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(54) **METHODS AND APPARATUS FOR PRESENTING PERSONALIZED INFORMATION TO CONSUMERS IN A RETAIL ENVIRONMENT**

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(57) **ABSTRACT**

Methods and apparatus are provided for presenting personalized information to consumers in a retail environment. A personalized price is determined for at least one product that is in physical proximity to the customer. The physical proximity may be determined, for example, by evaluating identifiers, such as RFID tags, associated with each customer and product. A personalized message can be also presented to a customer regarding at least one product that is in physical proximity to the customer. The personalized message can provide, for example, dietary or safety information relevant to the customer and at least one product in the proximity of the customer. The personalized information may be determined based on one or more personalized message rules.

FIG.   1

FIG. 2

200

PERSONALIZED PRODUCT INFORMATION SERVER

240

DISPLAY

225

NETWORK INTERFACE

TO/FROM NETWORK 150

220

PROCESSOR

250

MEDIA

MEDIA INTERFACE

235

230

MEMORY

CUSTOMER DATABASE — 300

PRODUCT DATABASE — 400

PERSONALIZATION RULEBASE — 500

PERSONALIZED MESSAGE PROCESS — 600

PERSONALIZED PRICING PROCESS — 700

FIG. 3

USER DATABASE – 300

	CUSTOMER IDENTIFIER	CUSTOMER NAME	PURCHASE HISTORY	CREDIT RATING	PREFERENCES
	_350_	_360_	_370_	_380_	_390_
301					
302					
	⋮	⋮	⋮	⋮	⋮
310					

