

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
28 March 2002 (28.03.2002)

PCT

(10) International Publication Number
WO 02/25538 A1

(51) International Patent Classification⁷: G06F 17/60

(21) International Application Number: PCT/US01/28291

(22) International Filing Date:
12 September 2001 (12.09.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/233,629 18 September 2000 (18.09.2000) US

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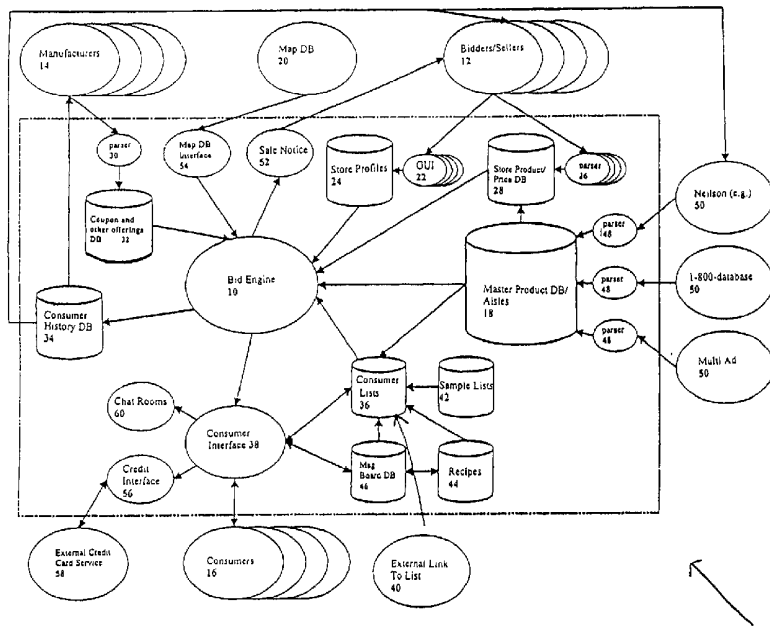
(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report

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

(54) Title: METHOD AND SYSTEM FOR FORMING A LIST-BASED VALUE DISCOVERY NETWORK



(57) Abstract: Embodiments of the present invention describe a network-based reverse auction system value discovery system (1) including at least four major customers: consumers (16), and the three sell-side customers bidder/sellers (12), product manufacturers (14), and advertisers (18) who are not also product manufacturers. Initially, a shopping list (10) is constructed containing e.g., widely available goods (WAGs). The shopping list (10) is the base of the value discovery network and ads significant value for each of the four key customers.



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METHOD AND SYSTEM FOR FORMING A LIST-BASED VALUE DISCOVERY NETWORK

BACKGROUND OF THE INVENTION

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Priority Application

This application claims the benefit of U.S. Provisional Application No.
10 60/233,629, filed September 18, 2000, titled "Method and System for Forming a List-
Based Value Discovery Network," which is incorporated herein by reference.

Field of the Invention

15 The invention is drawn generally to methods and systems for discovering the
value of list-based goods, and more particularly to reverse auction network methods
and systems.

Description of the Related Art

20 There are many firms participating in on-line retailing of groceries, and that
number will grow in the next few years. Current net-based grocery services include
Peapod/Ahold, Groceryworks/Safeway, eGrocer, Priceline Webhouse. Peapod/Ahold
and Groceryworks/Safeway mainly coordinate the delivery of groceries for
consumers. The eGrocer service advertises end-to-end online business solutions for
25 the grocery industry, including among other things software solutions, database
management solutions, and web-hosting solutions. This service is available to
individual grocery stores, who wish to offer their consumers on-line grocery
shopping. This is not a value discovery tool. Priceline Webhouse, now discontinued,

used "name your price" for groceries. Priceline's model was anti-discovery in that the consumer cannot solicit and compare bids; he/she must guess about best price and is committed if that offer is accepted. Priceline defined value as price, forcing the consumer to set aside issues like convenience, time, and future benefits. Focus on price also destroys brand equity, because consumers are encouraged to bid down the branded item. This is a coupon offer that undercuts the coupon's traditional narrow role of building ties between brand and the price-sensitive consumer.

Thus, there is a need in the art for a value-discovery network that revolutionizes and accelerates the market.

10

SUMMARY OF THE INVENTION

Embodiments of the present invention speed up the disappearance of the economic lines between distributor and retailer and between categories of retail using a network that enables consumers to instantly navigate new ranges of choices for obtaining items on their shopping lists.

Embodiments of the present invention include a value discovery system including at least four major customers: shoppers or consumers (referred heretofore as "consumers"), and the three sell-side customers bidder/sellers, product manufacturers, and advertisers who are not also product manufacturers. Initially, a shopping list is constructed containing e.g., widely available goods (WAGs). The shopping list is the base of the value discovery network and ads significant value for each of the four key customers. For consumers, the value discovery system is an easy and convenient way to obtain and feel assured that they have obtained the best deal possible, consistent with their own definition of value. For bidder/sellers, the value discovery system

offers a chance to sell products effectively, e.g., in a manner that maximizes profits while building customer relationships one by one. For product manufacturers, the value discovery system offers a buying channel where marketing and trade promotion of brands, categories, and relationships can be nurtured in direct relationships with
5 customers and their shopping lists, unmediated by the conflicts and inefficiencies of conventional retail channels. For other advertisers, the data-rich value discovery facilitates communication with those who make important household spending decisions, enabling crafted, precise, messages to be delivered to the right audience.

In preferred embodiments of the present invention, the value discovery
10 system's flexibility allows each segment of consumers to pursue its version of value. The price sensitive, coupon consumer and the consumer that craves their gourmet spaghetti sauces and coffee beans, both communicate those needs and receive customized responses from bidder/sellers, product manufacturers, and advertisers.

A feature of the preferred embodiments is that the consumer gains the clarity
15 of seeing what his list of items is really worth when he/she solicits bids, compares them, and ranks them according to his/her preferences. Knowing what a list of twenty or more items is worth is a time-consuming, counterproductive task in the physical world. Online, using the value discovery system of the current invention, the consumer finds out immediately. Using the value discovery system, the consumer
20 also permits a group of bidder/sellers to compete for his/her business by making highly personal offers to the consumer that take account of the consumer's tastes and preferences. The consumer reaps both economic and psychological rewards by managing the market to serve his/her goal of maximizing value. And while the

consumer's definition of value is paramount, auctions for WAGs, such as those found on a shopping list, increase the number of sellers, push prices lower, and challenge sellers to seek profitability through enhanced value propositions.

