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**Datasheet for the decision
of 17 January 2007**

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Case Number:	T 0958/03 - 3.5.01
Application Number:	98941014.7
Publication Number:	1008090
IPC:	G06F 17/60
Language of the proceedings:	EN

Title of invention:
Method and apparatus for generating purchase incentives based
on price differentials

Applicant:
CATALINA MARKETING CORPORATION

Opponent:
-

Headword:
Purchase incentives/CATALINA MARKETING

Relevant legal provisions:
EPC Art. 23(3), 52(1)(2)(3), 56
RPBA Art. 10b(1)(3)

Keyword:
"Marketing policy - contribution to technical character (no)"
"Objective problem - inclusion of non-technical innovation
(yes)"
"Technical implementation - obvious (yes)"

Decisions cited:
T 0026/86, T 0769/92, T 0641/00, T 0258/03, T 0531/03
BGH X ZB 15/98-Sprachanalyseeinrichtung
BGH X ZR 43/91-Tauchcomputer

Catchword:
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Case Number: T 0958/03 **-** 3.5.01

D E C I S I O N
of the Technical Board of Appeal 3.5.01
of 17 January 2007

Appellant:	Catalina Marketing Corporation 200 Carillon Parkway St. Petersburg, FL 33716 (US)
Representative:	Kunz, Herbert HAMMONDS Karl-Scharnagl-Ring 7 D-80539 München (DE)
Decision under appeal:	**Decision of the Examining Division of the** **European Patent Office posted 22 April 2003** **refusing European application No. 98941014.7** **pursuant to Article 97(1) EPC.**

Composition of the Board:

Chairman:	S. Steinbrener
Members:	K. Bumes
	A. Pignatelli

Summary of Facts and Submissions

I.   This appeal is against the decision of the Examining
       Division to refuse application 98941014.7 on the ground
       that the apparatus according to main, first and second
       auxiliary requests did not involve an inventive step
       over

                    D2: US-A-4 723 212.

II.   In the statement of grounds of appeal, the appellant
       requested that the decision under appeal be set aside
       and a patent be granted on the basis of the main
       request (= main request refused by the Examining
       Division) or one of auxiliary requests 1 to 4 submitted
       with the statement of grounds.

       Claim 1 of the main request reads:
       "1. An incentive generation apparatus, for use with a
       sales transaction recording system having at least one
       checkout terminal (12) and a store controller (10) with
       access to an item price file (20), the apparatus
       comprising:
            storage means (28) for holding data defining
       incentive terms pertaining to at least one item of
       which sales are to be promoted;
            means (14) for identifying a triggering item which
       is purchased and presented at a checkout terminal;
            means (22) for identifying whether the triggering
       item is a promoted item;
            means (22) for identifying a competitive item
       associated with the promoted item in an incentive deal;
       characterised by
            said data held by said storage means is located in
       discrete sets of incentive terms, each set pertaining

to said at least one item to be promoted;

means (24) for obtaining sales prices for the
promoted item and the competitive item;

means (22) for determining the difference in price
between the promoted item and the competitive item;

means (22) for selecting a set of incentive terms
from the storage means, based on whether the purchased
item is the promoted item or the competitive item,
further based on the difference in prices of the
promoted item and the competitive item; and

means (22, 16) for generating an incentive for the
consumer, consistent with the selected set of incentive
terms."

Independent claim 6 of the main request is a
corresponding method claim, claim 10 defines a computer
program by reference to claim 6, and claim 11 relates
to the computer program of claim 10 embodied on a
computer readable medium.

Claim 1 of the first auxiliary request specifies that
the apparatus is a sales transaction recording system
and that its functions are carried out during a
consumer transaction.

III.   The Board summoned the appellant to attend oral
proceedings scheduled for 17 January 2007. In an annex
to the summons, the Board summarised the issues to be
discussed and expressed doubts about the inventive step
of all versions of claim 1, the admissibility of
amendments according to Article 123(2) EPC (auxiliary
requests 2 and 3), and the clarity of claims and their
support by the description pursuant to Article 84 EPC
(auxiliary request 2).

IV.   By facsimile transmission in the evening of Friday
       12 January 2007, the appellant filed amended sets of
       claims forming auxiliary requests 5 to 8. The Board
       received the additional requests on 15 January 2007.

