Abstract: A method of determining an advertising fee in a shopping related site, the method including: maintaining a fee information database which stores a graded fee rate according to each of a plurality of price ranges which are divided according to a predetermined standard; classifying a selling price of a product into at least one unit price by considering the divided price ranges; calculating a unit fee for each of the price ranges by using a unit price in each of the price ranges, and the graded fee rate corresponding to each of the price ranges which is identified from the fee information database; and determining the advertising fee by summing up the calculated unit fee of each of the price ranges.

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.
METHOD AND SYSTEM FOR DECIDING ADVERTISING FEE

Technical Field
The present invention relates to a method and system for determining an advertising fee, which can calculate an advertising fee by applying a graded fee rate corresponding to a price range where a selling price of a product is included, when advertising the product or a shopping mall to a purchaser who accesses a shopping related site, and charging an advertiser with the advertising fee for the advertising activity.

Background Art
When an Internet user desires to purchase a product via the Internet, the Internet user may access a shopping related site, and receive pre-registered advertising information by searching for a predetermined product.

The advertising information may be utilized as data when an advertiser promotes the advertiser's product or shopping mall. An operator of the shopping related site may charge the advertiser with an advertising fee for the advertising, by providing the purchaser with the advertising information or by interoperating with the purchaser's click on the provided advertising information (connecting the purchaser to the advertiser's shopping mall).

The operator of the shopping related site may charge the advertiser with a fee rate which has been arbitrarily set for a selling price of the advertised product. Also, the operator of the shopping related site may enable a predetermined fee to be automatically charged to the advertiser in connection with the purchaser's click on the advertising information.

However, in the case of a conventional advertising fee calculation method, an advertising fee may be excessively increased for a substantial advertising effect (for example, purchase of a product) on the advertiser's side. Accordingly, the advertiser must bear significant economic burdens.

Accordingly, a new type of advertising fee determination model which can substitute a conventional fixed click fee rate method, and can calculate an advertising fee by applying a different graded fee rate corresponding to a price range where a
selling price of a product is included is required.

Also, an advertising fee determination model which can reasonably charge the advertiser with an advertising fee in connection with a purchaser's one-time click on exposed advertising information is required.

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Disclosure of Invention

Technical Goals

The present invention provides a method and system for determining an advertising fee, which can calculate an advertising fee by applying a graded fee rate corresponding to a price range where a selling price of a particular product is included, for advertising the product or a shopping mall, and thereby can more reasonably determine the advertising fee.

The present invention also provides a method and system for determining an advertising fee, which can more reasonably charge an advertiser and also enables the advertiser to acquire more economical and effective advertising effects by charging the advertiser with the advertising fee in connection with a purchaser's click on advertising information associated with product information or shopping mall information of the product.

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Technical solutions

According to an aspect of the present invention, there is provided a method of determining an advertising fee in a shopping related site, the method including: maintaining a fee information database which stores a graded fee rate according to each of a plurality of price ranges which are divided according to a predetermined standard; classifying a selling price of a product into at least one unit price by considering the divided price ranges; calculating a unit fee for each of the price ranges by using a unit price in each of the price ranges, and the graded fee rate corresponding to each of the price ranges which is identified from the fee information database; and determining the advertising fee by summing up the calculated unit fee of each of the price ranges.

According to another aspect of the present invention, there is provided a system for determining an advertising fee in a shopping related site, the system including: a fee information database storing a graded fee rate according to each of a plurality of
price ranges which are divided according to a predetermined standard; a price range
classification unit classifying a selling price of a product into at least one unit price by
considering the divided price ranges; a unit fee calculation unit calculating a unit fee for
each of the price ranges by using a unit price in each of the price ranges, and the graded
fee rate corresponding to each of the price ranges which is identified from the fee
information database; and a fee determination unit determining the advertising fee by
summing up the calculated unit fee of each of the price ranges.

Brief Description of Drawings

FIG. 1 is a diagram illustrating a configuration of a system for determining an
advertising fee according to an embodiment of the present invention;

FIG. 2 is a block diagram illustrating a system for determining an advertising
fee according to an embodiment of the present invention;

FIG. 3 is a diagram illustrating an example of a fee information database
according to an embodiment of the present invention;

FIG. 4 is a diagram illustrating an example of calculating a unit fee according to
an embodiment of the present invention;

FIG. 5 is a diagram illustrating an example of determining an advertising fee
according to an embodiment of the present invention; and

FIG. 6 is a flowchart illustrating a method of determining an advertising fee
according to an embodiment of the present invention.

