(54) Title: REWARD ALLOCATION METHOD AND APPARATUS
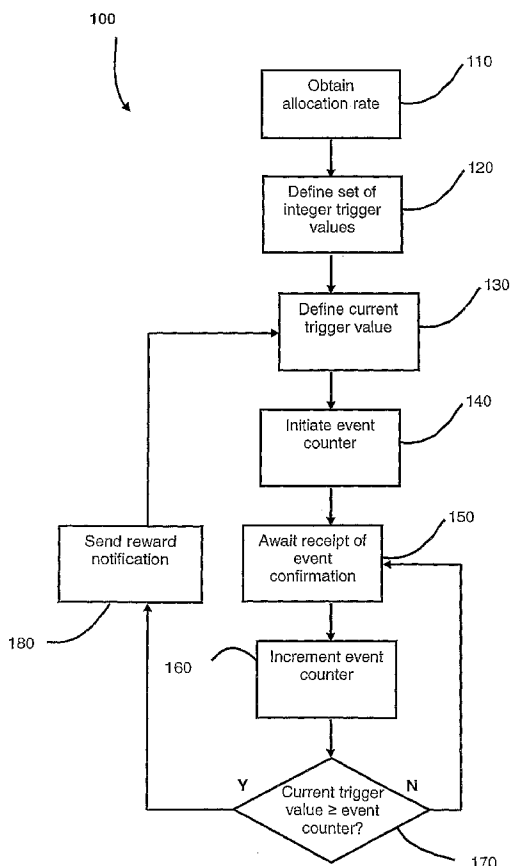
(57) Abstract: A method (100) is disclosed of allocating a reward to a consumer. The method (100) starts by obtaining (110) an allocation rate, and defining (120) a set of trigger values consisting of a plurality of integers. The average of the plurality of integers is representative of the allocation rate. A current trigger value is then defined (130) by drawing a member from the set of trigger values. A reward notification is transmitted (180) to a device associated with the consumer upon a number of consumption events satisfying (170) a criterion based upon the current trigger value. The method (100) then redefines (130) the current trigger value by drawing a further member from said set of trigger values set.

REWARD ALLOCATION METHOD AND APPARATUS

TECHNICAL FIELD

The present invention relates to consumer rewards and, in particular, to a method
and apparatus for allocating rewards in a manner which reinforces and/or

5   stimulates consumption behaviour.

BACKGROUND ART

Vendors of goods or services periodically attempt to stimulate demand from
consumers for their offerings. Such vendors have been known to use various
forms of rewards to stimulate consumption behaviour from selected profiles of

10   customers, for selected goods and/or services, or for selected time periods in
which a demand simulation scheme is valid.

Vendors are willing to incur additional expenses to exert stimulation of consumption
behaviour to obtain an increased return or higher utilisation of services or stock
which would normally not attract the attention of consumers.

15   For example, sale offerings are well known in product retailing to provide a short-
term change in consumer behaviour for the time period in which a sale is in effect.
However, once the sale period ends consumers revert back to their original
behaviour.

Another technique employed by vendors is the running of competitions which

20   require proof of purchase for consumers to submit valid entries. However such
competition offerings only change consumer consumption behaviour in the short-
term as consumers gather sufficient entry requirement materials. Consumers are
not immediately rewarded for such short-term behaviour and generally revert to
their standard behaviour when the competition runs its course or they are

distracted by other things.

An additional tactic employed by retailers has been customer loyalty rewards schemes where customers accrue reward points on every purchase they make with a supplier or an affiliated group of suppliers. Such schemes have been known

5   to increase loyalty to the participating retailers, but do not necessary stimulate demand for goods and services. Such schemes also have a periodic effect on changing consumer behaviour in that the consumers are aware of their current points value balance and generally have a specific reward goal in mind which requires redemption of a specific target value of points. Once the consumer has

10   reached this target value of points the effect of such a reward scheme in promoting a consumption behaviour is significantly less effective.

These known consumer behaviour modification techniques are all generally well understood by consumers who make explicit decisions with respect to whether they participate, and in particular whether they allow the technique to modify their

15   existing behaviour. Furthermore, some of these techniques suffer from delayed gratification issues (such as competitions or loyalty reward points schemes) where the consumer's attention or interest can be lost easily without an immediate positive reinforcement of their behaviour.

