Patentability of Business Method Inventions and Inventions with Non-technical Features in Japan versus the US and Europe

By:

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1. Introduction

This paper describes business method patents and patents with non-technical features in Japan and compares them to those in the United States and Europe. First, the basic requirements for patents and examination guidelines in Japan will be described. Then, hypothetical claims are used to illustrate the differences between Japan, the US and Europe. I also include a translation of the document entitled "Examples of Examinations on Inventions Related to Business Methods" which was issued on April, 2003 by the Japan Patent Office (hereinafter referred to as JPO).

2. The Expansion of Patentable Business Method Inventions and Inventions with non-technical features

2.1 The expansion of patent eligibility of business and computer-implemented inventions in Japan

Business method inventions are patentable in Japan if they are realized using computers. Thus, we have to know about patent protection of software inventions in Japan to understand patent protection of business method inventions. First, we will examine the evolution of this standard.

(1) Method of Advertising on Utility Poles (1956)[1]
The invention in this case was a method by which an employee would exchange advertisement boards on utility poles. The Tokyo high court said that the method applied was not the subject matter of a patent, because it did not utilize the laws of nature.

(2) Examination Guidelines for Computer Related Inventions –vol. 1- (1975)[2]
These guidelines, no longer in use, showed that computer program related inventions could be the subject matter of patents if the program handled technical operations. Thus, methods of handling technical operations carried out by computer programs could be patented. For example, in these guidelines, methods implemented by computer programs which control manufacturing machines were subject to patent. However, if a computer program did not

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[1] Tokyo high court decision of December 25, 1956, 1956(Gyo-Na)No.12, Gyosei Saibanrei-shu vol.7 No.12 Page 3157
[2] This is out of print now. You can find this guideline (Japanese version) on my web site. http://www.furutani.co.jp/office/ronbun/soft-standard-1.pdf

handle technical operations but non-technical process such as pure mathematical or economical algorithms, it was not patentable.   At that time, computer program related inventions could be patented as method patents but not as apparatus patents.

(3) Method for Controlling Operation of a Computer (1980)[3]

The invention in this case related to a method for classifying data using a computer.   The appeal board of the JPO said that the essence of the invention was not controlling the operation of a computer, but a mathematical operation.   Thus, the invention was not statutory subject matter.

(4) Method for Displaying Objects (1980)[4]

The invention in this case was a display method using a computer.   The appeal board of the JPO said that the essential part of the invention was the computer program carrying out mathematical operation, and thus the invention could not be subject matter of a patent.

(5) Examination Guidelines, part VII, chapter 1 (1993)[5]

These guidelines said that in addition to computer programs which handled technical operations, computer programs which handled non-technical operations such as word processing programs were also statutory inventions if such computer programs carried out operations utilizing hardware resources of computers or hardware resources outside computers.   These guidelines made it possible to obtain patents for business methods implemented by computers.   Further, these guidelines clearly deny applying the Point of Novelty Approach in which the judgement of whether an invention was statutory subject matter was based only on the novel part of the invention.   The guidelines said that, with regard to the question of statutory subject matter, examiners should consider the invention as a whole.

(6) Examination Guidelines, part VII, chapter 1 (1996)

These guidelines allowed that a computer readable medium storing a program was one possible form of claim object.   After these guidelines, applicants could make computer readable medium claims (Beauregard type claims).

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[3] Appeal No. 4535 of 1969
[4] Appeal No. 8546 of 1966
[5] This is out of print now.

(7) Examination guidelines, part VII, chapter 1 (2000)[6]

These guidelines, which are still valid, allow that a computer program itself is one possible form of claim object. By these guidelines, programs themselves are treated as tangible entities. Since these guidelines came into effect, applicants have been able to make computer program claims.

(8) Patent Law Amendments (2002)

This law allows that a computer program shall be deemed as a tangible entity[7]. Although this was not clearly stated in the Patent Law of 1959, it was indicated in Examination Guidelines, part VII, chapter 1 (2000). The Patent Law Amendments of 2002 confirm that this interpretation is correct.

2.2 The Expansion of Patent Eligibility of Business and Software Inventions in the United States

(1) Hotel Security Checking Co. v. Lorraine Co. (1908)[8]

In this case, the court said that "art" in Patent Law did not include abstract ideas of business methods. It is not clear whether the court thought the invention was statutory subject matter or not. The court decided that the invention was not novel.

(2) Gottschalk v. Benson (1972)[9]

The Supreme Court decided that mathematical algorithms having no practical application were not statutory subject matter.

(3) Diamond v. Diehr (1981)[10]

The Supreme Court decided that a process for curing synthetic rubber which

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[6] English version is available at
http://www.jpo.go.jp/tetuzuki_e/t_tokkyo_e/1312-002_e.htm
[7] Section 2, paragraph 3 defines "working" as follows:
  "Working of an invention in this Law means the following acts:
  (i) in the case of an invention of a product (including computer program or the like), acts of manufacturing, using, assigning or the like (this means assigning and leasing and in case of computer program including providing it through communication line , importing or offering for assigning or the like (including showing for assigning or the like).
[8] Hotel Security Checking Co. v. Lorraine Co., 160 F. 467 (2d Cir. 1908)
[9] Gottschalk v. Benson, 409 U.S 63, 175 U.S.P.Q 673 (1972)
[10] Diamond v. Diehr, 450 U.S 175, 209 U.S.P.Q 1 (1981)

included the use of a mathematical formula and a programmed digital computer was patentable subject matter under § 101. The Supreme Court said that in determining the eligibility of claimed processes for patent protection under § 101, their claims must be considered as a whole, and that it was inappropriate to dissect the claims into old and new elements and then to ignore the presence of the old elements in the analysis.