Best Mode for Carrying Out the Invention

Reference will now be made in detail to embodiments of the present invention,
examples of which are illustrated in the accompanying drawings, wherein like reference
numerals refer to the like elements throughout. The embodiments are described below
in order to explain the present invention by referring to the figures.

The term "graded fee rate (GFR)" used throughout the present specification is a
percentage value for determining an advertising fee to be charged to an advertiser of a
Corresponding product or shopping mall for advertising the product in a shopping
related site or the shopping mall of the product. Also, the term "graded fee rate" may
designate a fee rate which can apply a different percentage value according to a selling
price range of the product.

Specifically, the graded fee rate is generated by supplementing and improving a fixed click fee rate which is widely utilized in conventional shopping related sites. Accordingly, when determining an advertising fee of a particular product or shopping mall, the advertising fee can be more reasonable calculated by applying at least one fee rate according to a selling price range of the product.

In this case, the advertising fee which is determined by the graded fee rate, may be charged to the advertiser of the product or the shopping mall, in connection with a purchaser's single click (valid one-time click) on advertising information associated with the product or the shopping mall. The advertising information is provided to the purchaser in response to a predetermined search request in the shopping related site.

Here, examples of the shopping related site include a shopping mall site where products can be directly purchased and sold, a shopping mall relay site which relays a plurality of shopping malls to a purchaser, and a price comparison site where a plurality of shopping malls are included and thus, a selling price of each of the shopping malls can be provided with respect to a particular product, and the like. Also, the shopping related site may designate all the websites which can sell products and provide product information via a network.

FIG. 1 is a diagram illustrating a configuration of a system for determining an advertising fee according to an embodiment of the present invention.

An advertising fee determination system 100 functions to advertise a product, a shopping mall of the product, and the like, and to charge an advertiser 130 associated with the product or the shopping mall with an advertising fee for the advertising. Particularly, the advertising fee determination system 100 may determine the advertising fee by applying at least one graded fee rate to a selling price of the product. Also, when a purchaser 120 clicks the advertising information and obtains information about the product or the shopping mall, the advertising fee determination system 100 may charge the advertiser 130 with the determined advertising fee.

A product search engine 110 functions to expose advertising information of the advertiser 130 to the purchaser 120, in response to a product information request from the purchaser 120 who has accessed a shopping related site. Specifically, the product search engine 110 receives a product identifier from the purchaser 120, and provides the
purchaser 120 with the advertising information, such as sales information of a product associated with the received product identifier, shopping mall information of the product, and selling price comparison information of each of the shopping malls with respect to the product.

In this instance, the product search engine 110 may further include an advertising information database 115 for storing the advertising information corresponding to the product identifier. The advertiser 130 may pre-register the advertising information to the advertising information database 115. The advertising information is associated with the product or the shopping mall which the advertiser 130 desires to advertise to the purchaser 120. When the product information request is received from the purchaser 120, the product search engine 110 may extract relevant advertising information for the product information request from the advertising information database 115.

The advertising information, which is exposed to the purchaser 120, may include predetermined link information. When the purchaser 120 clicks the advertising information on a terminal 125 via a mouse or the like, the product search engine 110 may control the purchaser 120 to connect to a shopping mall of a network address associated with the link information.

Also, the product search engine 110 functions to identify a valid click from the purchaser's 120 clicks on the advertising information. Here, the valid click designates a click which substantially connects the purchaser 120 to the shopping mall associated with the advertiser 130. As an example, when the purchaser's 120 initial click on advertising information occurred and, another click by the identical purchaser's 120 on the advertising information occurs within a certain time, the product search engine 110 may determine the other click as an invalid click and thereby, identify the valid click and the invalid click.

Specifically, the product search engine 110 functions to provide the purchaser 120 with advertising information corresponding to the product information request, and to connect the purchaser 120 to a shopping mall associated with particular advertising information in correspondence to the purchaser's 120 click on the particular advertising information.

The purchaser 120 may designate an Internet user who controls the terminal
125 for an access to the advertising fee determination system 100, and can receive information/data about a particular product by transmitting the product information request to the product search engine 110.