V.   At the oral proceedings on 17 January 2007, the
       appellant declared that auxiliary requests 5 to 7
       superseded auxiliary requests 2 to 4. Auxiliary
       request 8 was withdrawn when the Board indicated that
       it would not admit that late-filed request into the
       proceedings since the request exceeded the scope of the
       preceding discussion considerably.

       The appellant thus requests that the decision under
       appeal be set aside and that a patent be granted on the
       basis of the set of claims in accordance with the main
       request filed with letter of 1 November 2002, or
       alternatively with the first auxiliary request filed
       with the statement of grounds of appeal, or with one of
       the fifth to seventh auxiliary requests filed with
       letter of 12 January 2007.

       Claim 1 of auxiliary request 5 reads:
       "1. Targeted incentive generation apparatus, for use
       with a sales transaction recording system having at
       least one checkout terminal (12), a store controller
       (10) with access to an item price file and storage
       means (24) for holding data defining separate sets of
       incentive terms pertaining to at least one item of
       which sales are to be promoted, the apparatus further
       comprising means (22, 40-52) for effecting a processing
       sequence having:
            means (14) for identifying (44) a purchase

triggering item presented at a checkout terminal; and

means (22) for identifying (60, 62, 64, 68, 70) an additional item associated with the purchased triggering item in an incentive deal, wherein one of the two items is a promoted item and the other is a competitive item;

characterised in that the means (22, 40-52) for effecting a processing sequence further includes

means (24) for obtaining (66) sales prices for the promoted item and competitive item;

means (22) for selecting (72) a set of incentive terms from the storage means, based on whether the purchased triggering item is a promoted item or the competitive item, and further based on the prices of the promoted item and competitive item, wherein the incentive terms are determined by a customer's purchasing behaviour and price of the promoted item relative to the competitive item;

means (22, 16) for generating (80-92) an incentive for the customer, consistent with the selected set of incentive terms; and

means (22) for storing (50) the incentive in a queue for outputting for customer use, the queue comprising a coupon queue containing one or more printable coupons; and in that the apparatus further comprises

means (22) for effecting a processing loop (54-58) comprising:

means for initiating the processing sequence if there is an input to the process; and

means for initiating (56) if there is no input to the process and if there is any queued incentive for the customer, the output of the incentive, including printing the coupon(s) in the coupon queue; and

means for continuing the processing loop whether
there is any queued incentive or not."

Claim 1 of auxiliary request 6 reads:
"1. An apparatus for generating incentive data, for
use with a sales transaction recording system having at
least one checkout terminal (12) and a store controller
(10) with access to an item price file (20), the
apparatus comprising:

storage means (24, 28) for holding data defining
incentive terms pertaining to at least one item of
which sales are to be promoted;

means (14) for identifying a triggering item which
is purchased and presented at a checkout terminal;

means (22) for generating (72) an incentive for
the customer, the incentive being for an item that is
associated in the storage means (24, 28) with the
triggering item purchased;

characterised by further including

means (24) for identifying whether the triggering
item is a promoted item;

means (22) for identifying a competitive item
associated with the promoted item in an incentive deal;

said storage means (24, 28) including an incentive
matrix file (28) containing one or more incentive
matrices, the or each incentive matrix containing
plural different incentive terms and being accessible
based upon the difference in price between promoted and
competitive items and a customer profile;

means (22) for estimating a customer profile based
upon the equality or inequality of prices of the
promoted item and said at least one associated
competitive item;

means (22) for accessing said matrix based upon

said estimated profile, and item purchased;

means (22) for selecting incentive data based on
said estimated profile, a determination whether the
purchased item is the promoted item or the competitive
item, and upon the difference in price between the
promoted item and the at least one associated
competitive item; and in that

the generated incentive has data representative of
a value varied in dependence upon the selected
incentive data."