(4) Freeman-Walter-Abele Test (1981)[11]

USPTO revised its Manual of Patent Examining Procedure[12] (hereinafter referred to as MPEP) to introduce the Freeman-Walter-Abele Test. This test is a 2-step test. Step 1 - determine whether the claim directly or indirectly recites an algorithm. If "yes" then proceed to Step 2. Step 2 – determine whether, even if inoperable or less useful, the claim would be otherwise statutory without the algorithm.

(5) Paine, Webber, Jackson & Curtis Inc. v. Merril Lynch, Pierce, Fenner & Smith Inc. (1983)[13]

The invention in this case was directed to a Securities Brokerage-Cash Management System. The court decided the invention was not a mathematical algorithm. The court concluded that the business methods in question which took the form of a suitably programmed computer system were patenable.

(6) In re Alappat (1994)[14]

Alappat's invention was a means for creating a smooth waveform display in a digital oscilloscope. The court said that this invention is not a disembodied mathematical concept which may be characterized as an "abstract idea", but rather a specific machine to produce a useful, concrete, and tangible result.

(7) In re Beauregard (1996) [15] and Examination Guidelines for

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[11] In re Freeman, 573 F. 2d 1237, 197 U.S.P.Q. 464 (C.C.P.A. 1978), In re Walter, 618 F. 2d 758, 205 U.S.P.Q. 397 (C.C.P.A. 1980), In re Abele, 684 F. 2d 902, 214 U.S.P.Q. 682 (C.C.P.A. 1982),

[12] MPEP2110

[13] Paine, Webber, Jackson & Curtis Inc. v. Merril Lynch, Pierce, Fenner & Smith Inc., 564 F. Supp. 1358, 218 U.S.P.Q. 212 (D. Delaware, 1983)

[14] In re Alappat, 33 F. 3d 1526, 31 U.S.P.Q. 2d 1545 (Fed. Cir. 1994),

[15] In re Freeman, 573 F. 2d 1237, 197 U.S.P.Q. 464 (C.C.P.A. 1978), In re Walter, 618 F. 2d 758, 205 U.S.P.Q. 397 (C.C.P.A. 1980), In re Abele, 684 F. 2d 902, 214 U.S.P.Q. 682 (C.C.P.A. 1982),

Computer-Related Inventions[16]

The court did not make a decision, because reconciliation was made between IBM and USPTO. According to the reconciliation, USPTO issued "Examination Guidelines for Computer-Related Inventions". These guidelines allowed that a computer readable medium storing a program was one possible form of claim object. The guidelines say that claims should not be categorized as methods of doing business. Instead such claims should be treated like any other process claims.

(8) State Street Bank and Trust Co. v. Signature Financial Group, Inc. (1998)[17]

In this case, the patent is directed to a data processing system for implementing an investment structure which was developed for use in Signature's business as an administrative and accounting agent for mutual funds. The court said business methods have been, and should have been, subject to the same legal requirements for patentability as applied to any other process or method. The court also said that it had never invoked the business method exception to deem an invention unpatentable. The court said that the system claimed was for providing a "useful, concrete and tangible result" and thus was statutory subject matter.

(9) Training Materials Directed to Business, Artificial Intelligence, and Mathematical Processing Applications[18]

This was issued after the State Street Bank decision to illustrate how to apply Examination Guidelines for Computer-Related Inventions. The materials presented a claim directed to a computer program embodying a carrier wave as the subject matter of a patent.

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[16]

http://www.uspto.gov/web/offices/com/hearings/software/analysis/computer.html

[17] State Street Bank and Trust Co. v. Signature Financial Group, Inc., 149 F. 3d 1368, 47 U.S.P.Q. 2d 1596 (Fed. Cir. 1998), cert. Denied. 525 U.S. 1093(1999)

[18] http://www.uspto.gov/web/offices/pac/compexam/examcomp.htm

2.3 The Expansion of Patent Eligibility of Business and Software Inventions in Europe (EPO)[19]

(1) Examination Guidelines[20] (1978)

The guidelines said that if the contribution to the known art resided solely in a computer program then the subject matter was not patentable in whatever manner it might be presented in the claims.

(2) Vicom decision[21] (1986)

In this case, the invention was directed to digital filters. The EPO board of appeal decided that a claim directed to a technical process which was carried out under the control of a program (whether by means of hardware or software), was not the same thing as a computer program as such[22].

(3) Sohei decision[23] (1995)

The EPO board of appeal said that if technical considerations concerning particulars of the solution to the problem the invention solved were required in order to carry out that same invention, an invention comprising functional features implemented by software (computer programs) was not excluded from patentability under Article 52(2)(c), (3) EPC. The board also said that Non-exclusion from patentability could not be destroyed by an additional feature (methods for doing business) which as such would itself be excluded.

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[19] Only decisions of the EPO are mentioned. There are important decision in each county such as Dispositionsprogramm case (GRUR 1977,96 X ZB23/74), Automatic Sales Control Decision (20W(pat)8/99) in Germany and System for trading shares (FSR564), Merrill Lynch Case ([1989]RPC.561,CA.) in the UK.