The terminal 125 maintains a connection state with the advertising fee determination system 100 via a network 140, such as the Internet. Also, the terminal 125 displays at least one advertising information (or an advertising list where a plurality of advertising information are arranged) on a predetermined screen. Here, the at least one advertising information is extracted when the product search engine 110 searches for product information. Also, the terminal 125 may be a general concept of a communication terminal which includes a predetermined calculation capability by including a predetermined memory and a predetermined microprocessor, such as a personal computer (PC), a handheld computer, a personal digital assistant (PDA), an MP3 player, an electronic dictionary, a mobile phone, a smart phone, and the like.

The advertiser 130 may designate, for example, a product seller or a shopping mall operator who operates a shopping mall designated by a network address (for example, an IP address, a Uniform Resource Locator (URL), a domain, etc.) in the network 140. Also, the advertiser 130 pays a system operator a predetermined advertising fee according to the purchaser's 120 click on advertising information associated with the advertiser's 130 product or shopping mall.

The advertising fee determination system 100 functions to expose the advertising information associated with the product or the shopping mall to the purchaser 120, and to determine the advertising fee to be charged to the advertiser 130 according to the purchaser's 120 click on the exposed advertising information. Particularly, when determining an advertising fee, the advertising fee determination system 100 may determine a comparatively low advertising fee, and also more reasonably charge the advertiser 130 by adopting a graded fee rate method. Here, the graded fee rate method applies a graded fee rate according to the selling price range of the product. Hereinafter, a configuration of an advertising fee determination system 200 according to an embodiment of the present invention will be described with reference to FIG. 2.

FIG. 2 is a block diagram illustrating a system for determining an advertising fee according to an embodiment of the present invention.
The advertising fee determination system 200 includes a fee information database 210, a price range classification unit 220, a unit fee calculation unit 230, and a fee determination unit 240.

The fee information database 210 stores a graded fee rate according to each of a plurality of price ranges which are divided according to a predetermined standard. Specifically, the fee information database 210 functions to maintain a graded fee rate to be applied to the selling price of the product for each of price ranges, and to provide a corresponding graded fee rate when the unit fee calculation unit 230 calculates a unit fee in a particular price range. The graded fee rate of the fee information database 210 may be arbitrarily set by the system operator. Also, the system operator may frequently update the graded fee rate in the fee information database 210 by considering a system environment.

Also, the price ranges may be determined based on a category where at least one product is classified according to features of the product. Hereinafter, how to classify the price ranges will be described in detail with reference to FIG. 3.

FIG. 3 is a diagram illustrating an example of the fee information database 210 according to an embodiment of the present invention.

As shown in FIG. 3, the fee information database 210 classifies at least one product into a single category according to features of the product, and verifies a selling price range of the category, based on a highest selling price or a lowest selling price of products which are included in the category.

As an example, when the highest selling price of products, which are included in a 'clothing/underwear' category, does not exceed 20,000 won, the system operator may determine that the selling price range of the 'clothing/underwear' category is less than 20,000 won. Accordingly, the fee information database 210 may determine "less than 20,000 won" as an independent price range, and apply a graded fee rate O.1% to the determined price range.

Also, when the lowest selling price of products which are included in a 'fashion/accessory' category starts from 20,000 won, and the highest selling price thereof is less than 50,000 won, the system operator may determine that the selling price range of the 'fashion/accessory' category is from 20,000 won to less than 50,000 won, and apply a graded fee rate O.02% to the determined price range.
Also, another method of determining the price ranges may verify a distribution chart with respect to selling prices of products which are included in a particular category, and determine the price ranges by using an upper limit or a lower limit of the selling prices.

Hereinafter, a process of arranging products which are included in an 'mid- & small-sized home appliance' category based on the selling prices, and verifying a distribution map of the selling prices will be described. As an example, the system operator may arrange '50' products of the 'mid- & small-sized home appliance' category based on the selling prices, and sequentially select the selling prices based on a number of products which are arranged for each of the selling prices. When the number of products arranged for the selected selling price is 25 items for '195,000 won' and 20 for '50,000 won', the system operator verifies that the number of products of the selected selling price is greater than or equal to 90% (45 out of 50), and stops selecting the selling price. Next, the system operator may determine the upper limit (200,000 won) and the lower limit (50,000 won) of the selected selling price, as the selling price range of the 'mid- & small-sized home appliance' category, and apply a predetermined graded fee rate '0.008%' to the determined price range 'from 50,000 won to less than 200,000 won'.

