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Datasheet for the decision of 22 September 2009

Case Number: T 0506/06 - 3.5.05

Application Number: 95906202.7

Publication Number: 0711434

IPC: G06F 1/12

Language of the proceedings: EN

Title of invention:
Method and system for selective incentive point-of-sale marketing in response to customer shopping histories

Applicant:
Catalina Marketing Corporation

Opponent:
-

Headword:
Selective incentive point-of-sale marketing/CATALINA

Relevant legal provisions:
EPC Art. 52(1)

Relevant legal provisions (EPC 1973):
EPC Art. 54(2), 56, 84, 106, 107, 108

Keyword:
"Inventive step (no) - main request, first second and fourth auxiliary requests"
"Clarity - third auxiliary request (no)"

Decisions cited:
J 0010/07, T 0531/03, T 0958/03

Catchword:
-

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Case Number: T 0506/06 **-** 3.5.05

D E C I S I O N
of the Technical Board of Appeal 3.5.05
of 22 September 2009

Appellant: Catalina Marketing Corporation
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 14 November 2005 refusing European patent application No. 95906202.7 pursuant to Article 97(1) EPC 1973.**

Composition of the Board:

Chairman: D. H. Rees
Members: P. Corcoran
G. Weiss

Summary of Facts and Submissions

I. This is an appeal against the decision of the examining division to refuse the European patent application No. 95 906 202.7 (publication No. 0 711 434). The decision was announced in oral proceedings held on 14 September 2005 and written reasons were dispatched on 14 November 2005.

II. In the decision under appeal it was found that claim 1 of the main request lacked an inventive step in the light of the following document:

D2: EP 0 512 509 A.

According to the decision, the features of claim 1 were disclosed in D2 or, to the extent that they were not disclosed, they related to non-technical, business constraints which could not contribute to an inventive step (cf. decision, item II.2.2). This finding was held to apply *mutatis mutandis* to all claims of all requests (cf. decision, item II.2. and II.2.5).

III. Notice of appeal was received at the EPO on 4 January 2006 and a written statement setting out the grounds of appeal was received on 24 March 2006. The appeal fee was paid on 4 January 2006.

IV. In the written statement setting out the grounds of appeal the appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of claims of a main request, corresponding to the main request on which said decision was based, or alternatively on the basis of one of first to fourth

auxiliary requests. A precautionary request for oral proceedings was also made.

V. In a communication accompanying a summons to oral proceedings to be held on 22 September 2009 the board gave its preliminary opinion that none of the appellant's requests were allowable.

VI. The communication from the board made reference to the following prior art documents:

D2: EP 0 512 509 A;

D5: US 5 201 010 A;

D6: C. A. Thissen: "Front-end Electronic marketing: Frequent Shopper and Other Programs", Food Marketing Institute, Washington DC, US, 1991;

D7: R. Bright: "Smart Cards: Principles, Practice, Applications", Introduction, Chapters 1-3 and 11, pp.1-47 and 154-163, 1988, Ellis Horwood Ltd., ISBN 0-7458-0374-1.

D2 was cited during the examination proceedings.
D5 is a US patent specification related to US patent application no. 07/826,255 mentioned in the present application on p.5 l.25-29, (cf. D5: col.1 l.7-10).
D6 is a report published by the Food Marketing Institute and cited in the International Search Report of the present application.

D7 is an extract from a textbook cited as evidence of the common general knowledge of the skilled person in relation to smart cards and similar machine readable tokens such as magnetic stripe cards.

VII. In the communication, objections were raised under Articles 84 and 123(2) EPC. It was further noted that the claimed subject-matter did not appear to comply with the inventive step requirements of the EPC.

The board noted, *inter alia*, that the disclosure of D5, in particular col.7 l.41 - col.73 l.48 and Figs. 1-18, was substantially identical to the content of the present application relating to the first embodiment of the invention (cf. p.19 l.1 - p.153 l.14 of the description and p.1/65 - p.35/65 of the drawings). The further "second alternate embodiment" of the invention (cf. p.153 et seq. of the description and p.35/65 - p.65/65 of the drawings) did not appear to involve an inventive step over the disclosure of D5.

VIII. With a letter of reply dated 17 September 2009, the appellant's representative notified the board that he would be attending the scheduled oral proceedings but did not file any amendments or submit any substantive observations concerning the issues raised by the board in its communication.

IX. With a further letter transmitted to the EPO by telefax on 21 September 2009 at 21:55, the appellant submitted an amended main request and amended first to fourth auxiliary requests. Due to the late submission of this letter, the board did not receive the amended requests in advance of the oral proceedings.

X. During the oral proceedings, the appellant submitted written copies of the aforementioned amended requests for the board's consideration and made submissions in support thereof.

In particular, the appellant submitted that the fact that a first embodiment of the invention had been disclosed in a counterpart application did not necessarily render another embodiment in a later filed application unpatentable (cf. letter dated 21 September 2009, fourth paragraph on p.2).

The appellant further argued that the claimed invention was distinguished from D5 in that it involved the use of multiple readers and because it employed different criteria for coupon issue. According to the appellant, the use of multiple readers resulted in improved data capture and a more complete database. The selective triggering of coupon printing operations in accordance with the specified criteria for coupon issue achieved a more efficient use of printing resources and resulted in a reduction of wastage.

XI. Despite the late filing of the amended requests, the board exercised its discretion to admit said requests into the proceedings.

