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SHOPPING PROMOTION METHOD AND SYSTEM

TECHNICAL FIELD

The invention relates to methods of offering, redeeming, and fulfilling promotions for merchandise or services sold in retail stores. In particular it relates to a paperless system for handling such promotion offers through the point of payment collection from the manufacturer or supplier of the merchandise or service.

BACKGROUND OF THE INVENTION

Manufacturers of products sold to customers in retail stores frequently attempt to increase sales by promoting their product through special coupon offers. Manufacturers place an advertisement in a magazine, newspaper, newspaper insert or the like including a coupon for a special price, a discount from the normal price, two for the price of one, or some other purchasing incentive offer. A customer who wishes to take advantage of this special offer, removes the coupon from the advertisement, and purchases the product at a retail store. At the time of purchase, the customer presents the coupon to the retail store clerk and is charged the special price rather than the regular price, or receives the discount, or obtains any other terms of the incentive offer. Afterwards, the retail store submits the redeemed coupon to the manufacturer and receives a payment corresponding to the incentive benefit given to the customer.

Various improvements have been made to this basic coupon incentive method over the years. For example, in some cases the customer sends the coupon directly to the manufacturer along with some proof of the having purchased the product at a retail store. Krautsack in US Patent 4,307,900 describes a coupon having a surface region on which a customer may affix a portion e.g. a proof of purchase sticker, of the packaging material of the product. The customer detaches the portion after it is purchased and affixes it in the surface region of the coupon. The coupon may then be redeemed at the retail store on the next item purchased or sent directly to the manufacturer depending on the terms of the coupon offer.

Mindrum et al. in US Patent 4,723,212 describe an apparatus for comparing coupons presented for redemption with items purchased to determine whether the product specified on the coupon was purchased and whether the coupon date is valid. The apparatus also creates and prints a coupon for other products based on the purchase of a product other than the one to which the coupon applies.

Pruchnicki in US Patent 5,185,695 describes a method and system for handling discount coupons in which no printed coupons are presented in order to obtain a discount. A coupon indicia is printed and placed adjacent to the product in the retail store. When a customer selects the product and moves to the checkout station, a scanner obtains the manufacturer and product type off the product. If the product is a coupon product, the coupon value is deducted from the retail price. A central processor receives a count by manufacturer and product type of the total coupon discounts redeemed and directly bills the manufacturer or transfers funds.

Nichtberger et al. in U.S. Re 34,915 describe a system having an electronic display of coupons for use in a particular store presented to customers in that store, e.g. an in-store electronic kiosk. A customer makes a selection of coupons from the display. The customer subsequently selects items in the store for purchase. At the checkout station, the customer and items purchased are matched with the coupons selected. The customer receives an immediate credit for any matched coupons. Periodically a central processing unit debits the manufacturer (coupon issuing entity) and credits the store for the matched coupons.

Off et al. describe a system for generating and printing a discount coupon in a retail store in response to a purchase of a trigger item by a customer. The coupon is typically for a product other than the triggering product and the coupon deal is not communicated to the customer prior to purchase of the triggering product.

De Lapa et al. in US Patent 5,822,735 describe a system for generating, printing and redeeming product coupons for a particular customer. The customer and coupon are identified on the printed coupon in machine-readable form which may then be read by a point-of-sale terminal when the customer purchases the product. The machine-readable identification may be used to update a database. Coupons redeemed by a customer may then be used to select future coupons for that consumer. The system may also be used to generate a rebate to the retailer.

Kepecs in US Patent 6,009,411 describes a system which maintains a customer account on a discount administration process. The customer may access the account by presenting a unique key. The customer may then select discount choices which are recorded. When the customer purchases the selected items at a store, the selections and purchases are reconciled and a credit is made to the customer account.

Scroggie et al. in US Patents 6,014,634 and 5,970,469 describe a system for delivering purchasing incentives and other shopping aids through a computer network such as by E-mail over the Internet or World Wide Web. Customers log in to the system and select a product rebate. A customer may provide a unique customer i.d. and the selected incentive is transmitted electronically to a supermarket designated by the customer. The supermarket gives the customer an appropriate discount automatically when he or she presents items for checkout at a point-of-sale checkout scanner and presents appropriate identification.

All of the foregoing systems have limitations in one or more aspects of product promotion, delivery of coupons, redeeming, or fulfillment with manufacturers so that improvments are possible and desirable.

OBJECTS AND SUMMARY OF THE INVENTION

It is therefore a principal object of the present invention to enhance the product promotion art by providing a system with enhanced capabilities.