A further feature of the present invention is that the consumer also enjoys the
5 convenience of a permanent repository of his/her list or portfolio of lists (e.g., the weekly run, a monthly big purchase, a list for parties, recipes etc.) that makes the task of planning and submitting a shopping list extremely easy. The consumer has an increasing network of fellow consumers who provide communal benefits (e.g.,
10 sharing or posting a list, evaluating bidder/sellers, strategizing to maximize value received). The consumer has product manufacturers personalizing their promotional pitches to him/her. Further, the consumer may peruse virtual aisles containing an extensive universe of products and product information.

In embodiments of the present invention, bidder/sellers gain access to a steady flow of motivated consumers eager to buy. Bidder/sellers use the progressively richer
15 profiles of the consumers to deliver the greatest value to their most valuable customers. The value discovery system enables up-selling which is the process of moving the consumer in the direction of more profitable buying decisions. Over time, the cumulative experience of individualized offers yields to the bidder/seller a rich reservoir of data for both strategic and marketing purposes.

20 The value discovery system of the present invention also offers retailers a variety of opportunities to increase profitability. For example, store brand and private label WAGs offer superior profit margins. Bidder/sellers can use, e.g., couponing, sampling, rewards, and a consumer's own willingness to accept private label

substitution to increase the store brand component of the auction list. The value discovery system provides an online channel through which retailers can aggressively market selected types of goods. Further, the value discovery system also provides a supercharged, personalized, data-rich environment for loyalty or relationship-based programs. This allows bidder/sellers to execute more ambitious consumer acquisition and retention strategies. For example, in embodiments of the present invention, bidder/sellers offer discounts for consumers who choose fulfillment on slow days to smooth out traffic, and offer cash-back programs in return for a consumer's commitment to tender multiple lists during a given cycle.

10 According to preferred embodiments of the present invention, the data-rich venue resulting from the value discovery system empowers product manufacturers to execute mass customization, one-to-one product promotion strategies. The value discovery system of the present invention, builds consumer profiles continuously and without interruption, due to the fact that a consumer's switch from one bidder/seller to another occurs within the value discovery network. As a result, a product manufacturer has opportunities to deepen its brand relationships with the consumer as well as to refine its alliance and marketing strategies with retailers and other bidder/sellers.

20 It is a feature of the present invention, that consumers define themselves through their creation of lists. Within the boundaries of pre-established privacy rules, the value discovery system of the present invention allows marketers to respond directly to that self-definition. The granular, itemized character of a shopping list gives brand management an opportunity to deploy marketing tools and resources with

focus and strong effect. For example, consumers whose shopping histories show strong price sensitivity are offered coupons. Similarly, consumers who focus on variety and quality or those looking for the quickest way to prepare meals are pitched with targeted messages and offers.

5 It is a further feature of the present invention that product placement within the virtual aisles is reconfigurable with every consumer. More particularly, shelf space configuration within the virtual aisle and category growth can be pursued directly; one consumer and one page view at a time. Where collaboration with retailers in the physical world imposes frictions and tradeoffs, on-line category
10 management is unmediated and uncluttered.

 Described below, there is a shopping list based value discovery network formed via a consumer to business auction process that realizes the revolutionary potential for buying on the Internet. Like a PC operating system, a networked, smart, shopping list (e.g., grocery list) is a platform for hosting a wide array of useful, time-
15 saving activities for consumers and revenue-generating activities for sellers, manufacturers, and advertisers.

 In an embodiment of the invention, a shopping list and the selections indicated thereon, are visible to all consumers, giving bidder/sellers, product manufacturers, and advertisers an effective way to market to consumers.

20 In an embodiment of the present invention shopping list-based value discovery is accomplished through a reverse auction or tender process. In this preferred embodiment, a consumer creates a list of desired items, and bidder/sellers compete to provide the best combination of price, selection, and convenience by bidding on the

list. Utilizing the consumer created list information, product manufacturers or service providers can use the shopping list platform to market their particular products or services.

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BRIEF DESCRIPTION OF THE DRAWINGS

In the Figures:

Figure 1 is a system for practicing the methods of the invention according to an embodiment of the present invention; and

Figure 2 is a graph of network values versus number of members according to
10 an embodiment of the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

In an embodiment of the present invention, shopping list-based value discovery is accomplished through a reverse auction, or tender system and process.

15 The reverse auction process is facilitated on a network platform, such as the Internet, through specially designed software and hardware (e.g., server) configurations. Each of the parties to the auction are able to login to the reverse auction system via appropriate hardware, e.g., personal computers (PCs), wireless or non-wireless personal digital assistants (PDAs), cellular phone, network appliances and any other
20 appropriate merchant or customer terminals. Further, certain embodiments of the present invention are voice enabled, and run on a voice activated application. The state of the art is such that one skilled in the art is able to design appropriate software and hardware configurations to facilitate the processes described herein without undue experimentation. **Figure 1** is an exemplary system schematic 1 for implementing the

processes described herein. The system **1** includes a bid engine **10** which receives/retrieves information from at least, bidder/sellers **12**, manufacturers **14**, and consumers **16**. Further, the bid engine **10** can receive/retrieve information from a master product database **18** and a mapping database (e.g., MapQuest) **20**.

5 Store profile information from the bidders/sellers **12** can be entered by bidders/sellers through, for example, a graphical user interface **22** into a store profile database **24**. The store profile database **24** is then accessed by the bid engine **10**. Bidder/sellers' store product and price information may also be entered via a parser **26** into a store product and pricing database **28**. Programs for parsing are well known to
10 those skilled in the art. The store product and pricing database **28** is then accessed by the bid engine **10**.

Manufacturers' information can be entered by manufacturers **14** via a parser **30** into, for example, a coupon and other offerings database **32** including coupon, incentive, and other offerings information, which is accessed by the bid engine **10**.

15 As discussed below, the manufacturers **14** retrieve information about consumer shopping preferences from the bid engine **10** through a consumer history database **34** and from this information, the manufacturers have the ability to formulate incentive coupon offerings.