XII. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims of one of the following requests:

Claims 1-7 of the main request as filed with the letter dated 21 September 2009;

Claims 1-6 of the first auxiliary request as filed with the letter dated 21 September 2009;

Claims 1-5 of the second auxiliary request as filed with the letter dated 21 September 2009;

Claims 1-3 of the third auxiliary request as filed with the letter dated 21 September 2009;

Claims 1-2 of the fourth auxiliary request as filed with the letter dated 21 September 2009.

The further documents on which the appeal is based, i.e. the text of the description and the drawings, are as follows:

Description, pages:

1, 4-6, 9-184, 186-359 as published;

360-380 as filed with the letter of 21 February 1996.

2, 2a, 8a as filed with the letter of 12 May 2000;

7, 7a, 8 as filed with the letter of 27 January 2003;

Main request, 1st and 2nd auxiliary requests:

3 as filed during oral proceedings before the examining division on 14 September 2005;

185 as published.

3rd and 4th auxiliary requests:

3 as published;

185 as filed with the letter dated 21 September 2009.

Drawings, sheets:

1/65-65/65 as published.

XIII. Claim 1 of the main request reads as follows:

"A data processing system, comprising:

I. means (975, 974, 973, 972, 966), located at a point of sale, for reading an instrument to obtain a unique customer identification code, and

II. means (976, 973) located at the point of sale, for transmitting coupons to a customer at the point of sale based upon prior shopping history associated with said account number, wherein each coupon defines at least one incentive offer to said customer;

III. means for storing the customer product purchase history for at least said customer, and

IV. means for generating an incentive offer for said customer based upon said customer product purchase history meeting product purchase history criteria,

characterized in that means (975, 974, 973, 972, 966) comprises means for machine reading an account number from at least one of a plurality of payment instruments from a plurality of different financial institutions or for reading an electronic benefits transfer card, a proprietory merchant issued marketing card or a smart card,

in that the means (976, 973) comprises means for transmitting coupons to a customer, wherein said incentive offer defined by the coupon provides a benefit contingent upon a future

purchase by said customer meeting incentive offer conditions specified in said coupon,

in that the means for storing the customer product purchase history comprises means for storing product purchase history including at least an identification code for said customer in association with date or date and time of purchase, and identification of products purchased in association with their date or date and time of purchase; and

in that the means for generating an incentive offer comprises means for generating an incentive offer for said customer based upon said customer product purchase history meeting product purchase history criteria, wherein said product purchase history criteria include a predetermined pattern of continuous purchases of a specified product."

XIV. Claim 1 of the first auxiliary request recites the features of claim 1 of the main request and includes in its characterising part the following additional specification which is based on the incorporation of subject-matter from dependent claim 2 of the main request:

"in that means (IV) comprises means for

(1) storing a history of previously purchased products for each customer identification code;

(2) storing, for each customer identification code, an incentive list based on a subset of products that meet a preselected frequent purchasing history criteria;

(3) storing, associated with each of a plurality of frequency levels, a value of incentives;

(4) upon receiving an [*sic*] customer identification code at the machine reading means, determining whether the purchase history associated with the customer identification code meets preselected infrequent shopping criteria;

(5) if the criteria in (4) is met, initializing program tracking values for the customer identification code;

(6) determining the value of incentives based on preset values for this level of infrequency;

(7) calculating, utilizing a preselected value formula, the incentive, the incentive specifying product, brand, size, packaging, number of units and sale price to customer; and

(8) issuing the incentive of the calculated value".

XV. Claim 1 of the second auxiliary request recites the features of claim 1 of the first auxiliary request and includes the following additional specification relating to feature (2) of means (IV) (cf. item XIV. above) based on the incorporation of subject-matter from dependent claim 3 of the main request:

"said step comprising

(2a) performing consumption rate analysis for each product in the shopping history associated with customer identification code;

(2b) determining whether there is sufficient product history associated with the customer

identification code to make a prediction of a next purchase date;

(2c) if the determination in (2b) is positive, assigning a priority value for each product based on the level of consumption frequency and estimated next purchase date for the customer identification code;

(2d) adjusting the list based on a preset value".

XVI. Claim 1 of the third auxiliary request reads as follows:

"A data processing system, comprising:

at least one point-of-sale (POS) system (962a-962e), each POS system including a scanner (966) for scanning products involved in transactions and deriving therefrom product codes (UPCs) on products involved in a transaction;

at least one reader (972, 973, 974, 975), for reading a portable instrument;

at least one controller (965, ECR CONTROLLER, CVC CONTROLLER (SLAVE), REMOTE MASTER CONTROLLER), the or each controller being coupled to the or each POS system;

for each POS system (962a-962e), a printer (969) collocated therewith;

wherein the controller or the controllers are operable for generating a coupon and causing the printer to print the coupon at the printer associated with the POS system;

characterised in that

the system further includes one or more AP/M terminal systems (963a-963c), each AP/M terminal system being a processor-based electronic transaction processing system and being co-located

with a respective POS system (962a-962e), and each AP/M terminal system including said at least one reader (972, 973, 974, 975) and a terminal (970) having an alphanumerical keypad; in that

said portable instrument comprises a portable payment instrument, and said at least one reader (972, 973, 974, 975) comprises at least one reader for reading a portable payment instrument and extracting therefrom a unique ID code (CID); in that

the or each controller is coupled for accessing and writing to a primary database, the primary database containing, for each CID, transaction data, the transaction data including, for one or more transactions associated with the CID, at least the date of the transaction and the product codes for products involved in the transaction; in that

the or each controller is operable for

receiving said CID following input at the AP/M terminal system,

accessing, after receiving a CID associated with a transaction, the transaction data associated with the CID in the primary database, including the dates of the transactions,

determining, from the accessed transaction data, the weekly frequency of transactions associated with the CID, and writing to the primary database a frequency level associated the CID, the frequency level indicating whether the user associated with the CID is a high frequency, mid-frequency or low-

frequency user, corresponding to the determined weekly frequency of transactions being within a first range, a second range or a third range, and

causing the printer to print said coupon with human-readable incentive level information, the content of the incentive level information being different depending on whether the determined frequency level associated with the CID is indicative of high frequency, mid-frequency or low-frequency user."

