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(54) **SYSTEM FOR UTILIZING REDEMPTION INFORMATION**

**Publication Classification**

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(51) **Int. Cl.**  
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(52) **U.S. Cl.** ..... **705/26**

(57) **ABSTRACT**

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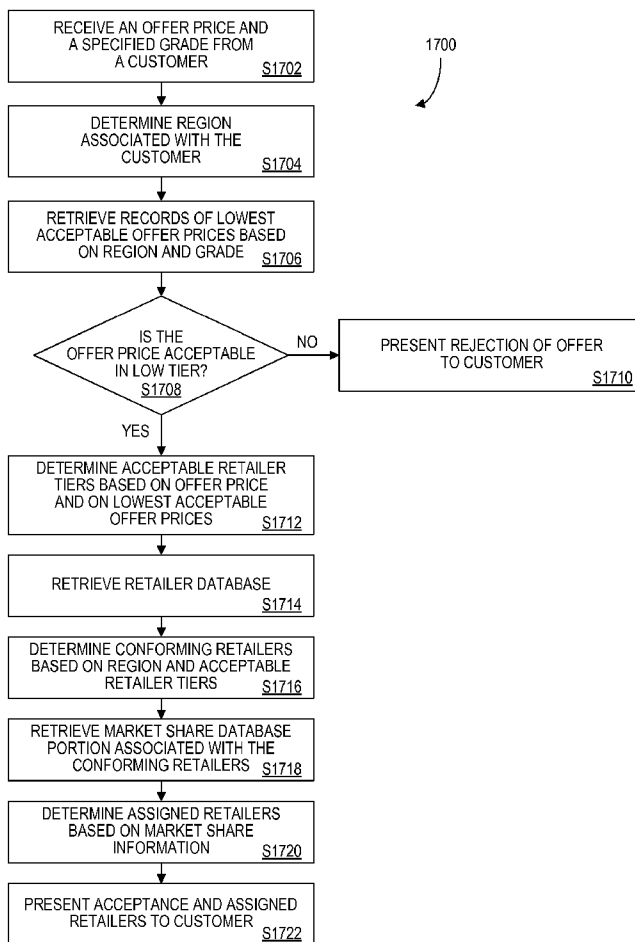
A system to determine offers and/or to determine the acceptability of offers based on received information relating to product redemption at a third party. According to one embodiment, the system includes arrangement for a customer to redeem a product from a third party, reception of information relating to a redemption of the product by the customer, reception of an offer to purchase a product for an offer price, determination to accept the offer based on the received information relating to the redemption, determination of an assigned third party at which the offer product may be redeemed based on the received information, and transmission of an acceptance of the offer and an indication of the assigned third party.

(21) Appl. No.: **11/926,769**

(22) Filed: **Oct. 29, 2007**

**Related U.S. Application Data**

(60) Division of application No. 09/850,328, filed on May 7, 2001.  
Continuation-in-part of application No. 09/540,709, filed on Mar. 31, 2000, now abandoned.