Consumers **16** provide information to the bid engine **10** in the form of
20 consumer lists stored in, for example, a consumer list database **36**. The consumers **16** provide information to the consumer list database **36** through both on-line **38** and external **40** links. The on-line link **38** may be, for example, a consumer interface, which is also used to access external credit card services **58**, through credit interface

56 and chat rooms 60. The consumer list database 36 is also fed information through a sample list database 42, a recipe database 44, and a message board database 46.

Finally, the bid engine 10 can receive/retrieve information from a master product database 18 which is fed information via parsers 48 from multiple product information sources 50, such as, Neilson, 1-800-database, and Multi Ad and from a mapping database 20, through a mapping database interface 54.

As discussed with reference to the manufacturers' information, the bid engine 10 also transmits information to, for example, the consumer history database 34, the on-line consumer interface 38, and the bidder/sellers 12 through sale notices 52 forming a feedback-type loop system for sharing information. The consumer history database 34 is also accessed by the bidder/sellers 12 and the multiple product information sources 50 as well as consumers themselves. Using the information from the consumer history database 34, when prompted by the consumer, the value discovery system offers consumers the ability to see the consumer's list and individual item histories. In a further embodiment, the value discovery system includes applications for organizing and analyzing history information into timelines, graphs, etc., in order to reflect a consumer's buying habits.

As discussed above, the value discovery system is a network. In preferred embodiments of the present invention, the network takes core value propositions provided to the four principal customers, i.e., consumers, bidder/sellers, product manufacturers, and advertisers and infuses them with exponential, positive feedback qualities. Metcalfe's law posits that the value of a network is the square of its number of members. In accordance with an embodiment of the present invention, every new

participant in a value discovery system makes the network experience more valuable for all existing participants. The next customer, choosing between the largest network with the greatest membership and a smaller one with few users, almost always concludes that a larger network is better. Once the identity of the leading network becomes clear, the expansion of the network occurs even faster, and the knowledge base expands accordingly.

More consumers mean more resources and experiences that consumers can share with each other for their mutual benefit. More consumers also mean more bidder/sellers, product manufacturers, and advertisers entering or increasing their activities within the network because the market is now more valuable. Greater choice and more efforts by the three sell-side customers to create value for the consumer in turn attracts even more consumers who in turn spend more of their time and resources on the value discovery network, and so on. The buy side and the sell side fuel each other's growth.

Networks that empower community by enabling affiliations and associations among subsets of two or more of a network's members, also referred to as group forming networks (GFNs) create values of 2^n . As **Figure 2** illustrates, 2^n is radically more valuable than a one (content distributed)-to-many passive network (e.g. a television network), or even Metcalfe's Law square of n valuation.

The value discovery system according to the present invention benefits from "network effects" such as the potential for GFNs. For example, a market based on WAGs in the form of, e.g., groceries, is a market that is large (approximately \$460 billion annually at the time of filing this application), and is habitual or as it is often

referred to in the market, sticky (2.1 shopping trips per family per week). It is also a market where bidder/sellers, advertisers, and product manufacturers are focused on building long-term affiliations with consumers, and where they already allocate large amounts of capital to acquire and maintain these relationships.

5 For advertising and product promotion, network growth also means that data capture and data-informed marketing are progressively more valuable. The value discovery system's effective compilation and analysis of usage patterns and trends assists advertisers and marketers in optimizing the focus of their respective advertising and marketing efforts.

10 In a first preferred embodiment, a consumer creates a list of desired items, and bidder/sellers can compete to provide the best combination of price, selection, and convenience by bidding on the list. The consumer may use any available means for creating the list of desired items. For example, the consumer can manually enter product names or manufacturer names into a search window provided on a webpage
15 of the value discovery website and the value discovery server will provide a list of compiled products from which the consumer may select a particular product. Further, using optical scanning technology (e.g., CueCat from CRQ), the consumer can scan standard product codes (e.g., universal product code (UPC), International Standard Book Number (ISBN), Stock Keeping Unit (SKU)) provided on items and
20 automatically add the corresponding product to his/her list. For example, if the consumer wishes to add shampoo to his/her list, the consumer retrieves the bottle and scans the standard product code with an optical reader/scanner to transmit the standard product code and consequently the product name, type, etc. to the list on the

value discovery website. The consumer can also scan bar codes provided in magazines or newspapers in order to automatically add items to his/her shopping list.

In this first preferred embodiment, consumers are able to specify fulfillment preferences, including, brand preferences and/or the acceptability of substitutes, whether the consumer wishes to have the goods on the list pre-packaged for pick-up from the bidder/seller or delivered to the consumer, the radius within which the consumer is willing to travel to pick-up the goods on the list, store preferences, etc. In an embodiment of the present invention, the system's decision rules are designed to have a default brand or code for each product, such that when a consumer selects a product without specifying a brand name, this default brand is automatically selected by the system prior to submitting the list for auction. For example, if a consumer selects sugar as an item, the system may default to e.g., Domino's or alternatively, the system indicates that a generic brand is acceptable, in which case, most larger supermarkets offer their own label, e.g., Safeway, Giant, Kroger, etc. The system aids the consumer in creating the list in other ways as well. For example, the system is able to track previous lists made by individual consumers and make these lists available for automatic call-up by the individual consumer. The system also allows an individual consumer to keep multiple lists. Further, in an embodiment of the present invention, the system provides pre-formed sample lists that consumers can either use "as is" or amend to suit the consumer's particular needs. The sources for these pre-formed lists are unlimited. For example, other consumers may choose to share their specialty lists, such as, lists for diabetics, children, individuals with high

cholesterol, special weight-loss diets, or individuals keeping kosher. Further, specialty lists may be provided by the other consumers of the system.