XVII. Claim 1 of the fourth auxiliary request is based on claim 1 of the third auxiliary request. The section of the characterising part defining the portable instrument and the at least one reader has been amended to incorporate subject-matter from claim 2 of the third auxiliary request and reads as follows:

"said portable instrument comprises one of a cheque, a debit card, a smart card and a credit card, and said at least one reader (972, 973, 974, 975) comprises, for the or each AP/M terminal and coupled thereto, each of a cheque reader (975) for reading cheques, a debit card reader (972) for reading debit cards, a smart card reader (973) for reading smart cards, and a credit card reader (974) for reading credit cards, each reader being adapted for reading respectively the cheque, debit card, smart card or credit card and extracting therefrom a unique ID code (CID)".

XVIII. At the end of the oral proceedings the chairman announced the board's decision.

Reasons for the Decision

1. *Admissibility*

1.1 The appeal complies with the requirements of Articles 106 to 108 EPC 1973 which are applicable according to J 0010/07 (cf. item III. of the Facts and Submissions). It is therefore admissible.

Main request

2. *Preliminary observations*

2.1 The board interprets the wording added to the characterising part of claim 1 of the main request concerning the means for reading an instrument, *viz.* "or for reading an electronic benefits transfer card, a proprietory merchant issued marketing card or a smart card", as defining a plurality of alternative embodiments of the claimed means for reading an instrument.

2.2 Said claim 1 is thus interpreted as covering a first embodiment in which the means for reading an instrument comprises "means for machine reading an account number from at least one of a plurality of payment instruments from a plurality of different financial institutions" and a plurality of further alternative embodiments in which the means for reading an instrument defined in I. comprises means for reading any one of the other listed

tokens, i.e. an electronic benefits transfer card, a proprietary merchant issued marketing card or a smart card.

3. *Article 52(1) EPC - inventive step*

3.1 D5 discloses all of the features of the pre-characterising part of claim 1 in respect of the first embodiment of claim 1 identified in 2.2 above. In particular, D5 discloses a data processing system (cf. for example, D5: Fig.1 and col.8 l.58-64) comprising:

3.1.1 *"I. means (975, 974, 973, 972, 966) located at a point of sale for reading an instrument to obtain a unique customer identification code"*.

The POS terminal including an automatic cheque reader disclosed in D5 is such a means (cf. D5: col.10 l.17-29 and Fig. 2A).

3.1.2 *"II. means (976, 973) located at the point of sale, for transmitting coupons to a customer at the point of sale based upon prior shopping history associated with said account number, wherein each coupon defines at least one incentive offer to said customer"*.

The point of-sale coupon printer 976 disclosed in the application (cf. application: p.165 l.12-15) represents one embodiment of the claimed means. The coupon dispenser 123b of D5 which is used to print incentive coupons for dissemination ("transmission") to customers at the point of sale is such a means (cf. D5: Fig. 2A; col.10 l.24-26; col.70 l.13-46).

3.1.3 *"III. means for storing the customer product purchase history for at least said customer"*.

The customer database 114 which is used to develop customer profiles for use in targeted marketing programs is such a means (cf. D5: Fig. 1; col.8 l.58-62; col. 21 l.1 - col.24 l.11; col.33 l.54 - col.34 l.12; col.59 l.25 et seq.).

3.1.4 *"IV. means for generating an incentive offer for said customer based upon said customer product purchase history meeting product purchase history criteria"*.

The host processor 110 which generates a coupon or an indication of the type of coupon to be given to the customer based upon the customer's product purchase history (cf. D5: col.70 l.48 - col.71 l.26) is such a means.

3.2 With respect to the characterising part of claim 1, D5 additionally discloses the following:

3.2.1 *"means (975, 974, 973, 972, 966) comprises means for machine reading an account number from at least one of a plurality of payment instruments from a plurality of different financial institutions"*.

The cheque reader disclosed in D5 is specifically adapted to machine read account numbers from a plurality of payment instruments (i.e. cheques) from a plurality of different financial institutions (cf. D5: col.11 l.3-26; col.13 l.33-38) and thus constitutes means for reading an account number as specified in accordance with the first embodiment of claim 1 (cf. 2.2 above).

3.2.2 *"the means (976, 973) comprises means for transmitting coupons to a customer, wherein said incentive offer defined by the coupon provides a benefit contingent upon a future purchase by said customer meeting incentive offer conditions specified in said coupon"*.

As noted in 4.1.2 above, the coupon dispenser 123b which is used to print incentive coupons for dissemination to customers at the point of sale is a means for transmitting coupons to a customer. The terms of the incentive offer defined by the coupon relate, in the board's judgement, to non-technical subject-matter which makes no contribution to the technical character of the claimed subject-matter. Irrespective of this consideration, it is evident from the examples of incentive coupons given in D5 that said coupons define offers which provide a benefit contingent upon a future purchase by said customer meeting conditions specified in said coupon, e.g. the coupons are designed to induce the recipient to shop in a specific department or to purchase a specific product or (cf. D5: col.71 l.1-3; col.71 l.9-13).