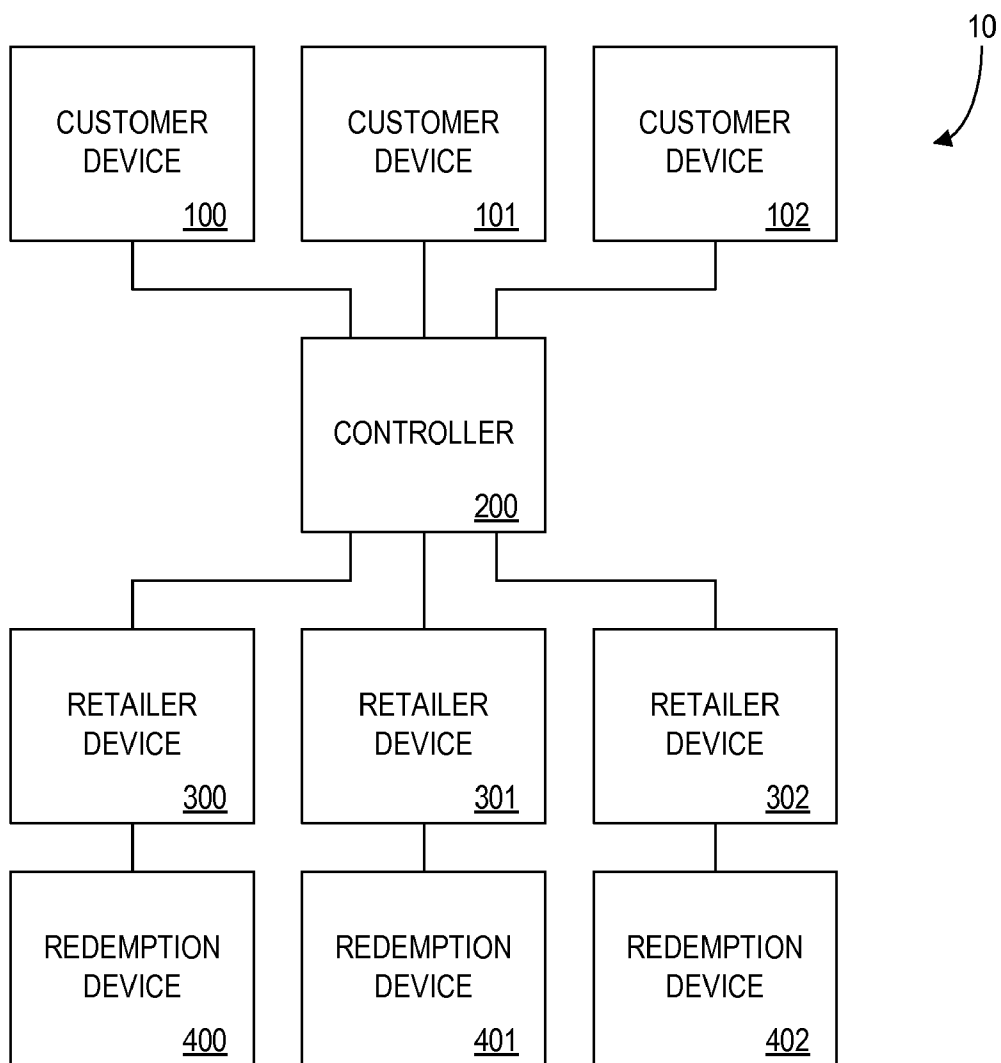


FIG. 1A

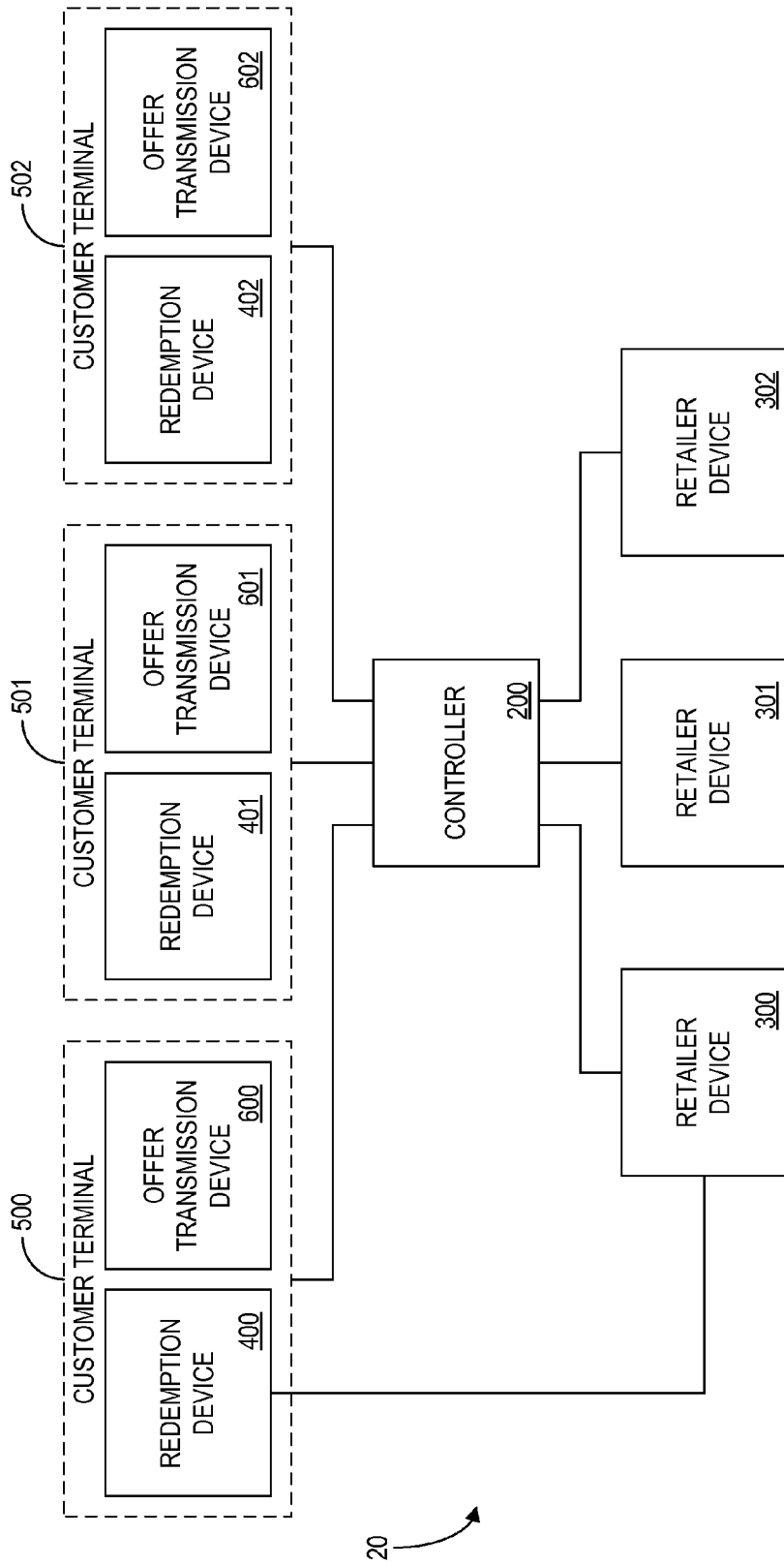


FIG. 1B

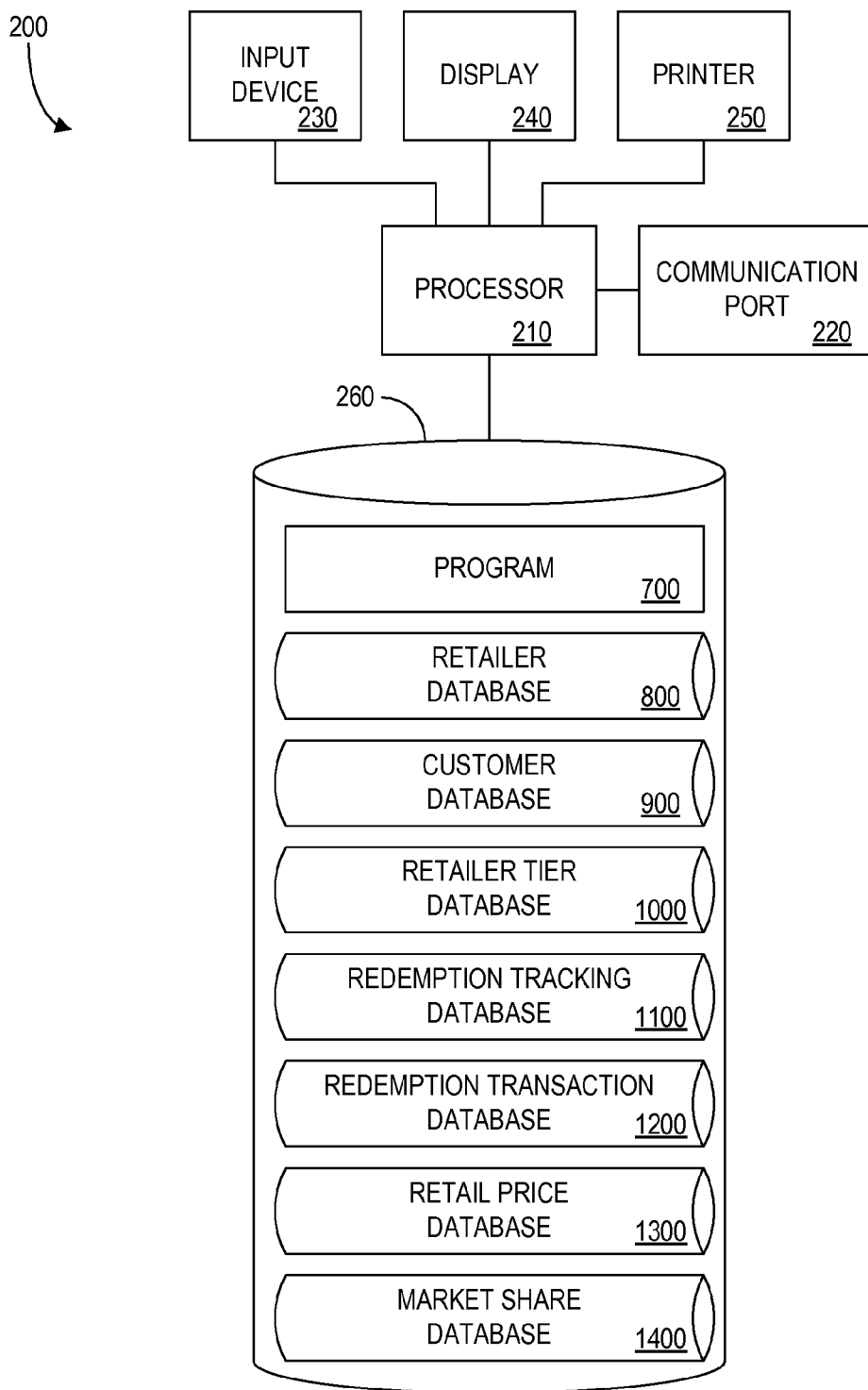


FIG. 2

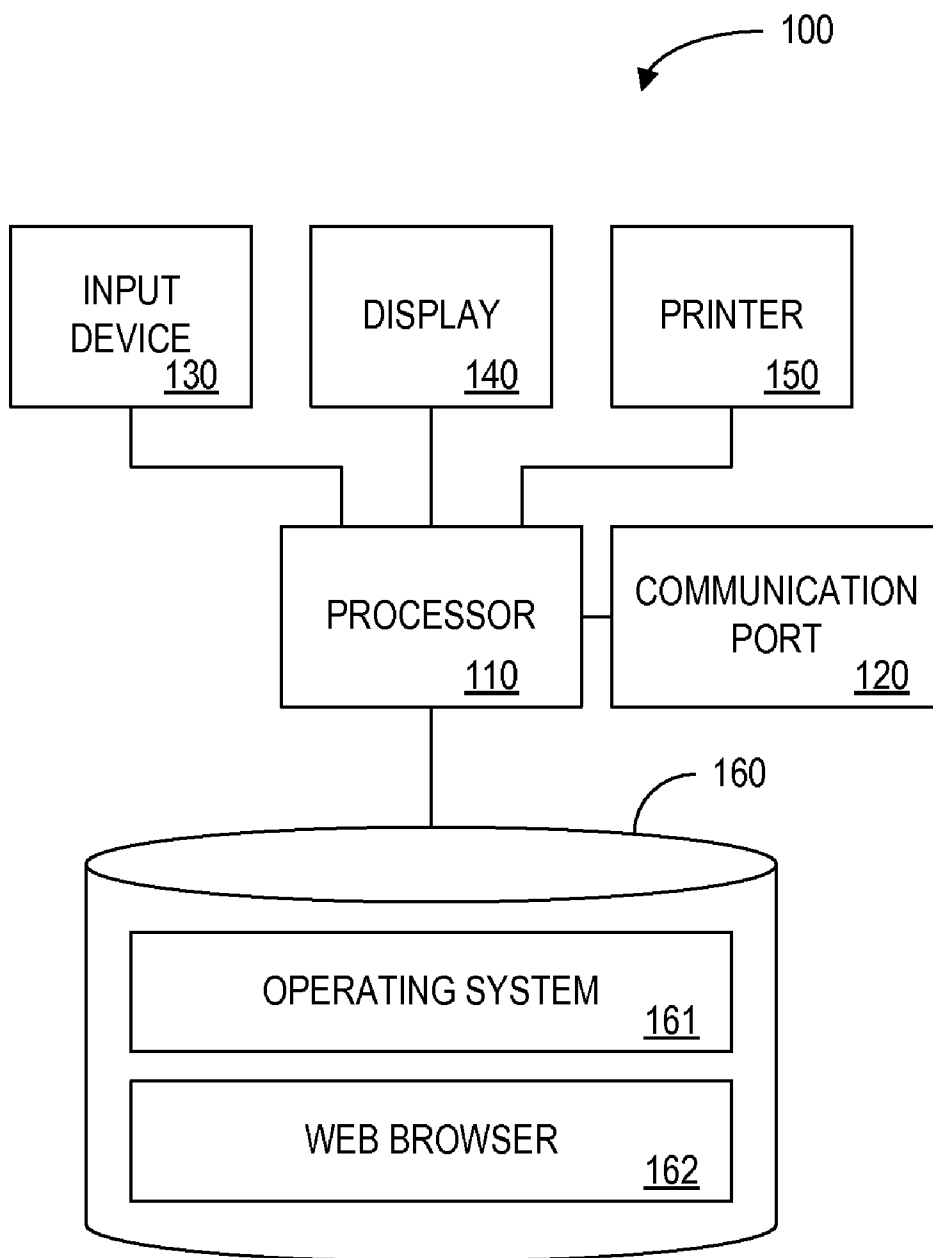


FIG. 3

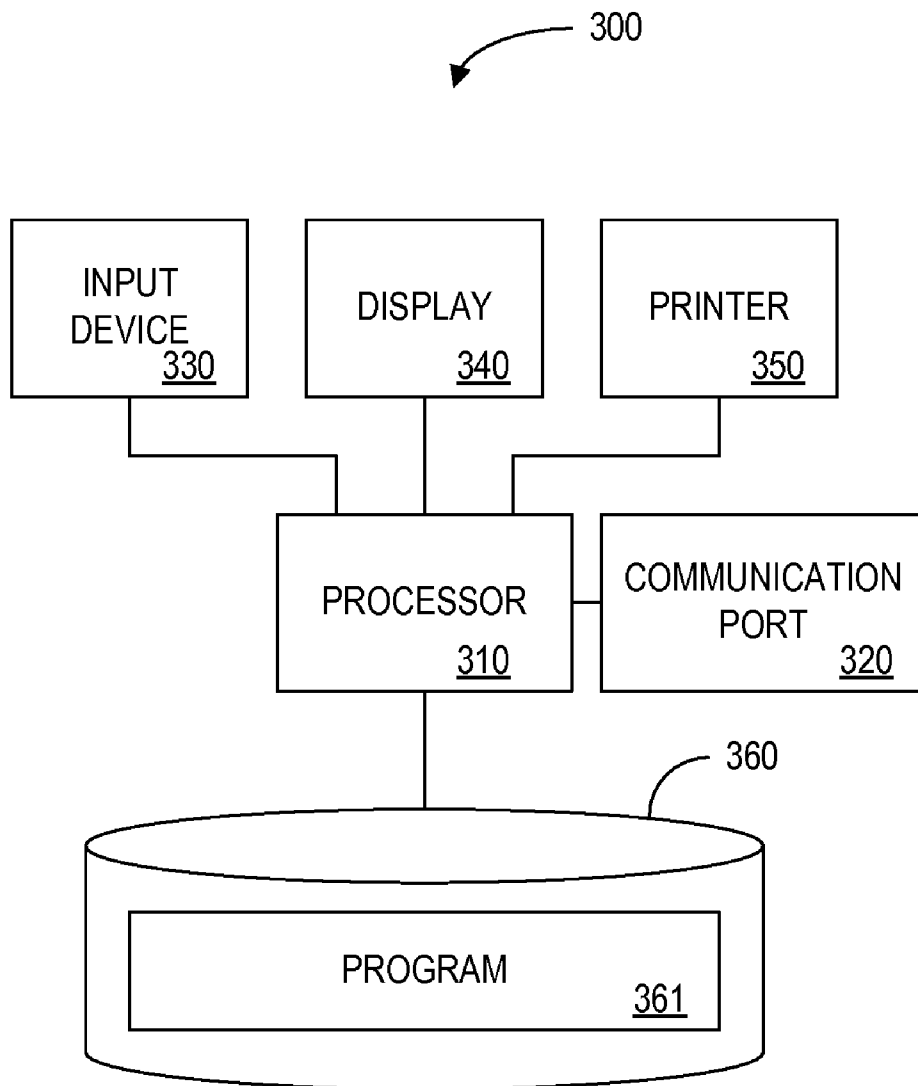


FIG. 4A

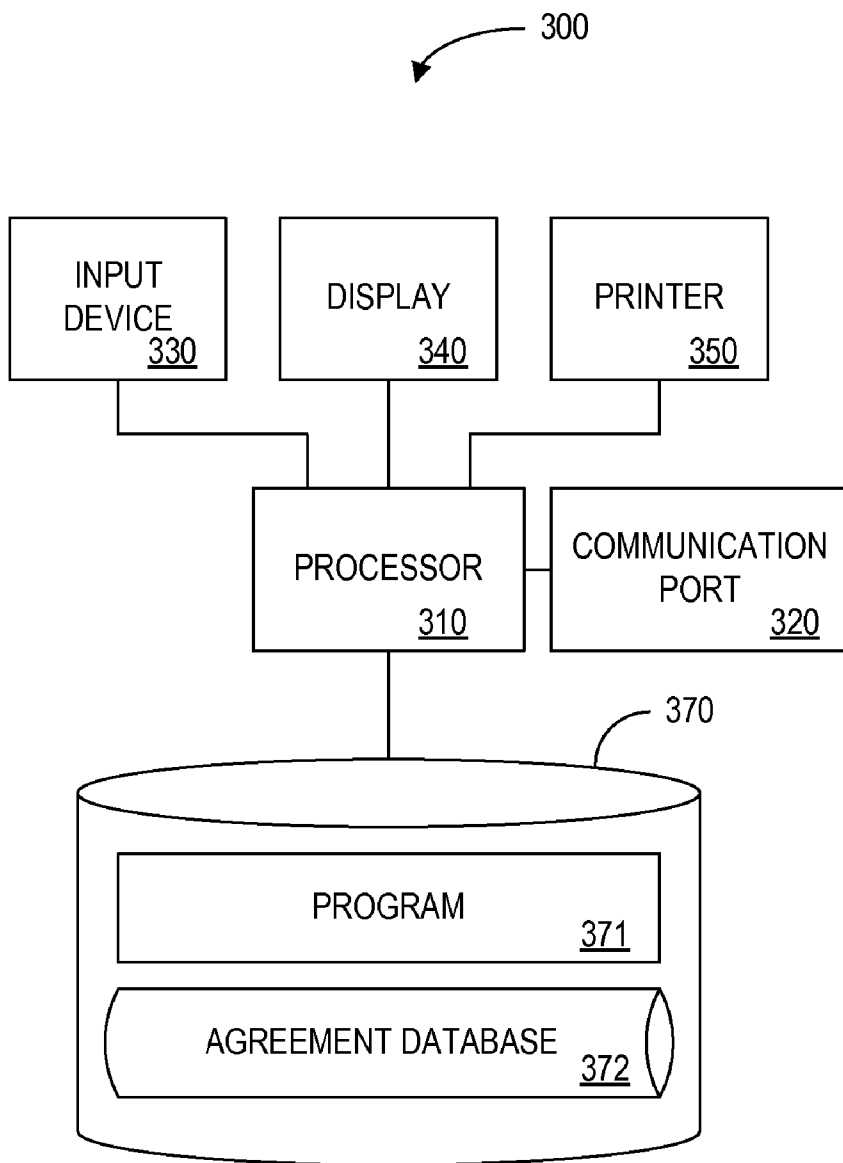


FIG. 4B

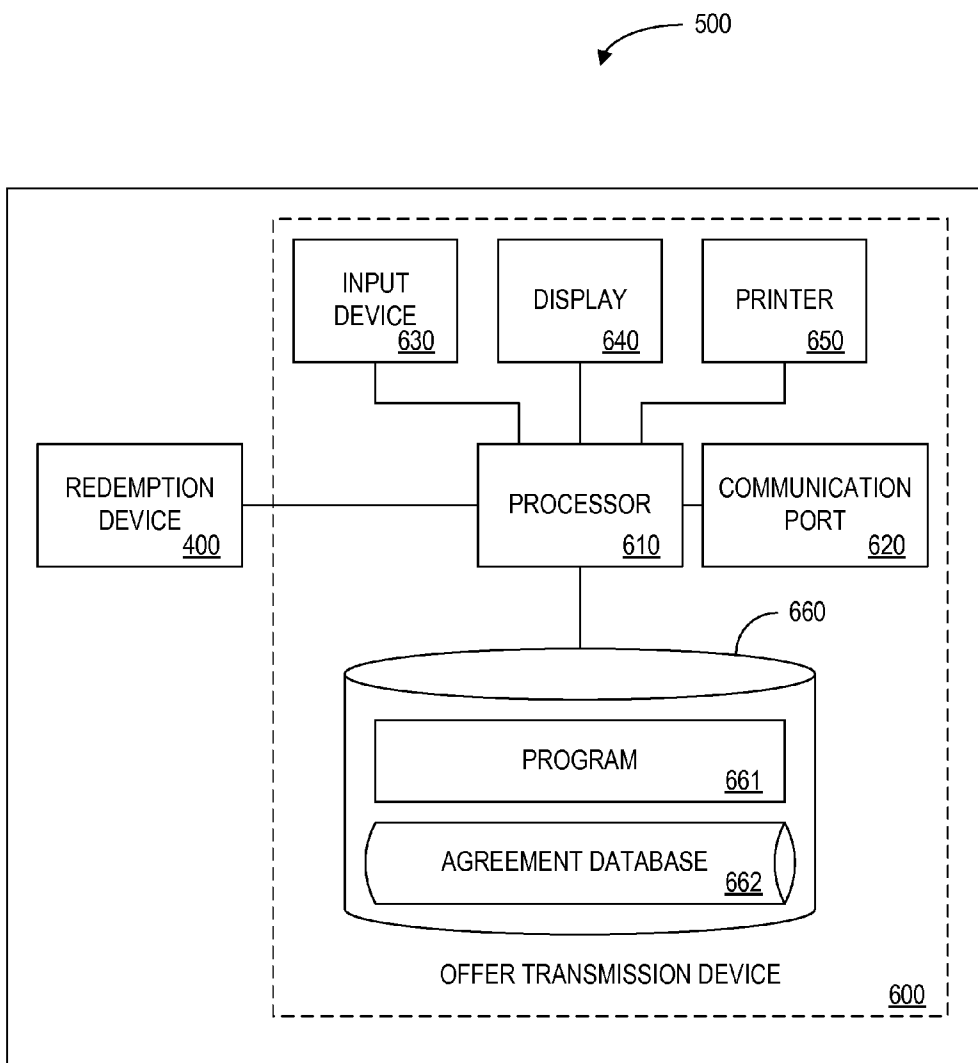


FIG. 5



800

RETAILER IDENTIFIER 810	RETAILER NAME 820	LOCATION 830	TELEPHONE NUMBER 840	MANAGER NAME 850	TIER 860	REGION 870
R-3252	AMOCO #36	111 ALPHA ST. BETA, USA	(201) 775-4236	BETTY WHITE	HIGH	A
R-9665	MOBIL #128	314 APPLE ST. NORMAL, USA	(973) 551-1221	JOHN SMITH	HIGH	A
R-4251	TOM'S GAS STATION	26 ZED RD. WEIRD, USA	(914) 432-3897	TOM D. HARRY	MEDIUM	A
R-6678	BOB'S DISCOUNT GAS	10 CHEAP AVE. ST. AUDREY, USA	(408) 232-5991	BOB LEMON	LOW	B
R-1211	CHEVRON #552	1 GULL ST. BIRD, USA	(505) 733-8951	SARA LEE	MEDIUM	C

FIG. 6


900

CUSTOMER IDENTIFIER	NAME	CONTACT INFORMATION	REGION	PAYMENT IDENTIFIER
<u>910</u> C-1232	<u>920</u> JOE SCHMOE	<u>930</u> JOE@WOL.COM	<u>940</u> A	<u>950</u> 1234-5678-9101-1121
C-9878	SAM I. AM	22 GREEN ST. EGZENHAM, USA	A	1111-2222-3333-4444
C-7788	LILY LIVERD	(308) 965-4235	A	284325901-122-133-100
C-0598	SUSAN JOHNSON	SUE@MSM.COM	A	3141-5926-5358-9793
			C	1111-2222-2222-2222

900 (CONT.)

REDEMPTION IDENTIFIER	CAR	TANK SIZE
<u>960</u> RED 4321	<u>970</u> MAZDA PROTEGE	<u>980</u> SMALL
RED 9219	FORD EXCURSION	EX. LARGE
RED 2222	TOYOTA CAMRY	MEDIUM
RED 1111		
RED 1234	FORD FESTIVA	SMALL
RED 1011	NISSAN MAXIMA	MEDIUM

FIG. 7

1000  


REGION: A			
			<u>1010</u>
RETAILER TIER <u>1020</u>	LOWEST ACCEPTABLE OFFER PRICE (87 OCTANE) <u>1030</u>	LOWEST ACCEPTABLE OFFER PRICE (89 OCTANE) <u>1040</u>	LOWEST ACCEPTABLE OFFER PRICE (93 OCTANE) <u>1050</u>
HIGH	\$1.50 / GAL.	\$1.65 / GAL.	\$1.70 / GAL.
MEDIUM	\$1.21 / GAL.	\$1.42 / GAL.	\$1.53 / GAL.
LOW	\$1.00 / GAL.	\$1.15 / GAL.	\$1.23 / GAL.