FIG. 4

PRODUCT DATABASE – 400

	PRODUCT IDENTIFIER	DEFAULT PRICE	CAUTIONS
	_450_	_460_	_480_
401			
402			
	⋮	⋮	⋮
410			

FIG. 5

PERSONALIZATION RULEBASE – 500

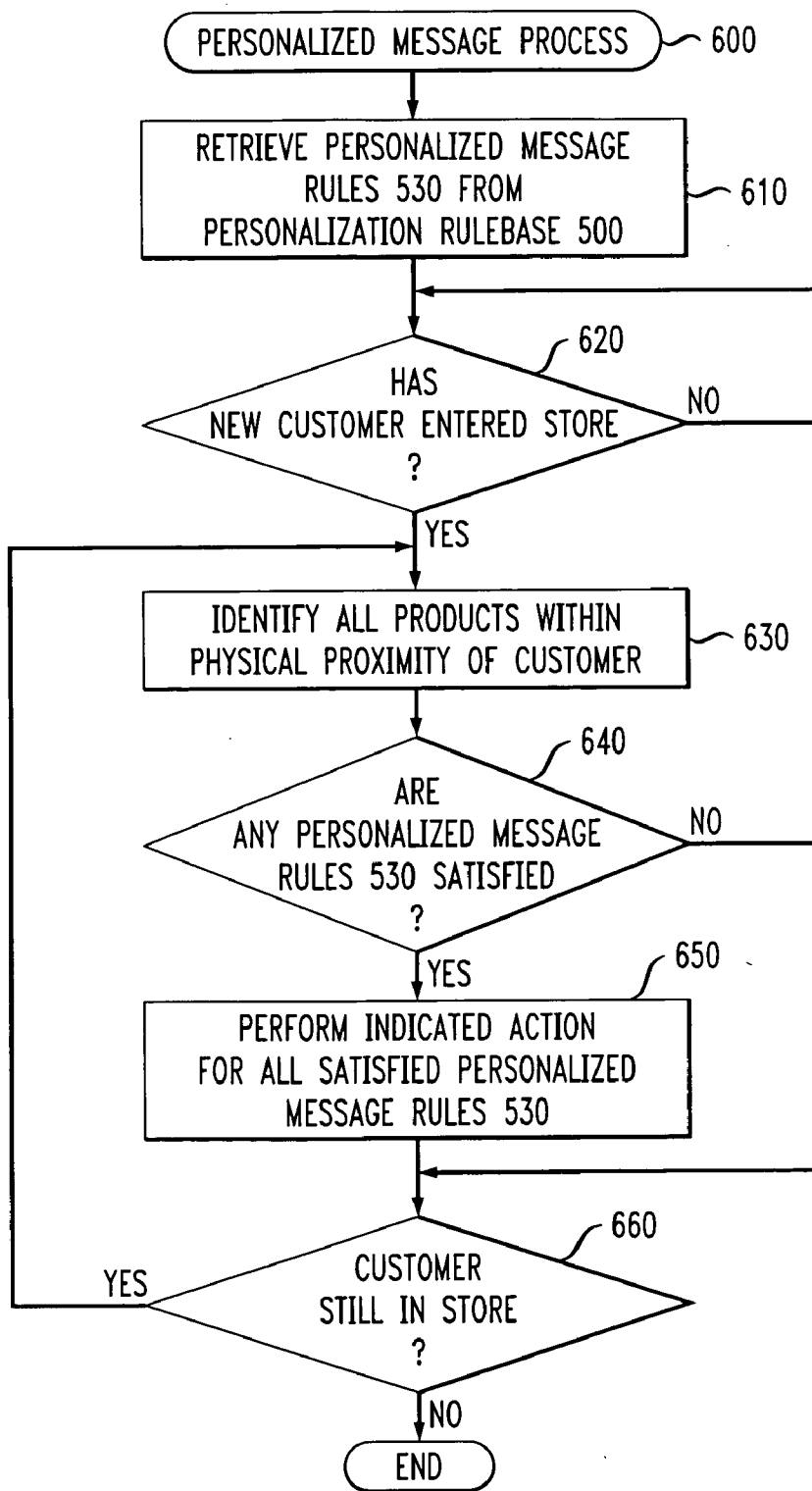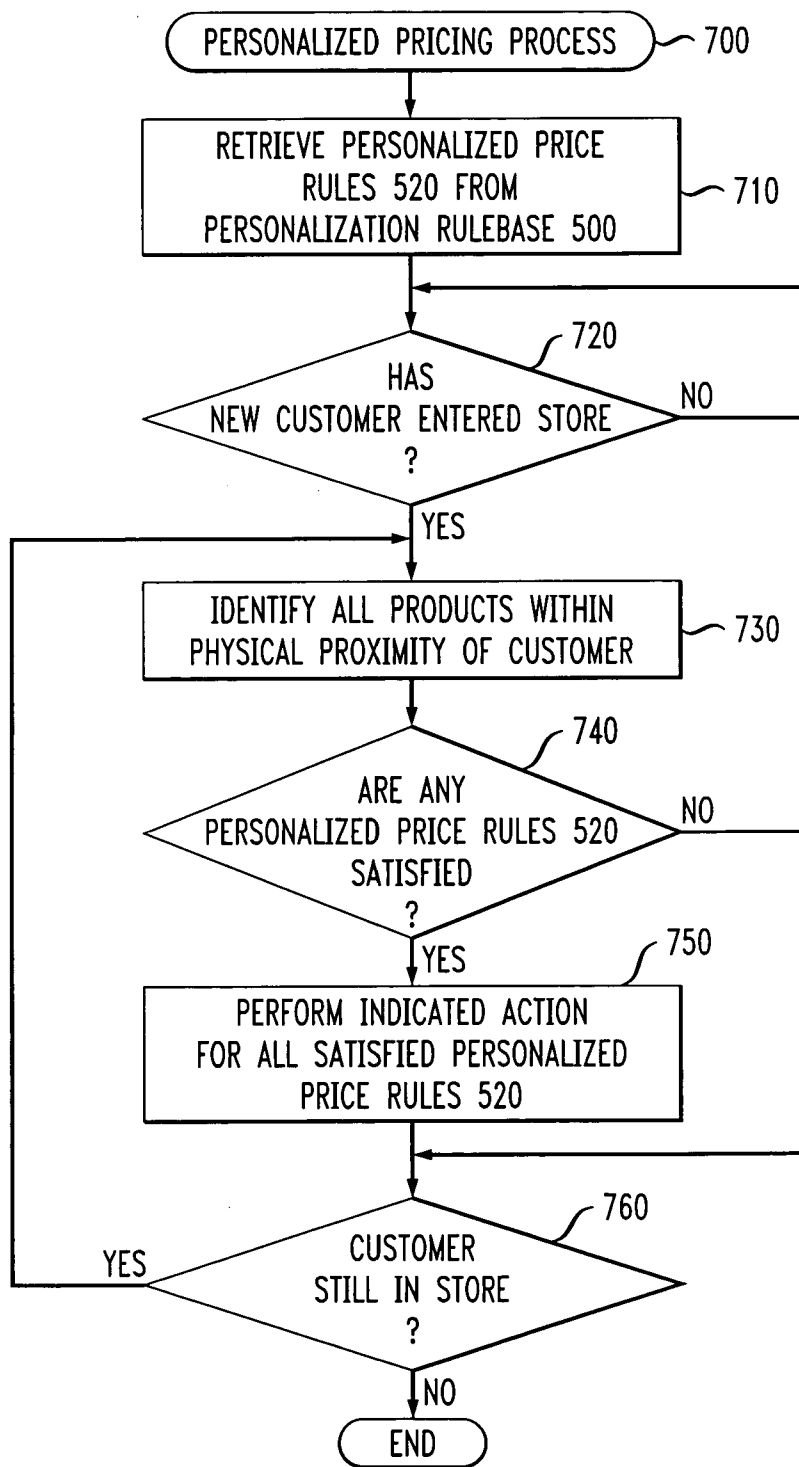|	TRIGGER CONDITIONS — 550	ACTION — 560
501	PRODUCT IS ONE OF {A, C, F, G,...Z} AND CUSTOMER IS MEMBER OF LOYALTY PROGRAM	DISPLAY PRODUCT WITH 10% OFF DEFAULT PRODUCT PRICE
502	CUSTOMER PURCHASES EACH OF PRODUCTS A, B AND C	DISPLAY PRODUCTS A, B, C WITH $1.00 OFF EACH DEFAULT PRODUCT PRICE
503	CUSTOMER HAS PRODUCT A IN CART	DISPLAY PROMOTION TO CUSTOMER "ALSO PURCHASE PRODUCT B AND SAVE 5%"; DISPLAY PRODUCT B AT DISCOUNTED PRICE
504	CUSTOMER HAS CREDIT RATING SCORE ABOVE 90	DISPLAY PROMOTION TO CUSTOMER "PURCHASE PRODUCT F TODAY AND SAVE 15%"; DISPLAY PRODUCT F AT DISCOUNTED PRICE
505	CUSTOMER HAS PREVIOUSLY PURCHASED PRODUCT Q	DISPLAY PROMOTION TO CUSTOMER "PURCHASE PRODUCT R TODAY AND SAVE $5"; DISPLAY PRODUCT R AT DISCOUNTED PRICE
	. . .	. . .
509	CUSTOMER HAS PEANUT ALLERGY AND PLACES PRODUCT A CONTAINING PEANUTS IN SHOPPING CART	DISPLAY WARNING TO CUSTOMER "CAUTION PRODUCT A CONTAINS PEANUTS!!"
510	CUSTOMER HAS INTEREST IN TRIATHALONS	DISPLAY MESSAGE TO CUSTOMER THAT CURRENT ISSUE OF X MAGAZINE HAS SEVERAL ARTICLES ON TRIATHALONS