It would therefore be of advantage to have an improved reward allocation method,

20   system or apparatus which addresses any or all of the above issues, or at least provides the public with a useful alternative.

SUMMARY OF INVENTION

It is an object of the present invention to substantially overcome, or at least ameliorate, one or more disadvantages of existing arrangements.

25   According to one aspect of the present invention there is provided a method of

2

allocating a reward to a consumer, the method comprising the steps of:

i)   obtaining an allocation rate;

ii)   defining a set of trigger values consisting of a plurality of integers, wherein the average of the plurality of integers is representative of said allocation rate;

iii)   defining a current trigger value by drawing a member from said set of trigger values;

iv)   transmitting a reward notification to a device associated with said consumer upon a number of consumption events satisfying a criterion based upon said current trigger value;

v)   redefining the current trigger value by drawing a further member from said set of trigger values set; and

vi)   repeating steps iii) to vi).

According to another aspect of the present invention, there is provided an apparatus for implementing the aforementioned method.

According to yet another aspect of the present invention there is provided a computer program product including a computer readable medium having recorded thereon a computer program for implementing the method described above.

Other aspects of the invention are also disclosed.

BRIEF DESCRIPTION OF THE DRAWING

Further aspects of the present invention will become apparent from the following description which is given by way of example only and with reference to the

accompanying drawing in which:

Figure 1   shows schematic flow diagram of a method of allocating rewards to

a consumer; and

Figure 2   shows a schematic block diagram of a general purpose computer

5   system upon which the method of Figure 1 may be implemented.

BEST MODES FOR CARRYING OUT THE INVENTION

A method and apparatus are disclosed for allocating rewards in a manner which

reinforces and/or stimulates consumption behaviour. When the method

determines that a reward is to be awarded to a consumer, the consumer is sent a

10   reward notification almost immediately following the behaviour event causing a

reward to be allocated. Accordingly, that behaviour is reinforced and/or stimulated.

Furthermore, the manner in which the rewards are allocated is not transparent to

the consumers, thereby preventing consumers from being able to predict when

they are likely to be rewarded next.

15   Yet further, the manner in which the rewards are awarded allows the reward

provider to control the overall frequency of reward allocation.

Figure 1 shows schematic flow diagram of a method 100 of allocating rewards to a

consumer. The method 100 may be implemented using a computer system 200,

such as that shown in Figure 2 wherein the steps of Figure 1 are implemented as

20   software executable within the computer system 200. The software may be stored

in a computer readable medium. The software is loaded into the computer system

200 from the computer readable medium, and then executed by the computer

system 200. A computer readable medium having such software recorded on it is

a computer program product. The use of the computer program product in the

computer system 200 effects an apparatus for allocating rewards to a consumer.

As seen in Figure 2, the computer system 200 is formed by a computer module 201, a keyboard 202, a mouse pointer device 203, and a display device 214.

5   The computer module 201 typically includes at least one processor unit 205, and a memory unit 206. The module 201 also includes a number of input/output (I/O) interfaces including a video interface 207 that couples to the video display 214, an I/O interface 213 for the keyboard 202 and mouse 203, and an interface 208 for connecting the computer module 201 to an external network 250. Storage

10   devices 209 are provided and typically include at least a hard disk drive.

The components 205 to 213 of the computer module 201 typically communicate via an interconnected bus 204 and in a manner which results in a conventional mode of operation of the computer system 200 known to those in the relevant art.

Through connecting to the external network 250, the computer module 201 is able

15   to send notifications to devices (not illustrated) associated with consumers. The notifications are sent in real time, or substantially in real time. In the preferred implementation the devices are mobile phones, and the notifications are sent by means of a text message sent to the mobile phones.

The method 100 may alternatively be implemented in dedicated hardware such as

20   one or more integrated circuits performing the functions or sub functions of the method 100. Such dedicated hardware may include one or more microprocessors and associated memories.

Referring again to Figure 1, the method 100 starts at step 110 where an allocation rate is obtained. The allocation rate defines a ratio of rewards allocated to

25   consumption events. This allocation rate gives the invention's operator certainty as

to their overheads or costs for allocating such rewards. Different allocation rates may be assigned to different time periods. For example, different allocation rates may be assigned to different time periods during the day to promote consumer purchases during these periods. Alternatively, different allocation rates may be

5   assigned to different days to promote consumer purchases on specific days of the week. Yet further, different allocation rates may be assigned to different months of the year.