It is another object to provide a system wherein enhanced operational capability of product promotion delivery is possible.

It is a further object to provide a product promotion system which is capable of utilizing the communication and information delivery capabilities of the Internet.

It is yet another object to provide a method for promoting a product which can be accomplished in a facile manner.

These and other objects are attained in accordance with one embodiment of the invention wherein there is provided a method of promoting a product of a manufacturer for sale at a retail store, to a customer, the method comprising the steps of posting a coupon offer for the product on a server, accessing the server and selecting the coupon offer and entering a frequent shopper identification, electronically sending the selection and the identification to a processor for the retail store, selecting the product for purchase at the retail store, entering a code for the product and entering the frequent shopper identification at a point-of-sale device at the retail store, matching the code and the selection, and redeeming the selected coupon offer for the customer, and electronically sending confirmation of the matching and the redeeming to the manufacturer to obtain electronic payment for the redeeming of the selected coupon offer.

In accordance with another embodiment of the invention there is provided a system for promoting a product of a manufacturer for sale at a retail store, to a customer, the system comprising a server at the manufacturer having a coupon offer for the product posted thereon, the server adapted to accept a coupon offer selection and a frequent shopper identification from the

customer, a processor at the retail store, electronically coupled to the server for receiving the selection and the identification, a point-of-sale device at the retail store for entering a code for the product and the frequent shopper identification when the customer desires to purchase the product, means for matching the code and the selection, and means for redeeming the selected coupon offer for the customer, and transmission means for electronically sending confirmation of the matching and the redeeming to the manufacturer to obtain electronic payment for the redeeming of the selected coupon offer.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a flowchart showing the steps of a method of promoting a product; and

FIG. 2 shows a system for promoting a product in accordance with the present invention.

BEST MODE FOR CARRYING OUT THE INVENTION

For a better understanding of the present invention, together with other and further objects, advantages and capabilities thereof, reference is made to the following disclosure and the appended claims in connection with the above-described drawings.

In Fig. 1 there is shown a flowchart 10 which depicts the steps of an embodiment of the present invention. In step 12 a coupon offer for a product is posted on a server. The server may be any type of server, mainframe, personal computer, or other

special purpose electronic hardware capable of accepting coupon postings. The server may be a web page server located at the place of business of the manufacturer of the product. Either the manufacturer or a retail store which sells the product to end customers may do the posting. The posting may also be made by some other party such as a marketing company operating on behalf of the manufacturer. If the server is a web page server, then the posting is accessible, with proper authorization, using a web browser over the World Wide Web capability of the Internet. The server may also be accessible using other communication protocols such as a dail up modem, LAN, WAN, or infrared (IR) connection.

In step 14 a customer accesses the server and selects one or more posted coupon offers which he or she intends to purchase at a retail store or at one of a chain of retail stores. The customer may access the server using any of a variety of devices and techniques. For example the customer may use a personal computer which has access to the Internet, or a personal computer having a modem which dials in to the server. The customer may also use equipment in a Kiosk located in a public place such as a shopping mall, library, airport, bank, restaurant, or the retail store itself where he or she intends to purchase the product. The Kiosk may also be located in a different retail store. The customer may also use portable devices such as a cellular telephone, preferably having a graphics screen, personal digital assistant (PDA), or other specialized portable device capable of accessing the server. The customer also enters a frequent shopper identification associated with the retail store. The identification may be a card number which is entered through a keyboard, keypad, or by electronically or magnetically reading the identification from a card issued by the retail store or retail store chain. The server electronically sends, in step 16,

the customer's selection to a retail store processor. The processor may be located at the retail store or at some other location associated with the retail store. In step 18 the customer selects the product for purchase at a retail store and in step 20 a code for the product is entered at a point-of-sale device at checkout. The code may be entered by scanning a bar-code label attached to the product or integral with the product packaging. The customer's frequent shopper identification is also entered at the point-of-sale device.

In step 22 the code and identification entered at the point-of-sale device are matched with the coupon offer selected earlier by accessing the server. The point-of-sale device communicates electronically with the retail store processor so the matching in step 22 preferably occurs instantaneously causing an immediate coupon redemption while the customer is checking out. The special price, discount, or other terms of the coupon offer are instantly applied so the customer pays based on the coupon offer.