Claim 1 of auxiliary request 7 reads:
"1. An apparatus for generating incentive data, for
use with a sales transaction recording system having at
least one checkout terminal (12) and a store controller
(10) with access to an item price file (20), the
apparatus comprising:

storage means (24, 28) for holding data defining
incentive terms pertaining to at least one item of
which sales are to be promoted;

means (14) for identifying a triggering item which
is purchased and presented at a checkout terminal;

means (22) for generating (72) an incentive for
the customer, the incentive being for an item that is
associated in the storage means (24, 28) with the
triggering item purchased;

characterised by further including

means (24) for identifying whether the triggering
item is a promoted item;

means (22) for identifying a competitive item
associated with the promoted item in an incentive deal;

said storage means (24, 28) including an incentive
matrix file (28) containing one or more incentive
matrices, the or each incentive matrix containing

plural different incentive terms and being accessible
based upon the difference in price between promoted and
competitive items and a customer profile;

means (22) for estimating a customer profile based
upon at least three values, including a first value
when the purchased item has a lower price than the
associated competitive item, a second value when the
purchased item and the associated competitive item have
the same price, and a third value when the purchased
item has a higher price than the associated competitive
item;

means (22) for accessing said matrix based upon
said estimated profile, and item purchased;

means (22) for selecting incentive data based on
said estimated profile, a determination whether the
purchased item is the promoted item or the competitive
item, and upon the difference in price between the
promoted item and the at least one associated
competitive item; and in that

the generated incentive has data representative of
a value varied in dependence upon the selected
incentive data."

VI.   The appellant essentially argues that the claimed
        incentive generation apparatus achieves a technical
        overall effect: it saves a sales company's resources
        (paper, ink, print head, energy etc) by generating
        incentives that are better targeted, i.e. tailored to
        various categories of customers. In addition, the
        apparatus entails a computational implementation, and
        the data sets processed represent physical entities
        (product items, coupons, etc).

VII.   The Board pronounced its decision at the end of the
       oral proceedings.

Reasons for the Decision

Teaching of the application

1.   At a point of sale (POS, checkout terminal), an
       incentive is conventionally generated (i.e. a promotion
       coupon or voucher is printed) for a customer purchasing
       an item, see D2 (as detailed below).

       A goal in such a system is to maximize the redemption
       rate by more precisely "targeting" the consumers that
       receive coupons, see page 2 (lines 12 to 14) of
                    A1: WO-A1-99/12117.

       To achieve that goal, the application proposes to
       select an incentive based on whether the purchased item
       is a promoted item or a competitive item (reflecting a
       customer's purchasing behaviour), and on the price
       difference between the promoted item and the
       competitive item.

       Main request

       *Article 52(1)(2)(3) EPC - Eligibility for patent
       protection*

2.   The apparatus according to claim 1 comprises a
       technical data processing infrastructure (including
       storage means, for example). The method according to
       claim 6 implies a technical use of such infrastructure.

Hence, the subject-matter of both claims is technical and, thus, represents an "invention" within the meaning of Article 52(1)(2)(3) EPC, see e.g. T 258/03-*Auction method/HITACHI* (OJ EPO 2004, 575, Headnote I).

Article 56 EPC - Inventive step

3.   Regarding the problem and solution approach applied in the decision under appeal, the appellant disagrees with the Examining Division's way of attributing most of the claimed concept to a marketing expert whose knowledge is handed over to a technical expert who has to implement it. According to the appellant, the concept includes technical considerations which must not be included in a marketing scheme. In particular, the idea of targeting customers more efficiently at a checkout terminal (POS) presupposes a technical understanding of the POS so as to identify the POS as a potential point of intervention and improvement.

4.   The Board first notes that the idea of utilising the POS infrastructure as a marketing environment is conventional, see D2 (e.g. column 2, lines 1 to 12). The Board concurs with the decision under appeal in considering the apparatus of D2 as the closest prior art with respect to the automatic dispensing of discount coupons for a product other than a triggering product (D2, column 1, lines 65 to 68). The apparatus of D2 comprises the technical infrastructure of a POS computer system defined in claim 1 (see D2, column 2, lines 1 to 32; Figures 1 and 2 and associated parts of the description, in particular column 8, lines 17/18). The coupon, when issued, is selected according to rules pertaining to a coupon deal the details of which are

stored in a coupon deal file (D2, column 2, lines 21
to 29). The coupon is created by extracting the coupon
information from the coupon deal record and printing
the coupon (D2, column 3, lines 12 to 16). Additional
marketing rules which may inhibit the issuing of a
coupon are specified in claims 38 to 42 of D2. D2
mentions that most POS systems have terminals capable
of reading a code printed on a product package to
retrieve the price of that package from an internal
file (column 1, lines 14 to 24).

The appellant has not disputed that the apparatus of
claim 1 differs from that of document D2 by its
functions and not by its hardware (see e.g. page 10,
paragraph 3 of the statement of grounds of appeal).