In a particular embodiment, an individual consumer shops every week for essentially the same items, such that every week at a selected time, the “Weekly Shopping List” becomes available for the consumer’s review prior to ordering. In this
5 embodiment, the consumer requests that the system commence with submitting the “Weekly Shopping List” to auction automatically and order from the lowest bidder automatically. Alternatively, the consumer elects to review the list and possibly make revisions prior to placing the order. A specific example is the case where a consumer
10 establishes a “weekly shopping list” that includes milk, eggs, and bread to be packaged and delivered to his home on Friday afternoons after 4:00 PM. The consumer programs the system to submit this list for auction on Friday mornings, accept the lowest bid on the list, and charge the consumer’s credit card for the amount. Alternatively, the consumer programs the system to automatically submit the
15 list for auction, but not to automatically purchase from the lowest bidder. Instead, the consumer may request that an e-mail or page, for example, be sent to alert the consumer that the bidding is complete, so that the consumer may consider the bids and make the final determination as to which bid he chooses to accept. This type of scenario takes into account the idiosyncrasies of consumers. The lowest monetary bid
20 is not necessarily the best overall bid for an idiosyncratic consumer. For example, the lowest bid could include only generic items or it may require that the goods be picked-up rather than delivered. The system described herein allows the consumer to view multiple bids with multiple combinations of preferences. The consumer can

enter as few or as many preferences as they wish, prior to submitting the list for auction. Finally, the consumer may wish to review the list prior to submission to auction. In order for a consumer to remove and/or add items from and/or to the list, there are multiple configurations of the system's user interface that are used to achieve these functions. For example, on a Webpage, PDA screen, or the like in a preferred embodiment of the present invention, next to each item, there is a box which when checked indicates either (a) do not include this item in the list submitted to auction or (b) include this item in the list submitted to auction. Whether the configuration is (a) or (b) is a matter of designer preference. After the list is reviewed by the consumer and the appropriate boxes are selected, then the consumer submits the list to auction.

In an alternate embodiment, instead of or in addition to weekly, bi-weekly, monthly, etc. shopping lists, a second type of list may be a specialty list, such as "Holiday Shopping List" or "Barbecue Shopping List." These lists contain items that the consumer usually buys in preparation for a special event. The present invention will store these lists for call-up by the consumer and then, depending on the commands of the consumer, may perform any of a number of programs on the specialty list. For example, the system could submit the list "as is" for auction or the system could compare the list with the "Weekly Shopping List" to determine if there are overlapping items.

In addition to storing the various lists of an individual consumer, to allow for review and comparison in order to compile the most complete list for the consumers needs, the system also aids the consumer in forming his/her list by offering easy access to product information and/or pre-formed list information (e.g., recipes). For

example, a website established for forming the consumer's lists, includes links to particular product or recipe sites. Multiple search engines may be provided to aid the consumer in making selections for his/her lists. For example, a search blank may be provided on the webpage wherein a consumer can enter, for example, the word "beef" and be presented with multiple types of beef products, e.g., ground beef, rib-eyes, tenderloins, flank steak, etc. with descriptions of each to aid the consumer in selecting an appropriate cut of beef. Additionally, the consumer may be provided with a selection of brand names associated with a particular type of product and/or recipes that utilize the selected product. One skilled in the art recognizes the many variations in search parameters that are useful for locating product information.

In a further embodiment of the present invention, a visual configuration of goods referred to as a virtual aisle is implemented as a navigational tool. Resembling, in the grocery store context, an aisle in a store, the system of the present invention provides the consumer with a virtual aisle of types of goods. In an embodiment of the present invention, the virtual aisle is a navigable presentation of hypertext, icons and images, representing types of goods. One skilled in the art recognizes the multiple, technologically varied virtual aisle configurations that are within the scope of the invention. The consumer selects a particular brand or type of good to add to his/her list. For example, a consumer has a recipe that calls for a spicy olive. Using the virtual aisle navigational tool, the consumer types in "olives" or "spicy olives" into a search window provided on the webpage and a shelf is called up that includes all olive products and depending on design choice, other olive-related products (e.g., salty snacks, martini mix). In an embodiment of the present invention, it is possible for the

consumer to access further information (e.g., dietary and nutritional information, ingredients or other information offered by the product manufacturer) about a product in order to aid the consumer in forming his/her list. This information may be provided through various links (to e.g., the Uniform Code Council (“UCC”), AC
5 Nielson, 1-800-database, Multi-Ad, Informational Resources Inc. (“IRI”)) provided in conjunction with the product listing. Consequently, the consumer is provided with a plethora of information about, for example, spicy olives, from which the consumer is able to make an informed decision about which spicy olive is right for the consumer's needs. It is not necessary to explain the numerous informational linking capabilities
10 of a network-based (e.g. Internet) value discovery system, as one skilled in the art recognizes the many variations that are within the scope of the disclosed invention.

In addition to the list-forming functions discussed above, the present invention also offers an icon, indicative of the value discovery website, which aids a consumer in recognizing products which may be added to his/her shopping list and gives the
15 consumer an easy way to add the product to his/her list without having to enter the value discovery website, call-up the list, and enter the product name.

Referred to as the “buy-side icon,” consumers who use the value discovery system of the present invention, may download, or otherwise install, an icon software application, wherein an icon is displayed on the graphical user interface of the
20 consumer’s network interface. Selecting this icon enables the consumer to access and tender his/her list(s) from whatever device they choose and from wherever they may be using the device. Consequently, as technology extends Internet access beyond the desktop, the buy-side icon enables consumers to manage their lists using, for example,

cellular phones and other wireless devices, kitchen-based network appliances like the I-OPENER or touch screens on refrigerators, interactive television and car-based network access. According to embodiments of the present invention, the value discovery system is available wherever consumers find it convenient to do their
5 shopping.

Similarly, referred to as the "sell-side icon," bidder/sellers, product manufacturers, and advertisers are provided with icon enabling software for use with the value discovery system of the present invention. The sell-side icon permits consumers to interact with an ad or promotional offer and place the featured products
10 on their lists for future disposition. The icon turns an array of passive media into effective direct marketing. The sell-side icon makes every product SKU a potential revenue stream, and the use of the icon a standard line item on every marketing and advertising budget.

In an alternate embodiment, the "sell-side icon" is not strictly software-based,
15 but rather is found throughout any and all types of advertising mediums as well as on the items themselves. An icon located on a non-network linked medium has an item barcode or other identifying code located thereon or in close proximity thereto and this barcode or identifying code can be scanned (e.g., optically) or the alphanumeric characters can be entered manually by the consumer into the network. The network
20 interfaces are equipped with keyboards or alphanumeric keypads for entering such identifying codes manually. Consequently, the icon indicates to a consumer that the manufacturer, advertiser, or buyer/seller of an item is affiliated with the value

discovery system and the identifying codes embedded therein allow the consumer to easily add the item to the consumer's list.