In step 24 the matching and redeeming information is electronically sent to the manufacturer in order for the retail store to receive electronic payment e.g. fulfillment for the redeemed coupon offer. In a preferred embodiment the information is sent from the retail store processor to the server. The server verifies the information and issues an electronic payment back to the retail store processor. Electronic payment may be made using techniques of business-to-business (B2B) e-commerce or any other known technique of electronic fund transfer (EFT).

In step 26 the code, selected offer, and identification are sent along with other pertinent data such as the date of customer purchase to a data warehouse which may comprise a relational database, inquiry database, spreadsheet, or any other type of data storage. The data warehouse may be located on any processor, but is preferably located on the server of step 12.

In step 28 data mining operations are performed on the stored data in the data warehouse. Various data mining techniques which may be applied are know in the art such as those disclosed by Kleinberg et al. in US Patent 5,884,305 and by Yu et al. in US Patent 5,832,482, both of which are herein incorporated by reference. A subsequent coupon offer is generated based on the data mining operations of the selected offers and purchases of a plurality of customers. The subsequent coupon offer is posted on the server in step 28.

In FIG. 2 there is shown a system 30 for promoting a product in accordance with the present invention. Server 32 is capable of accepting a coupon offer posting and is adapted to accept a coupon offer selection and frequent shopper identification from a customer. The customer may use personal computer 36 which is electronically coupled 46 to server 32 to make his or her coupon offer selection and enter a frequent shopper identification. The customer may also use Kiosk 38 which is electronically coupled 48 to server 32, or alternatively Kiosk 42 which is electronically coupled 52 to retail store processor 34. The customer may also use a portable or handheld device 40 which is electronically coupled 50 by wire, fiber optic cable, radio frequency signals, infrared or other means to server 32.

Processor 34 is adapted for receiving using electronic coupling 56 the customer's selection and identification from server 32.

In a preferred embodiment, electronic coupling 56 is a secure LAN or WAN connection which may comprise a LAN adapter at both processor 34 and server 32 and a LAN cable routed therebetween. Coupling 56 may also comprise a wireless LAN, a connection via the Internet, or a dialup modem connection, or any other hardware capable of electronically sending and receiving data between processor 34 and server 32.

Point-of-sale device 44 located at a retail store may be used to enter a product code and customer frequent shopper identification such as when a customer brings the product to the device for checkout. In one embodiment the point-of-sale includes a bar code scanner which reads a bar code from the product packaging. The customer inserts a magnetically coded frequent shopper card in a card reader station of the point-of-sale device.

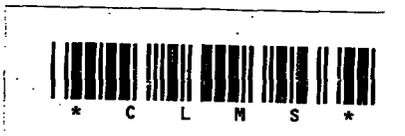
Processor 34 includes means for matching the code and identification entered in POS device 44 with the coupon offer selection received from server 32. Means for matching may include means for comparing an expiration date of a coupon offer with the actual date the customer purchases the product. Such means for matching is preferably a general purpose processor and appropriate software but may also comprise specially constructed hardware for performing the matching. Processor 34 also includes means for redeeming the selected coupon offer by adjusting the price of the matched product or otherwise implemented the terms of the selected coupon offer. Means for redeeming may also

comprise software, hardware or any combination of the two adapted to provide the redeeming function.

Processor 34 includes transmission means for electronically sending, e.g. over coupling 56, to the product manufacturer to obtain electronic payment for the redeemed coupon offer. Electronic payment may also be sent over coupling 56.

A data warehouse (not shown) may be included in server 32, processor 34 or in a separate processor. The data warehouse comprises a data storage device such as a hard drive and is electronically coupled to processor 34 for receiving and storing the product code, frequent shopper identification and selected coupon offer along with other data such as expiration date and purchase date. Server 32 may have a subsequent coupon offer posted in which the subsequent offer is generated in response to data mining of the data stored in the data warehouse.

While there have been shown and described what are at present considered the preferred embodiments of the invention, it will be obvious to those skilled in the art that various changes and modifications may be made therein, without departing from the scope of the invention as defined by the appended claims.



What is claimed is:

1. A method of promoting a product of a manufacturer for sale at a retail store, to a customer, said method comprising the steps of:

posting a coupon offer for said product on a server;

accessing said server and selecting said coupon offer and entering a frequent shopper identification;

electronically sending said selection and said identification to a processor for said retail store;

selecting said product for purchase at said retail store;

entering a code for said product and entering said frequent shopper identification at a point-of-sale device at said retail store;

matching said code and said selection, and redeeming said selected coupon offer for said customer; and

electronically sending confirmation of said matching and said redeeming to said manufacturer to obtain electronic payment for said redeeming of said selected coupon offer.