Different allocation rates may also be assigned to individual consumers based on information currently held by the operator with respect to these consumers. For

10   example, high allocation rates may be assigned to consumers who make infrequent purchases from the operator whereas low allocation rates may be assigned to consumers with existing high utilisation of the operator's goods or services. Those skilled in the art will appreciate that the specific rate of allocation to a particular person or user may depend on his or her usage rate. Other

15   information held in relation to consumers may also be employed to modify allocation rates, such as, for example demographic information or prior credit history information.

Method 100 then proceeds to step 120 where a set of integer trigger values are defined such that the average of the set of integer trigger values is representative

20   of the allocation rate. In the preferred implementation the integer trigger values are all within predefined lower and upper bounds. Also, in the preferred implementation the integer trigger values in the set have a non-obvious ordering. Hence, there is no obvious pattern in the integer trigger values, nor are those integer trigger values monotonically increasing or decreasing values.

25   The set of integer trigger values may be generated for example for an arithmetic, geometric, exponential or logarithmic series which serve to select a set of values

having an average close to the allocation rate. They may then be arranged in a shuffled order which in some instances may determine the order in which they may be subsequently drawn.

Alternatively sets of integer trigger values for various allocation rates may be
5   predefined, and stored in the storage medium 209. In step 120 one or the predefined sets is then retrieved.

In step 130 a current trigger value is defined from the set of integer trigger values by drawing a member from the set. In the preferred implementation the current trigger value defined in step 130 is the first member of the set of integer trigger
10   values. Preferably that member drawn from the set of integer trigger values is removed from the set.

In an alternative implementation the current trigger value is randomly drawn from the set.

Next, in step 140, an event counter associated with the consumer is initiated. In
15   the preferred implementation the events are purchase events. Preferably this event counter is initialised to a starting value of zero to indicate that the selected consumer is yet to make any purchases which contribute to the allocation of a reward.

Step 150 follows where an event confirmation is received. In one implementation
20   the event confirmation is received from an external device. The external device may for example be a mobile telephone of the consumer, or a checkout terminal. Following receipt of the event confirmation, step 160 increments the consumer's event counter. In one implementation the event counter is incremented by 1. In an alternative implementation the event counter is incremented by a value dependent
25   upon the value of the transaction.

Next, in step 170, it is determined whether the consumer's event counter is greater or equal to the current trigger value defined at step 130. If it is determined that the consumer's event counter is less than the current trigger value, the method 100 returns to step 150 where receipt of a next event confirmation is awaited. Upon

5   receipt of the next event confirmation, processing continues to step 160 followed by step 170.

If it is determined in step 170 that the consumer's event counter is greater or equal to the current trigger value, the method 100 continues to step 180 where a reward notification is transmitted for receipt by the consumer almost immediately.

10   Preferably the reward notification is sent to the consumer's mobile phone. However, the notification may also be sent to the customer's personal computer in the case where the event associated with the event notification occurred from the customer's personal computer. The notification may also be sent to a checkout terminal where the customer is making an in-store purchase. The reward

15   notification immediately communicates to the consumer that they have been allocated a reward.

In the case where the event is a purchase, the consumer receives the reward notification immediately following their purchase. This has the advantage that the consumer's purchasing behaviour is positively reinforced. Also in step 180, a

20   reward is provided to the consumer. The reward may be in the form of a credit for goods or services allocated to an account held by the consumer.

Following step 180, processing in method 100 returns to step 130 where the current trigger value is defined to be the next value in the set of integer trigger values. Step 130 is followed by steps 140 to 170 described above.

25   Through the redefinition of the current trigger value following the allocation of a reward, the consumer is unable to predict when it is likely to receive a further (next)

reward. This promotes an open ended set of purchasing behaviours which appear to randomly reward the consumer for making purchases.

In one implementation an operator of the present invention provides telecommunication services. The consumer's device may be a cellular or landline

5   telephone handset which can allow real time communications with a central service hub provided by the telecommunications operator.

In such instances the present invention may be employed by the telecommunications operator to increase consumer utilisation of the network and services offered. Such telecommunication services can be charged for using 'on

10   demand' or user pays charging, so that consumers incur a charge with the operator each time they utilise one or more of a range of services. The present invention may therefore be employed to increase the uptake of such services by consumers through the offer of rewards.