According to representative embodiments of the present invention, the consumer can simply select the icon, in the case of a product offered on a website (e.g., through a web-banner or on a website other than the value discovery website) and the icon links to the value discovery website and adds the product to the consumer's list(s). If the consumer has multiple lists, the value discovery website prompts the consumer to select to which list the consumer desires to add the product. Alternatively, the rules of the value discovery website may automatically put the product into the "Weekly Shopping List." A consumer may also find the icon on the pages of a magazine or in a newspaper advertisement. Next to the icon and the product is a bar code. Using a bar code scanner (e.g., attached to a PDA), the consumer is able to add the product to his/her auction list by scanning the bar code. Further, using interactive TV, the icon may appear on television advertisements for various products. Using an interactive remote, the consumer may add the product on the screen to his/her shopping list(s).

A particular system example for allowing a consumer to use interactive TV and icon-linking technology to add products to the consumers list includes at least an interactive TV receiver, multiple servers, a modem, and an interactive remote for the main components. Referring to, for example, Patent No. 6,075,527, incorporated herein by reference in its entirety, one skilled in the art recognizes the multiple components that may be utilized to establish an interactive television system. In an embodiment wherein the manufacturer of a product provides the icon through the

interactive TV system, the manufacturer, for example, can include the icon as one of multiple data streams in a composite data stream (e.g., embedded data stream) that is broadcast as part of an advertisement. Patent no. 6,097,441 offers a detailed description of the data stream technology and is incorporated herein by reference in
5 its entirety. The consumer's interactive TV receiver is capable of receiving and separating complex data streams that include, for example, text, audio, video, and Internet data streams. Consequently, the projected image on the TV screen includes the advertisement, in addition to the icon, located in, for example, the corner of the TV screen. Using the interactive remote, the consumer may select the icon. Further,
10 by selecting this icon, the system is designed to dial-up a modem connection over a designated telephone line or over a pre-established digital subscriber line (DSL) or access an "always on" broadband link and connect to multiple potential servers, including, the value discovery website server, the broadcasting server, and ultimately, the manufacturer's server in order to identify the consumer's selection of the icon.
15 Further, the interactive TV receiver tags the transmitted information with an identifier that is unique to the consumer, so that the value discovery website server is capable of adding the selected product to the consumer's individual list. This is but one example of how the icon-linking process may occur. One skilled in the art recognizes the many possible variations in both system construction and methodology.

20 According to preferred embodiments of the present invention, once a consumer submits a list of goods, including any and all preferences, e.g., distance, fulfillment method, etc., all registered bidder/sellers qualifying under the consumer's designated preferences are able to bid on the list. When the list is submitted to the

value discovery auction engine, the registered bidder/sellers respond to that list through bidder-seller specific, pre-defined bidding rules that the individual bidder/sellers have placed with the value discovery auction engine. Using these pre-defined bidding rules and the auction decision rules, the value discovery auction engine generates a number of bids for the consumer to compare. The bidder/sellers are free to change their pre-defined bidding rules at any point, and are constrained only by the requirements set forth through the auction decision rules. The value discovery system of the present invention is open to any and all types of bidder/sellers. Any firm that qualifies under the consumer's preferences and that is capable of providing the list of goods or a list comparable thereto, can bid on the list. For example, in the case of supermarket type goods, possible bidder/sellers include independent firms having only one location (e.g., neighborhood bodega) to nationwide grocery store chains (e.g., Safeway, Trader Joe's, Albertsons) to non-traditional firms, such as, CVS, Wal-Mart, K-Mart, Target, Price Club, Costco, and even gas-stations (e.g., Exxon's TigerMart) which are currently entering the grocery market on smaller scales. For example, where supermarkets sell health and beauty or general merchandise in addition to food items, modernized drugstores sell fresh milk and bread, gas station-based convenience stores sell home meal replacement items, and chains like Target and K-Mart sell a wide variety of non-perishables. Further, all of these entities deal with wholesalers who are themselves potential bidder/sellers. Wholesalers already have the capability to deliver pre-packed bins of non-perishable, refrigerated and frozen goods. Utilizing the system and method of the present invention, these bins are immediately ready for consumer pickup or home delivery, a

distinct improvement in fulfillment over the traditional consumer labor required by traditional supermarkets. As a point of reference, approximately 7500 SKUs make up 80 percent of consumers' grocery-type purchases, making implementation of these new partnerships feasible.

5 In addition to the bidder/sellers who actively participate in the value discovery system and process of the present invention, in a further embodiment of the present invention, the value discovery system includes intelligent agents for performing searches of non-participating on-line stores and formulate bids for consumer's lists from these stores. The intelligent agents use robots or "bots" to go out and gather
10 information from other sites. If a non-participating vendor is online and can potentially service a consumer's list, the intelligent agents, through the bots, can go out and scan the site of the non-participating potential bidder/seller and formulate a bid so that the consumer can see what that list is going to cost at non-participating as well as participating vendors.

15 In this case, the non-participating store will not be able to offer a value proposition customized to that consumer, because they are not actually participating in the system, but the bid price provided by the intelligent agents will offer bids for comparison with those from participating stores, thus allowing the consumers to accurately value the list that they have formulated. While these bids could possibly
20 be the best from the perspective of an individual consumer, in all likelihood, bids formulated by the intelligent agents, based on non-participating firms, will be the least desirable due to the fact that there will be no individualized incentives offered to entice the consumers. Consequently, beyond just being an informational service, the

bids gathered by the intelligent agents, when compared with the bids offered by the participating firms, tend to make the bids of the participating firms more attractive and simultaneously assure the consumers that they are getting the best deal for their proffered list(s).