(501–505 grouped as 520; 509–510 grouped as 530)

FIG. 6

```
      ( PERSONALIZED MESSAGE PROCESS )──── 600
                      │
                      ▼
      ┌─────────────────────────────┐
      │  RETRIEVE PERSONALIZED MESSAGE │
      │       RULES 530 FROM          │──── 610
      │  PERSONALIZATION RULEBASE 500 │
      └─────────────────────────────┘
                      │
                      ▼
                   ╱ 620 ╲
              ╱    HAS       ╲      NO
        ╱ NEW CUSTOMER ENTERED STORE ╲────────┐
              ╲       ?        ╱              │
                   ╲       ╱                  │
                      │ YES                   │
                      ▼                       │
      ┌─────────────────────────────┐         │
      │  IDENTIFY ALL PRODUCTS WITHIN │──── 630 │
      │ PHYSICAL PROXIMITY OF CUSTOMER │        │
      └─────────────────────────────┘         │
                      │                       │
                      ▼                       │
                   ╱ 640 ╲                    │
              ╱    ARE       ╲     NO          │
        ╱ ANY PERSONALIZED MESSAGE ╲──────┐    │
        ╲   RULES 530 SATISFIED    ╱      │    │
              ╲       ?        ╱          │    │
                      │ YES               │    │
                      ▼                   │    │
      ┌─────────────────────────────┐     │    │
      │   PERFORM INDICATED ACTION   │──650│    │
      │ FOR ALL SATISFIED PERSONALIZED │    │    │
      │      MESSAGE RULES 530       │     │    │
      └─────────────────────────────┘     │    │
                      │◄──────────────────┘    │
                      ▼                        │
                   ╱ 660 ╲                     │
    YES      ╱    CUSTOMER   ╲                 │
    ┌───────╱   STILL IN STORE  ╲──────────────┘
    │        ╲       ?        ╱
    │              ╲       ╱
    │                 │ NO
    │                 ▼
    │             ( END )
    └────────────────┘ (to 630)
```

FIG. 7

PERSONALIZED PRICING PROCESS — 700

RETRIEVE PERSONALIZED PRICE
RULES 520 FROM
PERSONALIZATION RULEBASE 500 — 710

720
HAS
NEW CUSTOMER ENTERED STORE
?

NO

YES

IDENTIFY ALL PRODUCTS WITHIN
PHYSICAL PROXIMITY OF CUSTOMER — 730

740
ARE ANY
PERSONALIZED PRICE RULES 520
SATISFIED
?

NO

YES

750
PERFORM INDICATED ACTION
FOR ALL SATISFIED PERSONALIZED
PRICE RULES 520

760
CUSTOMER
STILL IN STORE
?

YES

NO

END

METHODS AND APPARATUS FOR PRESENTING PERSONALIZED INFORMATION TO CONSUMERS IN A RETAIL ENVIRONMENT

FIELD OF THE INVENTION

[0001] The present invention relates to techniques for presenting information, such as marketing information, to individuals and, more particularly, relates to techniques for presenting personalized information, such as personalized pricing, messages and safety warnings, to consumers in a retail environment.