For example, in a further preferred embodiment the present invention may be

15   employed to promote the use of text or SMS message transmissions by the consumers of a telecommunication service provider. Text messaging can be charged for on a per message basis due to the pseudo real time nature of the communications protocol used.

However, in other embodiments the present invention may not necessarily be

20   employed to promote the utilisation or uptake of telecommunications services. For example in one alternative embodiment the services related to Internet use may be promoted. In such embodiments the consumer's personal computer, laptop or smart phone may be the device to which the reward notification is sent.

In one instance the present invention may be used to promote demand for music

25   download purchases. In such an instance the reward notification may be sent to

the consumer's computer, smart phone, or a checkout terminal where the purchase is made.

In a preferred embodiment a reward to be allocated by the present invention may consist of a credit for goods or services offered by the operator. For example where text messaging is to be promoted a reward to be allocated to consumers may consist of additional free text message transmissions. However, those skilled in the art should appreciate that a range of rewards may be allocated in conjunction with the present invention and reference to the provision of free text messages in the main throughout this specification should in no way be seen as limiting.

Aspects of the present invention have been described by way of example only and it should be appreciated that modifications and additions may be made thereto without departing from the scope thereof.

The claims defining the invention are as follows:

1. . A method of allocating a reward to a consumer, the method comprising the steps of:

   i) obtaining an allocation rate;

   ii) defining a set of trigger values consisting of a plurality of integers, wherein the average of the plurality of integers is representative of said allocation rate;

   iii) defining a current trigger value by drawing a member from said set of trigger values;

   iv) transmitting a reward notification to a device associated with said consumer upon a number of consumption events satisfying a criterion based upon said current trigger value;

   v) redefining the current trigger value by drawing a further member from said set of trigger values set; and

   vi) repeating steps iii) to vi).

2. The method according to claim 1 wherein step iv) further comprises the step of allocating a reward to the consumer.

3. The method according to claim 1 wherein steps iii) and iv) further comprise removing said member from said set of trigger value.

4.   The method according to any one of claims 1 to 3 wherein said device associated with said consumer is a checkout terminal where said consumer is making a purchase.

5.   Apparatus for allocating a reward to a consumer, the apparatus being configured to perform a method comprising the steps of:

i)   obtaining an allocation rate;

ii)   defining a set of trigger values consisting of a plurality of integers, wherein the average of the plurality of integers is representative of said allocation rate;

iii)   defining a current trigger value by drawing a member from said set of trigger values;

iv)   transmitting a reward notification to a device associated with said consumer upon a number of consumption events satisfying a criterion based upon said current trigger value;

v)   redefining the current trigger value by drawing a further member from said set of trigger values set; and

vi)   repeating steps iii) to vi).

6.   A computer program product including a computer readable medium having recorded thereon a computer program for implementing a method of allocating a

reward to a consumer, the method comprising the steps of:

i)   obtaining an allocation rate;

ii)   defining a set of trigger values consisting of a plurality of integers, wherein the average of the plurality of integers is representative of said allocation rate;

iii)   defining a current trigger value by drawing a member from said set of trigger values;

iv)   transmitting a reward notification to a device associated with said consumer upon a number of consumption events satisfying a criterion based upon said current trigger value;

v)   redefining the current trigger value by drawing a further member from said set of trigger values set; and

