A method of selecting coupon offers in real time comprises: providing at least one tactical couponing database having at least one couponing criterion and providing a local unit. The local unit is adapted to: select coupon offers based on the at least one criterion in the at least one tactical couponing database and to generate coupons having the selected coupon offers.

<table>
<thead>
<tr>
<th>Line #</th>
<th>Status</th>
<th>IF Condition 1</th>
<th>AND/OR Logic</th>
<th>IF Condition 2</th>
<th>THEN Coupon Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Enabled</td>
<td>Area within: N3656.345W07617.316 to N3656.345W07617.320 to N3656.301W07617.330 to N3656.301W07617.316</td>
<td>AND</td>
<td>YYYYmmddhhmm to YYYYmmddhhmm (2000AUG28 1200Z to 2000AUG28 1600Z (Times in Greenwich mean time))</td>
<td>Taco Bell Coupon #3</td>
</tr>
<tr>
<td>2</td>
<td>Enabled</td>
<td>Within 50 meters of N3656.3893W07617.3109</td>
<td>AND</td>
<td>August 23, 2000, 1400-1500Z</td>
<td>Pepsi coupon #2</td>
</tr>
<tr>
<td>3</td>
<td>Disabled</td>
<td>N/A</td>
<td>N/A</td>
<td>August 1-August 30, 2000</td>
<td>Home Depot Coupon #1</td>
</tr>
<tr>
<td>4</td>
<td>Enabled</td>
<td>If Car #37 is winning (this info automatically passed from client system to Wishoo home system and then to tech pack via wireless. Wishoo home system will automatically set this Condition as satisfied or not satisfied)</td>
<td>OR</td>
<td>Area within: (near Matchbox booth) N3656.345W07617.316 to N3656.345W07617.320 to N3656.301W07617.330 to N3656.301W07617.316</td>
<td>Matchbox car Discount Coupon #2</td>
</tr>
<tr>
<td>5</td>
<td>Disabled</td>
<td>Manually initiated at clients discretion. Condition will read &quot;satisfied&quot; or &quot;not satisfied&quot; (Passed via Wishoo home system to Tech Pack at next wireless exchange)</td>
<td>N/A</td>
<td>N/A</td>
<td>Client Coupon #4</td>
</tr>
<tr>
<td>Line #</td>
<td>STATUS</td>
<td>IF CONDITION 1</td>
<td>AND/OR LOGIC</td>
<td>IF CONDITION 2</td>
<td>THEN COUPON CONFIGURATION</td>
</tr>
<tr>
<td>-------</td>
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<td>--------------</td>
<td>----------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>1</td>
<td>Enabled</td>
<td>Area within: N3656.345W07617.316 to N3656.345W07617.320 to N3656.301W07617.330 to N3656.301W07617.316</td>
<td>AND</td>
<td>Yyyymmddhhmm to Yyyymmddhhmm (2000AUG28 1200Z to 2000AUG28 1600Z (Times in Greenwich mean time))</td>
<td>Taco Bell Coupon #3</td>
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</tr>
<tr>
<td>3</td>
<td>Disabled</td>
<td>N/A</td>
<td>N/A</td>
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<td>N/A</td>
<td>Client Coupon #4</td>
</tr>
</tbody>
</table>

FIGURE 1
SYSTEM AND METHOD FOR GENERATING COUPONS

PRIORITY

[0001] This utility patent application claims priority from U.S. Provisional Patent Application Nos. 60/231,907 and 60/231,908, filed Sep. 11, 2000, the entire specification of which is hereby incorporated herein.

BACKGROUND

[0002] Coupons are well known as a means for stimulating sales. However, historical couponing methods have a number of limitations in their ability to influence the behavior of consumers. Typically, the coupons must be distributed through a periodical such as a newspaper or magazine. In order to place the coupon in the periodical, the sponsor generally must pay the periodical for the print space. In addition, the coupon offer creates other costs, such as the expense involved with the redeeming and accounting for the coupons in circulation. There may also be costs associated with selecting a coupon offer for distribution, including, for example, the cost to produce the art or graphic design used in the actual coupon.