5 In an embodiment of the present invention, in addition to meeting all or at least some of the requirements set forth in a consumer's list(s), the bidder/sellers offer additional incentives to the consumer in order to make their individual bids more attractive to an individual consumer. While some incentives are blanket incentives that are offered across the board with each bid (e.g., buy one 4-pack of Charmin Ultra,
10 get a second for 1/2 price) other incentives are individualized to the consumer based on information gleaned from the consumer's current list, and or the consumer's list history. For example, a bidder/seller tracks the purchasing preferences of a particular consumer and offers free products or reduced-price products based on these preferences to this particular consumer. A specific example is a consumer who
15 repeatedly purchases different types of cookies. As an incentive to convince that consumer to accept its bid on the consumer's current or even future list(s), bidder/seller X offers 2 free boxes of cookies with acceptance of bidder/seller X's bid. The number and types of incentives are limited only by the resources of the bidder/seller, but examples include coupons, free goods, cash-back and loyalty or
20 other reward-type programs (e.g., 1,000 air mile points on this purchase). The bidder/sellers may also make their individual bids more attractive by offering helpful service-type suggestions along with their bids. For example, a consumer may submit a list of 20 goods, citing specific brand preferences for 5 of the goods. Bidder/seller

X provides a bid for the 20 goods including the 5 brand preferences, but alternatively, provides an alternate bid should the consumer decide that the 5 brand preferences are not a requirement (e.g., an alternative brand is on sale or a generic brand is cheaper). Further as an incentive service, bidder/seller X may offer related goods suggestions
5 based on the preferences of the individual consumer.

Using message boards and chat rooms, the system of the present invention offers consumers an easy way to communicate the consumer's likes and dislikes about the products, including the manufacturers of the products, the bidder/sellers, and the system itself. This type of information is invaluable in aiding a consumer with the
10 selection of items to add to his/her list as well as to deciding between bids from different bidder/sellers. In an embodiment of the present invention, the message boards for posting consumer evaluations are constructed so as to only be accessible to those who have actually made a purchase from a particular bidder/seller or manufacturer. For example, when a consumer wishes to put a message about a
15 particular bidder/seller or manufacturer on a message board, the message board requires the consumer to select the particular bidder/seller or manufacturer from, for example, a drop-down menu and to enter a system issued identification ("ID") (e.g., a password). Using the ID, the system can pull up the transactions corresponding to the ID and compare the transaction data (e.g., bidder/sellers and/or manufacturers
20 previously used) with the selected bidder/seller or manufacturer. Assuming there is a match, the system allows the consumer to post a message about this particular bidder/seller or manufacturer and stores the message under a heading that is the name

of the bidder/seller or manufacturer, so that potential consumers can access the comments for any bidder/seller or manufacturer via this heading.

In a specific, exemplary implementation of the previously described embodiments, Consumer X is a registered consumer with a value discovery system according to the above-identified embodiments. Consumer X usually transacts using the touch screen “netpliance” mounted on his/her kitchen counter. On this particular day, however, an early meeting precludes Consumer X from submitting his/her list before leaving for work, so Consumer X uses his/her web-enabled Palm Pilot instead. Consumer X clicks on the auction icon on his/her Palm Pilot and then on his/her stored “Weekly Shopping List.” The list contains twenty-five items. Two days earlier, Consumer X saw a newspaper ad with a manufacturer’s offer for a fifty per cent discount on a new kind of premium ice cream. The ad included the auction icon link, so Consumer X used his/her Palm Pilot’s barcode reader at that time to add the item to his/her list. Consumer X clicks the “check them all except” button on the auction interface screen and then specifies which items on the list he/she does not want this week.

Normally Consumer X would submit his/her list at this point. As it happens, Consumer X is planning a dinner party for this week, so he/she goes to the recipe section and types “dinner Thai noodles Italian veal” in the search window. After reviewing the resulting recipes, the consumer saves two and clicks the ingredients from the recipes onto his/her list. Once again he/she hits the “check them all except” and checks product Y as something he/she already has and doesn’t need.

Consumer X specifies a brand or brands for each item, and indicates those items (if any) for which she will accept substitutions (e.g. private label). Consumer X also specifies his/her fulfillment preferences. Consumer X chooses to hear from bidder/sellers who can provide home delivery, those who provide nearby drive-through or walk-in pickup of a pre-packed order, and from those stores within a 1.5 mile radius of his/her home where Consumer X will pick the items off the shelves himself/herself.

Bidder/Sellers respond automatically to Consumer X's list using the system of the current invention, including the system's pre-defined bidding rules. While the bidder/sellers don't know who Consumer X is, they know Consumer X's profile based on Consumer X's thirty-five previous uses of the list. This data enables the bidder/sellers to construct an offer that is both appealing to Consumer X and profitable to them.

By way of example, bidder/seller #1 offers home delivery of the list for \$85. Bidder/Seller #2 offers the list for \$81 to be picked up at a convenience store located at a gas station 1 mile from his/her home. Bidder/Seller #2 also offers a buy one, get one free coupon for a car wash at the gas station. Bidder/Seller #3 offers to fulfill the list for \$74 and offers a \$5 discount plus 1000 bonus loyalty card points and 1000 free miles for her existing Delta Airlines account the next time Consumer X chooses #3 for a transaction that is greater than \$60. Bidder/Seller #4 takes full advantage of Consumer X's willingness to accept private label substitution and bids \$68. Consumer X's historical shopping profile shows a partiality to salty snack foods, so bidder/seller #4 also offers to throw in three free bags of its private label gourmet

tortilla chips. Bidder/Sellers #3 and #4 require Consumer X to pick the items himself/herself at their stores. Finally, the system's retrieval technology (e.g., via intelligent agents) retrieves prices for Consumer X's list from Acme, a non-participating online vendor with a store one mile from Consumer X's house. Due to
5 the lack of information, Acme's bid is higher, \$98.

Consumer X compares the competing offers, selecting the one (if any) that delivers the best value (price, convenience, future benefits etc.) to him/her, based on his/her definition of value. Consumer X checks the community message boards to see others' experience with these particular Bidder/Sellers. Consumer X chooses and
10 either pays online with e.g., a credit or debit card or off-line (e.g., at the time Consumer X picks up the order, when the order is delivered).

The particular embodiment described above is but one example resulting from the system and process of the present invention. This example is not meant to be limiting in any way and one skilled in the art recognizes the many possible variations
15 that fall within the scope of this invention.