FIG. 8

1100  


REDEMPTION IDENTIFIER 1110	AGREEMENT PRODUCT 1120	AGREEMENT PRICE 1130	QUANTITY REMAINING 1140	RETAILER IDENTIFIER 1150
RED 9291	87 OCTANE	\$1.45 / GAL.	20 GAL.	R-4251
RED 2222	89 OCTANE	\$1.75 / GAL.	30 GAL.	R-9665
RED 4321	93 OCTANE	\$1.80 / GAL.	18 GAL.	R-3252
RED 1234	89 OCTANE	\$1.60 / GAL.	40 GAL.	--
RED 9219	89 OCTANE	\$1.63 / GAL.	26.5 GAL.	R-4251

FIG. 9

1200

REDEMPTION IDENTIFIER	RETAILER IDENTIFIER	PRODUCT	RETAIL PRICE	QUANTITY REDEEMED	TIME REDEEMED	ADDITIONAL PURCHASES
1210	1220	1230	1240	1250	1260	1270
RED 9291	R-4251	87 OCTANE	\$1.50 / GAL.	9.5 GAL.	2/15/03 17:35	--
RED 4321	R-3252	93 OCTANE	\$1.85 / GAL.	11.2 GAL.	2/15/03 20:17	SM. COFFEE \$0.99
RED 2222	R-9665	89 OCTANE	\$1.83 / GAL.	12 GAL.	2/15/03 23:19	--
RED 1234	R-3252	89 OCTANE	\$1.78 / GAL.	10.5 GAL.	2/15/03 23:25	--

FIG. 10

1300  
↙

RETAILER IDENTIFIER: R-4251 <span style="float: right;"><u>1310</u></span>		
PRODUCT <u>1320</u>	RETAIL PRICE <u>1330</u>	TIME UPDATED <u>1340</u>
87 OCTANE	\$1.48 / GAL.	2/14/03 14:53
89 OCTANE	\$1.65 / GAL.	2/13/03 10:43
93 OCTANE	\$1.70 / GAL.	2/13/03 23:05

FIG. 11

1400  
↙

REGION: A <span style="float: right;"><u>1410</u></span>		
RETAILER IDENTIFIER <span style="float: right;"><u>1420</u></span>	TARGET MARKET SHARE <span style="float: right;"><u>1430</u></span>	PRESENT MARKET SHARE <span style="float: right;"><u>1440</u></span>
R-3252	60%	50%
R-9665	20%	25%
R-4251	20%	25%

FIG. 12

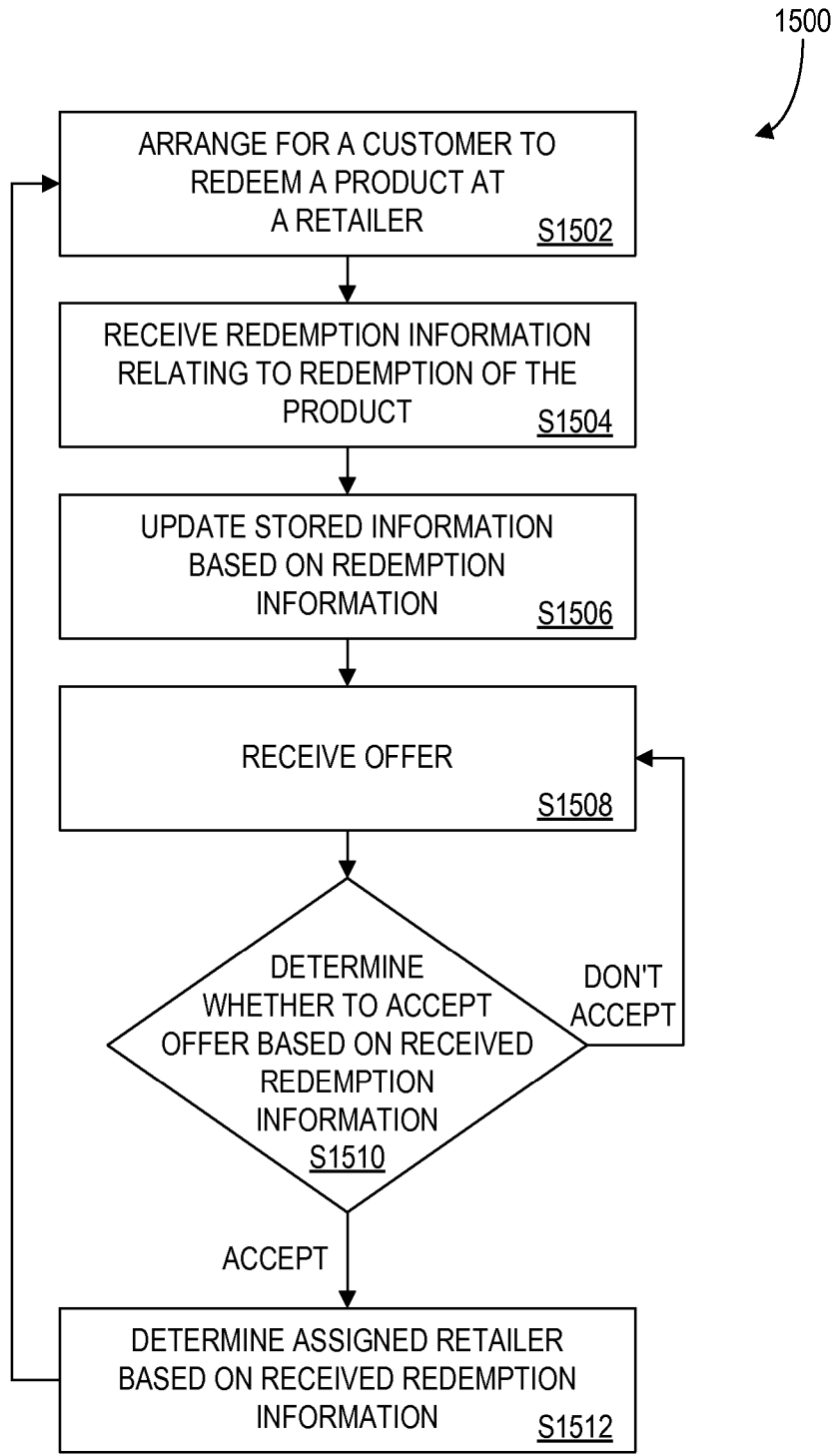


FIG. 13



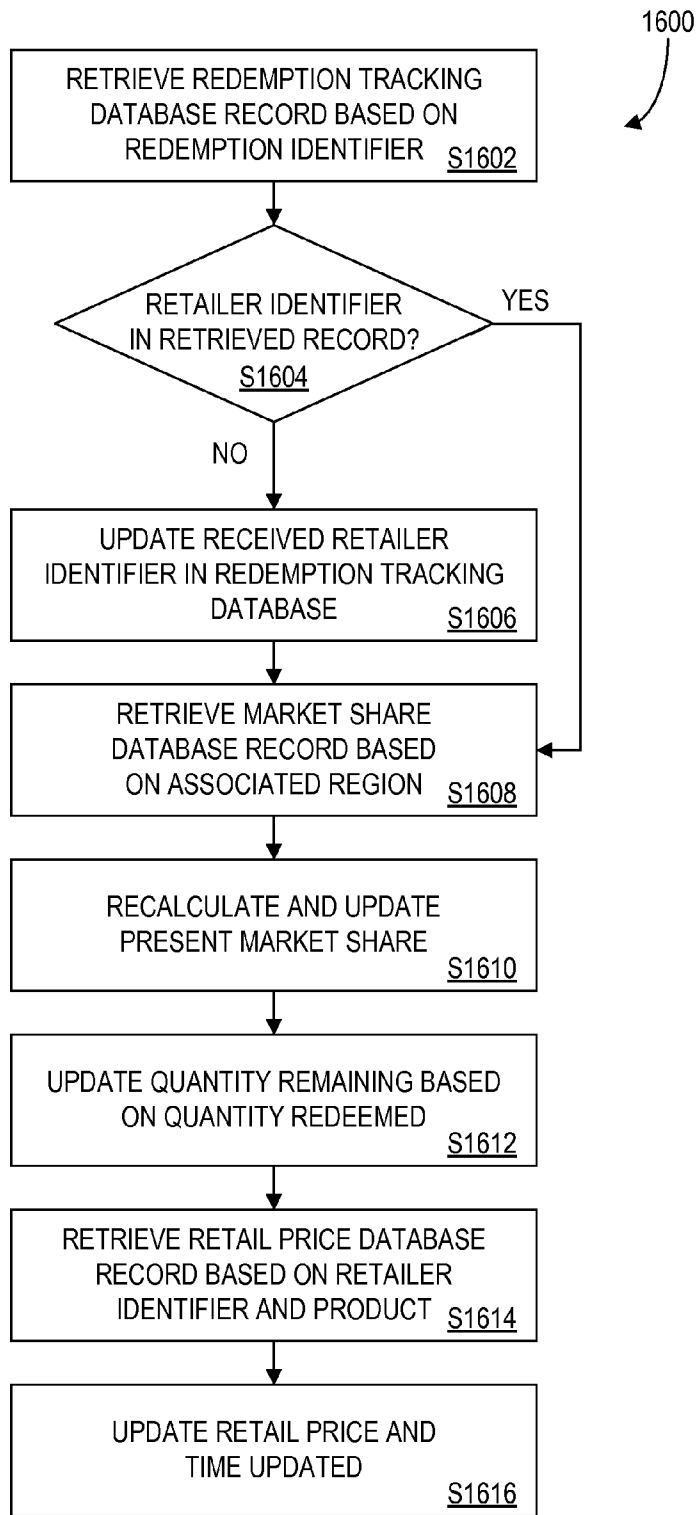


FIG. 14

1200

REDEMPTION IDENTIFIER <u>1210</u>	RETAILER IDENTIFIER <u>1220</u>	PRODUCT <u>1230</u>	RETAIL PRICE <u>1240</u>	QUANTITY REDEEMED <u>1250</u>	TIME REDEEMED <u>1260</u>	ADDITIONAL PURCHASES <u>1270</u>
RED 1234	R-3252	89 OCTANE	\$1.78 / GAL.	10.5 GAL.	2/15/03 23:25	--

1100

REDEMPTION IDENTIFIER <u>1110</u>	PRODUCT <u>1120</u>	AGREEMENT PRICE <u>1130</u>	QUANTITY REMAINING <u>1140</u>	PREFERRED RETAILER IDENTIFIER <u>1150</u>
RED 1234	89 OCTANE	\$1.60 / GAL.	40 GAL.	--

1400

REGION: A <u>1410</u>		
RETAILER IDENTIFIER <u>1420</u>	TARGET MARKET SHARE <u>1430</u>	PRESENT MARKET SHARE <u>1440</u>
R-3252	60%	50%
R-9665	25%	20%
R-4251	15%	30%

1400

REGION: A <u>1410</u>		
RETAILER IDENTIFIER <u>1420</u>	TARGET MARKET SHARE <u>1430</u>	PRESENT MARKET SHARE <u>1440</u>
R-3252	60%	52.5%
R-9665	25%	19%
R-4251	15%	28.5%

1100

REDEMPTION IDENTIFIER <u>1110</u>	AGREEMENT PRODUCT <u>1120</u>	AGREEMENT PRICE <u>1130</u>	QUANTITY REMAINING <u>1140</u>	RETAILER IDENTIFIER <u>1150</u>
RED 1234	89 OCTANE	\$1.60 / GAL.	29.5 GAL.	R-3252

FIG. 15

1200  
↙

REDEMPTION IDENTIFIER <u>1210</u>	RETAILER IDENTIFIER <u>1220</u>	PRODUCT <u>1230</u>	RETAIL PRICE <u>1240</u>	QUANTITY REDEEMED <u>1250</u>	TIME REDEEMED <u>1260</u>	ADDITIONAL PURCHASES <u>1270</u>
RED 1234	R-3252	89 OCTANE	\$1.78 / GAL.	10.5 GAL.	2/15/03 23:25	--

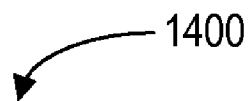
FIG. 15A

1100  
↙

REDEMPTION IDENTIFIER <u>1110</u>	AGREEMENT PRODUCT <u>1120</u>	AGREEMENT PRICE <u>1130</u>	QUANTITY REMAINING <u>1140</u>	RETAILER IDENTIFIER <u>1150</u>
RED 1234	89 OCTANE	\$1.60 / GAL.	40 GAL.	--

FIG. 15B

1400



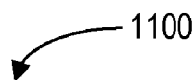
REGION: A <span style="float: right;"><u>1410</u></span>		
RETAILER IDENTIFIER <span style="float: right;"><u>1420</u></span>	TARGET MARKET SHARE <span style="float: right;"><u>1430</u></span>	PRESENT MARKET SHARE <span style="float: right;"><u>1440</u></span>
R-3252	60%	50%
R-9665	25%	20%
R-4251	15%	30%

FIG. 15C

1400

REGION: A		
RETAILER IDENTIFIER <u>1420</u>	TARGET MARKET SHARE <u>1430</u>	PRESENT MARKET SHARE <u>1440</u>
R-3252	60%	52.5%
R-9665	25%	19%
R-4251	15%	28.5%

FIG. 15D

1100  


REDEMPTION IDENTIFIER <u>1110</u>	AGREEMENT PRODUCT <u>1120</u>	AGREEMENT PRICE <u>1130</u>	QUANTITY REMAINING <u>1140</u>	RETAILER IDENTIFIER <u>1150</u>
RED 1234	89 OCTANE	\$1.60 / GAL.	29.5 GAL.	R-3252

FIG. 15E

1200

REDEMPTION IDENTIFIER <u>1210</u>	RETAILER IDENTIFIER <u>1220</u>	PRODUCT <u>1230</u>	RETAIL PRICE <u>1240</u>	QUANTITY REDEEMED <u>1250</u>	TIME REDEEMED <u>1260</u>	ADDITIONAL PURCHASES <u>1270</u>
RED 9219	R-4251	87 OCTANE	\$1.50 / GAL.	9.5 GAL.	2/15/03 17:35	--

FIG. 16A

1300

RETAILER IDENTIFIER: R-4251 <u>1310</u>		
PRODUCT <u>1320</u>	RETAIL PRICE <u>1330</u>	TIME UPDATED <u>1340</u>
87 OCTANE	\$1.48 / GAL.	2/14/03 14:53

FIG. 16B

1300

RETAILER IDENTIFIER: R-4251 <u>1310</u>		
PRODUCT <u>1320</u>	RETAIL PRICE <u>1330</u>	TIME UPDATED <u>1340</u>
87 OCTANE	\$1.48 / GAL.	2/15/03 17:35