BACKGROUND OF THE INVENTION

[0002] Marketers constantly attempt to reach consumers with current, personalized marketing information. In an online retailing environment, for example, it is often possible for a web site to identify a returning customer using well-known "cookies" that were previously stored on the customer's computer. Once identified, it is possible to greet the customer by name and present the returning customer with personalized marketing information. For example, the web site can present marketing information that is based on the customer's prior purchases or stated interests.

[0003] In a traditional "bricks and mortar" retailing environment, however, it is often more difficult to present customers with personalized marketing information. In a small retailing environment, it may be possible for store employees to greet a frequent customer by name. Even for a recognized customer, however, it is not practical for store employees to follow the customer through the store to present personalized marketing information. Thus, there is currently no effective mechanism for automatically presenting personalized information to a customer in a traditional retail environment.

[0004] Another challenge for traditional retailers is the pricing of products and the display of pricing information. If a retailer has a loyalty card program or other special promotions that create multiple price levels for the same product, the retailer must display the different applicable prices. To further complicate matters, in the case of a discount that applies only if the customer buys a combination of selected products, final product pricing cannot be determined until the customer has finished their purchases. Therefore, the customer won't know the actual price of each item until the cashier processes the transaction. Furthermore, even though most retailers have extensive information about individual customers, they cannot effectively change their prices on an individual basis at the point of purchase. The ability of online retailers to personalize pricing and marketing information provides a competitive advantage.

[0005] A need therefore exists for a method and apparatus for presenting personalized information, such as personalized messages or safety warnings, to a customer in a traditional retail environment. A further need exists for a method and apparatus for presenting personalized prices to a customer in a traditional retail environment.

SUMMARY OF THE INVENTION

[0006] Generally, methods and apparatus are provided for presenting personalized information to consumers in a retail environment. According to one aspect of the invention, a personalized price is determined for at least one product that is in physical proximity to the customer. The physical proximity may be determined, for example, by evaluating identifiers, such as RFID tags, associated with each customer and product. In a further variation, a physical location of a customer may be determined based on biometric information.

[0007] According to another aspect of the invention, a personalized message is determined to present to a customer regarding at least one product that is in physical proximity to the customer. The personalized message can provide, for example, dietary or safety information relevant to the customer and at least one product in the proximity of the customer.

[0008] The personalized information provided by the present invention may be determined, for example, based on one or more personalized message rules. The personalized message rules may include one or more trigger conditions and a corresponding personalized message. The personalized message may be based on one or more attributes of the customer or product (or both).

[0009] A more complete understanding of the present invention, as well as further features and advantages of the present invention, will be obtained by reference to the following detailed description and drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] FIG. 1 is a schematic block diagram of a network environment in which the present invention can operate;

[0011] FIG. 2 is a schematic block diagram of the personalized product information server of FIG. 1 in further detail;

[0012] FIG. 3 is a sample table from an exemplary customer database of FIG. 2;

[0013] FIG. 4 is a sample table from an exemplary product database of FIG. 2;

[0014] FIG. 5 is a sample table from an exemplary personalization rulebase of FIG. 2;

[0015] FIG. 6 is a flow chart describing an exemplary implementation of a personalized message process incorporating features of the present invention; and

[0016] FIG. 7 is a flow chart describing an exemplary implementation of a personalized pricing process incorporating features of the present invention.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

[0017] The present invention provides personalized information to one or more customers 140-1 through '40-N (140-N)(hereinafter, collectively referred to as customers 140) regarding one or more products 110-1 through 110-N (hereinafter, collectively referred to as products 110) that are within the physical proximity of the customer 140. As used herein, the term "physical proximity" may be defined, for example, in terms of physical contact, a specified distance threshold, within the field of the same RFID reader 160, or as a sector, section or aisle of a retail location, such that customers and products in the same sector are said to be within physical proximity of each other.