Although many of the examples described above refer to lists comprised of household consumables (e.g., groceries) as the example of WAGs which are easily put into list form and offered for bids in the reverse auction process of the present invention, there are any number of other categories of WAGs which may be the
20 subject of the reverse auction process. For example, other markets for WAGs include, health and beauty, office products, and home improvement/hardware. In certain embodiments of the present invention, the shopping lists entered for reverse auction may in fact include products from any or all categories of products. Further, given the

global accessibility and use of the Internet, embodiments of the present invention assume consumers, buyers/sellers, manufacturers, and advertisers from around the world.

In an alternative embodiment, the current invention also includes a reverse
5 auction system for use with products not normally considered to be WAGs, such as cars, electronics equipment, and services. Service products include, for example, telecommunications services (e.g., long-distance service, Internet service, wireless phone service, cable service).

The embodiments described above are not intended to be limiting. One skilled
10 in the art can appreciate the myriad of embodiment variations that fall within the scope of the invention as set forth.

I claim:

- 1 1. A method for valuing goods comprising:
2 submitting a potential consumer's list containing at least one good to a
3 network-based reverse auction system;
4 submitting a potential consumer's preferences to the network-based
5 reverse auction system;
6 receiving at least one bid on the list containing the at least one good;
7 and
8 presenting the at least one bid to the potential consumer.
- 1 2. The method according to claim 1, further comprising obtaining a
2 potential consumer's list through a network interface.
- 1 3. The method according to claim 2, wherein the network interface is
2 selected from the group consisting of a personal computer, a personal digital assistant,
3 a cellular phone, an interactive television, a wireless device, and a network appliance.
- 1 4. The method according to claim 1, further comprising presenting a
2 potential consumer with a navigable presentation, wherein the potential consumer
3 reviews information presented in the navigable presentation prior to formulating the
4 potential consumer's list.
- 1 5. The method according to claim 4, wherein the navigable presentation
2 is a virtual shopping aisle.
- 1 6. The method according to claim 1, wherein the potential consumer's
2 preferences are selected from the group consisting of product brand preference,

3 delivery time preference, bidder location preference, product availability preference,
4 price range preference, bidder identity preference, item list submission preference.

1 7. The method according to claim 1, wherein the at least one bid includes
2 a price for the list.

1 8. The method according to claim 7, wherein the at least one bid further
2 includes at least one incentive.

1 9. The method according to claim 8, wherein the at least one incentive is
2 selected from the group consisting of a coupon, a free item, loyalty points, and cash-
3 back.

1 10. The method according to claim 1, wherein submission of the potential
2 consumer's list occurs at a predetermined time interval, without any action by the
3 consumer.

1 11. A network-based reverse auction system comprising:
2 a network;
3 a bid engine connected to the network for receiving and retrieving
4 auction information;
5 at least one database connected to the network and accessible by the
6 bid engine, wherein the at least one database contains auction information about
7 potential customers and potential items; and
8 a network interface for accessing the bid engine and the at least one
9 database.

1 12. The system according to claim 11, wherein potential customers are
2 selected from the group consisting of consumers, bidders, item manufacturers, and
3 item advertisers.

1 13. The system according to claim 12, wherein the auction information
2 includes item lists created by the consumers.

1 14. The system according to claim 13, wherein the item lists are created
2 through the network interface.

1 15. The system according to claim 14, wherein the network interface is
2 selected from the group consisting of a personal computer, a personal digital assistant,
3 a cellular phone, an interactive television, a wireless device, and a network appliance.

1 16. The system according to claim 15, wherein the network interface
2 further includes a scanner for scanning item codes, wherein scanning an item code
3 results in the addition of the item to the consumer's item list.

1 17. The system according to claim 16, wherein the item code is selected
2 from the group consisting of an universal product code (UPC), a stock keeping unit
3 (SKU), and an international standard book number (ISBN).

1 18. The system according to claim 13, wherein the bid engine includes a
2 processor programmed with decision rules for facilitating the reverse-auction of the
3 item lists.

1 19. The system according to claim 18, wherein the decision rules include
2 predetermined default brands for non-brand specified items on the item lists.

1 20. The system according to claim 11, further including an application for
2 displaying a linking icon on the graphical user interface of the network interface such

3 that potential customers are linked to the network-based reverse auction system upon
4 selection of the linking icon.

1 21. A process for developing a list of items for submission to a reverse
2 auction comprising:

3 accessing a network-based reverse auction system through a network
4 interface;

5 establishing a personalized item list in at least one database within the
6 network-based reverse auction system;

7 populating the personalized item list with at least one selected item;

8 identifying at least one auction preference to the network-based reverse
9 auction system; and

10 submitting the personalized item list to the reverse auction.

1 22. The process according to claim 21, wherein populating the
2 personalized item list with at least one selected item further includes:

3 searching the network for items;

4 identifying at least one item through the search; and

5 entering the at least one item into the personalized item list.

1 23. The process according to claim 21, wherein populating the
2 personalized item list with at least one selected item further includes:

3 scanning at least one item code, whereby the item is added to the
4 personalized item list.

1 24. The process according to claim 21, wherein accessing the network-
2 based reverse auction system through a network interface includes selecting an icon
3 located on a graphical user interface of the network interface.

1 25. The process according to claim 21, wherein populating the
2 personalized item list with at least one selected item further includes utilizing an icon
3 located on one of an advertisement and an item.

1 26. The process according to claim 25, wherein the advertisement is
2 located on one of a webpage, an interactive television screen, a newspaper, a
3 magazine, a coupon, a billboard, and a circular.

1 27. The process according to claim 25, wherein utilizing the icon includes:
2 obtaining an alphanumeric item identifier that is located within or in
3 proximity to the icon; and
4 entering the alphanumeric item identifier into the network-based
5 reverse auction system through a keypad of the network interface.

1 28. The process according to claim 25, wherein utilizing the icon includes
2 scanning a barcode located within or in proximity to the icon.