FIG. 16C



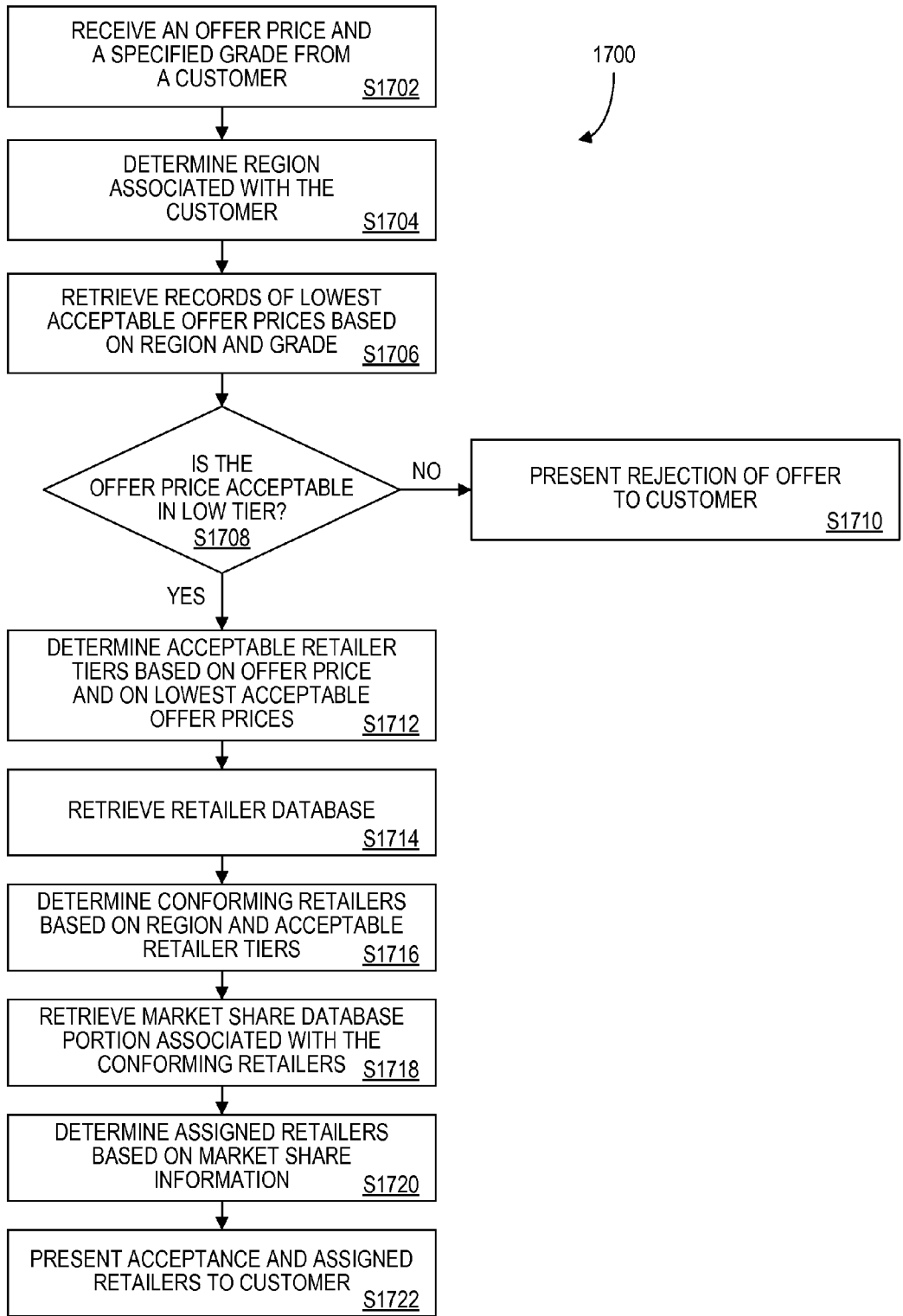


FIG. 17

1000  
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REGION: A <span style="float: right;"><u>1010</u></span>	
RETAILER TIER <span style="float: right;"><u>1020</u></span>	LOWEST ACCEPTABLE OFFER PRICE (87 OCTANE) <span style="float: right;"><u>1030</u></span>
HIGH	\$1.50 / GAL.
MEDIUM	\$1.21 / GAL
LOW	\$1.00 / GAL.

FIG. 18

**SYSTEM FOR UTILIZING REDEMPTION INFORMATION**

**CROSS-REFERENCE TO RELATED APPLICATIONS**

[0001] This application is a divisional of U.S. patent application Ser. No. 09/850,328 filed May 7, 2001, for "System for Utilizing Redemption Information", which claims the benefit of U.S. Patent Application No. 60/184,799 filed Feb. 24, 2000, for "Redemption Feedback Loop For Priceline For Gas", the contents of which are incorporated by reference herein for all purposes.

[0002] This application is a continuation-in-part of U.S. patent application Ser. No. 09/540,709 filed Mar. 31, 2000, for "System To Establish A Customer-Specified Price Of A Product And To Manage Redemption Of The Product At The Established Price", the contents of which are incorporated by reference herein for all purposes.

[0003] This application is related to co-pending U.S. patent application Ser. No. 08/889,503 filed Jul. 8, 1997, for "Systems And Methods Wherein A Buyer Purchases A Product At A First Price And Acquires The Product From A Merchant That Offers The Product For Sale At A Second Price", U.S. patent application Ser. No. 09/388,723 filed Sep. 2, 1999, for "Redemption Systems And Methods Wherein A Buyer Takes Possession At A Retailer Of A Product Purchased Using A Communication Network", U.S. patent application Ser. No. 09/337,906 filed Jun. 22, 1999, for "Purchasing Systems And Methods Wherein A Buyer Takes Possession At A Retailer Of A Product Purchased Using A Communication Network", U.S. patent application Ser. No. 09/370,291 filed Aug. 9, 1999, for "Supplemental Offers Wherein A Buyer Takes Possession At A Retailer Of A Primary Product Purchased Through A Purchasing System", and U.S. patent application Ser. No. 09/412,930 filed Oct. 5, 1999, for "Methods And Apparatus Wherein A Buyer Arranges To Purchase A First Product Using A Communication Network And Subsequently Takes Possession Of A Substitute Product At A Retailer", the contents of which are incorporated by reference herein for all purposes.

**BACKGROUND OF THE INVENTION**

[0004] 1. Field Of The Invention

[0005] The present invention is related to systems for utilizing information generated during a product redemption.

[0006] 2. Description Of The Related Art

[0007] The U.S. Patent Applications listed above describe various systems for remotely purchasing a product and for subsequently retrieving the product at a local retailer. For example, a customer may access an "online" retailer using his home computer, purchase a product from the retailer and pick up the product at a nearby "brick and mortar" retailer. As a result, these systems advantageously provide the ease and convenience of online shopping as well as the near-immediate gratification of traditional shopping.

[0008] In order to facilitate the foregoing process, certain embodiments utilize a central controller with which the customer interacts. Specifically, the customer purchases a product from an entity operating the central controller and

the central controller identifies a retailer at which the customer may pick up the product. Accordingly, an arrangement exists between the entity and the retailer to allow customer pick-up of products sold by the entity. This arrangement benefits the entity by capturing some sales which would otherwise be lost to traditional retailers. In addition, the retailer benefits by receiving a commission or other revenue based on sales which would otherwise be completely lost to online retailers, and by experiencing increased customer traffic.

[0009] Although the above-described systems are believed to be beneficial, it would be advantageous to utilize information generated and/or made available to the controller and the retailer before, during or after product redemption in various alternative ways.

**SUMMARY OF THE INVENTION**

[0010] In view of the foregoing, Applicants have invented a system including arrangement for a customer to redeem a product from a third party, reception of information relating to a redemption of the product by the customer, and determination of whether to accept an offer based on the received information. Along these lines, the inventive system may be embodied in means for preparing for a customer to redeem a product from a third party, means for obtaining of information relating to a redemption of the product by the customer, and means for deciding whether to accept an offer based on the received information.

[0011] In another aspect, the invention concerns arrangement for a customer to redeem a product from a third party, reception of information relating to a redemption of the product by the customer, and determination of an offer based on the received information.

[0012] The invention also relates to arrangement for a customer to redeem a product from a third party, reception of information relating to a redemption of the product by the customer and determination, based on the received information, of an assigned third party at which an agreement product may be redeemed.

[0013] In another embodiment, the invention includes reception of a redemption identifier from a customer, provision of a product to the customer according to an agreement associated with the redemption identifier, transmission of information relating to the providing step to an entity, and reception of authorization from the entity to provide a product according to a second agreement, the authorization based on the transmitted information.

[0014] In a further embodiment, the invention includes arrangement for a customer to redeem a product from a third party, reception of information relating to a redemption of the product by the customer from the third party, reception of an offer to purchase an offer product, determination to accept the offer based on the received information, determination of an assigned third party at which the offer product may be redeemed based on the received information, and transmission of an acceptance of the offer and an indication of the assigned third party.

[0015] The present invention also concerns means for preparing for a customer to redeem a product from a third party, means for obtaining information relating to a redemp-

tion of the product by the customer, and means for deciding to accept an offer based on the obtained information.

[0016] By virtue of the foregoing aspects, a relationship with a third party may be utilized to assist in better evaluating and/or formulating future offers.

[0017] With these and other advantages and features of the invention that will become hereinafter apparent, the nature of the invention may be more clearly understood by reference to the following detailed description, the appended claims and to the several drawings attached hereto.

#### BRIEF DESCRIPTION OF THE DRAWINGS

[0018] FIG. 1A is a block diagram of a system according to one embodiment of the present invention;

[0019] FIG. 1B is a block diagram of a system according to one embodiment of the present invention;

[0020] FIG. 2 is a block diagram of a controller according to one embodiment of the present invention;

[0021] FIG. 3 is a block diagram of a customer device according to one embodiment of the present invention;

[0022] FIG. 4A is a block diagram of a retailer device according to one embodiment of the present invention;

[0023] FIG. 4B is a block diagram of a retailer device according to one embodiment of the present invention;

[0024] FIG. 5 is a block diagram of a customer terminal according to one embodiment of the present invention;

[0025] FIG. 6 illustrates a tabular representation of a portion of a retailer database according to one embodiment of the present invention;

[0026] FIG. 7 illustrates a tabular representation of a portion of a customer database according to one embodiment of the present invention;

[0027] FIG. 8 illustrates a tabular representation of a portion of a retailer tier database according to one embodiment of the present invention;

[0028] FIG. 9 illustrates a tabular representation of a portion of a redemption tracking database according to one embodiment of the present invention;

[0029] FIG. 10 illustrates a tabular representation of a portion of a redemption transaction database according to one embodiment of the present invention;

[0030] FIG. 11 illustrates a tabular representation of a portion of a retail price database according to one embodiment of the present invention;

[0031] FIG. 12 illustrates a tabular representation of a portion of a market share database according to one embodiment of the present invention;

[0032] FIG. 13 is a flow chart of process steps of a transaction according to one embodiment of the present invention;

[0033] FIG. 14 is a flow chart of process steps to update stored information based on redemption information according to one embodiment of the present invention;

[0034] FIGS. 15A to 15E illustrate tabular representations of portions of databases for use in explaining the FIG. 14 process steps;

[0035] FIGS. 16A to 16C illustrate tabular representations of portions of databases for use in explaining the FIG. 14 process steps;

[0036] FIG. 17 is a flow chart of process steps to determine whether to accept an offer based on received redemption information according to one embodiment of the present invention; and

[0037] FIG. 18 illustrates a tabular representation of a portion of a retailer tier database for use in explaining the FIG. 17 process steps.

#### DETAILED DESCRIPTION

[0038] To insure clarity of the following description, set forth below are definitions of several terms used herein. The scope of the present invention is not to be deemed limited by the definitions.

[0039] **Agreement Product:** A product of which a customer agrees to purchase and an entity agrees to supply a number of units. An agreement product may be defined in specific or general terms. For example, a customer may specify as an agreement product Mobil 87 octane gasoline, or any gasoline having an octane rating between 85 and 90.

[0040] **Agreement Price:** A price for which a customer agrees to purchase and an entity agrees to supply a number of units of an agreement product. Examples of an agreement price include a total purchase price for the number of units, a price per unit, a percentage off a retail price, and a dollar amount less than a retail price.

[0041] **Offer Product:** A product of which a customer offers to purchase, or an entity offers to provide, a number of units. After the offer is accepted, the offer product is referred to as an agreement product.

[0042] **Offer Price:** A price for which a customer offers to purchase, or an entity offers to provide, a number of units of an offer product. The offer price is referred to as an agreement price once the offer is accepted.

[0043] **Retailer:** Any person, group of persons, or entity such as a manufacturer, warehouse, department store, grocery store, or gasoline station from which a customer can redeem an agreement product.

[0044] As an introduction to the following detailed description, one particular embodiment of the present invention is described. According to this embodiment, a customer accesses a website maintained by a controller and transmits to the website an offer to purchase a product for an offer price. If the offer is acceptable, the controller informs a retailer to provide the product to the customer. The controller also informs the customer that the offer has been accepted, transmits a redemption identifier to the customer, and informs the customer that the redemption identifier must be presented to the retailer in order to redeem the product from the retailer. After the customer redeems the product from the retailer, the retailer transmits redemption information to the controller, such as a retail price of the product at the time of the redemption. The controller then stores the retail price in an appropriate database.

[0045] Next, the controller receives an offer to purchase the product for a second offer price. The controller determines whether to accept the offer based on whether the second offer price is within a predetermined range of the stored retail price. If so, the second offer is accepted and the customer is notified as described above. If not, the customer is informed that the offer is not acceptable. Since the controller uses an updated retail price to determine whether to accept the second offer, the controller's ability to determine the acceptability of customer offers is greater than previously provided by conventional systems.

[0046] It should be noted that the foregoing embodiment is described as an introduction to the detailed description, and the present invention should not be deemed limited to the particular steps described above.

#### System

[0047] Turning to the drawings, FIG. 1A shows a block diagram of a system 10 according to embodiments of the present invention. As shown, the system 10 includes a controller 200 in communication with customer devices 100, 101 and 102 as well as with retailer devices 300, 301 and 302. Although three customer devices and three retailer devices are shown in FIG. 1A, any number of customer devices and retailer devices may be in communication with the controller 200 according to the invention. Furthermore, although the communication media between the customer devices 100, 101 and 102, the retailer devices 300, 301 and 302 and the controller 200 are represented by dedicated connections, it should be understood that one or more of the customer devices 100, 101 and 102 and of the retailer devices 300, 301 and 302 may be connected to a network, such as a Local Area Network (LAN) or a Wide Area Network (WAN), to which is also connected the controller 200. The network may consist of one or more of an Internet Protocol (IP)-based network, such as the World Wide Web, or one of a satellite-based network, a cellular network, a radio frequency (RF) network, a telephone network, a cable television network, or any other communication media for transferring data between locations.

[0048] One or more of the customer devices 100, 101 and 102 may comprise a personal computer, such as those based on the Intel® Pentium® processor, a dedicated terminal or kiosk, an Internet kiosk, a personal digital assistant, a pager, a cellular phone, a pay phone, a video game, an automated teller machine, a slot machine, a watch, a vending machine, an in-car communications system, such as the NAVSTAR system, for providing data such as global positioning system information, traffic information, World Wide Web data or the like, or any other device adapted to communicate with the controller 200 over whatever communication media happen to exist between the device and the controller 200. For example, in a case that the customer device 100 is a personal computer which communicates with the controller 200 over the World Wide Web, the customer device 100 may execute a web browser application for transmitting data to the controller 200 and/or requesting data from the controller 200.

[0049] In this regard, the controller 200 may comprise one or more computer servers providing, for example, a database server and a World Wide Web server. Multiple physical devices may be used to perform the functions of the controller 200 according to the present invention, and some or

all of these functions may also be performed manually. The controller 200 may be operated by a product manufacturer, such as a gasoline refiner or an electronics manufacturer, by an entity providing customer acquisition services to manufacturers, by an entity providing shopping and retail services to customers, or by any other entity to which the present invention may provide benefits. In the following description, actions which may be performed by an entity operating the controller 200 will be imputed to the controller 200, such as arrangement for a redemption, acceptance of an offer, determination of an offer, payment, reception of payment, etc.

