

DATABASE ACCUMULATING METHOD

TECHNICAL FIELD

[0001]

The present invention relates to a database accumulating method that allows accumulation of customer information, product information, and shop information in an open, non-limiting, and aggregated manner.

BACKGROUND ART

[0002]

In online shopping, a product purchased by a purchaser is delivered to the purchaser in the following manner.

The purchaser selects a product in an online shop (hereinafter, "shop") and performs a process to purchase the product.

The shop informs to a warehouse and a delivering company the product that has been purchased and the address of the purchaser.

The delivering company delivers the product to the address of the purchaser.

In the above process, information about the product and the purchaser is exchanged among the purchaser, the shop, the warehouse, and the delivering company.

A payment company that handles payment information is also involved in the above process; however, the payment company has been omitted from the below explanation.

[0003]

The information about the product and the purchaser is accumulated (has been accumulated) in a database as information that is useful in deciding launching of products in the future.

Such a database may be built separately per shop or may be built at a delivery point where exchange of product information and purchaser information takes place.

[0004]

The database built in this manner is used, for example, to evaluate the effect of coupons that are affixed with information about a sale, etc., of a target

product.

The evaluation of the effect of coupons here means a survey on how many of the customers to whom the coupons issued by a shop were given visited the shop by being induced by the coupons.

In the evaluation of the effect of coupons, a survey of trends of the purchasers to whom the coupons were given is made and the acquired information is accumulated in the database.

[0005]

The information obtained by the shop in this manner includes customer information about the customers who were induced by the coupons, contents of the coupons, information about the percentage of shop visitors with respect to the number of coupons issued.

The survey of trends of the purchasers to whom the coupons were given can be made by additionally coupling contents of the above coupons to the customer information, or by additionally coupling the customer information to the coupon information, and using the accumulated database.

[0006]

Performing so-called interest matching advertising is also known conventionally.

The interest matching advertising is performed in the following manner.

First, a database is built by corresponding (categorizing) the product information in a shop to each other.

When a customer purchases a product, the past purchase history of that product is retrieved.

Information about other products in the same category as the purchased product is extracted from the retrieved past history and displayed for the customer.

[0007]

In this case, the information that is obtained by the shop is mainly purchase history of the customer and information about interest tendency of the customer that is acquired when the customer browses the information about the other products.

Investigation of the interest tendency of the customer can be made by additionally coupling the product information and the other product information to the customer information, or by additionally coupling the customer information to

the product information, and using the accumulated database.

[0008]

As explained above, a database in which the customer information and the product information are coupled to each other can be accumulated by the simple act of the customer to browse the website of the shop identified by a URL on the internet.

The shop can explore the interest of the customers that could lead to a profit, perform data mining whereby appropriate product information can be displayed to the customer, etc.

[0009]

However, the two conventional database accumulating methods have the following problems.

One problem of the conventional database accumulating methods is that these methods are exclusive in that only a combination of information of a particular shop, products handled in that shop, and customer information registered in that shop can be accumulated with these methods.

Another problem of the conventional database accumulating methods is that these methods are limited in that information about shops other than the particular shop to which the customer visited, or information about products other than the products seen by the customer cannot be accumulated with those methods.

SUMMARY OF THE INVENTION

PROBLEMS TO BE SOLVED BY THE INVENTION

[0010]

The present invention aims to solve the following problems of the conventional database accumulating methods.

In the conventional database accumulating methods, only a combination of information of a particular shop, products handled in that shop, and customer information registered in that shop can be accumulated.

In the conventional database accumulating methods, information about shops other than the particular shop to which the customer visited, or information about products other than the products seen by the customer cannot be accumulated.

MEANS FOR SOLVING THESE PROBLEMS

[0011]

To solve these problems, the present invention has the following structure.

The present invention relates to a database accumulating method of accumulating information in an aggregated manner by connecting multiple shop servers that store therein customer information, purchase information, and product information of an online shop to multiple advertisement servers that store therein advertisement information.