[0018] The location of each customer **140** may be determined, for example, using a device carried by the customer **140**, such as an RFID tag **145-1** through **145-N** associated with each customer **140**, or through biometric means, such as computer vision techniques to recognize customers **140**. The RFID tag **145-1** through **145-N** may be embodied, for example, as a smart chip embedded in a loyalty program card or credit card. Each RFID tag **145** is configured to return a unique identification (ID) number when the RFID tag **145** is interrogated by one or more base station readers **160**. As discussed hereinafter, the reader **160** is in turn connected to a personalized product information server **200**, discussed further below in conjunction with **FIG. 2**, which may process the information that is returned by the RFID tag **145**. The identification device **160** may be an RFID reader, a bar code scanner or a camera which is used to recognize the customers or product labels.

[0019] The location of each product **110** may be determined, for example, using an RFID tag **115-1** through **115-N** associated with each product **110**, or a bar code associated with each product. A unique RFID tag **115** may be affixed to each unit of a given product, or a single RFID tag **115** can be provided for multiple units of a given product, for example, by mounting an RFID tag **115** on the shelf or pallet where the product is stored. A hierarchy could also be defined to accommodate multiple-level packaging. For example, RFID tags **115** could be affixed to individual pairs of socks as well as to the package of three pairs of socks, so that pricing and inventory may be applied at any level. In a further variation, the location of each product **110** may be determined based on a mapping of the floor space of the retail environment, such that if the location of a customer **140** within the retail environment is known, the products **110** in the vicinity of the customer **140** can be identified.

[0020] The product RFID tags **115-1** through **115-N** may optionally include a display for presenting pricing and additional information to a customer **140**. The product RFID tags **115-1** through **115-N** may be embodied as the RFID display tags commercially available from Telepanel, Inc. The displays can normally present default pricing, as discussed further below in conjunction with **FIG. 3**. In addition, according to one aspect of the present invention, when a customer **140** is determined to be in proximity to a given product **110**, an association would be made between the particular customer **140** and the product **110**. The present invention would then determine whether any personalized message or pricing is applicable for the particular customer **140** and product **110**. If applicable, a personalized message and/or price would be sent to the product **110** using the RFID network **150** and the correct personalized price would be presented to the customer **140**. The network **150** may be embodied as any combination of wired or wireless technologies.

[0021] **FIG. 2** is a diagram illustrating an exemplary personalized product information server **200**. The personalized product information server **200** is a computer system that interacts with media **250**. The personalized product information server **200** comprises a processor **220**, a network interface **225**, a memory **230**, a media interface **235** and an optional display **240**. Network interface **225** allows computer system **210** to connect to a network, while media

interface **235** allows computer system **210** to interact with media **250**, such as a Digital Versatile Disk (DVD) or a hard drive.

[0022] As shown in **FIG. 2** and discussed further below in conjunction with **FIGS. 3 through 5**, the memory **230** stores a customer database **300**, a product database **400** and a personalization rulebase **500**. As is known in the art, the methods and apparatus discussed herein may be distributed as an article of manufacture that itself comprises a computer-readable medium having computer-readable code means embodied thereon. The computer-readable program code means is operable, in conjunction with a computer system such as the personalized product information server **200**, to carry out all or some of the steps to perform one or more of the methods or create the apparatus discussed herein. For example, as discussed further below in conjunction with **FIGS. 6 and 7**, the computer-readable code is configured to implement a personalized message process **600** and a personalized pricing process **700**.

[0023] The computer-readable medium may be a recordable medium (e.g., floppy disks, hard drive, optical disks such as a DVD, or memory cards) or may be a transmission medium (e.g., a network comprising fiber-optics, the worldwide web, cables, or a wireless channel using time-division multiple access, code-division multiple access, or other radio-frequency channel). Any medium known or developed that can store information suitable for use with a computer system may be used. The computer-readable code means is any mechanism for allowing a computer to read instructions and data, such as magnetic variations on a magnetic medium or height variations on the surface of a compact disk.

[0024] Memory **230** configures the processor **220** to implement the methods, steps, and functions disclosed herein. The memory **230** could be distributed or local and the processor **220** could be distributed or singular. The memory **230** could be implemented as an electrical, magnetic or optical memory, or any combination of these or other types of storage devices. Moreover, the term "memory" should be construed broadly enough to encompass any information able to be read from or written to an address in the addressable space accessed by processor **220**. With this definition, information on a network, accessible through network interface **225**, is still within memory **230** because the processor **220** can retrieve the information from the network. It should be noted that each distributed processor that makes up processor **220** generally contains its own addressable memory space. It should also be noted that some or all of computer system **210** can be incorporated into an application-specific or general-use integrated circuit.

[0025] Optional video display **240** is any type of video display suitable for interacting with a human user of apparatus **200**. Generally, video display **240** is a computer monitor or other similar video display.

[0026] **FIG. 3** is a sample table from an exemplary customer database **300** of **FIG. 2**. The customer database **300** records information for each customer. As shown in **FIG. 3**, the customer database **300** is comprised of a plurality of records **301-310**, each associated with a different customer. In one illustrative embodiment, for each customer identified in field **350**, the customer database **300** provides the customer name, purchase history, credit rating, and preferences in fields **360**, **370**, **380** and **390**, respectively.