[0050] One or more of the retailer devices 300, 301 and 302 may comprise a personal computer or a network server such as an IBM AS/400 server. In one embodiment, each of the retailer devices 300, 301 and 302 is located at a respective retail store and includes data corresponding to its respective retailer. Such data may include inventory data, payroll data, sales data, and any other data used during the operation of a retail establishment. The retailer devices 300, 301 and 302 may also comprise dedicated terminals used primarily in conjunction with the controller 200 to arrange a redemption and to transmit redemption information to the controller 200 in accordance with the present invention, or credit/debit card authorization terminals provided with software enabling operation in accordance with the present invention.

[0051] The redemption information transmitted to the controller 200 may include information specifying a particular product redeemed, a quantity of the product redeemed, a location at which the redemption took place, a retailer at which the redemption took place, a date on which the redemption took place, a time at which the redemption took place, a retail price of the redeemed product at the time the redemption took place, an amount of time required to complete the redemption, weather conditions at the time of the redemption, the name of a retailer employee assisting with the redemption, a type of product redeemed (e.g. gasoline), a total amount of money charged to the customer by the retailer, a description of any other purchases, and a total amount charged to the customer for the other purchases. In one embodiment to be described in detail below, the redemption information is used to determine whether to accept an offer.

[0052] In communication with respective ones of the retailer devices 300, 301 and 302 are redemption devices 400, 401 and 402. The redemption devices 400, 401 and 402 may communicate with the retailer devices 300, 301 and 302 using known media for transporting electrical signals or other forms of communication, and are used to dispense an agreement product to a customer according to the present invention. For example, the redemption device 400 may be a gasoline pump, a warehouse delivery system, or the like. As described below, each redemption device 400, 401 and 402 may be controlled by a respective retailer device 300, 301 or 302, or by the controller 200. Of course, the invention may be embodied in a system which does not include a redemption device. In one such system, a customer visits a retailer to redeem an agreement product and the retailer simply retrieves and hands the product to the customer.

[0053] FIG. 1B is a block diagram of a retail system 20 according to other embodiments of the present invention. Shown in FIG. 1B are the controller 200 and the retailer

devices **300**, **301** and **302**, as described with respect to FIG. 1A. Also shown are customer terminals **500**, **501** and **502** in communication with the controller **200**. Each of the customer terminals **500**, **501** and **502** comprises a redemption device and an offer transmission device which, as illustrated by a broken line, may be located in one physical unit or in separate units. Generally the redemption devices **400**, **401** and **402** are used to dispense an agreement product to a customer and the offer transmission devices **600**, **601** and **602** are used by a customer to submit an offer to or accept an offer from the controller **200**. In one embodiment, the customer terminal **500** is a gasoline pump, the redemption device **400** comprises a pumping mechanism, a hose and a nozzle using which gasoline is dispensed, and the offer transmission device **600** comprises an input device such as a keypad and a display, such as a Liquid Crystal Diode, Light Emitting Diode, or flat panel display, using which a customer submits or accepts an offer as described below. The offer transmission device **600** may also be used to display instructions or advertisements to a customer and to receive a redemption identifier or payment information, such as a credit card or debit card number, from the customer.

[0054] A retailer device may communicate directly with a customer terminal as well as with the controller **200**, as shown with respect to the retailer device **300** and the customer terminal **500**. As will be described in detail below, this communication enables the retailer device **300** to send or receive data such as redemption information to or from the customer terminal **400**. It should be noted that either a retailer device or customer terminal may be used to transmit data to the controller **200** or to receive data from the controller **200**.

[0055] In another embodiment, a customer communicates directly with a retailer device **300** using a redemption tool, such as a personal digital assistant or a smartcard. In this regard, communication is established between the redemption tool and the retailer device **300** through an appropriate interface and a redemption identifier is transmitted to the retailer device **300** from the redemption tool. The redemption identifier is cross-referenced against a database accessed by the retailer device **300** to identify details of an agreement associated with the redemption identifier. The retailer then provides an agreement product according to the details of the agreement. Alternatively, the redemption identifier may encode the details of the agreement. According to these embodiments, the retailer device **300** to which the redemption identifier was transmitted and the customer terminal **500** using which the offer was submitted or accepted need not be in communication before, during, or after redemption.

[0056] It should be noted that, in some embodiments, a single unit such as a gasoline pump comprises a retailer device, a redemption device and an offer transmission device, and that the single unit is in communication with the controller **200**. In other embodiments, a retailer device and a customer device as shown in FIG. 1A are housed in a same unit.

[0057] Those skilled in the art will understand that devices in communication with each other need not be continually transmitting to each other. On the contrary, such devices need only to transmit to each other as necessary, and may actually refrain from exchanging data most of the time. For

example, a device in communication with another device over the World Wide Web may not transmit data to the other for weeks at a time.

#### Devices

##### [0058] Controller

[0059] FIG. 2 illustrates an embodiment of the controller **200**. The controller **200** may be implemented using a network server, a dedicated hardware circuit, an appropriately-programmed general purpose computer, or any other electronic, mechanical or electromechanical device.

[0060] The controller **200** of FIG. 2 comprises a processor **210**, such as one or more RISC processors. The processor **210** is coupled to a communication port **220** through which the controller **200** communicates with other devices. For example, the controller **200** receives redemption information from the retailer devices **300**, **301** and **302** through the communication port **220**. As mentioned above, each of the retailer devices **300**, **301** and **302**, as well as the customer devices **100**, **101** and **102**, may communicate with the controller **200** over different communication media. Accordingly, the communication port **220** is configured, in one embodiment, to communicate using hardware and software protocols of the different media. In addition, the controller **200** can communicate with locally-attached devices through the communication port **220**.

[0061] Also connected to the processor **210** are an input device **230**, a display **240** and a printer **250**. The input device **230** may be any device for inputting data, such as a keyboard, a touch screen, a mouse, a voice input device, an infrared port, or the like. The input device **230** can be used by personnel to enter data used by the controller **200** in accordance with the present invention. Data may also be input to the controller **200** using a device connected, either directly or over communication media, to the communication port **220**.

[0062] The display **240** is used to output graphics and text and may be a CRT computer monitor, a flat panel display or another type of display device. Graphics, text or other data may also be output by the printer **250** in hard copy format. In one embodiment, such data comprises redemption information, agreement information, and transaction histories.

[0063] The processor **210** is also in communication with a data storage device **260**. The data storage device **260** is generally a data memory and may include any appropriate combination of magnetic, optical and/or semiconductor memory. The data storage device **260** may also include, for example, Random Access Memory (RAM), Read Only Memory (ROM), a compact disc and/or a hard disk. Furthermore, the processor **210** and the storage device **260** may each be, for example: (i) located entirely within a single computer or other computing device; or (ii) connected to each other by remote communication media such as a serial port cable, telephone line or radio frequency transceiver. In one embodiment, the controller **200** comprises one or more computers that are connected to a remote server computer for maintaining databases.

[0064] The data storage device **260** stores a program **700** of processor-executable process steps. The processor **210** executes the process steps of the program **700** and thereby operates in accordance with the present invention, and

particularly in accordance with the steps described herein with respect to the controller 200. The program 700 may be stored in a compressed, uncompiled and/or encrypted format. The program 700 can be stored in the storage device 260 during manufacture of the storage device 260, can be downloaded from a compact disc or other computer-readable medium, or can be retrieved from a remote or local source through the communication port 220 in the form of a signal having the program 700 encoded thereon. The data storage device 260 also stores processor-executable process steps for basic operation of the controller 200, such as process steps of an operating system, a database management system and "device drivers" for allowing the controller 200 to interface with computer peripheral devices. These latter process steps are known to those skilled in the art, and are therefore not described in detail herein.

[0065] According to one embodiment of the present invention, the steps of the program 700 are transferred from the data storage device 260 into a main memory, such as a RAM, and executed therefrom by the processor 210. In alternate embodiments, hard-wired circuitry may be used in place of, or in combination with, processor-executable software process steps for implementation of the processes of the present invention. Thus, embodiments of the present invention are not limited to any specific combination of hardware or software.

[0066] The storage device 260 also stores i) a retailer database 800, ii) a customer database 900, iii) a retailer tier database 1000, iv) a redemption tracking database 1100, v) a redemption transaction database 1200, vi) a retail price database 1300, and vii) a market share database 1400. The databases 800 to 1400 are described in detail below and portions thereof are depicted in tabular form with sample entries in the accompanying figures. In this regard, and as will be understood by those skilled in the art, the schematic illustrations and accompanying descriptions of the databases presented herein are merely intended to demonstrate operable systems for associating and storing information which may be used in accordance with the present invention. A number of other data structures may be employed besides those suggested by the tables shown. Similarly, the illustrated entries of the databases represent sample information only; those skilled in the art will understand that the number and content of the entries can be different from those illustrated.

#### [0067] Customer Device

[0068] FIG. 3 illustrates certain elements of the customer device 100. The customer device 100 is used to input data to and to receive data from the controller 200, and to present data to a customer. For example, a customer may use the customer device 100 to input an offer to the controller 200, or to indicate acceptance of an offer received from the controller 200.

[0069] As shown, the customer device 100 includes a processor 110 connected to a communication port 120. Data is transmitted to and received from the controller 200, either via a network or a dedicated connection, through the communication port 120. Also connected to the processor 110 is an input device 130 for receiving data from a customer, a display 140 for displaying data to the customer, and a printer 150 for creating a hardcopy of data, such as of a redemption identifier for use in redeeming a product per an agreement

with the controller 200. The input device 130, the display 140 and the printer 150 may comprise any of the input devices, displays, or printers discussed above.

[0070] A storage device 160 is also connected to the processor 110, and stores data and processor-executable process steps for the operation of the customer device 100. For example, the storage device 160 stores data and process steps of an operating system 161 which are executed by the processor 110 to control basic operation of the customer device 100. Also stored in the storage device 160 are processor-executable process steps of a web browser 162 which can be executed by the processor 110 to provide communication between the customer device 100 and the controller 200 through the World Wide Web. Of course, depending on the communication media disposed between the customer device 100 and the controller 200, other known applications or hardware may be needed for the customer device 100 to communicate with the controller 200.

#### [0071] Retailer Device

[0072] FIG. 4A is a block diagram showing several components of the retailer device 300 according to one embodiment of the invention. According to one version of this embodiment, the retailer device 300 receives a redemption identifier from a customer requesting redemption of an agreement product, transmits the redemption identifier to the controller 200, and receives authorization from the controller 200 to provide a number of units of the agreement product to the customer. The retailer device 300 then provides, or controls another device such as the redemption device 400 to provide, the agreement product to the customer. After the redemption, the retailer device 300 transmits redemption information relating to the redemption to the controller 200.

[0073] The retailer device 300 includes a processor 310 for executing processor-executable process steps, and a communication port 320 connected thereto for communicating with the controller 200 over a network or a dedicated connection. The retailer device 300 may also communicate with other retailer devices, customer devices or customer terminals over the communication port 320.

[0074] Also connected to the processor 310 are an input device 330, a display 340 and a printer 350. The input device 330 can be used by a retailer to input data and instructions into the retailer device 300, such as data for controlling a customer terminal 500 to dispense an agreement product according to an agreement or redemption information for transmitting to the controller 200. The input device 330 may comprise a keyboard, a voice recognition unit, a touch screen, or other input system. The display 340 displays data to the retailer. For example, the display 340 may display details of a customer agreement with the controller 200, and may comprise any of the display types mentioned above. The printer 350 is used to create hardcopies of data received and/or generated by the retailer device 300, and may comprise a laser printer, a thermal printer, an ink jet printer, or the like.

[0075] A storage device 360 is connected to the processor 310, and stores processor-executable process steps of a program 361 which are executed by the processor 310 so as to allow the retailer device 300 to operate in accordance with the present invention. The process steps of the program 361

can be stored in the storage device **360** during manufacture of the storage device **360**, can be downloaded from a compact disc or other computer-readable medium, or can be retrieved from a remote or local source through the communication port **320** in the form of a signal having the process steps encoded thereon. In one embodiment, the processor-executable process steps of the program **361** are executed by the processor **310** to receive a redemption identifier from a customer, to decode the redemption identifier so as to determine details of an agreement, to control the redemption device **400** to provide the product to the customer in accordance with the details of the agreement, and to transmit redemption information to the controller **200**.

[0076] FIG. 4B is a block diagram of the retailer device **300** according to another embodiment of the invention. The reader is referred to the description of FIG. 4A for descriptions of the elements of FIG. 4B that are numbered identically to elements of FIG. 4A.

[0077] In contrast to the retailer device **300** of FIG. 4A, the data storage device **370** of FIG. 4B contains an agreement database **372** as well as processor-executable process steps of a program **371**. The agreement database **372** may include several redemption identifiers, each associated with details of an agreement between a customer and the controller **200**. In this regard, the program **371** may include process steps executable by the processor **310** to receive details of an agreement from the controller **200**, to store the agreement details in an agreement database **372**, to receive a redemption identifier from a customer, to determine an agreement product and a number of units of the agreement product to provide to the customer based on agreement details associated with the redemption identifier in the agreement database **372**, to control the redemption device **400** to provide up to the determined number of units of the agreement product to the customer, to receive redemption information from the redemption device **400**, to update the agreement database **372** in accordance with the received redemption information, and to transmit the redemption information to the controller **200**.

[0078] Customer Terminal

[0079] FIG. 5 is a block diagram of several elements of the customer terminal **500** in accordance with one embodiment of the present invention. As shown in FIG. 5, the customer terminal **500** includes a processor **610** connected to a communication port **620**, an input device **630**, a display **640** and a printer **650**. The communication port **620** is adapted to allow communication between the customer terminal **500** and the controller **200**, retailer device **300**, and/or the customer device **100**, directly or over a network. The input device **630** may consist of a card reader, a keypad, a keyboard, a voice recognition system, or the like, and is used by a customer to make a credit card or debit card payment, to input a redemption identifier, to establish an agreement with the controller **200**, to modify an existing agreement or to terminate an agreement. The display **640** is used to display instructions and data to the customer, and the printer **650** may be used to provide the customer with a record of a redemption, or with a redemption identifier or voucher for use in subsequent redemptions.

[0080] The redemption device **400** of the customer terminal **500** is controlled by the processor **610** to dispense a

product according to an agreement between a customer and the controller **200**. In a case that the product is gasoline, the redemption device **400** includes a pump, hose, nozzle and related electrical, mechanical and hydraulic equipment needed to dispense gasoline to a customer.

[0081] Also included in the customer terminal **500** and connected to the processor **610** is a storage device **660** storing processor-executable process steps of a program **661** using which the customer terminal **500** operates in conjunction with embodiments of the invention. The process steps of the program **661** can be stored in the storage device **660** during manufacture of the storage device **660**, can be downloaded from a compact disc or other computer-readable medium, or can be retrieved from a remote or local source through the communication port **620** in the form of a signal having the process steps encoded thereon. Generally, and according to one embodiment, the processor **610** executes the processor-executable process steps of the program **661** to receive a redemption identifier and details of an associated agreement from the controller **200**, to store the redemption identifier and the associated agreement details in the agreement database **662**, to receive a redemption identifier from a customer, to locate agreement details associated with the received redemption identifier in the agreement database **662**, to control the redemption device **400** to dispense a product according to the agreement, and to transmit redemption information to the controller **200** via the communication port **620**.