3.2.3 *"the means for storing the customer product purchase history comprises means for storing product purchase history including at least an identification code for said customer in association with date or date and time of purchase, and identification of products purchased in association with their date or date and time of purchase"*.

D5 discloses that when a customer conducts a transaction "shopping events" are recorded in order to build a shopping history for each customer's record (cf. D5: col.62 l.15-17; col.65 l.13-16) The customer's record is associated with an identification code for the customer (cf. D5: col.61 l.57-69) and data pertaining to customer

shopping habits and transactional data are maintained over a preselected time interval (cf. D5: col.65 l.59 - col.66 l.9). Information about the date and the amount of transaction is also stored in the database (cf. D5: col.60 l.33-36) and the customer's database record contains fields to monitor the purchase of particular products (cf. D5: col.73 l.3-7). On this basis D5 discloses, at least implicitly, means for storing the customer product purchase history as claimed.

3.3 The subject matter of claim 1 is thus found to differ from the disclosure of D5 in respect of the concluding specification according to which:

"the means for generating an incentive offer comprises means for generating an incentive offer for said customer based upon said customer product purchase history meeting product purchase history criteria wherein said product purchase history criteria include a predetermined pattern of continuous purchases of a specified product".

3.4 In the preferred embodiments of D5 incentive coupons are issued when the customer's purchase history conforms to criteria indicative of so-called "infrequent customers" and "non-customers" (cf. D5: col.62 l.29-32; col.71 l.1-3; col.71 l.9-13).

The claimed invention, on the other hand, specifies that incentive coupons are issued where the customer's purchase history conforms to a predetermined pattern of continuous purchases of a specified product.

This difference relates to the specification of the terms and conditions under which incentive coupons are issued.

3.5 The terms and conditions under which incentive offers are issued are, in the board's judgement, non-technical constraints reflecting a particular marketing strategy and do not in themselves involve any technical considerations upon which an inventive step could be based. The objective technical problem is thus to be formulated in terms of providing a technical implementation of the underlying marketing strategy (cf. T 0531/03 reasons, point 3.5).

In the present case, the objective technical problem is to adapt a point-of-sale coupon generating system such as that disclosed in D5 so that it generates an incentive coupon in accordance with a desired marketing strategy. In other words, the point-of-sale coupon generating system must be programmed such that an incentive coupon is generated when the customer's product purchase history complies with a specified set of non-technical constraints, in this case a predetermined pattern of continuous purchases of a specified product.

3.6 In the board's judgment the solution to the aforementioned problem does not require the exercise of inventive skill. Once the desired marketing strategy has been specified, the modifications required to generate incentive coupons in accordance with this strategy follow in a straightforward manner and merely require the exercise of conventional programming skills. The board notes that its findings in this respect are consistent with decisions T 0531/03 and T 0958/03 (see in particular

T 0531/03, points 2 and 3 of the reasons, and T 0958/03, points 3-8 and 14 of the reasons).

3.7 The board additionally notes for the sake of completeness that the provision of alternative types of readers as specified in accordance with the further embodiments of claim 1 (cf. 2.2 above) merely implies substituting alternative "means for reading an instrument" in place of the cheque reader disclosed in D5. Such alternative "means for reading an instrument" perform a similar technical function to the cheques reader of D5 inasmuch as they are used to read customer identification information from a machine-readable token. Having regard to the skilled person's general knowledge in relation to such machine-readable tokens and associated reader devices (cf. observations under 9.5 below), such a substitution is considered to lie within the routine competence of the skilled person and does not involve an inventive step over the teaching of D5.

4. In view of the foregoing, the subject-matter of claim 1 lacks an inventive step. The main request is therefore not allowable.

First and second auxiliary requests

5. Claim 1 of the first auxiliary request includes an additional specification relating to the means IV., i.e. the means for generating an incentive offer, according to which means IV. comprises means for generating an incentive coupon having a calculated value based on "infrequent shopping criteria" and an associated "value

formula" and is evidently based on the embodiments disclosed on p.268 l.15 - p.277 l.31.

5.1 Claim 1 of the second auxiliary request further specifies that the generation of an incentive offer is based on the use of a "consumption rate analysis" for a specified product and is evidently based on the embodiments disclosed on p.229 l.16 - p.230 l.15 and p.268 l.15 - p.277 l.31.

5.2 In the board's judgement, the additional features of claim 1 of the first auxiliary request and, likewise, the additional features of claim 1 of the second auxiliary request merely reflect the modification of the known system of D5 in order to generate coupons in accordance with specific targeted marketing strategies and incentive programs as referred to on p.154 l.19 - p.156 l.21.

5.3 Targeted marketing strategies and associated concepts such as "consumption rates" and "buying cycles" as described, for example, on p.228 l.16 - p.230 l.15 of the application and the specification of a "value formula" as described, for example, on p.268 l.15-30 and p.276 l.16-24, p.278 l.1 *et seq.*, are not matters relating to a field of technology in the sense of Art. 52(1) EPC.

5.4 As noted in point 3.6 above with respect to claim 1 of the main request, the modifications to the system of D5 required in the given circumstances are not considered to involve an inventive step since they merely involve the exercise of conventional programming skills in order to program the coupon generating logic of an existing system

in accordance with a specified set of non-technical constraints.