vi)   repeating steps iii) to vi).
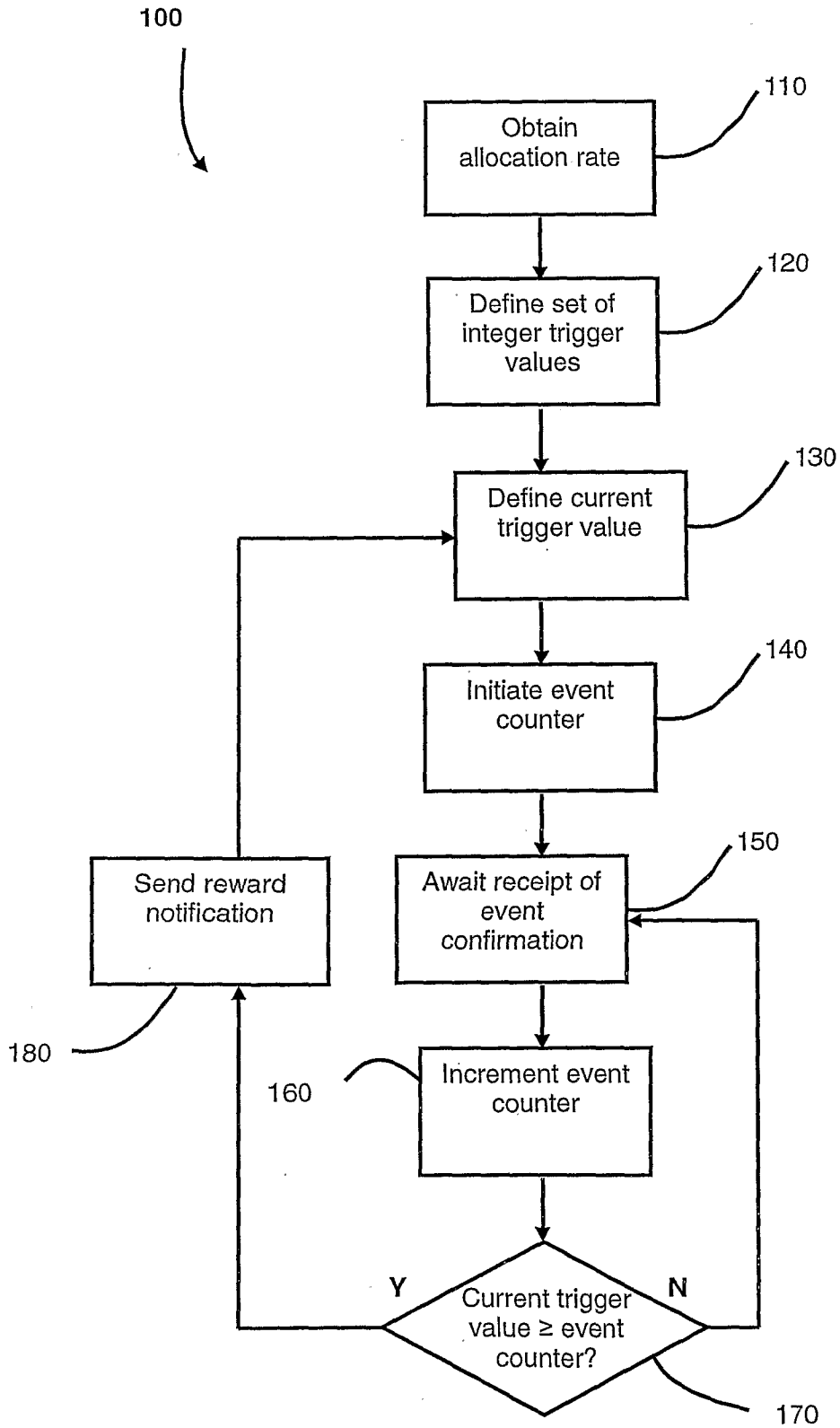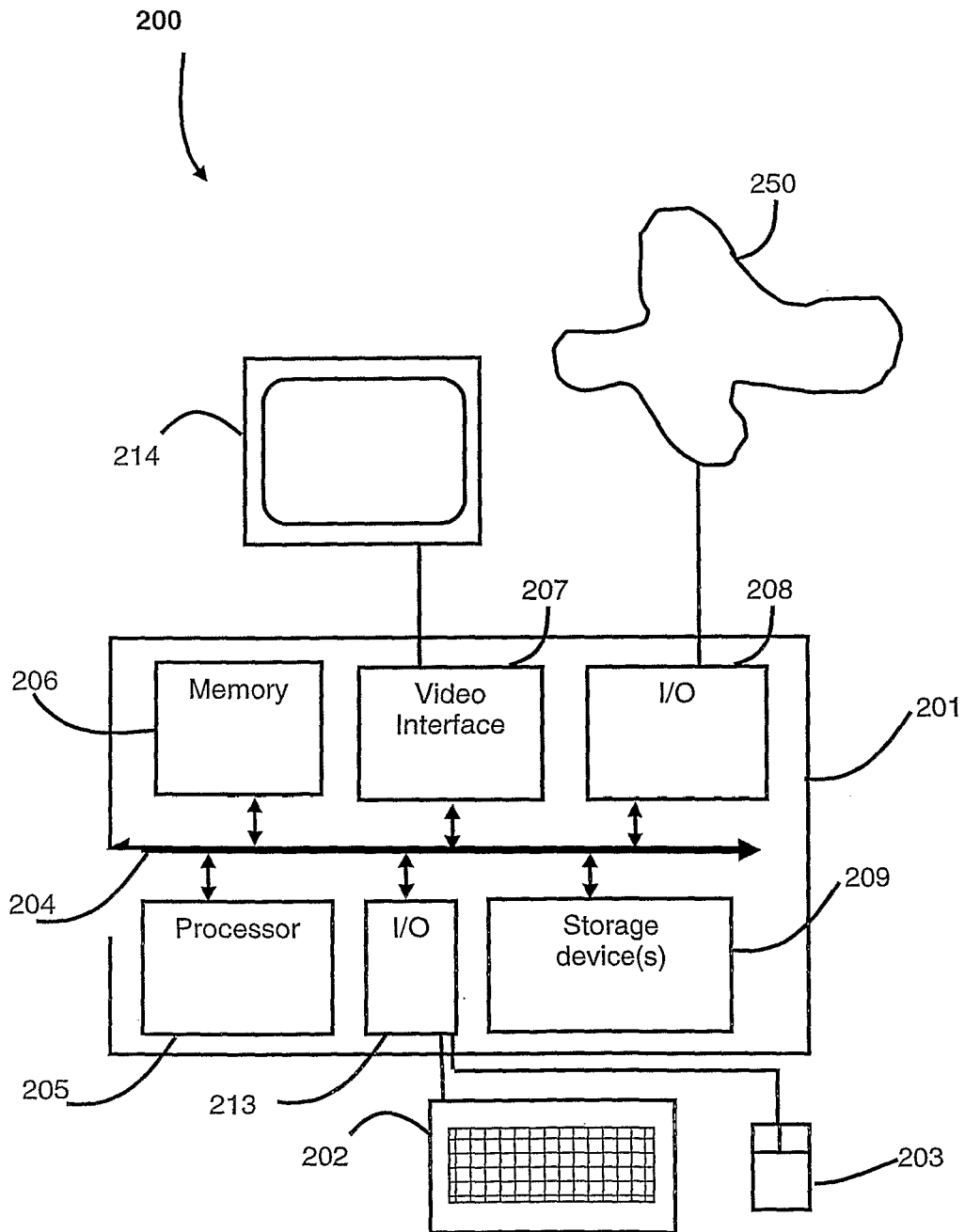
1/2