Databases

[0082] Retailer Database

[0083] FIG. 6 shows a tabular representation of a portion of the retailer database **800** according to an embodiment of the present invention in which the agreement products are types of gasoline and the retailers are gasoline retailers, such as refiners or gasoline stations. It should be noted that the fields and data of the other databases described herein also reflect this embodiment. Generally, the information stored in the retailer database **800** may be used to identify a retailer based on a retailer identifier **810**, to contact the retailer, to determine whether to accept an offer, to determine an offer to present to a customer and to determine a retailer or retailers to assign to an agreement with a customer.

[0084] The database **800** may include any number of records, and includes fields for each record therein. The fields specify: i) a retailer identifier **810** identifying a retailer to which the associated record pertains; ii) a retailer name **820**; iii) a location **830**; iv) a telephone number **840**; v) a manager name **850**; vi) a tier **860**; and vii) a region **870** in which the retailer is located.

[0085] The retailer identifier **810** may identify several retailers, such as retailers in a chain. For example, a retailer identifier **810** may identify a particular Mobil station, all Mobil stations in a geographic area, or all Mobil stations in the U.S.

[0086] In the illustrated embodiment, the tier **860** associated with a record is a value based on a relationship between retail prices of the associated retailer and retail prices of other retailers located in a same region. As a result, two retailers offering identical prices may be associated with different tiers **860** because one of the retailers is located in a region including retailers offering higher gasoline prices,



while the other retailer is located in a region including retailers offering lower gasoline prices. The tier **860** and the region **870** associated with a retailer are used in one embodiment to determine whether to accept an offer, to determine an offer to present to a customer, and/or to determine a retailer or retailers at which an agreement product must be redeemed. These uses of the tier **860** and the region **870** associated with a retailer are described in detail below.

[0087] Customer Database

[0088] FIG. 7 shows a tabular representation of a portion of the customer database **900** according to an embodiment of the present invention. The data in the customer database **900** may be used to facilitate customer billing, customer tracking, the determination of whether to accept an offer from a customer, and the determination of offers to present to particular customers. The fields associated with each record in the representation of FIG. 7 specify: i) a customer identifier **910** identifying a customer; ii) a name **920** identifying the name of the associated customer; iii) contact information **930** using which the associated customer may be contacted; iv) a region **940** in which the customer is located, the regions **940** being defined, in one embodiment, identically to the regions **870** of the retailer database **900**; v) a payment identifier **950** which may be used to extract payment from the customer; vi) a redemption identifier **960** identifying a particular agreement under which the associated customer may redeem an agreement product; vii) a car **970** using which the associated customer may redeem an agreement product; and viii) a tank size **980** corresponding to the car **970**.

[0089] It should be noted that a customer may be associated with multiple regions **940** and payment identifiers **950**. Regions **940** associated with a customer may be specified by the customer or determined based on an address specified in associated contact information **930**. Multiple payment identifiers **950** may be useful to a customer wishing to have several payment options.

[0090] A customer may also be associated with multiple redemption identifiers **960** and cars **970**. In more detail, a customer may be associated with two redemption identifiers **960**, each of which identifies a different agreement and allows for redemption of a same or different agreement product using a single car **970** (see record associated with customer identifier **910** C-7788), or which are tied to specific cars **970** (see record associated with customer identifier **910** C-0598). Moreover, a single redemption identifier **960** may be associated with a single car **970**, and a single redemption identifier **960** may be associated with multiple cars **970**.

[0091] Retailer Tier Database

[0092] FIG. 8 illustrates a tabular representation of a portion of the retailer tier database **1000**. As shown, the portion includes data for a single region **1010**. Of course, the retailer tier database **1000** may also include data corresponding to other regions **1010**. In the portion shown, each record is associated with several fields. The fields specify: i) a retailer tier **1020**; ii) a lowest acceptable offer price (87 octane) **1030**; iii) a lowest acceptable offer price (89 octane) **1040**; and iv) a lowest acceptable offer price (93 octane) **1050**.

[0093] The retailer tier database **1000** may be used to determine how a particular retailer's pricing structure relates

to the pricing structures of other retailers in a same region. Accordingly, the data in the retailer tier database **1000** is used in one embodiment to determine to which retailer a customer should be directed for redemption of an agreement product. In one example, the controller **200** determines to accept an offer from a customer to purchase a particular amount of 87 octane gasoline from a retailer in region **1010**"A" for \$1.40 per gallon. According to the data in the retailer tier database **1000** of FIG. 8, the customer will be directed only to those retailers in region **1010**"A" which are associated with the "medium" or "low" retail tiers **1020**. Such retailers may be identified by reference to associated tier **860** and region **870** data in the retailer database **800**.

[0094] In an embodiment described in detail below, the data in the retailer tier database **1000** is updated based on redemption information relating to a product redemption received by the controller **200**.

[0095] Redemption Tracking Database

[0096] FIG. 9 shows a tabular representation of a portion of the redemption tracking database **1100**. The redemption tracking database **1100** stores details of a previously-established agreement between the controller **200** and the customer, and is therefore used to ensure that product redemption proceeds according to the agreement. Each of the records in the redemption tracking database **1100** includes several fields, specifying: i) a redemption identifier **1110**; ii) an agreement product **1120**; iii) an agreement price **1130**; iv) a quantity remaining **1140**; and v) a retailer identifier **1150**.

[0097] In one embodiment, the redemption identifier **1110** associated with a record can be used to access a corresponding record in the customer database **900** or the redemption tracking database **1100**. The agreement product **1120** and the agreement price **1130** associated with a record are defined by the agreement between the controller **200** and the customer which is the subject of the record. The quantity remaining **1140** indicates the quantity of the agreement product still to be redeemed under the associated agreement. Accordingly, if no redemption has occurred under an agreement, the quantity remaining **1140** is equal to the quantity specified under the agreement. The quantity remaining field **1140** may be updated based on redemption information relating to a product redemption, as will be described in detail below. The retailer identifier **1150** identifies the retailer at which the customer is directed to redeem the agreement product under the agreement. The retailer identifier **1150** may be used in conjunction with retailer identifier **810** of the retailer database **800** to obtain data of an associated retailer from the retailer database **800**.

[0098] In one embodiment using the redemption tracking database **1100**, a customer presents a redemption identifier to a retailer using any of the methods described in co-pending U.S. application Ser. Nos. 09/540,707 and 08/889,503. The retailer transmits a redemption identifier to the controller **200** and a record is located in the redemption tracking database **1100** by comparing the received redemption identifier with the redemption identifiers **1110**. If the retailer identifier **1150** associated with the located record identifies the retailer from which the redemption identifier was received, the remaining fields of the located record are transmitted back to the retailer, either to the retailer device **300** or to the customer terminal **500**. The retailer then authorizes a redemption of up to the quantity remaining

**1140** of the agreement product **1120** for the agreement price **1130**. If the retailer does not correspond to the retailer identifier **1150** of the located record, the retailer is notified that the redemption is not valid at the retailer, and the retailer is given the option of honoring the agreement. It should be noted that the information stored in the redemption tracking database **1100** may also be stored at a retailer, or that only the information of the redemption tracking database **1100** associated with a particular retailer may be stored at the particular retailer.

#### [0099] Redemption Transaction Database

[0100] FIG. 10 illustrates a tabular representation of a portion of the redemption transaction database **1200**. Fields of the redemption transaction database **1200** specify: i) a redemption identifier **1210**; ii) a retailer identifier **1220**; iii) a product **1230**; iv) a retail price **1240**; v) a quantity redeemed **1250**; vi) a time redeemed **1260**; and vii) additional purchases **1270**. The redemption transaction database **1200** provides information regarding particular redemptions performed according to agreements between customers and the controller **200**. According to embodiments of the invention, the information may be used to determine whether to accept customer offers and/or to determine a retailer to assign to an agreement.

[0101] In this regard, each record in the redemption transaction database **1200** indicates details of a single redemption performed according to an agreement identified by an associated redemption identifier **1210**. In one embodiment, the redemption identifier **1210** is linked to the redemption identifier **1110** of the redemption tracking database **1100** and to the redemption identifier **960** of the customer database **900** in order to easily associate related data. The retailer identifier **1220** identifies a retailer at which the associated redemption occurred, and the product **1230**, the retail price **1240** and the quantity redeemed **1250** indicate self-explanatory details of the associated redemption. However, it should be noted that the retail price **1240** may be different from the associated agreement price **1130**, and the quantity redeemed **1250** may be more than the associated quantity remaining **1140**.

[0102] The time redeemed **1260** specifies a date and time at which the associated redemption occurred, and the additional purchases **1270** indicate any purchases made during the redemption other than that of the product **1230**. It should be noted that the data shown in the redemption transaction database **1200** are examples of some of the types of redemption information relating to a redemption which may be transmitted to the controller **200** after a redemption. Other types of redemption information are set forth below.

#### [0103] Retail Price Database

[0104] Shown in FIG. 11 is a tabular representation of a portion of the retail price database **1300**. In one embodiment, the retail price database **1300** contains data which is updated based on received information relating to a redemption and which is used to determine whether to accept an offer from a customer and to determine an offer to present to a customer. The illustrated portion of the retail price database **1300** includes data relating to a retailer associated with a particular retailer identifier **1310**. Of course, the retail price database **1300** may also include data relating to other retailers.

[0105] The fields shown in FIG. 11 specify: i) a product **1320**; ii) a retail price **1330**; and iii) a time updated **1340**. The product **1320** indicates a product offered by the retailer identified by the retailer identifier **1310**, the retail price **1330** specifies a price for which the product **1320** is sold, and the time updated **1340** indicates a date and time at which the associated retail price **1330** was last updated. As described in more detail below, the retail price **1330** may be updated in response to reception of redemption information indicating a new retail price **1330** for the product, based on redemption information indicating a changed price of a different product, or based on other information.

#### [0106] Market Share Database

[0107] A tabular representation of a portion of the market share database **1400** is shown in FIG. 12. The illustrated portion of the market share database **1400** includes data corresponding to one region **1410**. The market share database preferably includes data corresponding to other regions as well. Each record in the database **1400** includes fields specifying: i) a retailer identifier **1420**; ii) a target market share **1430**; and iii) a present market share **1440**.

[0108] The target market share **1430** associated with a retailer identifier **1420** identifies the percentage of a relevant market which the controller **200** will attempt to provide to the retailer identified by the retailer identifier **1420**. The target market share **1430** may be established by a contract between the retailer and the controller **200**. The relevant market may consist of the market for providing agreement products for redemption under agreements with the controller **200**, the entire market for particular products, or another market.

[0109] The present market share **1440** is determined based on redemption information received by the controller **200**. For example, if half of all redemptions under agreements between customers and the controller **200** occur at one retailer, the present market share **1440** may be **50** percent. Again, the market can be defined in many ways, including based on the number of redemptions, on the amount of money spent during redemptions, or by another market measure.

[0110] Generally, the market share database **1400** may be used to assign a retailer to an agreement. To redeem an agreement product under an agreement, a customer is instructed to visit a retailer assigned to the agreement and to present a redemption identifier to the assigned retailer. Accordingly, in some embodiments, an agreement product may be redeemed under an agreement only at a retailer assigned to the agreement. For example, since, according to FIG. 12, the retailer identified by the retailer identifier **1420** R-4251 is associated with a present market share **1440** greater than the associated target market share **1430**, the controller **200** may determine not to assign the retailer to a particular agreement.

#### Processes

[0111] FIG. 13 is a flow chart of process steps **1500** according to one embodiment of the present invention. In a case that the controller **200** performs the process steps **1500**, the process steps **1500** may be embodied in hardware within the controller **200**, in processor-executable process steps stored on a computer-readable medium such as the data storage device **260** and executed by the processor **210**, in

processor-executable process steps encoded in an electronic signal received by the controller **200** and executed by the processor **210**, or in any combination thereof. It should be noted that the process steps **1500** may be executed, wholly or in part, by processors located in several devices or even manually.

[0112] It should also be noted that each other flow chart of process steps described herein may be similarly embodied. In addition, the particular arrangements of elements in the flow chart of FIG. 13, as well as in the flow charts discussed below, is not meant to imply a necessary order to the steps; embodiments of the present invention can be practiced in many different orders.

[0113] Briefly, the process steps **1500** include arrangement for a customer to redeem a product from a third party, reception of information relating to a redemption of the product by the customer, and determination of whether to accept an offer based on the received information. As a result, the process steps **1500** provide the benefits of redemption at a third party as well as information which may prove useful in evaluation of subsequent offers.

[0114] The process steps **1500** begin at step **S1502**, in which it is arranged for a customer to redeem a product from a third party retailer. The arrangement in step **S1502** may occur in any number of ways, such as those described in co-pending application Ser. Nos. 08/889,503 and 09/540,707. For example, an entity operating the controller **200** may enter into a legal contract with a third party retailer to have the third party retailer provide redemption services to customers directed to the retailer by the entity. In one embodiment, the controller **200** enters into an agreement with Exxon allowing customers to redeem an agreement product at any Exxon retailer. In addition, the arrangement in step **S1502** may comprise notifying a third party retailer of a redemption identifier provided to the customer, with an understanding that the retailer will provide redemption to any customer presenting the redemption identifier to the retailer. Moreover, step **S1502** may include informing a customer of a particular retailer at which the customer should redeem an agreement product under an agreement, without any contact between the controller **200** and the retailer.

[0115] Next, in step **S1504**, redemption information is received relating to redemption of the product. It should be noted that, in one embodiment, the customer has presented, prior to step **S1504**, a redemption identifier to the third party retailer and, in response, the retailer has provided the product to the customer. The redemption information is transmitted to the controller **200** before, during, or after this redemption.

[0116] The received redemption information may be obtained by the retailer from any of several sources. As mentioned above, the redemption information received in step **S1504** may include information regarding the particular product redeemed, the quantity of the product redeemed, the location at which the redemption took place, the retailer at which the redemption took place, the date on which the redemption took place, the time at which the redemption took place, the retail price of the redeemed product at the time the redemption took place, the amount of time required to complete the redemption, the weather at the time of the redemption, the name of the retailer employee assisting with

the redemption, the type of product (e.g. gasoline, 87 octane gasoline), the total amount of money charged to the customer by the retailer, a description of any other purchases, and a total amount charged to the customer for the other purchases.

[0117] The redemption information may be received by the controller **200** in step **S1504** in many ways. The redemption information may be received directly from the retailer device **300** or from the customer terminal **400**. In another example, the controller **200** may issue a special card to a customer which encodes information identifying the customer. The card operates as a credit card over a fleet card system configured to capture information associated with transactions performed using fleet credit cards. Accordingly, each time a customer redeems a product using the fleet credit card, the information is automatically sent to the controller **200**. The information may be sent in real-time or it may be time delayed. The information may be sent for each redemption separately, or it may be sent in a batch along with information relating to other redemptions. Moreover, the redemption information may be sent by another party such as a credit or debit card network administrator or a credit card clearing house.

[0118] The redemption information may also be received from the customer in step **S1504**. In this regard, the customer may be instructed to telephone the controller **200** or to otherwise access the controller **200** using a customer device and to report a current retail price of a product at a retailer. The customer may be provided with an incentive to report the price, such as a price discount or other incentive. The customer may also accumulate discounts based on a number of prices reported.