The graded fee rate corresponding to each of the price ranges may be arbitrarily set as an optimal fee rate for determining an advertising fee, based on the system operator's experiences. As an example, the graded fee rate may be set by considering an average selling price of products which are included in the particular price range, a purchase success rate of the products, a fee rate which becomes a break-even point at the particular selling price, and the like.

Specifically, the fee information database 210 functions to divide the price ranges by considering a category of a particular product group, and store a predetermined graded fee rate corresponding to each of the divided price ranges.

The price range classification unit 220 classifies a selling price of a product into at least one unit price by considering the divided price ranges. Specifically, the price range classification unit 200 classifies the selling price of the product for each of the price ranges, and determines a price amount corresponding to each of the price ranges, as the unit price.
As an example, when the price amount is based on the price ranges divided in the fee information database 210 of FIG. 3, the price range classification unit 220 may classify selling price '300,000 won' into unit price '19,999 won' of a price range 1 (less than 20,000), unit price '30,000 won' of a price range 2 (from 20,000 won to less than 50,000 won), unit price '150,000 won' of a price range 3 (from 50,000 won to less than 200,000 won), and unit price '100,001 won' of a price range 4 (from 200,000 won to less than 500,000 won). In this instance, it may be desirable that summing up of the classified unit prices is identical to the selling price.

The unit fee calculation unit 230 calculates a unit fee for each of the price ranges by using a unit price in each of the price ranges, and the graded fee rate corresponding to each of the price ranges which is identified from the fee information database 210. Specifically, the unit fee calculation unit 230 functions to calculate a fee to be charged to the advertiser 130 of the product in an individual price range. Accordingly, the unit fee calculation unit 230 may calculate the unit fee by multiplying the graded fee rate and the unit price corresponding to the price range. As an example, when the unit price of the price range 1 is '19,999 won', and the graded fee rate is 0.1%", the unit fee calculation unit 230 may calculate the unit fee of the first price range into '20 won' (= 19,999 won * 0.1%).

Hereinafter, a process of calculating a unit fee in the unit fee calculation unit 230 will be described with reference to FIG. 4.

FIG. 4 is a diagram illustrating an example of calculating a unit fee according to an embodiment of the present invention.

In FIG. 4, a unit fee of a selling price 'P' of a product is calculated in a particular price range where a lowest selling price is set as 'm', and a highest selling price as 'M'.

When the selling price 'P' satisfies 'm $\leq P < M$', the unit fee calculation unit 230 may calculate the unit fee C of the price range according to 'C = (P-m)*G'. Here, G designates the graded fee rate corresponding to the price range.

As an example, when the selling price P is 30,000 won, and the lowest selling price m is 20,000 won and the highest selling price M is 50,000 won in the price range where the graded fee rate is '0.02%', the unit fee calculation unit 230 may determine that the selling price P is between the lowest selling price m and the highest selling price M of the price range. Also, the unit fee calculation unit 230 may calculate the unit fee C.
of the price range into 2 won by applying \((30,000 - 20,000)\times0.02\%\).

Also, when the selling price \(P\) satisfies '\(M \leq P\)', the unit fee calculation unit 230 may calculate the unit fee \(C\) of the price range according to '\(C=(M-m)\times G\)'. As an example, when the selling price \(P\) is 80,000 won, and the lowest selling price \(m\) is 20,000 won and the highest selling price \(M\) is 50,000 won in the price range where the graded fee rate is '0.02%', the unit fee calculation unit 230 may determine that the price range of the selling price \(P\) is greater than the highest selling price \(M\) of the price range. Also, the unit fee calculation unit 230 may calculate the unit fee \(C\) of the price range into 6 won by applying \((50,000-20,000)\times0.02\%\).

Also, when the selling price \(P\) satisfies '\(P < m\)', the unit fee calculation unit 230 may determine that the unit fee \(C\) of the corresponding price range is not calculated for calculating the advertising fee, and calculate the unit fee \(C\) of the price range as 0.

The fee determination unit 240 sums up the calculated unit fee of each of price ranges to determine the advertising fee. Specifically, the fee determination unit 240 functions to determine the advertising fee to be charged to the advertiser 130 in connection with the purchaser's 120 click on advertising information of a corresponding product. Also, the fee determination unit 240 functions to sum up the calculated unit fee of each price range and determine the advertising fee.