[0003] Once the expense of creating and distributing a coupon offer is incurred, its ability to influence the behavior of consumers is uncertain. Even if a periodical has a large circulation, it is generally understood that only a fraction of the readers will pause to even consider the coupon offer. Of those, only a fraction will take the trouble to actually cut out the coupon and retain it with the intention of redeeming it. In particular, many types of purchases are difficult to influence with coupons distributed through newspapers because the average consumer of the product type does not plan such purchases that far in advance. For example, many fast food restaurants receive much of their business because of the convenience they offer. The relatively large number of such establishments (and their geographic positioning) makes it likely that a prospective consumer can find a place to eat on short notice, and the consumer can recognize a franchise name and know what he or she can expect, and therefore can feel comfortable in making such decisions. Consequently, coupons which are distributed too far away in time or in space may be substantially less likely to influence the behavior of the prospective consumer.

[0004] Furthermore, of the readers, typically only a fraction will likely be interested in the coupon offer, either because they aren’t in the market for the product offered. In the case of businesses that are not franchises, or that are otherwise more location specific, the reader may not be interested in such an offer because they are outside the geographic area in which they can conveniently patronize the sponsor’s establishment—even if it later turns out that they are in the sponsor’s area and could, in fact, have conveniently taken advantage of the coupon offer.

[0005] One way in which some of these shortcomings of distributing coupons through periodicals can be curtailed is to distribute the coupons locally, for example by handing them out at sporting events or other gatherings. Because such coupon offers can be selected with demographic information about the likely attendees, they can be better tailored to appeal to the prospective consumer. And, because they are being distributed locally, it is somewhat easier for prospective sponsors to tailor their offers to the area in which a prospective consumer is likely to be influenced to take advantage of the offer. However, typical existing local distribution methods have offsetting shortcomings, as well. If they are being manually distributed, the cost per coupon distributed is greatly increased. If they are simply set out as flyers, they are much less likely to actually be picked up and read by a given attendee. Furthermore, while such local distributions provide the sponsor with greater information about the time and location at which the coupon offers will be distributed, the actual coupons must still be generated in advance. Especially for larger events, which are otherwise the most desirable events at which to use local coupon distribution, the time information may be limited to certain days, rather than certain times of the day. Likewise, if the event is large enough that an attendee cannot conveniently walk from one end of the site to the other, the location information may not be specific enough to assure the optimum chance to influence the prospective consumer’s behavior. Consequently, even with local couponing methods, unnecessary expense is typically incurred due to the need to produce more coupons than will actually be distributed.

[0006] Furthermore, the limitations on prior couponing methods in providing coupons to consumers that are most likely to be of interest to them further decrease the likelihood that a prospective consumer will even take the time to read the offer, since they may expect such offers to be inconvenient to use, or of little interest.

[0007] Therefore, what is needed is a means of generating customized coupons in real time that implement information about time and location in which the coupons are being distributed in order to optimize consumer response. The present invention is directed towards meeting this need, amongst others.