[0027] For example, the purchase history indicated in field **370** may be stored as a vector containing a binary value indicating whether a customer has ever purchased each potential item, or a counter indicating a number of times a customer has purchased each potential item or item category. The preferences indicated in field **390** may store certain preferences, such as special dietary needs or limitations, that are used to trigger various personalization rules **500**, as discussed further below in conjunction with **FIG. 5**. The dietary needs or limitations may be based, for example, on religious or philosophical food requirements, such as a vegetarian. In addition, the preferences stored in field **390** may store other preferences, such as sizes or color preferences for clothing. The preferences stored in field **390** may also include travel preferences, such room preferences for a hotel, or seat or meal preferences for an airline flight.

[0028] In a further variation, sub-accounts may optionally be created in the customer database **300**. For example, if a "head of household" purchases for an entire family, sub-accounts can optionally be established for each family member to differentiate the preferences of each person. The user preference information stored in the customer database **300** can optionally be automatically adjusted based on a status change. For example, the clothing size or food recommendations for a child may vary with age. In a further variation, food restrictions may vary by date, for example, during a religious holiday, such that certain food restriction are only active during certain periods (such as "no meat" for a Roman Catholic customer during Lent).

[0029] **FIG. 4** is a sample table from an exemplary product database **400** of **FIG. 2**. The product database **400** records information for each product sold by a retailer. As shown in **FIG. 4**, the product database **400** is comprised of a plurality of records **401-410**, each associated with a different product. In one illustrative embodiment, for each product identified in field **450**, the product database **400** provides a default price and cautionary information in fields **460** and **480**, respectively.

[0030] For example, the default price indicated in field **460** may be presented to the customer **140** unless a personalized price is applicable, based on one or more personalization rules **500** (**FIG. 5**). The cautionary information recorded in field **480** may store certain product information, such as dietary warnings, that are used to trigger various personalization rules **500**, as discussed further below in conjunction with **FIG. 5**.

[0031] The product database **400** can optionally accommodate any type of discount, including a percentage discount, a monetary discount (dollars off), or other discounts, such as "buy one get one free," buy one product and get a discount on a second product. Many of these discount and pricing mechanisms are available in today's retail store computer systems and are well understood by those of ordinary skill in the art.

[0032] The display can optionally show the default price as well as any applicable personalized pricing, such as "was $1.99 now $1.25,""your savings are xx,""compare at" or other promotional messages.

[0033] **FIG. 5** is a sample table from an exemplary personalization rulebase **500** of **FIG. 2**. The personalization rulebase **500** stores one or more personalization rules that

are used to provide personalized messages or prices to customers **140** that are in physical proximity to certain products **110**. The content and format of the personalization rules **500** can take any suitable form, as would be apparent to a person of ordinary skill. In addition, the rule-based implementation of the exemplary embodiment is merely meant to illustrate the scope and spirit of the present invention.

[0034] As shown in **FIG. 5**, the exemplary personalization rulebase **500** stores a number of illustrative personalization rules in fields **501** through **510**. In the exemplary embodiment, the personalization rulebase **500** contains a set **520** of personalized pricing rules and a set **530** of personalized message rules. For each personalization rule, the personalization rulebase **500** stores the trigger conditions in field **550** and the corresponding action in field **560** that should be taken when the rule is satisfied.

[0035] For example, the personalized price rule stored in record **502** requires that a customer **140** purchases three products, A, B and C, in order to qualify for a discount. As the customer **140** shops and individually collects the three products, the default pricing may be displayed until the customer **140** has collected all three products. Once the customer **140** has placed the necessary products in his or her shopping cart to satisfy the rule, the personalized pricing can be displayed on each product with the applicable discount. In this manner, the product prices can continuously be updated based on other purchases to allow discounts to be given as certain combinations of products are selected.

[0036] Various personalized message rules **530** can be defined to ensure that customers **140** do not inadvertently purchase products that are inappropriate for the customer, such as the wrong size or inconsistent with dietary needs of the customer. In addition, personalized message rules **530** can be defined to check a consumer profile, e.g., allergy to a specific medicine or food type, against the products in the proximity of the customer. Further personalized message rules **530** can be defined to issue reminders based on past purchases, such as a message indicating to a customer that he or she purchased a 30 day supply of a given vitamin last month and it may be time to purchase additional vitamins, or a message indicating that a previously rented or borrowed item is overdue.