[0119] Returning to the process steps **1500**, flow continues from step **S1504** to step **S1506**, wherein stored information is updated based on the received redemption information. The update in step **S1506** may simply include storing the received redemption information in the redemption tracking database **1100** along with a redemption identifier **1110** identifying the redemption. The controller **200** may use received price information to update data in the retail price database **1300**, specifically the retail price **1330** and the time updated **1340** associated with a particular product **1320**. Additionally, the controller **200** may use received price information to compute a new average retail price based on a last five received retail prices and to store the computed average retail price in step **S1506**.

[0120] Information relating to a redemption of a product at a retailer may also be used to update information stored with respect to another retailer in step **S1506**. In this regard, historical data may show that two retailers charge identical prices for a particular product. For example, two such retailers may belong to a same retail chain and be located in a same geographic region. If a retail price charged by one of the retailers is received in step **S1504**, this information may be used to update the portion of the retail price database **1300** storing the retail price **1330** associated with the second retailer. Similarly, if historical data indicates that the second retailer charges three cents more for the product than the first retailer, the portion of the retail price database **1300** associated with the second retailer is updated by adding three cents to the retail price information received from the first retailer and by storing the sum in the appropriate record of the retail price field **1330**.

[0121] Redemption information relating to one product may be used to update information relating to another product in step S1506. As an example, historical data may indicate that a retail price for 89 octane gasoline is ten cents higher than a retail price for 87 octane gasoline at a particular retailer. Therefore, upon receiving redemption information in step S1504 indicating that a retail price of 87 octane gasoline at a time of redemption was \$1.50 per gallon, the controller 200 updates the retail price 1330 associated with the retailer and with 87 octane gasoline to reflect \$1.50 per gallon, and also updates the retail price 1330 associated with the retailer and with 89 octane gasoline to reflect \$1.60 per gallon.

[0122] Updating stored information based on received redemption information in step S1506 may also include adding new information to stored information already stored in the controller 200. For example, upon receiving redemption information relating to redemption of a product in step S1504, it is noted that the retailer at which the product was redeemed is not represented in any of the databases of the data storage device 260. Therefore, the controller 200 creates records in the retailer database 800, the retail price database 1300, and the market share database 1400 corresponding to the retailer.

[0123] The received redemption information may also be used in step S1506 to update stored information associated with a customer. In this regard, a received redemption quantity can be used to calculate an average quantity redeemed by the customer per visit, per other event, or per time period, which may then be stored in association with the customer. The received information may also be used to identify a retailer at which the customer most often redeems agreement products, which may also be stored in association with the customer.

[0124] The present market share 1440 of the market share database 1400 may be updated in step S1506 using received redemption information. Specifically, redemption information identifying a retailer at which a redemption took place will likely affect the present market share 1440 of each retailer identified by the retailer identifiers 1420 in the market share database 1400. As described above, the market share tracked by the market share database 1400 may relate to a number of visits, a total amount spent by customers redeeming products, a total amount of products sold, or the like.

[0125] In another example, a retail price received from a retailer in step S1504 indicates that, based on the retailer tier database 1000, the retailer is assigned to an incorrect price tier. Accordingly, in step S1506, the tier 860 associated with the retailer in the retailer database 800 is correspondingly updated.

[0126] After step S1506, an offer is received in step S1508. The offer may be received by the controller 200 from the customer involved in steps S1502 and S1504, or from a second customer. The offer may be received in any manner, including those specified in application Ser. Nos. 08/889,503 and 09/540,707. As described in Ser. No. 09/540,707, a customer may utilize the customer device 100 or the customer terminal 500 (specifically the offer transmission device 600) to initiate communication with the controller 200. The customer then submits an offer to purchase an offer product for an offer price. The offer may include a number

of units of the offer product, a maximum number of units that may be redeemed at one time, and/or other terms. Although the process steps 1500 assume that the received offer is binding on the customer if accepted by the controller, it should be noted that in other embodiments, the offer is not binding on the customer.

[0127] After the offer is received in step S1508, it is determined, in step S1110, whether to accept the offer based on the redemption information received in step S1504. It should be noted that since stored information may be updated using the received redemption information, the determination of step S1510 includes determinations based on the updated stored information.

[0128] The determination in step S1510 may proceed in any of the manners described in application Ser. No. 09/540,709. For example, an offer may be received in step S1508 to purchase 20 gallons of 87 octane gasoline for \$1.25 per gallon. In step S1510, the controller 200 identifies that, according to the retail price database 1300, the retailer identified by the retailer identifier 1310 R-4251 currently sells 87 octane gasoline for a retail price 1330 of \$1.48 per gallon. Assuming that the controller 200 is instructed to accept any offer prices up to thirty cents below the currently available retail price, it is determined in step S1510 to accept the offer received in step S1508.

[0129] Of course, redemption information other than a retail price may be used in the determination of step S1510. The controller 200 may accept an offer based on information such as an average additional purchase amount made at a retailer, promotions available at a retailer, a target market share corresponding to a retailer, a present market share possessed by a retailer, a time of day (week, month) at which customer volume at a retailer is high or low, most recent retail prices for related products at each retailer, purchasing history of the customer, offers made by each customer, information relating to offers made by each customer, redemption history of each customer, date and time of a past redemption, a number of units redeemed during a previous redemption, or an average retail price of a product at all retailers.

[0130] As another example of step S1510, an offer may be received to purchase a product at a particular gasoline retailer. However, according to the retail price database 1300, over one month has elapsed since a retail price 1330 of the product 1320 was last updated. Accordingly, the controller 200 analyzes all retail prices received in the last six months for the particular retailer to determine the volatility of prices at the retailer, and, using the volatility information and information indicating a time elapsed since a last receipt of retail prices for the retailer, the controller 200 estimates current retail prices at the retailer. The estimated current retail prices are then compared with the offer price to determine whether to accept the offer. The estimation may also take into account factors such as volatility of prices at other retailers.

[0131] It may be determined to accept the offer in step S1510 simply to obtain a source of retail price feedback for the gasoline retailer if it is determined that too much time has elapsed since a last update of retail prices of the retailer. Moreover, if it is known that fuel prices have been increased by the Organization of Petroleum Exporting Countries (OPEC) since a last time updated 1340 corresponding to the

product **1320**, the price increase may be used to estimate a current retail price **1330** of the product **1320**.

[**0132**] The determination in step **S1510** may also be based on a previous offer price and a retail price at a time of redemption. In one example, a previous offer to purchase 40 gallons of 87 octane gasoline for \$1.20 per gallon was accepted at a time that the corresponding retail price was \$1.30 per gallon. The offer was accepted because the controller **200** was instructed to accept offers specifying an offer price of at most 10 cents per gallon less than a current retail price. Such an instruction may exist to limit costs to the controller **200** in a case that the controller **200** is required to pay any difference between offer prices and retail prices at a time of redemption to the retailer providing the redemption.

[**0133**] However, after redemption of a first 10 gallons of the 40 gallons, received redemption information indicates that the current retail price of 87 octane gas has risen to a \$1.50 per gallon. Because of the discrepancy between the offer price and the current retail price, the acceptable difference between the offer price and the retailer price is decreased to 5 cents. Accordingly, if a next offer received in step **S1508** specifies an offer price of \$1.43 per gallon for 87 octane gas, it is determined in step **S1510** not to accept the offer. Flow then returns to step **S1508**. In another embodiment, the controller **200** indicates to the customer that the offer would be accepted if the offer price is raised by two cents and flow returns to step **S1508**.

[**0134**] After step **S1510**, a retailer to assign the agreement to is determined based on the redemption information. For example, the assigned retailer may be a retailer having a lowest retail price **1330** associated with offer product **1320**. In embodiments where the controller **200** pays the retailer a difference between the offer price and the retail price, such a method minimizes an amount of money paid from the controller **200** to a retailer. Other methods utilizing redemption information to determine assigned retailers in step **S1512** are described in application Ser. Nos. 09/540,709 and 08/889,503, and also below with respect to FIG. 17.

[**0135**] Flow returns from step **S1512** to step **S1502** to arrange redemption of the offer product at the assigned retailer. It should be noted that in other embodiments flow proceeds from step **S1510** to step **S1504**, because arrangements have been previously made with the retailer to provide redemption to customers of the controller **200** and therefore there is no need to rearrange such redemption with the retailer.

[**0136**] FIG. 14 illustrates process steps **1600** according to one embodiment of the present invention. Specifically, the process steps **1600** describe one embodiment of step **S1506** of the process steps **1500**. The process steps **1600** are, in one embodiment, embodied in the program **500** and executed by the processor **210** of the controller **200**. Of course, the process steps **1600** may be stored and executed wholly or in part by other devices, such as devices in communication with the controller **200**.

[**0137**] The process steps **1600** begin at step **S1602**, in which a database record from the redemption tracking database **1100** is retrieved based on a redemption identifier received with redemption information in step **S1504**. To illustrate an example of step **S1602**, FIG. 15A shows a

record of the redemption transaction database **1200** including redemption information received in step **S1504**. Based on the redemption information, and primarily based on the redemption identifier **1210** RED **1234**, the record of the redemption tracking database **1100** shown in FIG. 15B is retrieved in step **S1602**.

[**0138**] Next, in step **S1604**, it is determined whether a retailer is identified in the retrieved record. Step **S1604** is used because, in some embodiments, no retailer is initially assigned to an agreement. That is, a customer is not directed to a specific retailer upon acceptance of an offer from the customer. Rather, the customer is allowed to initially redeem an agreement product under an agreement from any particular retailer. However, after an initial redemption, the customer must redeem the agreement product under the agreement at the retailer which provided the initial redemption. If it is determined in step **S1604** that a retailer identifier **1150** is present in the retrieved record, flow proceeds to step **S1608**. If not, a retailer identifier included in the received redemption information is recorded in the retrieved record of the redemption tracking database **1100** in step **S1606**.

[**0139**] In the current example, no retailer identifier **1150** exists in the retrieved record. Accordingly, the retailer identifier field **1150** in the retrieved record is populated with the retailer identifier R-3252 in step **S1606** and flow continues to step **S1608**.

[**0140**] A record of the market share database **1400** is retrieved based on a region indicated by the received redemption information in step **S1608**. For example, the received redemption information shown in FIG. 15A reflects the retailer identifier **1220** R-3252. According to the retailer database **800**, the retailer identifier **810** R-3252 is associated with region **870**"A". Therefore, in step **S1608**, a portion of the market share database **1400** corresponding to region **1410**"A" is retrieved. FIG. 15C shows the portion of the market share database **1400** retrieved in step **S1608** according to the current example.

[**0141**] The present market share **1440** for each record in the retrieved portion of the market share database **1400** is recalculated and updated based on the received redemption information in step **S1610**. As described above, the market share may reflect a number of redemptions under agreements between customers and the controller **200**, a number of gallons redeemed at a retailer in relation to a total number of gallons redeemed under such agreements, or some other market. FIG. 15D shows the present market share **1440** of each record as recalculated and updated according to step **S1610**.

[**0142**] Next, in step **S1612**, a quantity remaining **1140** in the redemption tracking database **1100** is updated based on the received redemption information. As shown in FIG. 15A, the quantity redeemed **1250** according to the received redemption information was 10.5 gallons. Accordingly, 10.5 gallons are subtracted from the quantity remaining **1140** shown in the redemption tracking database **1100**. The updated record of the redemption tracking database is shown in FIG. 15E. As shown, the quantity remaining **1140** in the record is equal to  $(40-10.5)=29.5$  gallons. FIG. 15E also shows the retailer identifier **1150** as updated according to step **S1606**.

[**0143**] In step **S1614**, a record of the retail price database **1300** is retrieved based on the received information, and

specifically based on the retailer identifier **1220** and product **1230**. FIG. **16A** shows a sample record of the redemption transaction database **1200** which will be used to describe one example of step **S1614**. In other words, for the purposes of the foregoing example of steps **S1614** and **S1616**, it is assumed that the redemption information received prior to step **S1602** included the data shown in the record of FIG. **16A**. Based on the retailer identifier **1220** and the product **1230** shown in FIG. **16A**, the record of the retail price database **1300** shown in FIG. **16B** is retrieved in step **S1614**. In step **S1616**, the retail price **1330** and the time updated **1340** of the retrieved record are updated. FIG. **16C** shows the record of FIG. **16B** as updated with the data of FIG. **16A** in step **S1616**. Specifically, the retail price **1330** for the product **1320**, 87 octane, has been changed from \$1.48 per gallon to \$1.50 per gallon, in the time updated **1340** has been changed from Feb. 14, 2003, 14:53 to Feb. 15, 2003, 17:35. The process steps **1600** terminate after step **S1616**. Of course, methods other than the process steps **1600** may be used to perform step **S1506** of the process steps **1500**.

[**0144**] FIG. **17** illustrates process steps **1700** according to one embodiment of the present invention. Specifically, the process steps **1700** reflect process steps of one embodiment of steps **S1510** and **S1512** of the process steps **1500**. Flow begins at step **S1702**, in which an offer is received from a customer including at least an offer price and a specified grade of gasoline. For example, in step **S1702**, the controller **200** may receive from the customer device **100** data indicating an offer to purchase 87 octane gasoline for \$1.55 per gallon. Next, in step **S1704**, a region associated with the customer is determined. As shown in the customer database **900**, a region **940** is associated with each customer identifier **910** therein. Accordingly, a region may be determined in step **S1704** by reference to a customer identifier identifying the customer and to an appropriate record of the customer database **800**.

[**0145**] Based on the region determined in step **S1704** and the grade received in step **S1702**, records specifying lowest acceptable offer prices are retrieved in step **S1706**. FIG. **18** shows records of the retailer tier database **1000** retrieved according to step **S1706**. As shown, the records correspond to region **1010**"A" and to 87 octane gasoline. After the records are retrieved in step **S1706**, it is determined in step **S1708** whether the received offer price is acceptable in the "low" tier **1020** reflected in the records. According to the data shown in FIG. **18**, the lowest acceptable offer price **1030** corresponding to the retailer tier **1020**"low" is \$1.00 per gallon. Since the offer price received in step **S1702** (\$1.55 per gallon) is greater than \$1.00 per gallon, it is determined in step **S1708** that the offer price is acceptable in the "low" tier **1020** and flow proceeds to step **S1712**. If the received offer price in the present example was less than \$1.00 per gallon, flow would proceed from step **S1708** to step **S1710**. In step **S1710**, a rejection of the received offer is presented to the customer, for example by transmitting a message from the controller **200** to the customer device **100** used to submit the offer.

[**0146**] Returning to step **S1712**, acceptable retailer tiers are therein determined based on the retrieved records and on the received offer price. In one embodiment, the determination in step **S1712** simply involves comparing the received offer price to each of the lowest acceptable offer prices **1030**. A retailer tier **1020** is determined to be an

unacceptable retailer tier if its associated lowest acceptable offer price **1030** is greater than the received offer price. According to the present example, each of retailer tiers **1020**"high", "medium", and "low" are determined in step **S1712** to be acceptable retailer tiers. On the other hand, if the received offer price were \$1.40 per gallon, the acceptable retailer tiers **1020** determined in step **S1712** would be "medium" and "low".