In the database accumulating method according to the present invention, an aggregation server, that includes an advertisement matching means, a product dispatching means, a connection detecting means, and an information accumulating means, is arranged between the multiple shop servers and the advertisement servers.

The aggregation server accumulates customer information relating to dispatching of a product, purchase information and product information, which are presented by the shop server, and accumulates advertisement information presented by the advertisement server.

The advertisement matching means of the aggregation server extracts, from the advertisement information, advertisement information of other shop corresponding to the product to be dispatched and the customer.

The product dispatching means of the aggregation server prints each of the advertisement information to which is appended information that can couple the customer information and the purchase information to an advertisement medium for attaching to a purchased product or to a packaging medium used for wrapping the product, and a price tag for dispatching the product based on the customer information.

The connection detecting means of the aggregation server detects, after the advertisement information has reached the customer along with the product, whether the customer connects to the shop server of the other shop based on the advertisement information.

The information accumulating means of the aggregation server accumulates the detected information coupled to the customer information, and further accumulates purchase information of a product when the product is purchased at the other shop.

ADVANTAGEOUS EFFECTS OF THE INVENTION

[0012]

According to the present invention, the following information other than a combination of information of additional information such as information about a shop, products handled in that shop, and customer information registered in that shop can be accumulated.

According to the present invention, not only information about shops other than the particular shop to which the customer visited, but information about how the customer reacted to the advertisement information of the other shops that was presented when the product was dispatched to the customer can be newly accumulated.

According to the present invention, purchase information about the product purchased by the customer in the other shop can also be accumulated.

According to the present invention, information about other shops and products in the other shops can also be accumulated in addition to information about the shop to which the customer visited, or information about products seen by the customer.

[0013]

The database accumulated in the aggregation server according to the present invention has the following advantages as seen from the viewpoint of the customer information.

That is, in this database, not only purchase information of a particular shop, but information about the other shops, browsing history (advertisement effect) of the other shop of the purchaser who received the advertisement information, or purchase information in the other shops can be accumulated permanently and automatically from the advertisement information.

In this manner, by using the database accumulated according to the present invention, data mining can be performed meticulously and from variety of perspectives.

BRIEF DESCRIPTION OF THE DRAWINGS

[0014]

FIG. 1 is a schematic drawing for explaining a database accumulating

method according to the present invention.

FIG. 2 is a schematic drawing for explaining transition states of information in the database accumulating method according to the present invention.

FIG. 3 is a schematic drawing for explaining operating states of a connection detecting means in the database accumulation method according to the present invention.

PREFERRED EMBODIMENTS

[0015]

The present invention solves the following two problems of the conventional database accumulating methods, that is, only exclusive combination information comprising product information between a shop and customers can be accumulated, and, selected and limited information about shops visited by a customer or information about products seen by the customer can only be accumulated, by way of embodiments explained below.

For this purpose, according to the present invention, an aggregation server, which includes an advertisement matching means, a product dispatching means, a connection detecting means, and an information accumulating means, is arranged between multiple shop servers and advertisement servers.

The aggregation server accumulates from the shop server customer information and product information that relate to dispatch of products, and advertisement information of other shops presented by the advertisement server.

Embodiment

[0016]

Concrete embodiments of a database accumulating method according to the present invention are explained below while referring to FIG. 1 to FIG. 3.

The database accumulating method according to the present invention is realized by network connecting multiple shop servers 1, multiple advertisement servers 2, other shop server 3, an aggregation server 4, and an Internet connecting environment for the customer, such as a personal computer (hereinafter, customer 5).

[0017]

Because the shop servers 1, the advertisement servers 2, the other shop server 3, the aggregation server 4, and the customer 5 have an ordinary structure, as mentioned above, that make it possible to connect them to the network, an explanation of their concrete structures has been omitted herefrom.

The shop servers 1, the advertisement servers 2, the other shop server 3, and the aggregation server 4 according to the present invention store therein the following information in a hard disk drive as a storage device.