As described above, according to the present invention, an advertising fee may be more reasonably determined by applying a graded fee rate based on a selling price, particularly, a price range where the selling price is included, for advertising the product or a shopping mall.

FIG. 5 is a diagram illustrating an example of determining an advertising fee according to an embodiment of the present invention.

FIG. 5 illustrates an example of determining an advertising fee to be charged to the advertiser 130 in connection with the purchaser's 120 single click on advertising information.

As shown in FIG. 5, the advertising fee determination system 200 may set price ranges from a price range 1 (less than 20,000 won) to a price range 6 (from 1 million won) by considering a category of a product group, and apply a graded fee rate (from 0.1% to 0.002%) corresponding to each of the set price ranges. Also, the advertising fee determination system 200 may calculate the advertising fee (CPC: Cost Per Click) to
be charged to the advertiser 130 per the purchaser's 120 one-time click on the selling price of the product, '300,000 won', by summing up the unit fee which is calculated in each of the price ranges.

In this case, the unit fee in each of the price ranges is calculated according to 'unit fee* GFR (graded fee rate)'. Accordingly, the unit fee in each of the price ranges with respect to the selling price of the product '300,000 won' may be calculated into '19,999 won * 0.1 % = 20 won' in the price range 1, '30,000 won * 0.02 % = 6 won' in the price range 2, '150,000 won * 0.008 % = 12 won' in the price range 3, '100,001 won * 0.006 % = 6 won' in the price range 4, and '0' in price ranges 5 and 6.

Accordingly, the advertising fee determination system 200 determines the total sum of the unit fee, '44 won', which was calculated in each of the price ranges, as the advertising fee of the selling price of the product '300,000 won'.

The advertising fee determination system 200 may control the product search engine 110 to transmit advertising information associated with a product identifier, to the purchaser 120 in response to a product information request which is received from the purchaser 120. Here, the product identifier is included in the product information request. Also, the advertising fee determination system 200 verifies the purchaser's 120 click on the advertising information which is transmitted (exposed) to the purchaser 120. Also, the advertising fee determination system 200 charges the advertiser 130 of the clicked advertising information with the determined advertising fee. As an example, when the selling price of the product associated with the clicked advertising information is '300,000 won', the determined advertising fee is 44 won.

As described above, according to the present invention, it is possible to reasonably charge the advertiser 130 by charging the advertiser 130 with the advertising fee in connection with the purchaser's 120 click on the advertising information associated with product information or shopping mall information of the product. Also, the advertiser 130 may ensure more economical and effective advertising effects.

Hereinafter, operations of the advertising fee determination system 200 according to an embodiment of the present invention will be described in detail.

FIG. 6 is a flowchart illustrating a method of determining an advertising fee according to an embodiment of the present invention. The method of determining an advertising fee according to the present embodiment may be performed by the
advertising fee determination system 200.

In operation S610, the advertising fee determination system 200 maintains the fee information database 210. The fee information database 210 stores a graded fee rate according to each of a plurality of price ranges which are divided according to a predetermined standard.

Specifically, operation S610 is a process of classifying price ranges based on a highest selling price and a lowest selling price of products which are included in a corresponding category, or a distribution rate of selling prices of the products. Here the category includes a predetermined product group. Also, in operation S610, the advertising fee determination system 200 stores a corresponding graded fee rate in the fee information database 210 in correspondence to each of the divided price ranges. Here, the graded fee rate may be arbitrarily set by the system operator to calculate a reasonable advertising fee.

In operation S620, the advertising fee determination system 200 classifies a selling price of a product into at least one unit price by considering the divided price ranges.

Specifically, operation S620 is a process of identifying the price range where the selling price is included, and the unit price of each of the identified price range is included. As an example, the selling price of the product '300,000 won', may be classified into unit prices, such as '19,999 won' in the price range 1, '30,000 won' in the price range 2, '150,000 won' in the price range 3, and '100,001' in the price range 4.

In operation S630, the advertising fee determination system 200 calculates a unit fee for each of the price ranges by using a unit price in each of the price ranges, and the graded fee rate corresponding to each of the price ranges which is identified from the fee information database 210. Specifically, operation S630 is a process of calculating the unit fee by multiplying the unit price and the graded fee rate corresponding to each of the price ranges.

Also, in operation S630, the advertising fee determination system 200 may apply a different fee rate according to a size location of the selling price P by comparing the selling price P of the product with the lowest selling price m or the highest selling price M in a particular price range.