[**0147**] The retailer database **800** is retrieved in step **S1714**. Then, in step **S1716**, conforming retailers are determined based on the region determined in step **S1704** and the acceptable retailer tiers determined in step **S1712**. A conforming retailer is a retailer associated with the determined region and with one of the acceptable retailer tiers. In the example described above, the acceptable retailer tiers were determined to be "high", "medium", and "low". Based on the data of the retailer database **800** shown in FIG. **6**, three retailers, identified by retailer identifiers **810** R-3252, R-9665 and R-4251, are associated with region **870**"A" and one of the acceptable retailer tiers.

[**0148**] Once the conforming retailers are determined in step **S1716**, a portion of the market share database **1400** corresponding to the subject region is retrieved in step **S1718**. A portion of the market share database **1400** corresponding to the region **1410**"A" which may be retrieved in step **S1718** is shown in FIG. **12**. Based on information in the market share database **1400**, assigned retailers are determined in step **S1720**. Assigned retailers are those retailers at which the customer may redeem an agreement product. For example, the portion of the market share database **1400** shown in FIG. **12** reflects records corresponding to the conforming retailers. For each record shown, the target market share **1430** is compared to the present market share **1440**. In the present example, the target market share **1430** is greater than the present market share **1440** only in the record associated with the retailer identifier **1420** R-3252. Accordingly, each other retailer reflected in the database **1400** is understood to possess more market share than allotted. It is therefore determined in step **S1720** that the assigned retailer is the retailer identified by the retailer identifier **1420** R-3252, or, according to the retailer database **800** of FIG. **6**, "Amoco #36".

[**0149**] The controller **200** may also assign a retailer to an agreement in step **S1720** if no redemption information has been received from that retailer for a certain period of time, or if an amount of redemption information received relating to the retailer is low.

[**0150**] After step **S1720**, an acceptance of the received offer and the assigned retailer (or retailers) are presented to the customer. In one embodiment of step **S1720**, data is transmitted to the customer device **100** using which an offer was submitted by the customer, the data indicating that the offer has been accepted, the offer price, the specified grade, the specified amount, if any, and the assigned retailers. Also presented to the customer in step **S1722** may be a map and/or directions to the assigned retailers.

#### Additional Embodiments

[**0151**] The following are several examples which illustrate additional embodiments of the present invention. These examples do not constitute a definition of all possible embodiments, and those skilled in the art will understand

that the present invention is amenable to many other embodiments. Further, although the following examples are briefly described for clarity, those skilled in the art will understand how to make any changes, if necessary, to the above-described system to accommodate these and other embodiments and applications.

[0152] According to one additional embodiment, received redemption information is used to determine an offer to present to a customer. For example, if received redemption information indicates that prices at a particular gasoline station or other type of retailer are much lower than prices at other retailers in a same or nearby region, the controller 200 may determine an offer including a sale price and a product, and present the offer to customers by broadcasting messages to electronic mail accounts, to publicly-available kiosks, via web pages, or the like. Upon accepting such an offer, the customer would be bound to the resulting agreement.

[0153] As described in detail in application Ser. No. 09/540,709, cross subsidy offers may be used by the controller 200 in determining whether to accept a customer offer. Moreover, suitability of a particular cross subsidy offer may depend upon received redemption information. For example, if a cross subsidy offer is available to make up a \$0.10 difference between an offer price and a retail price, the cross subsidy offer may be used if received redemption information indicates that a current retail price is less than \$0.10 above the offer price.

[0154] The customer may also be prompted with survey questions relating to, for example, service quality, cleanliness of the retailer, etc., at the time of the redemption, with the answers being transmitted to the controller 200 using a customer device or other devices. Answers to the questions could then be incorporated into the determination of step S1510 and/or step S1512.

[0155] The received redemption information could be used to update information presented to subsequent customers. For example, in a case that received redemption information indicates that prices at a particular retailer are much higher than at other retailers, the particular retailer may not be presented to customers as a potential assigned retailer. In another example, updated pricing information may be used to determine a current average retailer price for a group of retailers, and, if received redemption information indicates that a particular retailer's prices are much lower than the current average retail price, the retailer is presented to the customer with an indication that the retailer will likely be an assigned retailer if an offer submitted by the customer is accepted.

[0156] In other embodiments, redemption information is filtered prior to reception thereof by the controller 200. Such filters may be implemented at the retailer level or at the fleet card network level, in which the network controls what information is transmitted to the controller 200. Alternatively, all information may be transmitted to the controller 200, which determines what information is actually stored, used to update stored information and/or used in a decision-making process such as step S1510. For example, redemption information may only be sent to or used by the controller 200 if a retail price reflected by the information is greater than or less than 10 percent of an average retail price or if the customer has made additional purchases in addition to redemption of an agreement product.

[0157] In a case that received redemption information includes information about items purchased during a redemption in addition to the agreement product, the information may be used to track an amount of extra revenue that the controller 200 generates for the retailer. Such information may be useful for negotiating payment and/or settlement terms between the retailer and the controller 200.

[0158] The acceptability of a customer's offer may be affected by the customer's history of providing redemption information to the system. For example, if a customer consistently redeems a product from a retailer on particular days and/or at particular times such that the controller 200 relies on redemption information generated by the customer, the controller 200 may be willing to accept an offer price from the customer which would not be accepted from another customer having a different customer history.

[0159] A system according to the invention may also, based on received redemption information, offer an upsell to a customer in response to an offer from the customer. For example, if a customer offers to purchase 87 octane gasoline for \$1.25 per gallon and, according to received redemption information, the retail prices of 87 octane gasoline and 89 octane gasoline are \$1.26 per gallon and \$1.30 per gallon, respectively, the controller 200 may inform the customer that the customer may establish an agreement to purchase 89 octane gasoline upon increasing the offer price by five cents. Alternatively, if the customer's offer price is lower than a lowest acceptable price for the offer product, the system may offer to provide a lower-valued substitute product for the offer price.

[0160] Received redemption information may also be used to adjust a default agreement quantity. In this regard, a customer owning a small car may be required to purchase gallons by the tankful, with a tankful being defined as 10 gallons. If received redemption information indicates that an average number of gallons redeemed by customers owning a small car is 8.25 gallons, a tankful may be redefined as 8.25 gallons or some other amount.

[0161] Although the present invention has been described with respect to particular embodiments, those skilled in the art will note that various substitutions and modifications may be made to those embodiments without departing from the spirit and scope of the present invention.

What is claimed is:

1. A method comprising:

arranging for a customer to redeem a product from a third party;

receiving, via a communication network, information relating to a redemption, of the product and by the customer, that has occurred, wherein the information at least comprises information indicative of (i) a retail price of the product during the redemption and (ii) an amount of the product redeemed at the redemption; and

determining an offer based on the received information; and

presenting the offer to a second customer.

2. A method according to claim 1, wherein the information further comprises a time of the redemption.

3. A method according to claim 1, wherein the information further identifies the third party.

4. A method according to claim 1, wherein the information further comprises information concerning other products purchased during the redemption.

5. A method comprising:

arranging for a customer to redeem a product from a third party;

receiving, via a communication network, information relating to a redemption, of the product and by the customer, that has occurred, wherein the information at least comprises information indicative of (i) a retail price of the product during the redemption and (ii) an amount of the product redeemed at the redemption; and

determining, based on the received information, an assigned third party at which an agreement product may be redeemed.

6. A method according to claim 5, further comprising receiving an offer to purchase the agreement product.

7. A method according to claim 6, wherein the offer is received from the customer.

8. A method according to claim 7, wherein the agreement product and the product are a same product.

9. A method according to claim 6, wherein the offer is received from a second customer.

10. A method according to claim 9, wherein the agreement product and the product are a same product.

11. A method according to claim 5, wherein the information further comprises a time of the redemption.

12. A method according to claim 5, wherein the information further identifies the third party.

13. A method according to claim 5, wherein the information further comprises information concerning other products purchased during the redemption.

14. A method according to claim 5, wherein the determining step comprises comparing a present market share associated with the third party to a target market share associated with the third party.

15. A method for a sales transaction, comprising:

receiving a redemption identifier from a customer;

providing a product to the customer according to an agreement associated with the redemption identifier;

transmitting, via a communication network, information relating to the providing step to an entity, the information indicating that the product has been provided to the customer; and

receiving authorization from the entity to provide a product according to a second agreement, the authorization based on the transmitted information.

16. A method for redeeming a product, comprising:

receiving a redemption identifier;

presenting the redemption identifier to a product retailer;

redeeming a product from the product retailer based on the redemption identifier; and

transmitting, via a communication network, redemption information to a third party for use in determining to accept a received offer, the redemption information relating to a redemption of the product that has occurred.

17. A method for a sales transaction, comprising:

arranging for a customer to redeem a product from a retailer;

receiving, via a communication network, information relating to a redemption, of the product and by the customer, that has occurred;

receiving an offer to purchase an offer product from a second customer; determining to accept the offer based on the received information;

determining an assigned retailer at which the offer product may be redeemed based on the received information; and

transmitting an acceptance of the offer and an indication of the assigned retailer to the second customer.

18. A method according to claim 17, wherein the step of determining an assigned retailer comprises comparing a present market share associated with a conforming retailer to a target market share associated with the conforming retailer.

19. A system comprising:

a controller comprising:

a controller memory storing processor-executable controller process steps; and

a controller processor;

wherein the controller processor is operative with the controller process steps to: i) transmit a redemption identifier to a customer for use in redeeming a product at a retailer; ii) receive information relating to a redemption, of the product and by the customer, that has occurred; iii) receive an offer to purchase an offer product from a second customer; iv) determine to accept the offer based on the received information; v) determine an assigned retailer at which the offer product may be redeemed based on the received information; and vi) transmit an acceptance of the offer, an indication of the assigned retailer, and a second redemption identifier to the second customer;

a retailer device comprising:

a retailer device memory storing processor-executable retailer device process steps; and

a retailer device processor;

wherein the retailer device processor is operative with the retailer device process steps to: i) receive the redemption identifier from the customer; ii) determine whether to provide a redemption based on the redemption identifier; and iii) authorize redemption of the product by the customer; and

a customer device comprising:

a customer device memory storing processor-executable customer device process steps; and

a customer device processor;

wherein the customer device processor is operative with the customer device process steps to: i) submit the offer to purchase the offer product; and ii) receive the acceptance of the offer, the indication of the assigned retailer, and the second redemption identifier.



20. An apparatus comprising:  
 means for preparing for a customer to redeem a product from a third party;  
 means for obtaining information relating to a redemption, of the product and by the customer, that has occurred;  
 means for creating an offer based on the obtained information; and  
 means for transmitting the offer to a second customer.
21. An apparatus comprising:  
 means for preparing for a customer to redeem a product from a third party;  
 means for obtaining information relating to a redemption, of the product and by the customer, that has occurred; and  
 means for identifying, based on the obtained information, an assigned third party at which an agreement product may be redeemed, wherein the means for identifying comprises means for comparing a present market share associated with the third party to a target market share associated with the third party.
22. An apparatus comprising:  
 means for obtaining a redemption identifier from a customer;  
 means for providing a product to the customer according to an agreement associated with the redemption identifier;  
 means for delivering information relating to the providing step to an entity, the information indicating that the product has been provided to the customer; and  
 means for obtaining authorization from the entity to provide a product according to a second agreement, the authorization based on the delivered information.
23. An apparatus for redeeming a product, comprising:  
 means for obtaining a redemption identifier;  
 means for transmitting the redemption identifier to a product retailer;  
 means for obtaining a product from the product retailer based on the redemption identifier; and  
 means for delivering redemption information to a third party for use in determining to accept a received offer, the redemption information relating to the obtainment of the product that has occurred.
24. An apparatus for use in a sales transaction, comprising:  
 means for preparing for a customer to redeem a product from a retailer;  
 means for obtaining information relating to a redemption, of the product and by the customer, that has occurred;  
 means for obtaining an offer to purchase an offer product from a second customer;  
 means for deciding to accept the offer based on the obtained information;
- means for identifying an assigned retailer at which the offer product may be redeemed based on the obtained information; and  
 means for presenting an acceptance of the offer and an indication of the assigned retailer to the second customer, wherein the means for identifying an assigned retailer comprises means for comparing a present market share associated with a conforming retailer to a target market share associated with the conforming retailer.
25. A device comprising:  
 a memory storing processor-executable process steps; and  
 a processor,  
 wherein the processor is operative with the processor-executable process steps to: i) arrange for a customer to redeem a product from a third party;; ii) receive information relating to a redemption, of the product and by the customer, that has occurred; and iii) determine to accept an offer based on the received information.
26. A device according to claim 25, wherein the offer is received from a second customer.
27. A device according to claim 25, wherein the processor is further operative with the processor-executable process steps to determine, based on the received information, a third party at which an offer product may be redeemed according to the accepted offer.
28. A device according to claim 25, wherein the information comprises a retail price of the product during the redemption.
29. A device according to claim 28, wherein the processor is operative with the processor-executable process steps to determine to accept an offer by:  
 calculating a difference between an offer price included in the offer and the retail price; and  
 accepting the offer if the difference is less than a threshold amount.
30. A device comprising:  
 a memory storing processor-executable process steps; and  
 a processor,  
 wherein the processor is operative with the processor-executable process steps to: i) arrange for a customer to redeem a product from a third party;; ii) receive information relating to a redemption, of the product and by the customer, that has occurred; iii) determine an offer based on the received information; and iv) present the offer to a second customer.
31. A device comprising:  
 a memory storing processor-executable process steps; and  
 a processor,  
 wherein the processor is operative with the processor-executable process steps to: i) receive information relating to a redemption, of the product and by the customer, that has occurred; ii) determine, based on the received information, an assigned third party at which an agreement product may be redeemed; and iii) compare a present market share associated with the third party to a target market share associated with the third party.

32. A device for a sales transaction, comprising:  
a memory storing processor-executable process steps; and  
a processor,

wherein the processor is operative with the processor-executable process steps to: i) receive a redemption identifier from a customer; ii) provide a product to the customer according to an agreement associated with the redemption identifier, iii) transmit information relating to the providing step to an entity, the information indicating that the product has been provided to the customer; and iv) receive authorization from the entity to provide a product according to a second agreement, the authorization based on the transmitted information.

33. A device for redeeming a product, comprising:  
a memory storing processor-executable process steps; and  
a processor,

wherein the processor is operative with the processor-executable process steps to: i) receive a redemption identifier, ii) present the redemption identifier to a product retailer, iii) redeem a product from the product retailer based on the redemption identifier, and iv) transmit redemption information to a third

party for use in determining to accept a received offer, the redemption information relating to the redemption of the product that has occurred.

34. A device for a sales transaction, comprising:

a memory storing processor-executable process steps; and  
a processor,

wherein the processor is operative with the processor-executable process steps to: i) arrange for a customer to redeem a product from a retailer; ii) receive information relating to a redemption, of the product and by the customer, that has occurred; iii) receive an offer to purchase an offer product from a second customer; iv) determine to accept the offer based on the received information; v) determine an assigned retailer at which the offer product may be redeemed based on the received information; vi) transmit an acceptance of the offer and an indication of the assigned retailer to the second customer; and vii) compare a present market share associated with a conforming retailer to a target market share associated with the conforming retailer.

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