[20] This is out of print now. You can find this guideline at the following web site. http://swpat.ffii.org/papers/epo-gl78/index.en.html

[21] T208/84

[22] EPC 52(2) describes as follows:

(2) The following in particular shall not be regarded as inventions within the meaning of paragraph 1:

(a) discoveries, scientific theories and mathematical methods;

(b) aesthetic creations;

(c) schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers;

(d) presentations of information.

[23] T769/92

(4) IBM decision[24] (1998)

The EPO board of appeal said that a computer program product was not excluded from patentability under Article 52(2) and (3) EPC if, when it was run on a computer, it produced a further technical effect which went beyond the "normal" physical interactions between program (software) and computer (hardware)". The board also said a computer program itself should not be excluded from patentability.

(5) Picture Retrieval System[25] (2000)

Although the EPO denied the patentability of a "presentation of information as such", the EPO board of appeal said that a record carrier characterized by having functional data recorded thereon was not a presentation of information as such and hence not excluded from patentability.

(6) Controlling Pension Benefits System[26] (2000)

The EPO board of appeal said that an apparatus constituting a physical entity or concrete product, suitable for performing or supporting an economic activity, was an invention within the meaning of Article 52(1) EPC. However, the board also said that the improvement envisaged by the invention according to the application is an essentially economic one i.e. belonging to the field of economics, which, therefore, cannot contribute to the inventive step.

(7) Guidelines for examination[27] (2000)

The guidelines were amended in 2000. The purpose of the amendment was to bring the guidelines into line with the above mentioned decisions.

(8) SIM/COMVIK[28] (2002)

In this decision, the Board set forth a modified problem/solution approach, in which only those features contributing to resolution of technical problems are to be considered in determining an "inventive step".

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[24] T1173/97

[25] T1194/97

[26] T0931/95

[27] http://www.european-patent-office.org/legal/gui_lines/e/index.htm

[28] T641/00

3.   Requirements to obtain a patent in Japanese Patent Law

The requirements to obtain a patent in Japanese Patent Law are as follows:

(1) Invention described in the patent application must fall within the scope of statutory subject matter (Section 2(1)).

(2) Invention described in the patent application must be novel (Section 29(1)).

(3) Invention described in the patent application must have an inventive step (Section 29(2)).

3.1   Statutory Subject Matter
(1) In Japan

Japanese Patent Law, Section 2(1) defines statutory inventions as follows:
'An invention' in this law means the highly advanced creation of technical ideas by which a law of nature is utilized.   Therefore, business method inventions are not statutory inventions, because business methods themselves do not have technical aspects but only economic aspects.

Examination guidelines, part VII, chapter 1 (2000) [29] show that where information processing by software is concretely realized using hardware resources, the software invention is statutory subject matter[30].   This means that if, as a result of reading the software, the computer is transformed into an information processing machine (or operational method thereof) which is particularly suitable for given purpose which contains concrete means in which software and hardware resources are cooperatively working so as to realize arithmetic operations or the manipulation of information depending on said purpose, then the software invention is statutory subject matter.

Although   business   methods   themselves   are   excluded   from   statutory

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[29] This guideline also says that software carrying out one of the following process is a statutory invention:
i) control of an apparatus (rice cooker, washing machine, engine, hard disk drive, etc.), or related processing; or
ii) information processing based on the physical or technical properties of an object (rotation rate of engine, rolling temperature, etc.)
[30] 2.2.1 (1)

inventions, when the information processing machine (or operational method thereof) contains concrete means, the computer systems for business methods or business methods carried out by computers *are* patentable.

(2) Comparison with the US and Europe
The differences between Japan, US and Europe are as follows:

In Japan, to meet the requirement for statutory subject matter, business methods must use computers which provide concrete means in cooperation with software.

In the US, to meet the requirement for statutory subject matter, business methods must provide a useful, concrete and tangible result, but they do not need to use computers.

In Europe, to meet the requirement for statutory subject matter, business methods must have a technical character. Specifically, business methods need not only use computers or computer programs, but also exhibit further technical effects[31].

3.2   Novelty

Japanese Patent Law, Section 29(1) describes the condition whereby an invention lacks novelty:
Any person who has made an invention which is industrially applicable may obtain a patent therefor, except in the case of the following inventions:
(i) inventions which were publicly known in Japan or elsewhere prior to the filing of the patent application;
(ii) inventions which were publicly worked in Japan or elsewhere prior to the filing of the patent application;
(iii) inventions which were described in a publication distributed or available to the public by means of telecommunication in Japan or elsewhere prior to the filing of the patent application.

I will not spend much time on novelty here, because statutory subject matters and the inventive step are more useful for our discussion of business method inventions.

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[31] Guidelines for examination amended in 2000 said the further technical effect may be known in the prior art.

3.3 Inventive step
(1) In Japan

Japanese Patent Law, Section 29(2) describes the inventive step:

Where an invention could easily have been made, prior to the filing of the patent application, by a person[32] with ordinary skill in the art to which the invention pertains, on the basis of an invention or inventions referred to in any of the subparagraphs of section 29(1), a patent shall not be granted for such an invention notwithstanding section 29 (1).