Initially, the advertising fee determination system 200 compares the selling
price \( P \) with any one of the lowest selling price \( m \) and the highest selling price \( M \) in the particular price range. In this case, when the selling price \( P \) satisfies \( m \leq P < M \) as a result of the comparison, the advertising fee determination system 200 may calculate the unit fee \( C \) of the price range according to \( C = (P - m) \times G \). Specifically, when the selling price of the product is included in the price range, the advertising fee determination system 200 may identify the unit price which is included in the price range, and calculate the unit fee.

Also, when the selling price \( P \) satisfies \( M \leq P \) as a result of the comparison, the advertising fee determination system 200 may calculate the unit fee of the price range according to \( C = (M - m) \times G \). Specifically, when the selling price of the product exceeds the corresponding price range, the advertising fee determination system 200 may calculate the unit fee with respect to the entire price range.

Also, when the selling price \( P \) satisfies \( T \leq m \) as a result of the comparison, the advertising fee determination system 200 may calculate the unit fee of the price range into \( k \). Specifically, when the selling price of the product is not included in the corresponding price range, the advertising fee determination system 200 does not calculate the unit fee in the corresponding price range (hereinafter, see FIG. 5).

In operation S640, the advertising fee determination system 200 determines the advertising fee by summing up the calculated unit fee of each of the price ranges. Namely, operation S640 is a process of determining the advertising fee of the product by summing up the unit fee which is calculated in each of the price ranges.

As described above, according to the present invention, it is possible to more reasonably charge the advertiser 130 with the advertising fee by applying the rated fee rate corresponding to each of the price ranges to a single selling price.

In operation S650, the advertising fee determination system 200 receives the product information request, which includes the product identifier of the product, from the purchaser 120, and transmits the advertising information associated with the product identifier to the purchaser 120.

Specifically, operation S650 is a process of verifying the product identifier which is inputted into the product search engine 110 for the product information request, extracting at least one advertising information corresponding to the verified product identifier from the advertising information database 115, and exposing the extracted at
least one advertising information to the purchaser 120.

In operation S660, the advertising fee determination system 200 verifies the purchaser's 120 click on the advertising, and charges the advertiser 130 of the clicked advertising information with the determined advertising fee.

Specifically, operation S660 is a process of charging the advertiser 130 associated with the advertising information with the determined advertising fee of the product, which is associated with the clicked advertising information, when the purchaser's 120 click on the advertising information is determined as a valid click. In this instance, the method of charging the advertising fee may be arbitrarily determined by the system operator considering a system environment. As an example, whenever the click occurs, the advertising fee may be deducted from the advertiser's 130 account where the advertiser 130 saves a predetermined amount of funds.

According to the present invention, it is possible to more reasonably charge the advertiser 130 associated with the product or the shopping mall of the product by deducting the advertising fee in connection with the purchaser's 120 click on the advertising information. Here, the click causes a substantial advertising effect.

The advertising fee determination method according to the above-described embodiment of the present invention may be recorded in computer-readable media including program instructions to implement various operations embodied by a computer. The media may also include, alone or in combination with the program instructions, data files, data structures, and the like. Examples of computer-readable media include magnetic media such as hard disks, floppy disks, and magnetic tape; optical media such as CD ROM disks and DVD; magneto-optical media such as optical disks; and hardware devices that are specially configured to store and perform program instructions, such as read-only memory (ROM), random access memory (RAM), flash memory, and the like. The media may also be a transmission medium such as optical or metallic lines, wave guides, etc. including a carrier wave transmitting signals specifying the program instructions, data structures, etc. Examples of program instructions include both machine code, such as produced by a compiler, and files containing higher level code that may be executed by the computer using an interpreter. The described hardware devices may be configured to act as one or more software
modules in order to perform the operations of the above-described embodiments of the present invention.

Although a few embodiments of the present invention have been shown and described, the present invention is not limited to the described embodiments. Instead, it would be appreciated by those skilled in the art that changes may be made to these embodiments without departing from the principles and spirit of the invention, the scope of which is defined by the claims and their equivalents.

**Industrial Applicability**

According to the present invention, there is provided a method and system for determining an advertising fee, which can calculate an advertising fee by applying a graded fee rate corresponding to a price range where a selling price of a particular product is included, for advertising the product or a shopping mall, and thereby can more reasonably determine the advertising fee.