5.5 In view of the foregoing, the subject-matter of claim 1 of the first auxiliary request and, likewise, claim 1 of the second auxiliary request lacks an inventive step. These requests are therefore not allowable.

Third auxiliary request

6. *Article 84 EPC 1973*

6.1 The pre-characterising part of claim 1 of the third auxiliary request recites "at least one reader (972, 973, 974, 975) for reading a portable instrument" (emphasis added). The characterising part of the claim specifies that "said portable instrument comprises a portable payment instrument" and "said at least one reader (972, 973, 974, 975) comprises at least one reader for reading a portable payment instrument" (emphasis added).

6.2 The expressions "portable instrument" and "portable payment instrument" are not used in the description which uses the terms "financial instrument", "financial payment instrument" and "transaction instrument" to refer to forms of payment which bear unique account numbers such as cheques, credit cards and debit cards. The intended distinction between the terms "portable instrument" and "portable payment instrument" as used in the claim wording is not evident. Moreover, there is no identifiable disclosure of a portable instrument comprising a portable payment instrument as recited in the claim.

6.3 Neither is there any identifiable disclosure in the description of a reader for reading a portable instrument which in turn comprises at least one reader for reading a portable payment instrument as recited in the claim. The description merely discloses that one or more readers for reading various types of payment instruments can be connected to a terminal (cf. p.164 l.27 - p.165 l.11).

6.4 The board finds that the above-mentioned formulations used in claim 1 of the request are semantically unclear and obscure the definition of the matter for which protection is sought. Moreover, the wording used in the claim finds no identifiable support in the description.

6.5 In view of the foregoing, claim 1 of the third auxiliary request fails to meet the requirements of Article 84 EPC 1973. The request is therefore not allowable.

7. *Further observations*

7.1 It is additionally noted for the sake of completeness that even if the aforementioned deficiency in claim 1 of the third auxiliary request had been overcome, the board would not be inclined to accept that the subject-matter of the claim involves an inventive step.

7.2 D5 discloses all of the features of the pre-characterising part of claim 1. In particular, D5 discloses a data processing system (cf. for example, D5: Fig.1 and col.8 l.58-64) comprising:

7.2.1 *"at least one point-of-sale (POS) system (962a-962e), each POS system including a scanner (966) for scanning products involved in transactions and deriving therefrom product codes (UPCs) on products involved in a transaction"*.

The POS terminal disclosed in D5 which includes a scanner in the form of a bar code reader 123a is such a "POS system" (cf. D5: col.10 l.18-23 and Fig. 2A).

7.2.2 *"at least one reader (972, 973, 974, 975), for reading a portable instrument"*.

The automatic cheque reader 119 disclosed in D5 is such a reader (cf. D5: col.10 l.17-29 and Fig. 2A).

7.2.3 *"at least one controller (965, ECR CONTROLLER, CVC CONTROLLER (SLAVE), REMOTE MASTER CONTROLLER), the or each controller being coupled to the or each POS system"*.

The transaction processor 112 disclosed in D5 is such a controller (cf. D5: col.8 l.65 - col.9 l.4).

7.2.4 *"for each POS system (962a-962e), a printer (969) collocated therewith"*.

The coupon dispenser 123b of D5 which is used to print incentive coupons for dissemination to customers at the point of sale is such a printer (cf. D5: Fig. 2A; col.10 l.24-26; col.70 l.13-46).

7.2.5 *"wherein the controller or the controllers are operable for generating a coupon and causing the printer to print the coupon at the printer associated with the POS system"*.

The transaction processor 112 disclosed in D5 provides response data to the POS system, including marketing data indicative of the type of coupon to be dispensed, and on this basis is found to provide, at least implicitly, identical functionality to the claimed controller (cf. D5: col.8 l.65 - col.9 l.4).

7.3 With respect to the characterising features of claim 1 the following is noted:

7.3.1 *"one or more AP/M terminal systems (963a-963c), each AP/M terminal system being a processor-based electronic transaction processing system and being co-located with a respective POS system (962a-962e), and each AP/M terminal system including said at least one reader (972, 973, 974, 975) and a terminal (970) having an alphanumerical keypad"*.

The designation "AP/M" is not an established term of art and is evidently an abbreviation for the expression "All Payments/ Marketing" (cf. p.16 l.33-36). In the given circumstances it implies no particular technical limitation in respect of the "terminal system". D5 discloses a "terminal system" in the form of an automatic cheque reader which, in the wording of claim 1, is a processor-based electronic transaction processing system co-located with a respective POS system ("POS transaction terminal") including at least one reader, i.e. an automatic cheque reader (cf. Figs. 2A and 2B).

7.3.2 *"said portable instrument comprises a portable payment instrument, and said at least one reader (972, 973, 974, 975) comprises at least one reader for reading a portable*

payment instrument and extracting therefrom a unique ID code (CID)".

As noted in 6. above, this wording is semantically unclear. However, given that the specification relating to the portable instrument is evidently intended to cover cheques and that the specification relating to the reader is evidently intended to cover a cheque reader, the cheques and cheque reader disclosed in D5 fall within the intended scope of this wording.

7.3.3 *"the or each controller is coupled for accessing and writing to a primary database, the primary database containing, for each CID, transaction data, the transaction data including, for one or more transactions associated with the CID, at least the date of the transaction and the product codes for products involved in the transaction"*.