The question arises whether a computer system for a business method or a business method carried out by a computer, in which the business method is unobvious and the technical aspect of the computer system is known, is patentable or not.

Examination guidelines, part VII, chapter 1 (2000) says for the inventive step test "Since the invention should be viewed as a whole, it is inappropriate to deal with the claimed invention separating the aspect of artificial arrangement and that of automation technique."[33]   Therefore, inventions must be dealt with as a whole. Business methods are one such artificial arrangement.

From those guidelines, I think this type of business method invention has an inventive step.   In many applications, the JPO decides that this type of business method invention has an inventive step.[34]   However, Mr. Yoshiaki Aida, JPO

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[32] Examination guidelines, part VII, chapter 1 (2000) defines "a person having ordinary skill in the art" as follows:

A person skilled in the art of software-related inventions is expected:

to have common general knowledge both of the applied field of the said software-related inventions and computer technology (e.g. systematization technology);

to use ordinary technical means for research and development;

to exercise ordinary creative activity in changing design; and

to be able to comprehend all the state of the art in the field of technology to which the invention pertains (state of the art in the applied field of the said software and the computer technology) as of the filing.

[33] 2.3.1 (2)
[34] Committee No.1, PIPA Japanese Group "Investigation of Inventive Step in

examiner, says that even if a business method is not obvious for person skilled in the art, and lacks a technical means especially suitable for the business method, the invention should be treated as being obvious.[35]

(2) Comparison with the US and EU

In Japan, once an invention is judged statutory subject matter, whether the inventive step exists or not is judged based on the invention as a whole.   In this regard, business methods, which use computers which provide concrete means in cooperation with software, can contribute to the inventive step in Japan.   In other words, economic aspect of the business method inventions can contribute to the inventive step.

In the US, all aspects of the invention including business aspects and technical aspects can contribute to unobviousness.

In Europe, even if the invention includes a computer, if the improvement envisaged by the invention is an essentially economic one, then the invention does not have inventive step.   In other words, ecomomic improvement cannot contribute to inventive step[36].   Only those features solving a technical problem can be considered for determining the existence of an inventive step[37].

3.4   Definiteness of claim
(1) In Japan

The Japanese Patent Law, Section 36(6)(ii) describes definiteness as follows:
The statement of the patent claim(s) under 36(2) shall comply with each of the following items as being:
(ii) statements setting forth the invention(s) for which a patent is sought and which is clear (definite);

For business method inventions, it is necessary to describe in the claim how the business method is carried out using a computer and how hardware resources

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Business Method Patents" Intellectual Property Management, p761, vol. 52, No.12 (2002)
[35] Minoru TAKEDA et. al. "Principal and problem of patent examination and appeal" page 27, JIII 2002
[36] Controlling Pension Benefits System (T0931/95)
[37] SIM/COMVIK (T641/00)

are used to carry out the business method.

(2) Comparison with US and EU

In the US, Section 112, paragraph 2 requires that the patent application particularly point out and distinctly claim the invention.   In Europe, Article 84 EPC says that the claims shall .... be clear and concise and be supported by the description.   They are similar to Japanese requirement of Definiteness of claim (Section 36(6)(ii)).

3.5   Enablement
(1) In Japan

Japanese Patent Law, Section 36(4) describes the enablement as follows:

The detailed description of the invention under 36(3)(iii) shall state the invention, as provided for in an ordinance of Ministry of Economy, Trade and Industry, in a manner sufficiently clear and complete for the invention to be carried out by a person having ordinary skill in the art to which the invention pertains.

(2) Comparison with US and EU

In the US, Section 112, paragraph 1 indicates that the specification and drawings must provide sufficient information on the invention so as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same.   In Europe, Article 84 EPC says that the European patent application must disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.   They are similar to the Japanese requirement of Enablemant (Section 36(4)) except only the US has the "best mode requirement".

4.   Comparison of Patentability in Japan, US and EU
4.1   Comparison of Patentability in Nature of Inventions
Comparison of patentability (including inventive step or unobviousness) in Japan, US and EU is shown in FIG.1.

FIG.1
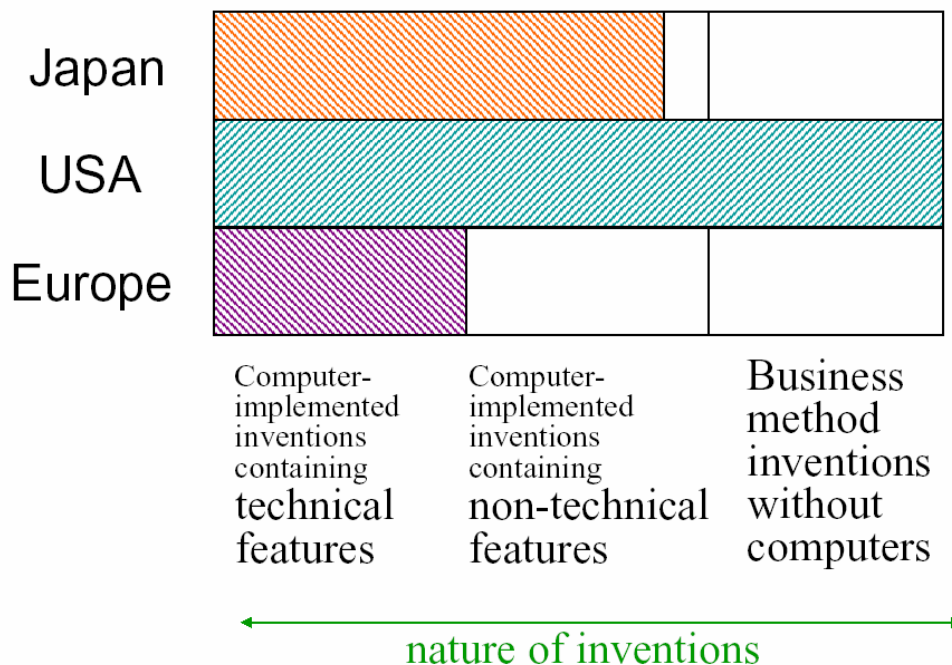
The horizontal axis designates the nature of invention: computer-implemented inventions containing technical features, computer-implemented inventions containing non-technical features and business method inventions. Hatched areas show possible patentable matter. "computer-implemented inventions containing technical features" is for example control method for gasoline engine using computer. "computer-implemented inventions containing non-technical features" is for example stock price forecast method using computer. The method achieves the purpose using economical law (non-technical feature).