SUMMARY OF THE INVENTION

[0008] A first embodiment method of selecting coupon offers in real time comprises: providing at least one tactical couponing database having at least one couponing criterion; providing a local unit. The local unit is adapted to: select coupon offers based on the at least one criterion in the at least one tactical couponing database; generate coupons having the selected coupon offers.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] FIG. 1 is a diagram illustrating certain elements of a tactical couponing database according to the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0010] For the purposes of promoting an understanding of the principles of the invention, reference will now be made to the embodiment illustrated in the drawings and specific language will be used to describe the same. It will nevertheless be understood that no limitation of the scope of the invention is thereby intended, and alterations and modifications in the illustrated device, and further applications of the principles of the invention as illustrated therein, are herein contemplated as would normally occur to one skilled in the art to which the invention relates.
[0011] A system and method for tactical couponing according to the present invention permits distribution of coupons having the best possible likelihood to be of interest to the person receiving the offer. The present invention permits the generation of coupons employing highly specific time and location information. Since the coupons are generated in real time, the coupon offers can be selected based on very exact time information. For example, if the coupon sponsor is a fast food franchise, and the coupon is being generated before 9:00 a.m., the offer can feature breakfast food. Later in the day, an offers featuring lunch or dinner food can be used instead. Likewise, a system according to the present invention can employ GPS location information to select offers based on precise location information (within about 20 meters, using present GPS technology). A system and method according to the present invention further permits real time selection of coupon offers according to other criteria, such as developments in a sporting event, as further described hereinbelow. Consequently, the coupon offers selected for distribution can offer the best possible likelihood to be of interest to the prospective consumer.

[0012] A system for tactical couponing according to the present invention comprises a central server, or “home base,” which functions as a central repository for information used in the tactical couponing process, and one or more remote, or local units, which are used to distribute the coupons. Typically, the remote units will be deployed at events, such as sporting events, festivals, etc., where people are gathered. Preferably, the remote units maintain wireless contact with the home base in order to permit the most flexible responses to developing information. A remote unit suitable for use in a system for tactical couponing according to the present invention is described in U.S. Provisional Patent Application No. 60/231,907 filed Sep. 11, 2000, the entire specification of which is hereby incorporated herein.

[0013] In the preferred embodiment, the coupons generated and distributed have two components: a ticket number, and at least one coupon offer. The ticket number is an identification number that enables the consumer to locate, view, and transmit (e.g. by email) via the Internet digital images that are captured in the field by a remote unit. Typically, the digital images will include the customer, or friends or family who accompanied the customer to the event. Thus, the coupon provides a way for participants in the event to get pictures to commemorate it, without having to bring their own camera, get film developed, etc. Additionally, the digital images can be placed on tee-shirts, mugs, or other items to make a more unique souvenir.

[0014] The coupon offer component of the tactical coupons is a typical coupon offer, as are known in the art, with the exception of how the coupon offer is selected and distributed.

[0015] A system for tactical couponing according to the present invention comprises two types of couponing databases: a master couponing database, and one or more local couponing databases. The master couponing database is located on the central server. The master couponing database comprises the complete set of conditions used to select coupon offers for each remote unit. Adjustments to tactical couponing strategy are made by updating the master couponing database. Preferably, the central server has the ability to tie into other non-organic databases, such as databases controlled by coupon sponsors, in order to efficiently update the master couponing database. In the preferred embodiment the couponing conditions can include conditions based on time and the precise location where the coupon is being distributed.

[0016] Future upgrades to tactical couponing include the ability, given standardized software and protocols, to allow the master coupon database to integrate with databases from other clients.

[0017] Each of the local couponing databases resides on a remote unit, and is used by that unit to select coupon offers in order to generate the actual coupons that are distributed in the field. In the preferred embodiment, the remote couponing databases are automatically updated from the master couponing database during start-up of the remote units, and can even be updated while the remote units are in the field, via a wireless data connection. In certain alternative embodiments, the remote units update the local couponing database via a hard connection, such as a standard land-line modem, and the remote unit operates using that local couponing database until the next start-up.