[0018]

The shop server 1 stores therein customer information 1A about customers registered in that shop and product information 1B about products sold in that shop.

The advertisement server 2 stores therein advertisement information 2A about advertisements presented by the other shop server 3.

The other shop server 3 stores therein customer information 3A about customers registered in that shop and product information 3B about products sold in that shop (for the sake of explanation, differentiated from the shop server 1).

[0019]

The customer information 1A (3A) includes information about customers, for example, a customer ID, name, address, etc.

The product information 1B includes information about products, for example, a product ID, name, category, price, etc.

The advertisement information 2A includes information about a shop and the products sold in that shop, for example, an advertisement ID, shop name, URL, product name, etc.

[0020]

The advertisement information 2A stored in the advertisement server 2 is, in this embodiment, information that is presented by the other shop server 3 when the other shop server 3 makes a request to run an advertisement.

[0021]

The aggregation server 4 includes a product dispatching means 4A, an advertisement matching means 4B, a connection detecting means 4C, and an information accumulating means 4D all of which are implemented as computer programs.

The product dispatching means 4A performs the following process when

hardware of the aggregation server 4 receives an instruction to dispatch the product purchased in the shop server 1.

That is, the product dispatching means 4A outputs a print instruction to print an advertisement medium AD that carries the advertisement information 2A on a packaging medium P, or outputs a print instruction to print the advertisement information 2A on a packaging medium P used to wrap the product.

Then, the product dispatching means 4A outputs a print instruction to print a price tag T based on the customer information (which is presented by the shop server 1) about a customer to whom the product is to be dispatched.

[0022]

The advertisement matching means 4B extracts the advertisement information 2A based on the advertisement information 2A that is presented from the advertisement server 2 in order to run an advertisement, and one or both of the customer information 1A and the product information 1B that relate to the customer and the product corresponding to the dispatch instruction received from the shop server 2.

[0023]

The connection detecting means 4C, in the present embodiment, as explained in detail later, detects whether the customer 5 connects to the other shop server 3.

The information accumulating means 4D accumulates the following information when the connection detecting means 4C detects that the customer 5 has connected to the other shop server 3.

That is, information accumulating means 4D accumulates:

the customer information 5A,

the purchase information 5B about the product purchased by the customer,

the advertisement information 5C about the advertisement run for the customer, and

if the customer purchases a product in the other shop, the other shop purchase information 5D.

[0024]

The purchase information 5B and the other shop purchase information 5D represent, for example, purchase timing, purchased product, shop in which the

product was purchased, and collectively represent those pieces of information.

[0025]

The information accumulating means 4D accumulates, as explained later, the following information:

- the customer information 1A about the customer who requested dispatching of the product to the aggregation server 4,

- the product information 1B, and

- the advertisement information 2A when a request is made to the aggregation server 4 to run an advertisement based on the advertisement information 2A.

[0026]

FIG. 2 is a schematic drawing for explaining how various pieces of information are accumulated in the information accumulating means 4D of the aggregation server 4.

Concretely, the following information is accumulated in the information accumulating means 4D of the aggregation server 4:

- the advertisement information 2A that is presented by the advertisement server 2,

- the customer information 1A and the product information 1B specified by the shop server 1 when dispatching the product,

- the customer information 5A, the purchase information 5B, and the advertisement information 5C that are obtained when the customer 5 connects to the other shop server 3 based on the information printed on the advertisement medium AD when the product reaches the customer 5, and

- the other shop purchase information 5D that is presented by the other shop server 3 when the customer purchases a product in the other shop.

[0027]

The information accumulation according to the present invention is implemented in the manner below when an instruction to dispatch a newly purchased product is given to the aggregation server 4 based on the other shop purchase information 5D.

For the sake of explanation, in the below explanation, the other shop server 3 will be replaced with the shop server 1.

Based on the customer information 1A and the product information 1B

specified by the shop server 1, the aggregation server 4 performs matching and extracts new advertisement information 2A by using the advertisement matching means 4B.