Referring to the disclosure in D5 of a customer database which is used to develop customer profiles for use in targeted marketing programs and in which "shopping events" are recorded when a customer conducts a transaction in order to build a shopping history for each customer (cf. 3.1.3 and 3.2.3 above), the above-cited claim features relating to the "primary database" are disclosed in D5, at least implicitly.

7.3.4 According to D5 coupons are generated and selectively disseminated to customers at the point-of-sale based on the customer's shopping history (cf. D5: col.70 l.48 - col.71 l.33). In view of this, D5 is found to disclose, in the wording of claim 1:

"that the or each controller is operable for

receiving said CID following input at the AP/M terminal system;

accessing, after receiving a CID associated with a transaction, the transaction data associated with the CID in the primary database, including the dates of the transactions";

[...]

"causing the printer to print said coupon".

7.4 The subject-matter of claim 1 thus differs from the disclosure of D5 in the following respects:

(i) The "terminal system" co-located with a respective POS system further includes "a terminal (970) having an alphanumerical keypad".

(ii) The or each controller is operable for "determining, from the accessed transaction data, the weekly frequency of transactions associated with the CID, and writing to the primary database a frequency level associated the CID, the frequency level indicating whether the user associated with the CID is a high frequency, mid-frequency or low-frequency user, corresponding to the determined weekly frequency of transactions being within a first range, a second range or a third range".

(iii) The coupon is printed "with human-readable incentive level information, the content of the incentive level information being different depending on whether the determined frequency level associated with the CID is indicative of high frequency, mid-frequency or low-frequency user".

7.5 The technical function of the distinguishing feature (i) noted under 7.4 above is not apparent from the wording of the claim but, as far as can be determined from the application, the provision of a terminal with a keypad connected to the reader merely serves to permit the entry of alphanumeric data such as a customer identification number (cf. application: p.163 l.2-5).

The distinguishing features (ii) and (iii) noted under 7.5 above provide the effect of generating coupons in accordance with a specific targeted marketing strategy which involves assigning an "incentive level" to a customer based on the number of weekly attendances and issuing a coupon reflecting the assigned "incentive level" as described on p.186 l.32 et seq.

There is no identifiable technical interrelationship between the distinguishing feature (i) which serves to permit the input of alphanumeric data and the distinguishing features (ii) and (iii) which serve to implement a specific targeted marketing strategy. Hence these two groups of distinguishing features may be considered separately for the purpose of assessing inventive step.

7.6 With respect to the distinguishing feature (i) it is noted that in the system of D5, the cheque reader is directly coupled to the POS terminal and a numeric keypad is provided on the POS terminal to permit the entry of numeric data, e.g. to allow a store clerk to enter the amount of a check or a verification code (cf. D5: col.10 l.31-37). An alphanumeric keypad is an alternative

data entry means providing substantially similar functionality to the numeric keypad of D5. The substitution of an alphanumeric keypad for a numeric keypad represents an obvious design alternative, in particular where it is desired to facilitate the manual entry of alphanumeric data, as opposed to purely numeric data.

Whether such means to permit manual data entry are provided via the POS terminal keypad as in D5 or whether they are provided via a further peripheral device (i.e. "a terminal ... having an alphanumerical keypad") is, in the board's judgement, a further matter of design choice which likewise does not involve any non-obvious technical considerations. The overall technical function of the keypad remains the same in both cases, i.e. to enable the manual entry of data. Hence, this distinguishing feature is not considered to make an inventive contribution to the claimed subject-matter.

7.7 With respect to the distinguishing features (ii) and (iii), this group of features merely reflects the modification of the system of D5 in order to generate coupons in accordance with a specific targeted marketing strategy. As noted in point 3.6 above with respect to claim 1 of the main request, the modifications to the system of D5 required in the given circumstances are not considered to involve an inventive step since they merely involve the exercise of conventional programming skills in order to re-program the coupon generation logic of the system of D5 in accordance with a specified set of non-technical constraints.

7.8 Given that neither of the identified groups of distinguishing features provides an inventive contribution to the claimed subject-matter, the board concludes that even if the deficiency in claim 1 of the third auxiliary request noted under 6. above had been overcome, the subject-matter of the claim would not involve an inventive step.

Fourth auxiliary request

8. *Preliminary observations*

8.1 Claim 1 of the fourth auxiliary request recites subject-matter similar to claim 1 of the third auxiliary request but the section of the characterising part defining the portable instrument and the at least one reader has been amended to incorporate subject-matter from claim 2 of the third auxiliary request (cf. item XVII. of the Facts and Submissions).

8.2 The formulation "said at least one reader (972, 973, 974, 975) comprises ... each of a cheque reader (975) for reading cheques, a debit card reader (972) for reading debit cards, a smart card reader (973) for reading smart cards, and a credit card reader (974) for reading credit cards, each reader being adapted for reading respectively the cheque, debit card, smart card or credit card and extracting therefrom a unique ID code (CID)", albeit somewhat unclear from a semantic viewpoint, is interpreted in the light of the appellant's submissions (cf. letter dated 21 September 2009: p.2 l.1-5) as seeking protection for a system comprising a plurality of reading devices as shown for example in Figs. 19 and 21 of the application (cf. p.164 l.27 - p.165 l.15).

9. *Article 52(1) EPC*

9.1 Referring to the observations concerning D5 and claim 1 of the preceding request made in 7.2 and 7.3 above, the subject-matter of claim 1 of the present request differs from the disclosure of D5 in the following respects:

(i) The processor-based electronic transaction processing system co-located with a respective POS system includes a "a terminal (970) having an alphanumerical keypad" and comprises a plurality of readers.