Although in the USA, all three types of inventions can be patentable, in Japan and the EU business method inventions which do not use computers are not patentable.

In Japan, computer implemented inventions containing non-technical features are not statutory subject matter simply by virtue of their using computers. Therefore, part of the area in Figure 1 indicating computer-implemented inventions containing non-technical features is not hatched.

If the invention involves the method by which the computer's hardware resources are utilized, it is statutory subject matter. However once it has been found to be statutory subject matter, all elements, including non-technical features, are considered when deciding whether it has an inventive step. In other words,

non-technical features can contribute to the inventive step in Japan.

In Europe, although computer-implemented inventions (especially device claims) containing non-technical features can be statutory subject matter, non-technical features cannot contribute to the inventive step. Therefore, in FIG.1 only the area indicating computer-implemented inventions containing technical features is hatched.

4.2 Comparison of Patentability in nature of inventions and Claimable Targets

FIGs. 2-4 compare the patentability of business and computer-implemented inventions in Japan, the United States and Europe with regards to nature of inventions and claimable targets. The vertical direction shows claimable targets and the horizontal direction shows the nature of patentable inventions. "Claimable targets" means what forms of claims are allowed for patents.

FIG. 2 shows the expansion of patentability of these inventions in Japan. According to the 1975 guidelines, only apparatus and method claims for computer-implemented inventions containing technical features were patentable. According to the 1993 guidelines, computer-implemented inventions containing non-technical features also became patentable. According to the 1996 guidelines, computer readable media became claimable for patents. According to the 2001 guidelines, computer programs themselves could be claimable for patents. The reason part of the area indicating computer-implemented inventions containing non-technical features is not hatched is the same as in FIG.1.

5. Hypothetical Claims for Illustrating the Differences among Japan, the US and Europe

I will to compare the examination of statutory subject matter in Japan, the US and Europe on hypothetical claims. These hypothetical claims are made based on hypothetical claims directed to mutual fund shown in "Training Materials Directed to Business, Artificial Intelligence, and Mathematical

Processing Applications[38]" issued by the USPTO.   Each claim is classified into 6 categories which are shown in the afore mentioned Figure "Comparison of Statutory Subject Matter".

Please note that the probable examination results are made by author's consideration but are not authorized by any government.

Each category is defined as in the table below:

	Japan	The United States	Europe
Category 1	NO	NO	NO
Category 2	NO	YES	YES
Category 3	YES	YES	NO
Category 4	YES	YES	YES
Category 5	YES	NO	YES
Category 6	YES	NO	NO

Note: "NO" means non-statutory subject matter, "YES" means statutory subject matter

4.1   Hypothetical claim 1 : Category 1 *(JP:NO, US:NO, EU:NO)*

A method of allocating funds for a mutual fund among a plurality of funds in a group, comprising the steps of:

a. receiving at least one fund identifier for each of said plurality of funds;

b. receiving at least one risk ranking factor for each of said plurality of funds;

c. receiving at least one set of allocation parameters which correspond to the desired allocation of funds relative to a profile of said ranking factors;

d. recording the fund identifiers, the risk ranking factors and the allocation parameters on a peace of paper;

e. receiving an initial investment value which is to be invested in the funds;

f. receiving an incremental investment allotment value and a

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period for the incremental investment allotment value;

g. receiving an indication of allowable level of investor risk; and

h. using the recorded fund identifiers, the risk ranking factors and the allocation parameters in combination with the initial investment value, the incremental investment allotment value, the period for the incremental investment allotment value, and the indication of allowable level of investor risk to provide an optimum account allocation between the funds in the group.

The JPO will say that the invention according to claim 1 lacks the statutory invention requirement of Section 29(1), because claim 1 does not describe specific technical matter but human acts which do not utilize a computer.

The invention according to claim 1 does not seem to be statutory subject matter in the US, because the claimed invention merely calculates an optimum account allocation for the funds in the mutual funds. It does not optimally allocate the funds. The claimed invention does not provide a concrete and tangible result.

I think in the EPO, the invention according to claim 1 is not statutory subject matter, because the invention is merely a method of doing business.