Fig. 1

200

214

250

206 Memory

207 Video Interface

208 I/O

201

204

205 Processor

213 I/O

209 Storage device(s)

202

203

Fig. 2

A.	CLASSIFICATION OF SUBJECT MATTER

Int. Cl.

G06Q 20/00 (2006.01)

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)

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)
USPTO, WPAT: US Cl: 705/14, keywords-customer, consumer, buyer, purchaser, reward?, award?, loyalty, prize, credit, trigger, threshold, critical, allocate+

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 1999/23596 A (WALKER ASSET MGMT. LTD. PARTNERSHIP) 14 May 1999 Entire document	1-6
X	US 5999914 A (BLINN et al.) 7 December 1999 Entire document	1-6
X	US 2004/0054579 A (LAMB et al.) 18 March 2004 Entire document	1-6
X	AU 2003203674 A (UNITAB LIMITED) 16 October 2003 Entire document	1-6

X	Further documents are listed in the continuation of Box C	X	See patent family annex

*	Special categories of cited documents:		
"A"	document defining the general state of the art which is not considered to be of particular relevance	"T"	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
"E"	earlier application or patent but 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	Date of mailing of the international search report
13 May 2008	2 0 MAY 2008

Name and mailing address of the ISA/AU	Authorized officer
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C (Continuation).	DOCUMENTS CONSIDERED TO BE RELEVANT	
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2001/15790 A (GOLDEN CASKET LOTTERY CORPORATION LTD.) 8 March 2001 Entire document	1-6

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report			Patent Family Member					
WO	9923596	AU	12856/99	US	6049778	US	2008071622	
US	5999914		NONE					
US	2004054579		NONE					
AU	2003203674		NONE					
WO	0115790	AU	53686/00	AU	66721/00	CA	2317357	
		EP	1206308	NZ	506530	US	6702674	
		ZA	200004418					

Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.

END OF ANNEX