(ii) The or each controller is operable for determining the weekly frequency of transactions associated with the CID as detailed in (ii) of 7.4 above.

(iii) The coupon is printed "with human-readable incentive level information" as detailed in (iii) of 7.4 above.

9.2 The technical function of the distinguishing feature (i) noted under 9.1 above is to permit capture or entry of customer identification information from a plurality of sources (cf. application: p.162 l.29 - p.163 l.5).

The distinguishing features (ii) and (ii) noted under 9.1 above provide the same effect as detailed under 7.5 above, i.e. the generation of coupons in accordance with a specific targeted marketing strategy which involves assigning an "incentive level" to a customer based on the

number of weekly attendances and issuing a coupon reflecting the assigned "incentive level".

There is no identifiable technical interrelationship between the aforementioned distinguishing feature (i) which relates to the capture or entry of customer identification information and the aforementioned distinguishing features (ii) and (iii) which serve to implement a particular targeted marketing strategy. Hence these two groups of distinguishing features may be considered separately for the purpose of assessing inventive step.

9.3 In the system of D5 a peripheral comprising a single reader device, *viz.* an automatic cheque reader for reading cheques encoded with MICR data, is coupled to the POS transaction terminal. Consequently, the system of D5 is limited to capturing customer identification information for customers who pay for their purchases using cheques and thus can only be used record shopping history data relating to these customers. Under this arrangement, only a partial subset of the total customer base can be included in any targeted marketing program.

9.4 The objective technical problem solved by the distinguishing feature (i) is the provision of a peripheral coupled to the POS transaction terminal which permits identification of customers who wish to transact payment other than by cheque. In the board's judgement, it represents an obvious desideratum to extend the data capture capabilities of the system of D5 in this manner in order to increase the subset of the total customer base for which shopping history data is recorded. The

aforementioned problem could thus have been posed by the person of average skill in the art without the exercise of inventive skill.

9.5 From a technical point of view, the various "instruments" enumerated in the second embodiment of the application are cards or similar physical tokens which preferably incorporate some form of electronically encoded information associated with the bearer, e.g. magnetic stripe cards or smart cards, cf. p.170 l.13 *et seq.* and Figs. 23A-23C.

The technical characteristics of such cards and, likewise, appropriate techniques for machine reading encoded information from them were generally known at the claimed priority date (cf. D6: p.16, section entitled "Media Types"; Appendix E, Glossary, p.63-64, entries for "magnetic striped cards", and "smart cards") and that the use of various machine-readable tokens such as bar-coded cards, magnetic stripe cards and smart cards was generally known in the context of front-end electronic marketing systems, i.e. electronic marketing programs linked to a retailer's POS system, (cf. D6: Appendix E, Glossary, p.63, entry for "front-end electronic marketing").

D7 further confirms that machine readable tokens such as magnetic stripe cards and smart cards and techniques for reading account number information from such cards were generally known at the claimed priority date (cf. for example, D7: Chapter 1, p.14, in particular Table 1; Chapter 2, in particular the section entitled "French Point of Sale Trials", p.26 *et seq.*; Chapter 3, in

particular the sections entitled "Basic Structure of Second-Generation Cards", p.34 *et seq.* and "Read/Write Terminals", p.43 *et seq.*).

9.6 The use of a keypad for the manual entry of data is a known, conventional technical measure in the context of point-of-sale coupon generating systems (cf. for example D5: col.10 l.31-37). The claimed alphanumeric keypad merely serves to enable the manual entry of customer identification data (cf. application: p.163 l.2-5). Under the given circumstances, the provision of an alphanumeric keypad as claimed is not considered to require the exercise of inventive skill for the reasons given in respect of the corresponding feature of claim 1 of the preceding request (cf. observations under 7.6 above).

9.7 In view of the foregoing, the board judges that the skilled person faced with the stated technical problem would not require the exercise of inventive skill to aggregate the known additional reader devices and keypad for use with a POS transaction terminal in the manner specified in claim 1. The distinguishing feature (i) does not provide an inventive contribution to the claimed subject-matter.

9.8 With respect to the distinguishing features (ii) and (iii), the observations made under 7.7 above in relation to claim 1 of the preceding request apply. This group of distinguishing features likewise fails to provide an inventive contribution to the claimed subject-matter.

9.9 Given that neither of the identified groups of distinguishing features provides an inventive

contribution to the claimed subject-matter, the board concludes that claim 1 of the fourth auxiliary request does not involve an inventive step. The request is therefore not allowable.

10. *Observations concerning the appellant's submissions*

10.1 The appellant submitted that the fact that the first embodiment of the invention has been disclosed in a counterpart application, i.e. in D5, did not necessarily render another embodiment in a later-filed application unpatentable and also made reference to a number of alleged advantages provided by the claimed invention (cf. item X. of the Facts and Submissions).

10.2 The appellant is, in principle, correct in stating that the pre-publication in D5 of subject-matter corresponding to the first embodiment of the invention as disclosed on p.19 l.1 - p.153 l.14 of the present application is not in itself inevitably prejudicial to the patentability of the "second alternate embodiment" disclosed on p.153 et seq. of the application.

However, under the provisions of Article 54(2) EPC 1973 the pre-published subject-matter of D5 represents prior art of which due account is to be taken in the assessment of the inventive step of claims based on the aforementioned second embodiment. In the present case, the differences between the prior art of D5 and the claimed invention as defined in the appellant's requests do not, in the board's judgement, involve an inventive step (cf. preceding observations, in particular points 3., 5., 7. and 9. above).