4.2 Hypothetical claim 2 : Category 2 (JP:NO, US:YES, EU:NO)

The method of claim 1: further comprising

i. showing the optimum account allocation on an investor monthly account summary report to an investor or broker.

The JPO will say that the invention according to claim 2 lacks the statutory invention requirement of Section 29(1), because claim 2 does not describe specific technical matter but human acts which do not utilize a computer.

The invention according to claim 2 seems to be statutory subject matter in the US, because a summary report has real world value and provides immediate benefit. The claimed invention is also limited to the practical application of displaying the optimal account allocation to the investor. The claimed invention provides concrete and tangible result.

I think in the EPO, the invention according to claim 2 is not statutory subject matter, because the invention is merely a method of doing business.

4.3   Hypothetical claim 3 : Category 2 *(JP:NO, US:YES, EU:NO)*

A method of allocating funds for a mutual fund among a plurality of funds in a group using computer system which comprises recording part, receiving means, generating means, storing means, providing means and displaying means, comprising the steps of:

a. receiving by said receiving means, at least one fund identifier for each of said plurality of funds;

b. receiving by said receiving means, at least one risk ranking factor for each of said plurality of funds;

c. generating by said generating means, at least one set of allocation parameters which correspond to the desired allocation of funds relative to a profile of said ranking factors;

d. storing by said storing means, the fund identifiers, the risk ranking factors and the allocation parameters on said recording part;

e. receiving by said receiving means, an initial investment value which is to be invested in the funds;

f. receiving by said receiving means, an incremental investment allotment value and a period for the incremental investment allotment value;

g. receiving by said receiving means, an indication of allowable level of investor risk;

h. providing an optimum account allocation between the funds in the group using the recorded fund identifiers, the risk ranking factors and the allocation parameters in combination with the initial investment value, the incremental investment allotment value, the period for the incremental investment allotment value, and the indication of allowable level of investor risk;

i. displaying the optimum account allocation on an investor monthly account summary report to an investor or broker.

The JPO will say that the invention according to claim 3 lacks the statutory invention requirement of Section 29(1), because claim 3 includes a computer system and describes the operation (providing an optimum account allocation using several data) to be carried out by the computer system, but fails to describe how the computer caries out the operations using several data and hardware resources thereof concretely.

The invention according to claim 3 seems to be statutory subject matter in the US, because a summary report has real world value and provides immediate benefit.   The claimed invention is also limited to the practical application of displaying the optimal account allocation to the investor.   The claimed invention provides concrete and tangible result.

I think in the EPO, the invention according to claim 3 is not statutory subject matter, because a further technical effect is not found.   Even if the invention of claim 3 is statutory subject matter, the important factor of claim 3 i.e. how to provide an optimal account allocation cannot contribute to the inventive step.

4.4   Hypothetical claim 4 : Category 3 *(JP:YES, US:YES, EU:NO)*

The method of claim 3, wherein

said step (h) of providing an optimum account allocation between the funds in the group is obtained by the following steps:

obtaining plural sets of allocation parameters by changing at least one parameter of said at least one set of allocation parameters;

obtaining an initial individual investment value for each fund of each set of allocation parameters based on said initial investment value and said allocation parameters;

obtaining average level of risk for each of said plural sets of allocation parameters by calculating average of risk factors weighed according to said initial individual investment value;

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selecting sets of allocation parameters which have lower average levels of risk than allowable level of investor risk from all of said plural sets of allocation parameters;

selecting a set of allocation parameters which has best profit per day calculated by initial investment value, the incremental investment allotment value, and the period for the incremental investment allotment value.

The JPO will say that the invention according to claim 4 satisfys the statutory invention requirement of Section 29(1), because claim 4 includes a computer system and how the computer caries out the operation using hardware resources thereof to provide an optimum account allocation.

The invention according to claim 4 seems to be statutory subject matter in the US, because a summary report has real world value and provides immediate benefit. The claimed invention is also limited to the practical application of displaying the optimal account allocation to the investor. The claimed invention provides a concrete and tangible result.

I think in the EPO, the invention according to claim 4 is not statutory subject matter, because a further technical effect is not found. Even if the invention of claim 4 is statutory subject matter, the important factor of claim 4 i.e. how to provide an optimal account allocation cannot contribute to the inventive step.

4.5 Hypothetical claim 5 : Category 4 *(JP:YES, US:YES, EU:YES)*
(has not been made yet)

4.6 Hypothetical claim 6 : Category 5 *(JP:YES, US:NO, EU:YES)*
(has not been made yet)

4.6 Hypothetical claim 7 : Category 6 *(JP:YES, US:NO, EU:NO)*

A method of allocating funds for a mutual fund among a plurality of funds in a group using a computer system which comprises recording part, receiving means, generating means,

storing means, providing means and displaying means, comprising the steps of:

a. receiving by said receiving means, at least one fund identifier for each of said plurality of funds;

b. receiving by said receiving means, at least one risk ranking factor for each of said plurality of funds;

c. generating by said generating means, at least one set of allocation parameters which correspond to the desired allocation of funds relative to a profile of said ranking factors;

d. storing by said storing means, the fund identifiers, the risk ranking factors and the allocation parameters on said recording part;

e. receiving by said receiving means, an initial investment value which is to be invested in the funds;

f. receiving by said receiving means, an incremental investment allotment value and a period for the incremental investment allotment value;

g. receiving by said receiving means, an indication of allowable level of investor risk;

h. providing an optimum account allocation between the funds in the group by following steps:

obtaining plural sets of allocation parameters by changing at least one parameter of said at least one set of allocation parameters;

obtaining an initial individual investment value for each fund of each set of allocation parameters based on said initial investment value and said allocation parameters;

obtaining average level of risk for each of said plural sets of allocation parameters by calculating average of risk factors weighed according to said initial individual investment value;

selecting sets of allocation parameters which have lower average levels of risk than allowable level of investor risk from all of said plural sets of allocation parameters;

selecting a set of allocation parameters which has best profit per day calculated by initial investment value, the incremental investment allotment value, and the period for the incremental investment allotment value.