Also, according to the present invention, there is provided a method and system for determining an advertising fee, which can more reasonably charge an advertiser and also enables the advertiser to acquire more economical and effective advertising effects by charging the advertiser with the advertising fee in connection with a purchaser's click on advertising information associated with product information or shopping mall information of the product.
CLAIMS

1. A method of determining an advertising fee in a shopping related site, the method comprising:
   maintaining a fee information database which stores a graded fee rate according to each of a plurality of price ranges which are divided according to a predetermined standard;
   classifying a selling price of a product into at least one unit price by considering the divided price ranges;
   calculating a unit fee for each of the price ranges by using a unit price in each of the price ranges, and the graded fee rate corresponding to each of the price ranges which is identified from the fee information database; and
determining the advertising fee by summing up the calculated unit fee of each of the price ranges.

2. The method of claim 1, wherein the calculating comprises:
   comparing the selling price P with any one of a lowest selling price m and a highest selling price M which are included in a particular price range;
   calculating the unit fee C of the price range according to \( C = (P-m) \cdot G \), when the selling price P satisfies \( m \leq P < M \) as a result of the comparison, the G designating the graded fee rate corresponding to the price range.

3. The method of claim 1, wherein the calculating comprises:
   comparing the selling price P with any one of a lowest selling price m and a highest selling price M which are included in a particular price range; and
   calculating the unit fee C of the price range according to \( C = (M-m) \cdot G \), when the selling price P satisfies \( M \leq P \) as a result of the comparison, the G designating the graded fee rate corresponding to the price range.

4. The method of claim 1, wherein the calculating comprises:
   comparing the selling price P with any one of a lowest selling price m and a highest selling price M which are included in a particular price range; and
   calculating the unit fee of the price range as \( O' \), when the selling price P
satisfies $T < \eta$ as a result of the comparison.

5. The method of claim 1, wherein the plurality of price ranges is divided by performing:
   classifying at least one product into a single category by considering features of the product;
   verifying a selling price range of the category from a highest selling price and a lowest selling price of products which are included in the category; and
determining the verified selling price range as the standard.

6. The method of claim 1, wherein the plurality of price ranges is divided by performing:
   classifying at least one product into a single category by considering features of the product;
   arranging the at least one product, which is included the category, based on the selling price of the at least one product;
   sequentially selecting selling prices based on a number of the arranged products, and summing up a number of products which are arranged in the selected selling price;
   stopping the selecting of the selling price, when a ratio of the summed number of products to the number of products included in the category is greater than a predetermined numerical value; and
   determining an upper limit and a lower limit of the selected selling price as the standard before the stopping.

7. The method of claim 1, further comprising:
   receiving a product information request including a product identifier of the product, from a purchaser;
   transmitting advertising information associated with the product identifier to the purchaser, in response to the received product information request; and
   verifying the purchaser's click on the advertising information, and charging an advertiser of the clicked advertising information with the determined advertising fee.
8. A computer-readable record medium storing a program for implementing the method according to any one of claims 1 through 7.

9. A system for determining an advertising fee in a shopping related site, the system comprising:
   a fee information database storing a graded fee rate according to each of a plurality of price ranges which are divided according to a predetermined standard;
   a price range classification unit classifying a selling price of a product into at least one unit price by considering the divided price ranges;
   a unit fee calculation unit calculating a unit fee for each of the price ranges by using a unit price in each of the price ranges, and the graded fee rate corresponding to each of the price ranges which is identified from the fee information database; and
   a fee determination unit determining the advertising fee by summing up the calculated unit fee of each of the price ranges.

10. The system of claim 9, wherein the unit fee calculation unit compares the selling price $P$ with any one of a lowest selling price $m$ and a highest selling price $M$ which are included in a particular price range, and calculates the unit fee $C$ of the price range according to $C=(P-m)\times G$, when the selling price $P$ satisfies $m \leq P < M$ as a result of the comparison, the $G$ designating the graded fee rate corresponding to the price range.