10.3 Concerning the appellant's submissions to the effect that the claimed invention, in particular in accordance with claim 1 of the fourth auxiliary request, is not limited to the use of a cheque reader as in the case of D5 and consequently provides improved data capture and a more complete database, the board is not convinced that this suffices to establish that claimed subject-matter involves an inventive step.

While it may be true that employing a plurality of readers permits more extensive data capture compared to the system of D5, the board takes the view that the skilled person does not require the exercise of inventive skill to recognise the limitations of the system of D5 and in response thereto to extend its data capture capabilities in order to capture customer identification information relating to customers who pay by means other than cheque (cf. observations under 9.4-9.7 above).

10.4 Concerning the appellant's submissions to the effect that the claimed invention uses different criteria than D5 for generating coupons and that this results in a more selective triggering of printing operations thereby achieving a reduction of wastage, the board does not find these submissions convincing for the reasons which follow.

10.5 In the present case, the use of different criteria for generating coupons reflects a decision to use different targeted marketing strategies to those proposed in D5 and does not give rise to any non-obvious technical considerations or technical effects which could be

invoked in support of an inventive step (cf. in particular 3.5-3.6 and 5.3-5.4 above).

Moreover, it is noted that the application as originally filed contains no statement or indication to the effect that the targeted marketing strategies proposed in the context of the "second alternate embodiment" are designed to achieve a reduction of wastage compared to the targeted marketing strategies proposed in the context of the first embodiment which corresponds to the disclosure of D5. Thus an attempt to reframe the underlying technical problem vis-à-vis D5 in such terms cannot be accepted.

10.6 In the given context, the alleged "reduction of wastage" is understood to refer to the more selective printing of coupons based on a targeted marketing strategy and also to the expected increase in the redemption rate of the issued coupons because they are more likely to correspond to the recipient's perceived purchasing needs. In other words, the use of a non-targeted, marketing approach of the kind referred to on p.6 l.3-5 of the application (see also D2: col.1 l.45-52) typically results in the indiscriminate issue of a large volume of coupons many of which are not subsequently redeemed by the recipients whereas the use of a targeted marketing approach leads to a more selective issue of coupons which the recipients are more likely to redeem.

The "reduction of wastage" referred to by the appellant thus implies one or both of the following effects: a reduction in the overall volume of coupons printed and an increase in the coupon redemption rate.

10.7 As far as the first of the effects identified in 10.6 above is concerned, i.e. a reduction in the overall volume of coupons printed, it is noted that any system which generates coupons based on a targeted marketing strategy, including the system of D5, inherently triggers printing operations in a selective manner and thus achieves a reduction in the volume of coupons printed when compared to a system based on the use of a non-targeted marketing approach which prints coupons indiscriminately.

There is, however, no identifiable basis for concluding that the system according to the "second alternate embodiment" of the present application results in the issue of a smaller volume of coupons than the system of D5. In fact, the volume of coupons issued is likely to be higher than in the case of the system of D5 because the system according to the "second alternate embodiment" is not limited to capturing data from customers who pay by cheque. It is therefore probable that it would have a larger customer base which, in general, could be expected to lead to a greater number of coupons being printed.

It is further noted that in the given context the volume of coupons printed appears to be incidental to the implementation of a particular marketing strategy. Neither D5 nor the application itself makes any attempt to quantify the amount of coupons printed and the amount of printing resources consumed for this purpose is of no apparent concern in either of said documents. Thus even had the appellant succeeded in establishing that a particular marketing strategy associated with the "second

alternate embodiment" resulted in the printing of a lesser volume of coupons in comparison to the marketing strategies of D5, the board judges that such an effect would at most represent an incidental or bonus effect resulting from a straightforward technical implementation of the chosen marketing strategy.

10.8 As far as the second of the effects identified in 10.6 above is concerned, i.e. an increase in the coupon redemption rate, it is noted that it is a general aim of targeted marketing strategies to increase the coupon redemption rate by basing the generation of coupons on specific commercial, i.e. non-technical, criteria which are intended to make the offer printed on the coupon more relevant to the recipient's perceived needs or interests.

There is, however, no identifiable basis for concluding that the coupons printed by the system according to the "second alternate embodiment" of the present application achieve a higher redemption rate than the coupons printed by the system of D5. Neither document makes any attempt to quantify the redemption rate of the coupons and, therefore, any claims to the effect that the "second alternate embodiment" of the present application achieves a higher coupon redemption rate relative to D5 must be dismissed as speculative.

It is further noted in this regard that the coupon redemption rate ultimately depends on the extent to which the recipients find the terms and conditions of the offers printed on the coupons to be commercially attractive or otherwise useful from an economic point of view. It thus constitutes a statistical measure of the

commercial success of the coupon scheme. In the given context, an increase in the redemption rate of the printed coupons would merely be a reflection of a more commercially effective marketing strategy and would not be indicative of any technical contribution relating to the coupons or the system used to generate them. Hence, even if an increase in the coupon redemption rate relative to D5 had been established, such an effect would not, in the board's judgement, constitute a technical effect which could be invoked in support of an inventive step.

10.9 In view of the foregoing, the appellant's submissions failed to convince the board that the claimed subject-matter involves an inventive step over D5.

Concluding remarks

11. In the absence of an allowable request the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

K. Götz D. H. Rees