5.   In the Board's judgment, the appellant's main
        contribution resides in a refined marketing scheme
        which bases the coupon issuing process on commercial
        and/or psychological assumptions about consumer
        behaviour in the light of price differentials and brand
        loyalty. The application as filed does not indicate any
        technical reason for basing the incentive on those two
        aspects. While the appellant argues that an efficient
        incentive policy may finally control the flow of
        materials (by helping to sell certain commodities first)
        and may help to reduce the consumption of resources,
        those effects, even if achieved, would not be
        sufficiently direct to confer a technical character to
        the incentive policy.

        It may be added that the Board has doubts about the
        appellant's assertion that the teaching of the
        application, when applied to the apparatus of D2,

reduces the amount of printing. In fact, even a higher number of incentives may be finally printed since coupons are produced even when customers buy the promoted product (in contrast to the policy of D2). Hence, while an increased redemption rate may render the claimed apparatus more efficient in terms of commercial success, savings in print resources are not apparent.

6.   The mere idea of basing the coupon issuing process on commercial and/or psychological assumptions about consumer behaviour does not require any technical knowledge or consideration.

Moreover, a purely non-technical idea, i.e. an idea that does not contribute to the technical character of the subject-matter claimed, cannot enter into the examination for inventive step, see T 641/00-*Two identities/COMVIK* (OJ EPO 2003, 352, Headnote I) and T 531/03-*Discount certificates/CATALINA* (Headnotes 1 and 2).

The non-technical idea rather belongs to the non-patentable motivation phase preceding in principle any invention. It may therefore be included in the formulation of the technical problem (see T 641/00, Headnote II) and, thus, is disregarded in the inventive step assessment. Hence, the technical problem amounts to implementing a new incentive concept in the conventional hardware system known from D2.

7.   The general idea of processing commercial data automatically is technical but is obvious for the general purpose of increasing the efficiency of data

processing. The appellant has not provided any specific reason why this general finding might not apply to the present case. The application as filed is silent on promising technical contributions by implementing details, and the Board has not identified any candidate. For example, storing data in discrete sets associated with a corresponding plurality of items represents a common database technique, and calculating a price difference of two items does not require inventive programming, either.

8.   In summary, the overall concept of claim 1 does not provide a non-obvious technical contribution over D2: the technical aspect of the concept is obvious (see point 7 *supra*), and the potentially non-obvious aspect is purely intellectual (see point 6 *supra*).

      Appellant's alternative argumentation

9.   By way of an alternative argumentation (grounds of appeal, paragraph bridging pages 15/16), the appellant has submitted that decisions T 26/86-*X-ray apparatus/KOCH & STERZEL* (OJ EPO 1988, 19), T 769/92-*Financial management computer/SOHEI* (OJ EPO 1995, 525) and two decisions of the German Bundesgerichtshof (BGH X ZB 15/98-*Sprachanalyseeinrichtung* [language analysis apparatus]; BGH X ZR 43/91-*Tauchcomputer* [diving computer]), "render it impermissible not to consider the contribution of the non-technical person in the assessment of inventive step, especially bearing in mind Trips Art. 27(1) and that the word "technical" is not used in relation to assessment of inventive step in the EPC."

9.1 These arguments have been dealt with in substance by the earlier *Catalina* decision T 531/03, see in particular points 2.6 to 2.8 of the Reasons.

9.2 Regarding the two BGH decisions mentioned by the appellant, the Board first notes that it is only bound by the European Patent Convention (Article 23(3) EPC).

Secondly, in the Board's view, the BGH jurisprudence does not support the appellant's general assertion that non-technical features are to be admitted unconditionally into the inventive step examination.

10. Consequently, the incentive generation apparatus according to claim 1 (main request) does not involve an inventive step, contrary to the requirements of Article 56 EPC.

Auxiliary request 1

11. Claim 1 has been amended to specify that the apparatus is a sales transaction recording system and that its functions are carried out during a consumer transaction.

D2 already suggests to record transaction details (see column 1, lines 14 to 16 and column 2, lines 33 to 34) and discloses a coupon log file (Figure 1: file 34). Carrying out a marketing policy during a consumer transaction represents a self-evident choice in a conventional setting where the discount coupon is produced and handed out to the customer at the check-out terminal as part of the incentive policy (D2, column 10, lines 30 to 48).

Therefore, the subject-matter of claim 1 of the first auxiliary request lacks an inventive step over D2.