2. The method of claim 1, wherein said server is accessed using a web browser.



3. The method of claim 1, wherein said frequent shopper identification is obtained from said server.

4. The method of claim 1, wherein said code is a bar-code affixed to said product.

5. The method of claim 1, wherein said point-of-sale device is electronically coupled to said processor for said retail store.

6. The method of claim 1, further comprising electronically sending said code, said frequent shopper number, and said selected coupon offer to a data warehouse located on said server.

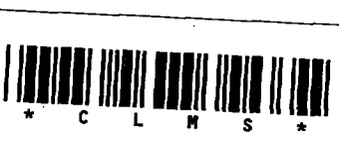
7. The method of claim 6, further comprising posting a subsequent coupon offer on said server in response to performing data mining on said code, said frequent shopper number, and said selected coupon offer, in said data warehouse.

8. A method of making coupon offers; comprising the steps of:

posting a coupon offer for a product on a vendor web site, said site adapted to accept a frequent shopper number and a selection of said coupon offer from a customer who visits said web site;

electronically sending said frequent shopper number and said coupon offer selection to a retail store processor;

entering a code for said product and said frequent shopper number



at a point-of-sale device located at said retail store;

matching said code with said selected coupon offer and redeeming said selected coupon; and

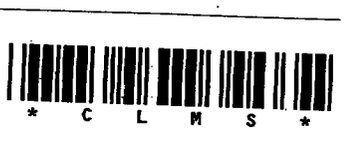
electronically sending said code, said frequent shopper number, and said selected coupon offer to a data warehouse, said data warehouse electronically accessable by said vendor and said retail store processor.

9. The method of claim 8, wherein said vendor web site is adapted to accept said selection via a mouse click.

10. The method of claim 8, wherein said vendor web site is adapted to receive a request for and to provide in response to said request, a frequent shopper number to said customer.

11. The method of claim 8, wherein said point-of-sale device is electronically coupled to said retail store processor.

12. The method of claim 8, further comprising fulfilling said selected coupon offer by electronically sending a payment to said retail store processor.



13. The method of claim 8, further comprising posting a subsequent coupon offer on said web site in response to performing data mining on said code, said frequent shopper number and said selected coupon offer in said data warehouse.

14. The method of claim 8, wherein said coupon is posted with an expiration date and said matching includes matching said expiration date with the actual calendar date when said code is entered at said point-of-sale device.

15. A system for promoting a product of a manufacturer for sale at a retail store, to a customer, said system comprising:

a server at said manufacturer having a coupon offer for said product posted thereon, said server adapted to accept a coupon offer selection and a frequent shopper identification from said customer;

a processor at said retail store, electronically coupled to said server for receiving said selection and said identification;

a point-of-sale device at said retail store for entering a code for said product and said frequent shopper identification when said customer desires to purchase said product;

means for matching said code and said selection, and means for redeeming said selected coupon offer for said customer; and



transmission means for electronically sending confirmation of said matching and said redeeming to said manufacturer to obtain electronic payment for said redeeming of said selected coupon offer.

16. The system of claim 15, wherein said server is adapted to accept a coupon offer selection having an expiration date.

17. The system of claim 16, further comprising means for comparing said expiration date with the actual date when said code is entered in said point-of-sale device.

18. The system of claim 15, wherein said point-of-sale device is electronically coupled to said processor.

19. The system of claim 18, further comprising a data warehouse electronically coupled to said processor for receiving and storing said code, said frequent shopper identification, and said selected coupon offer.

20. The system of claim 19, wherein said server has a subsequent coupon offer posted thereon, wherein said subsequent coupon offer is posted in response to performing data mining on said code, said frequent shopper identification , and said selected coupon offer, stored in said data warehouse.

* C L R S *

21. A computer program product for instructing a processor to process a retail product coupon offer, said computer program product comprising:

a computer readable medium;

first program instruction means for electronically receiving a coupon offer selection and a frequent shopper identification from a server;

second program instruction means for receiving a code for said retail product and said frequent shopper identification from a point-of-sale device;

third program instruction means for matching said code and said selection, and redeeming said selected coupon offer;

fourth program instruction means for electronically sending confirmation of said matching and said redeeming to a manufacturer of said retail product to obtain payment for said redeeming of said selected coupon offer; and

fifth program instruction means for electronically sending said code, said frequent shopper identification, and said coupon offer selection to a data warehouse; and wherein
all said program instruction means are recorded on said medium.