Based on the advertisement information 2A obtained by the matching, the aggregation server 4 prints the advertisement medium AD and the price tag T for dispatching.

The product wrapped in the packaging medium P to which has been attached the advertisement medium AD and the price tag T is sent to the customer 5.

[0028]

The advertisement medium AD that is prepared from the advertisement information 2A, and by what method the connection detecting means 4C of the aggregation server 4 performs the detection will be explained below.

The advertisement medium AD displays an advertisement or information about products to induce the customer to the other shop server 3 and includes following notation and/or a sensor:

for example, display a QR code (Registered Trademark) embedding a URL, an email address transmission code in the form of a URL, an automatic reading sensor embedding a URL, and display a URL itself.

[0029]

In the URL, the customer information 1A to which the product that has been dispatched and that is already accumulated in the information accumulating means 4D and the advertisement information 2A are coupled onto the customer information 1A. The URL is an address representing a code of a storage area that is separately buffered.

[0030]

When the URL that induces the customer 5 with the advertisement medium AD is clicked, as shown in FIG. 3, first a connection is established with the connection detecting means 4C of the aggregation server 4, and then the customer 5 is redirected to the other shop server 3.

Subsequently, when the connection detecting means 4C detects connection of the customer 5 to the other shop server 3, the above-mentioned various pieces of information (that is, the customer information 5A, the purchase information 5B,

and the advertisement information 5C) that are separately buffered are coupled onto the customer information 1A and formally accumulated in the information accumulating means 4D.

[0031]

If the customer 5 purchases a product in the other shop, in addition to the customer information 5A, the purchase information 5B, and the advertisement information 5C, the other shop purchase information 5D is transmitted from the other shop server 3, and this information is coupled onto the customer information 1A and accumulated in the information accumulating means 4D.

EXPLANATIONS OF THE REFERENCE NUMERALS

[0032]

- 1 shop server
 - 1A customer information
 - 1B product information
- 2 advertisement server
 - 2A advertisement information
- 3 other shop server
 - 3A customer information
 - 3B product information
- 4 aggregation server
 - 4A product dispatching means
 - 4B advertisement matching means
 - 4C connection detecting means
 - 4D information accumulating means
- 5 customer
 - 5A customer information
 - 5B purchase information
 - 5C advertisement information
 - 5D other shop purchase information

CLAIMS

1. A database accumulation method of accumulating in an aggregated manner information by connecting plural shop servers that store therein customer information, purchase information, and product information of a web shop to plural advertisement servers that store therein advertisement information, the database accumulation method comprising:

arranging an aggregation server, which includes an advertisement matching means, a product dispatching means, a connection detecting means, and an information accumulating means, between the plural shop servers and the advertisement servers;

when an instruction to dispatch a product is received by the aggregation server, in a cycle in which the product is sent to a customer after performing matching of advertisement information by the advertisement matching means based on customer information and product information, the aggregation server accumulates customer information relating to dispatching of a product, purchase information and product information, which are presented by the shop server, and accumulates advertisement information presented by the advertisement server;

the advertisement matching means of the aggregation server extracts, from the advertisement information, advertisement information of other shop corresponding to the product to be dispatched and the customer;

the product dispatching means of the aggregation server prints each of the next;

the advertisement information to which is appended information that can couple the customer information and the purchase information to an advertisement medium for attaching to a purchased product or to a packaging medium used for wrapping the product, and

a price tag for dispatching the product based on the customer information;

the connection detecting means of the aggregation server detects, after the advertisement information has reached the customer along with the product, whether the customer connects to the shop server of the other shop based on the advertisement information;

the information accumulating means of the aggregation server accumulates the advertisement information that is presented by the advertisement server, the customer information and the product information specified by the shop server when dispatching the product, the customer information, the purchase information, and the advertisement information that are obtained when the customer connects to the other shop server based on the advertisement information presented to the customer when the product reaches the customer, and the other shop purchase information that is presented by the other shop server when the customer purchases a product in the other shop coupled to the customer information.