[0018] FIG. 1 illustrates a sample of a portion of a couponing database suitable for use in the present invention. Each of the five lines correspond to a set of conditions for generating a specific coupon offer, identified in column 150. The status column 110 indicates whether the corresponding coupon offer is presently enabled or disabled. If the coupon offer is presently enabled, the conditions contained in the first condition column 120 and second condition column 140 are checked to determine if the corresponding coupon offer should be used in generating the coupons being distributed. The logical command in column 130 is used to interpret the first and second conditions in deciding whether to use the corresponding coupon offer. For example, line one corresponds to a specific Taco Bell Coupon offer, as shown in column 150, having both time and location conditions. The first condition is a location condition, which would be satisfied only if the most recent position information from the remote unit’s GPS indicated that the unit was positioned within the quadrangle defined by the four corner points listed. The second condition is a time condition, which would be satisfied only if the remote unit’s clock indicated that the present time was within the span defined by the two times listed. (Preferably, GPS time is used for that clock, but in those embodiments lacking GPS, or if the GPS is down for some reason, the CCU’s internal clock can also be used.) Since the logical command is an “AND,” both the time and position condition would have to be satisfied in order for the remote unit to select the Taco Bell coupon offer #3, at least under these conditions. Note that the tactical couponing databases can include multiple condition sets for selecting a given coupon offer—for example, if there were two periods in which it was believed advantageous to distribute a given coupon offer, the database could include two lines for that offer. The position condition could be identical, but the time condition could define a different time span. This way, during the first time span, the coupon offer would be included in the coupons generated under the first condition set, and during the second time span, it would be included under the second condition set.

[0019] As shown in FIG. 1, other types of conditions can also be used. As shown in the first condition column 120 of
line 2, a position condition can be defined as being within a specified distance of a certain point. The condition defined in the first condition column 120 of line 4 is intended for use where a remote unit having a wireless link will be deployed at an auto race. Information about the progress of the race can be collected at the central server, for example directly from the coupon offer's sponsor, and then distributed to the remote units at the race site. This particular condition would be satisfied whenever Car #37—possibly a car sponsored by the coupon offer's sponsor—is leading in the race. In this way, the local unit can select a coupon offer based on events that occur even after the local unit has been deployed. The condition in the first condition column 120 of line 5 is a manual condition. That is, it is manually toggled from "satisfied" to "not satisfied" at the command of the sponsor.

Thus, it will be appreciated that the tactical couponing databases functions as a series of IF-THEN logic statements. These logic statements provide the framework that an executable software program can use to select the coupon offers to output to the coupons that are distributed. In certain embodiments, when prompted to generate a coupon, the software simply begins with the first line, and searches the database in order until it locates a set of conditions that are satisfied, and selects the corresponding coupon offer. In certain other embodiments, the software begins searching at the line immediately following the line corresponding to the last coupon offer used to generate a coupon. In still other embodiments, the software determines each condition that is satisfied, and randomly selects from the corresponding coupon offers. Other ways to select from the set of satisfied condition sets at a given point in time may be used, as would occur to person of ordinary skill in the art.

Note that, in certain alternative embodiments the master couponing database could actually reside on one of the remote units. This is especially suitable for embodiments having only one remote unit; such embodiments would therefore not require any local couponing databases. The master couponing database would reside on the remote unit, and be used to make all tactical couponing decisions.

While the invention has been illustrated and described in detail in the drawings and foregoing description, the same is to be considered as illustrative and not restrictive in character, it being understood that only the preferred embodiment, and certain other embodiments deemed helpful in further explaining how to make or use the preferred embodiment, have been shown. All changes and modifications that come within the spirit of the invention are desired to be protected.

1. A method of selecting coupon offers in real time comprising:

   providing at least one tactical central couponing database at a central location, the tactical couponing database having at least one couponing criterion; providing a local unit at a remote location separated from the central location; downloading at least a part of the at least one tactical couponing database from the central location to the remote location to create at least one remote tactical couponing database;

   wherein the local unit is adapted to:

   select coupon offers based on the at least one criterion in the at least one remote tactical couponing database;

   generate coupons having the selected coupon offers.

2. The method of claim 1, wherein the local units selects a coupon offer at least in part by comparing a time, measured at least as precisely as to the nearest hour, to the at least one couponing criterion.

3. The method of claim 1, wherein the local unit selects a coupon offer at least in part by comparing a location of the local unit, measured at least as precisely as to within 100 m, to the at least one couponing criterion.

4. The method of claim 1, wherein the local unit selects a coupon offer at least in part based on information about sporting event occurrence that occurred after the local unit was deployed.

   * * * * *