1

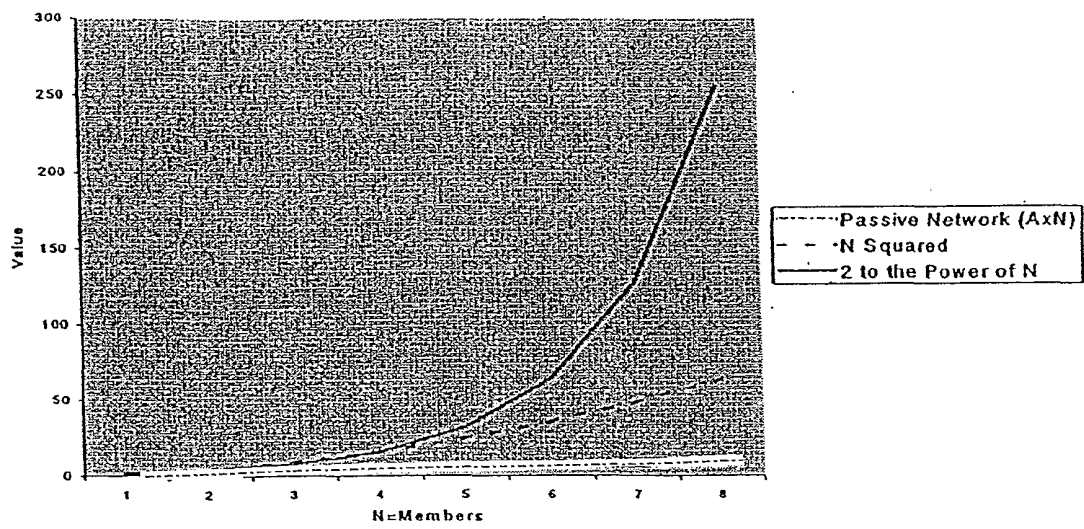


Figure 2

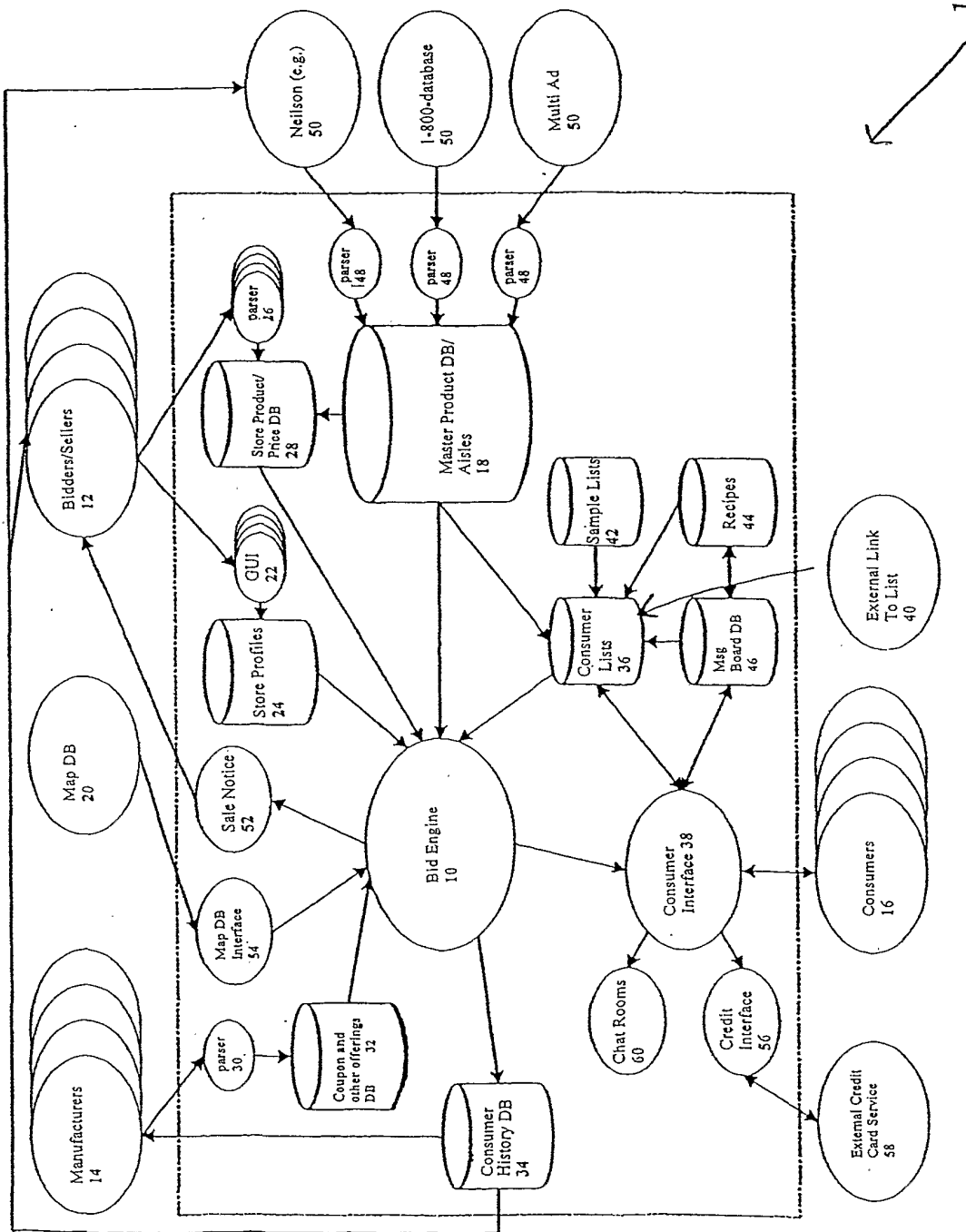


Figure 1

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/28291

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06F 17/60
 US CL : 705/26, 27

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 U.S. : 705/26, 27

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 East: reverse auction, virtual shopping aisle, online auction, shopping list.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,890,138 A (GODIN et al.) 30 March 1999 (30.03.99), abstract, column 3, lines 31-44; column 5, lines 12-14.	1-28
Y	US 6,026,376 A (KENNEY) 15 February 2000 (15.02.00), abstract, column 6, lines 56-62; column 8, lines 1-5.	1-28
A	US 5,950,173 A (PERKOWSKI) 7 September 1999 (07.09.99), abstract.	8, 9
A,P	US 6,202,051 B1 (WOOLSTON) 13 March 2001 (13.03.01), see the entire document.	1-28

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:	"T"
"A" document defining the general state of the art which is not considered to be of particular relevance	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"B" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 19 October 2001 (19.10.2001)	Date of mailing of the international search report 06 NOV 2001
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