorization terminal, a
transaction approval system of at least one financial
company and a lotto ticket selling system of a lotto ticket
selling site through a network, comprising:
a memory for storing a program; and
a processor connected to the memory to execute the program,
wherein the processor performs, by the program, the steps of receiving a predetermined number of sets of original lotto numbers in the form of data from the lotto ticket selling system and storing the original lotto number set data in a lotto number DB according to sequence numbers, duplicating the original lotto number sets extracted from the lotto number DB by the predetermined number of duplications and storing the duplicated lotto number sets in a lotto ticket management DB, and combining at least one number of duplications, sequence number indication data and a corresponding set of duplicated lotto numbers, which are extracted from the lotto ticket management DB, with affiliated shop approval data to generate lotto ticket-combined approval data, thus enabling a relay system of the VAN provider to return the lotto ticket-combined approval data to the corresponding credit authorization terminal of the affiliated shop.

4. The lotto ticket provision server according to claim 3, further comprising:
modules including a lotto ticket purchase module, a lotto number duplication module, a consumer refund versus lotto ticket management module, a lotto number extraction
module, a data combining module, and a settlement management module; and

DBs including the lotto number DB having at least one piece of original lotto number set data, the lotto ticket management DB having at least one piece of duplicated lotto number set data, an affiliated shop DB, a consumer compensation DB, a settlement DB, a transmission result DB, and a card owner DB, the DBs executing arrangement, processing, extraction and recording through a database management system.
FIG. 1

1. CREDIT CARD OWNER
   - Receipt

2. AFFILIATED SHOP
   - Card
   - Approval Request
   - Approval Data

3. VAN PROVIDER
   - Approval Application

4. CREDIT CARD COMPANY
   - Approval Data

4a. CREDIT CARD COMPANY

2a. CREDIT CARD OWNER

3a. VAN PROVIDER

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FIG. 3

Start

S10
RECEIVE A PREDETERMINED AMOUNT OF LOTTO NUMBER SET DATA

S11
STORE LOTTO NUMBER SET DATA IN LOTTO NUMBER DB FOR EACH SEQUENCE NUMBER

S12
DUPLICATE LOTTO NUMBER SETS BY PREDETERMINED NUMBER OF DUPLICATIONS

S13
STORE DUPLICATED LOTTO NUMBER SETS IN TICKET MANAGEMENT DB

S14
RECEIVE AFFILIATED SHOP APPROVAL REQUEST DATA FROM AFFILIATED SHOP

S15
TRANSMIT AFFILIATED SHOP APPROVAL REQUEST DATA TO CREDIT CARD COMPANY

S16
RECEIVE AFFILIATED SHOP APPROVAL DATA FROM CREDIT CARD COMPANY

S17
RANDOMLY EXTRACT DUPLICATED LOTTO NUMBER SETS FROM LOTTO TICKET MANAGEMENT DB

S18
TRANSMIT AFFILIATED SHOP APPROVAL DATA COMBINED WITH LOTTO NUMBER SET TO AFFILIATED SHOP

S19
STORE TRANSMISSION LOG IN TRANSMISSION RESULT DB

End
# INTERNATIONAL SEARCH REPORT

## A. CLASSIFICATION OF SUBJECT MATTER

**IPC7 G06F 17/60**

According to International Patent Classification (IPC) or to both national classification and IPC.

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC G06F 17/60

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

- Korean patents and applications for inventions since 1975
- Korean utility models and applications for utility models since 1975
- Japanese utility models and applications for utility models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<td>A</td>
<td>KR 2001-85050 A (JUNG, DO YEONG etc.) 7 SEPTEMBER 2001 the whole document</td>
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<td>EP0811406 A3 (SALOMON ELISABETH) 10 DECEMBER 1997 the whole document</td>
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[X] Further documents are listed in the continuation of Box C.  
[ ] See patent family annex.

- **A** document defining the general state of the art which is not considered to be of particular relevance
- **E** earlier application or patent but published on or after the international filing date
- **L** document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)
- **O** document referring to an oral disclosure, use, exhibition or other means
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- **X** document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- **Y** document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- **&** document member of the same patent family

**Date of the actual completion of the international search**


**Date of mailing of the international search report**

30 JULY 2004 (30.07.2004)

**Name and mailing address of the ISA/KR**

Korean Intellectual Property Office  
920 Dunsan-dong, Seo-gu, Daejeon 302-701,  
Republic of Korea  
Facsimile No. 82-42-472-7140

**Authorized officer**

KANG, Gab Youn  
Telephone No 82-42-481-5914

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<td>7. SEP. 2001</td>
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