The JPO will say that the invention according to claim 7 satisfies the statutory invention requirement of Section 29(1), because claim 7 includes a computer system and how the computer caries out the operation using hardware resources thereof to provide an optimum account allocation.

The invention according to claim 7 does not seem to be statutory subject matter in the US, because the claimed invention merely calculates an optimum account allocation for the funds in the mutual fund. It does not optimally allocate the funds.   The claimed invention does not provide concrete and tangible result.

I think in the EPO, the invention according to claim 7 is not statutory subject matter, because a further technical effect is not found.   Even if the invention of claim 7 is statutory subject matter, the important factor of claim 7 i.e. how to provide an optimal account allocation cannot contribute to the inventive step

6.   Examples of Examination on the Inventions Related to Business Methods

These examples were published by JPO on April, 2003.   Five examples are included to illustrate examinations of Statutory subject matters, Inventive step, Definiteness and Enablement.   English translation[39] of these examples are attached in this paper.

5.1   Example 1 : Category 2 (JP:NO[40], *US:YES[41]*, *EP:NO*)
(1) Claim 1

Claim 1 of example 1 is as follows:

An application document receipt processing system having an agent

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that performs preparation and submission of application documents, and a public institution that receives the submitted documents, characterized in that

the agent performs the process of preparing the application documents by filling in forms corresponding to the application documents with necessary items such as the name and address of the applicant and sending the application documents to the public institution through the postal service or communication lines, and

the public institution performs the process of checking whether or not omission is present in the submitted documents, providing a receipt serial number in case no omission is present, and sending the receipt serial number to the agent, the source of the application, through the postal service or communication lines.

The JPO says the invention according to claim 1 lacks the statutory invention requirement of Section 29(1). In my interpretation of the JPO's explanation, claim 1 does not describe specific technical matter but social system which does not utilize a computer.

In my opinion, the invention according to claim 1 seems to be statutory subject matter in the US, because sending a reception number to an agency has a real world value. I think in the EPO, the invention according to claim 1 is not statutory subject matter, because the invention is merely a method of doing business.

(2) Claim 2 : Category 2 (JP:NO, *US:YES, EP:NO*)

Claim 2 of example 1 is as follows:

An application document receipt processing system having an agent that performs preparation and submission of application documents, and a public institution that receives the submitted documents, characterized in that

the agent uses computers to perform the process of preparing the application documents by filling in forms corresponding to the application documents with necessary items such as the name and address of the applicant and sending the application documents to the public institution through communication lines,

the public institution uses computers to perform the process of checking whether or not omission is present in the submitted

documents, providing a receipt serial number in case no omission is present, and sending the receipt serial number to the agent, the source of the application, through the communication lines.

The JPO says the invention according to claim 2 lacks the statutory invention requirement of Section 29(1).   Claim 2 includes a computer, but the computer is used as just a tool.   In my interpretation of the JPO's explanation, the important process for achieving the aim underlying the invention is carried out by humans and thus information processing equipment (machine) particularly suitable for a given purpose is not created.

In my opinion, an invention according to claim 2 seems to be statutory subject matter in the US, because sending a reception number to an agency has a real world value.   I think in the EPO, the invention according to the claim 2 is not statutory subject matter, because a further technical effect is not found.

(3) Claim 3：Category 2 (JP:NO, *US:YES, EP:NO*)

Claim 3 of example 1 is as follows:

> An application document receipt processing system having an agent terminal installed on the side of an agent that performs preparation and submission of application documents, and a public institution computer installed in the public institution that receives the submitted documents and is connected to the agent terminal through a communication network, characterized in that the public institution computer comprises:
> means for receiving application document data coming sent from the agent terminal;
> means for checking whether or not an omission of data is present in the received application document data; and
> means for providing a receipt serial number in case no omission is present, and sending the receipt serial number to the agent terminal through the communication network.

The JPO says an invention according to claim 3 lacks the statutory invention requirement of Section 29(1).   Claim 3 describes the operation (finding any omissions on the document.) to be carried out by the computer system, but fails to describe how the computer caries out the operations using the hardware resources thereof.

In my opinion, the invention according to claim 3 seems to be statutory subject matter in the US, because sending a reception number to an agency has real world value. I think in the EPO, the invention according to claim 3 is not statutory subject matter, because a further technical effect is not found.