Admissibility of late-filed auxiliary requests 5 to 7

12.   According to Article 10b(1) of the Rules of Procedure of the Boards of Appeal (RPBA), the Board has a discretion to allow amendments depending *inter alia* on their complexity, the current state of the proceedings and the need for procedural economy. In addition, according to Article 10b(3) RPBA, amendments after oral proceedings have been arranged shall not be admitted if they raise issues which the Board cannot reasonably be expected to deal with without adjournment of the oral proceedings.

In the current case, the late-filed requests 5 to 7 are based on (and supersede) former auxiliary requests 2 to 4 submitted with the statement of grounds of appeal and introduce only minor amendments to deal with objections pursuant to Articles 123(2) and 84 EPC that the Board had raised in the summons. Hence, the Board admitted the appellant's late-filed auxiliary requests 5 to 7 into the proceedings.

Auxiliary request 5

13.   Amended claim 1 of this request further specifies means for storing the incentive in a queue for outputting for customer use (see also Figure 2 of A1). The appellant argues that the additional features assure unconditional printing of coupons which can be conducted in parallel and not conditional upon the rest of the process (grounds of appeal, page 13, paragraphs

3 and 4). Therefore, the features of claim 1 are said
to enable incentives to be printed during the
transaction, which is not possible according to D2
where coupons are printed at the end of a transaction.

13.1   However, D2 likewise describes an output queue
        including wait states (see Figures 3 and 4a, 4b) which
        is not limited to printing at the end of a transaction.
        So-called high priority coupons can be printed before a
        transaction ends (D2, column 10, lines 20 to 28 and 55
        to 61), which already achieves the advantage asserted
        by the appellant, i.e. more time for printed coupons to
        cool down or to fix ink.

        In any event, conventional printer spoolers
        representing a skilled programmer's common knowledge
        are well-known to release computer resources in order
        to process tasks in parallel to printing operations.

13.2   Therefore, the subject-matter of claim 1 of auxiliary
        request 5 lacks an inventive step over D2.

        Auxiliary request 6

14.   Amended claim 1 of this request essentially introduces
        means for storing and arranging sales prices in the
        form of an incentive matrix file (see in particular the
        "incentive decision matrix" of Figure 6 and the
        corresponding text of A1). The content of such an
        incentive matrix according to the application "can be
        designed to meet any desired marketing goals or
        strategies" (see page 13, lines 5/6). The Board
        therefore judges that the primary effect achieved by
        such an incentive matrix is a further refined incentive

policy which is considered to be a non-technical
contribution.

It is not a technical person's task to find out about
commercial or psychological ways of motivating
customers to redeem incentive coupons according to
different incentive terms (laid down in a table or
matrix). The technical person only implements a non-
technical person's incentive policy which may be
innovative but cannot enter into the inventive step
examination. Only the technical person's contribution,
i.e. the technical implementation, could be non-obvious
in the sense of Article 56 EPC. However, using a
database as a look-up table in the form of a matrix
represents a common programming technique. The
advantage emphasised by the application (convenient
change, see page 13, lines 6 to 8 and lines 17 to 20;
page 14, lines 11 to 13) is one of the well-known
advantages of look-up tables (speed, simplicity,
flexibility) which usually have to be balanced against
the cost of a large data memory.

Therefore, the subject-matter of claim 1 of auxiliary
request 6 lacks an inventive step over D2.

Auxiliary request 7

15.   Amended claim 1 of this request essentially adds that a
       customer profile is estimated based on at least three
       values depending on whether the price of the purchased
       item is lower, higher or the same as that of the
       competitive item, i.e. based on an increased profile
       granularity as argued by the appellant.

In the Boards judgment, categorising a customer in
terms of "setness", "preferences" and "loyalty" (A1,
page 11, paragraph 2) on the basis of his purchasing
choice is not a matter to be decided and refined by a
technical person but by a marketing expert, consumer
psychologist or the like. The technical person readily
expands the incentive matrix or database to any
complexity considered useful by the marketing manager.
While this is an implementation issue (acknowledged by
A1, page 11, lines 5 to 9), the application is silent
on programming details and, thus, implicitly confirms
that the implementation can be left to the technical
person without providing any explicit guidance.

Therefore, the subject-matter of claim 1 of auxiliary
request 7 also lacks an inventive step over D2.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

D. Sauter   S. Steinbrener

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