[0037] When a customer **140** is in physical proximity to various products, the present invention automatically checks the products **110** against the customer's preferences as well as any registered needs and allergies. If there is a mismatch or the customer is selecting an inappropriate item, an alert can be given to the customer. The customer can then do a detailed lookup to find out the details of the mismatch on some personal device, such as a cellular telephone or personal digital assistant (PDA). In this manner, information for each customer and item that are in physical proximity can be compared and appropriate personalized product messages, such as personalized pricing, marketing messages or safety messages, can be presented to the customer.

[0038] For example, a pharmacy can deploy the present invention to verify the safety of drugs and other products that are in the physical proximity of a customer. For example, the pharmacy can ensure that a new product does not cause adverse reactions or conflicts with other drugs or products being used by the customer. The application can

compile drug profiles and customer profiles and compare them to determine if the current products cause adverse reactions.

[0039] The present invention optionally incorporates privacy protection features for the identification and preference information. The personal identification information is optionally protected from being read by malicious readers. In addition, the registry information containing personal information can also be protected.

[0040] The personalized information provided in accordance with the present invention can be a service provided to customers for free or with a subscription fee. For example, the service can be provided free if the consumer allows the purchase history information to be used by the registry.

[0041] FIG. 6 is a flow chart describing an exemplary implementation of a personalized message process 600 incorporating features of the present invention. The personalized message process 600 presents applicable personalized messages to customers 140 that are in physical proximity to certain products 110. As shown in FIG. 6, the personalized message process 600 initially retrieves the personalized message rules 530 from the personalization rulebase 500 (FIG. 5) during step 610. A test is performed during step 620 to determine if a new customer has entered the store. Once it is determined during step 620 that a new customer has entered the store, then all products within the physical proximity of the customer are continuously identified during step 630 (as the customer proceeds through the store).

[0042] A test is performed during step 640 to determine if there are any personalized message rules 530 that are satisfied. If there are no satisfied personalized message rules 530, program flow proceeds to step 660, discussed below.

[0043] If there are one or more satisfied personalized message rules 530, the indicated action for all satisfied personalized message rules 530 are implemented during step 650. A further test is performed during step 660 to determine if the customer is still in the store. If the customer is still in the store, program control returns to step 630. If the customer is no longer in the store, program control terminates.

[0044] FIG. 7 is a flow chart describing an exemplary implementation of a personalized pricing process 700 incorporating features of the present invention. The personalized price process 700 presents applicable personalized pricing to customers 140 that are in physical proximity to certain products 110. As shown in FIG. 7, the personalized pricing process 700 initially retrieves the personalized price rules 520 from the personalization rulebase 500 (FIG. 5) during step 710. A test is performed during step 720 to determine if a new customer has entered the store. Once it is determined during step 720 that a new customer has entered the store, then all products within the physical proximity of the customer are continuously identified during step 730 (as the customer proceeds through the store).

[0045] A test is performed during step 740 to determine if there are any personalized price rules 520 that are satisfied. If there are no satisfied personalized price rules 520, program flow proceeds to step 770, discussed below.

[0046] If there are one or more satisfied personalized price rules 520, the indicated action for all satisfied personalized price rules 520 are implemented during step 750. A further test is performed during step 770 to determine if the customer is still in the store. If the customer is still in the store,

program control returns to step 730. If the customer is no longer in the store, program control terminates.

[0047] As is known in the art, the methods and apparatus discussed herein may be distributed as an article of manufacture that itself comprises a computer-readable medium having computer-readable code means embodied thereon. The computer-readable program code means is operable, in conjunction with a computer system to carry out all or some of the steps to perform one or more of the methods or create the apparatus discussed herein. The computer-readable medium may be a recordable medium (e.g., floppy disks, hard drive, optical disks such as a DVD, or memory cards) or may be a transmission medium (e.g., a network comprising fiber-optics, the world-wide web, cables, or a wireless channel using time-division multiple access, code-division multiple access, or other radio-frequency channel). Any medium known or developed that can store information suitable for use with a computer system may be used. The computer-readable code means is any mechanism for allowing a computer to read instructions and data, such as magnetic variations on a magnetic medium or height variations on the surface of a compact disk.

[0048] The functions and processes stored in the memory configure the processor to implement the methods, steps, and functions disclosed herein. The memory could be distributed or local and the processor could be distributed or singular. The memory could be implemented as an electrical, magnetic or optical memory, or any combination of these or other types of storage devices. Moreover, the term "memory" should be construed broadly enough to encompass any information able to be read from or written to an address in the addressable space accessed by the processor. With this definition, information on a network, accessible through a network interface, is still within memory because the processor can retrieve the information from the network. It should be noted that each distributed processor that makes up processor generally contains its own addressable memory space. It should also be noted that some or all of a computer system can be incorporated into an application-specific or general-use integrated circuit.