11. The system of claim 9, wherein the unit fee calculation unit compares the selling price $P$ with any one of a lowest selling price $m$ and a highest selling price $M$ which are included in a particular price range, and calculates the unit fee $C$ of the price range according to $C=(M-m)\times G$, when the selling price $P$ satisfies $M \leq P$ as a result of the comparison, the $G$ designating the graded fee rate corresponding to the price range.
FIG. 2

PRICE RANGE CLASSIFICATION UNIT

UNIT FEE CALCULATION UNIT

FEE DETERMINATION UNIT

FEE INFORMATION DB
<table>
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<tr>
<th>CATEGORY</th>
<th>PRICE RANGE 1</th>
<th>PRICE RANGE 2</th>
<th>PRICE RANGE 3</th>
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<tr>
<td>CLOTHING/ UNDERWEAR</td>
<td>LESS THAN 20,000 WON</td>
<td>FROM 20,000 WON TO LESS THAN 50,000 WON</td>
<td>FROM 50,000 WON TO LESS THAN 200,000 WON</td>
<td>FROM 200,000 WON TO LESS THAN 500,000 WON</td>
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<td>FROM 1 MILLION WON</td>
</tr>
<tr>
<td>FASHION/ACCESSORY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MID- &amp; SMALL-SIZED HOME APPLIANCE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LARGE-SIZED HOME APPLIANCE</td>
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FIG. 3
**FIG. 4**

< UNIT FEE CALCULATION REFERENCE TABLE >

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<tr>
<th>CASE</th>
<th>P &lt; m</th>
<th>M ≤ P &lt; M</th>
<th>M ≤ P</th>
</tr>
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<tr>
<td>UNIT FEE (C)</td>
<td>0</td>
<td>(P-m) * G</td>
<td>(M-m) * G</td>
</tr>
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LOWEST SELLING PRICE IN PRICE RANGE : m  
HIGHEST SELLING PRICE IN PRICE RANGE : M  
SELLING PRICE OF PRODUCT : P  
GRADED FEE RATE : G
<table>
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<tr>
<th>SELLING PRICE</th>
<th>TOTAL FEE</th>
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<tr>
<td>300,000 WON</td>
<td>0.100%</td>
</tr>
<tr>
<td>LESS THAN 20,000 WON</td>
<td>0.020%</td>
</tr>
<tr>
<td>FROM 20,000 WON TO 50,000 WON</td>
<td>0.008%</td>
</tr>
<tr>
<td>FROM 50,000 WON TO LESS THAN 200,000 WON</td>
<td>0.004%</td>
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</table>
| FROM 200,000 WON TO LESS THAN 500,000 WON | 0%
| FROM 500,000 WON TO LESS THAN 1 MILLION WON | 0%
| FROM 1 MILLION WON | 0%
| GFR | 19,999 |
| UNIT PRICE | 30,000 |
| 100,001 | 6 |
| 150,000 | 12 |
| 20 | 0 |
FIG. 6

START

STORE GFR CORRESPONDING TO EACH OF PLURALITY OF PRICE RANGES

S610

CLASSIFY SELLING PRICE OF PRODUCT INTO AT LEAST ONE UNIT PRICE BY CONSIDERING DIVIDED PRICE RANGES

S620

CALCULATE UNIT FEE BY USING UNIT PRICE & GFR IN EACH PRICE RANGE

S630

DETERMINE ADVERTISING FEE BY SUMMING UP UNIT FEE OF EACH PRICE RANGE

S640

PROVIDE PURCHASER WITH ADVERTISING INFORMATION IN RESPONSE TO PRODUCT INFORMATION REQUEST

S650

CHARGE ADVERTISER WITH ADVERTISING FEE IN CONNECTION WITH PURCHASER'S CLICK

S660

END
INTERNATIONAL SEARCH REPORT

International application No
PCT/KR2006/002326

A. CLASSIFICATION OF SUBJECT MATTER

G06Q 30/00(2006.01)i

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)
IPC8 G06F17/00, G06F19/00, G06Q 10/00-99/00

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)
PAJ, FPD, USPAT, eKIPASS(KIPO internal)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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<td>KR 2002-4699 A (CHUN, JAE KOOK) 16 January 2002 See claims 1, 6, Figures 2—4</td>
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Further documents are listed in the continuation of Box C

See patent family annex

* Special categories of cited documents
  "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 before and priority or later 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
  "P" document published prior to the international filing date but later than the priority date claimed

"X" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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"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
"S" document member of the same patent family

Date of the actual completion of the international search
29 SEPTEMBER 2006 (29 09 2006)

Date of mailing of the international search report
29 SEPTEMBER 2006 (29.09.2006)

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
PARK, Sung Woo
Telephone No 82-42-481-5790

Form PCT/ISA/210 (second sheet) (April 2005)
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