[0049] It is to be understood that the embodiments and variations shown and described herein are merely illustrative of the principles of this invention and that various modifications may be implemented by those skilled in the art without departing from the scope and spirit of the invention.

What is claimed is:

1. A method for determining a price of a product for a customer, comprising:

   determining a personalized price for at least one product in physical proximity to said customer, said personalized price providing a discount from a regular price.

2. The method of claim 1, wherein said physical proximity is determined based on an identifier associated with said customer.

3. The method of claim 1, wherein a physical location of said customer is determined based on biometric information.

4. The method of claim 2, wherein said identifier associated with said customer is an RFID tag.

5. The method of claim 1, wherein a physical location of said product is determined using an RFID tag associated with said product.

6. The method of claim 1, wherein said determining step determines said personalized price based on one or more personalized price rules.

7. The method of claim 6, wherein said personalized price rules includes one or more trigger conditions and a corresponding price adjustment.

8. The method of claim 1, further comprising the step of displaying a default price for said product until said personalized price is determined.

9. The method of claim 8, further comprising the steps of:

establishing a difference quantity as a function of the default price and the personalized price; and

presenting the difference quantity to said customer.

10. The method of claim 1, wherein said personalized price is based on one or more attributes of said customer.

11. The method of claim 10, wherein said attributes of said customer includes a status of whether said customer belongs to a reward program.

12. The method of claim 10, wherein said attributes of said customer includes a purchase history.

13. The method of claim 10, wherein said attributes of said customer includes customer preferences.

14. The method of claim 1, wherein said personalized price is based on one or more attributes of said product.

15. The method of claim 14, wherein said attributes of said product includes a quantity of said product.

16. The method of claim 14, wherein said attributes of said product includes a selection of said product and one or more specified additional products.

17. The method of claim 1, wherein said physical proximity is determined based on physical contact between said customer and said at least one product.

18. The method of claim 1, wherein said physical proximity is determined based on said customer and said at least one product being within a field of the same RFID reader.

19. The method of claim 1, wherein said physical proximity is determined based on said customer and said at least one product being in the same sector of a given location.

20. A method for determining a message to present to a customer, comprising:

determining a personalized message to present to said customer regarding at least one product in physical proximity to said customer, said personalized message based on one or more attributes of said customer.

21. The method of claim 20, wherein said physical proximity is determined based on an identifier associated with said customer.

22. The method of claim 20, wherein a physical location of said customer is determined based on biometric information.

23. The method of claim 21, wherein said identifier associated with said customer is an RFID tag.

24. The method of claim 20, wherein a physical location of said product is determined using an RFID tag associated with said product.

25. The method of claim 20, wherein said determining step determines said personalized message based on one or more personalized message rules.

26. The method of claim 25, wherein said personalized message rules includes one or more trigger conditions and a corresponding personalized message.

27. The method of claim 20, wherein said attributes of said customer includes a status of whether said customer belongs to a reward program.

28. The method of claim 20, wherein said attributes of said customer includes a purchase history.

29. The method of claim 20, wherein said attributes of said customer includes customer preferences.

30. The method of claim 20, wherein said personalized message is further based on one or more attributes of said product.

31. The method of claim 30, wherein said attributes of said product includes cautionary information.

32. The method of claim 20, wherein said personalized message provides dietary information relevant to said customer and said at least one product.

33. The method of claim 20, wherein said personalized message provides safety information relevant to said customer and said at least one product.

34. The method of claim 20, wherein said physical proximity is determined based on physical contact between said customer and said at least one product.

35. The method of claim 20, wherein said physical proximity is determined based on said customer and said at least one product being within a field of the same RFID reader.

36. The method of claim 20, wherein said physical proximity is determined based on said customer and said at least one product being in the same sector of a given location.

37. A system for determining a price of a product for a customer, said system comprising:

a memory; and

at least one processor, coupled to the memory, operative to:

determine a personalized price for at least one product in physical proximity to said customer, said personalized price providing a discount from a regular price.

38. An article of manufacture for determining a price of a product for a customer, comprising a machine readable medium containing one or more programs which when executed implement the steps of:

determine a personalized price for at least one product in physical proximity to said customer, said personalized price providing a discount from a regular price.

39. A system for determining a message to present to a customer, said system comprising:

a memory; and

at least one processor, coupled to the memory, operative to:

determine a personalized message to present to said customer regarding at least one product in physical proximity to said customer, said personalized message based on one or more attributes of said customer.

40. An article of manufacture for determining a message to present to a customer, comprising a machine readable medium containing one or more programs which when executed implement the steps of:

determining a personalized message to present to said customer regarding at least one product in physical proximity to said customer, said personalized message based on one or more attributes of said customer.

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