(4) Claim 4 : Category 3 (JP:YES, *US:YES, EP:NO*)

Claim 4 of example 1 is as follows:

> An application document receipt processing system having an agent terminal installed on the side of an agent that performs preparation and submission of application documents, and a public institution computer installed in the public institution that receives the submitted documents and is connected to the agent terminal through a communication network, characterized in that the public institution computer comprises:
>
> application document storing means for storing submitted application document data, an agent ID, and a receipt serial number;
>
> means for writing in succession the application document data and the agent ID sent from the agent terminal onto the application document storing means;
>
> means for reading in succession the application document data and the agent ID out of the application document storing means and for detecting an omission in writing the application contents according to whether or not a NULL code is included in the application document data; and
>
> means, in case no omission is detected, for providing a receipt serial number and storing it in the application document storing means, and for sending the receipt serial number to the agent terminal on the basis of the agent ID through the communication network.

The JPO says an invention according to claim 4 satisfies the statutory invention requirement of Section 29(1). Claim 4 describes how the computer caries out the operation using hardware resources thereof to find omissions based on the existence of NULL codes in the documents. In this way the information processing equipment (machine) particularly suitable for a given purpose is created.

In my opinion, the invention according to claim 4 seems to be statutory subject matter in the US, because once again sending a reception number to an agency has real world value. I think in the EPO, the invention according to claim 4 is not statutory subject matter, because a further technical effect is not found.

(5) My opinion about the JPO's judgement

In my opinion, if the problem to be solved by the invention is not that of finding omissions on the document but that of to realize in a computer system which can accept petition documents through agents (in condition that how to find omissions is well known technique), then in addition to claim 4, claim 3 also satisfies the statutory invention requirement of Section 29(1). This is because claim 3 describes how the computer caries out the operation to realize such a system.

I have omitted Example 2, because this Example deals with similar situation to Example 1.

5.2   Example 3 : Category 2 (JP:NO, *US:YES, EP:NO***)**
(1) Claim 1

Claim 1 of example 3 is as follows:

> An advertisement mediating system mediating between an advertisement client and an advertisement agent, comprising:
> idea registering function for registering the idea information of the advertisement agent;
> idea searching function for searching for the registered idea information; and
> providing function using the idea searching function for searching for idea information corresponding to the needs information of the advertisement client, providing the idea information to the advertisement client, and providing the needs information to the advertisement agent.

The JPO says an invention according to claim 1 lacks the definitive requirement of Section 36(6)(ii). In claim 1, it is not clear whether the registering function, searching function and providing function are obtained by the function of a computer or obtained by human action.

The JPO says the invention of claim 1 also lacks the statutory invention requirement of Section 29(1).   If the functions are not obtained by the function of a computer, it is a social system which does not utilize a computer.   Even if the functions are obtained by the function of a computer, it fails to describe how the computer caries out the operations using hardware resources thereof.

In my opinion, the invention according to claim 1 seems to be statutory subject matter in the US, because providing idea information for advertisement to a client and providing needs information for advertisement have real world value.   I think in the EPO, the invention according to claim 1 is not statutory subject matter, because the invention is a method of doing business.

(2) Claim 2

Claim 2 of example 3 is as follows:

> An advertisement mediating system in which client-side computers separately owned by plural advertisement clients and agent-side computers separately owned by plural advertisement agents are separately connected to an advertisement mediating computer through a communication network, characterized in that the advertisement mediating computer comprises:
> idea information storing means for storing the advertisement agent's idea information as related to an agent ID and idea classifying data for indicating, with bit positions, at least one target commodity category;
> idea information registering means for registering the agent ID, the idea information, and the idea classifying data sent from the agent-side computer at the idea information registering means;
> means for receiving, from the client-side computer, mediation request data including a client ID, needs information, and needs classifying data of the same format type as the idea classifying data;
> idea extracting means for searching and extracting acceptable idea by performing, upon receiving the mediation request data, on all the idea information stored in the idea information storing means, a series of processes including:
> process of reading the agent ID, the idea information, and the idea classifying data from the idea information storing means and storing them in an operational storing means;
> process of implementing an AND operation of the idea classifying

data and the needs classifying data;

process of implementing a EXCLUSIVE-OR operation of the calculated results of the logical multiplication and the needs classifying data; and

unacceptable idea deleting process of deleting, from the operational storing means, the agent ID, the idea information, and the idea classifying data as unacceptable in the case that the calculation of the exclusive logical addition results in other than zero; and

idea providing means for sending, when the process with the idea extracting means is over, the idea information stored in the operational storing means to the client-side computer along with sending the needs information to the agent-side computer corresponding to the agent ID stored in the operational storing means.

The JPO says the invention according to claim 2 satisfies both of the statutory invention requirement of Section 29(1) and the definitive requirement of Section 36(6)(ii). In claim 2, it is clear that registering means, searching means and providing means are obtained by function of a computer. Claim 2 describes how the computer caries out the operation using hardware resources thereof to realize the intermediary service.

In my opinion, the invention according to claim 2 seems to be statutory subject matter in the US, because providing idea information for advertisement to a client and providing needs information for advertisement to an agent have real world value. I think in the EPO, the invention according to claim 2 is seems to be statutory subject matter, because a further technical effect is found.

(3) My opinion about the JPO's judgement

I think there is a wide margin between claim 1 and claim 2, and neither claim 1 nor claim 2 are on the border line. In my opinion, the following claim satisfies the statutory invention requirement of Section 29(1) and the definitive requirement of Section 36(6)(ii) in Japan.

An advertisement mediating system in which client-side computers separately owned by plural advertisement clients and agent-side computers separately owned by plural advertisement agents are separately connected to an advertisement mediating computer through a communication network, characterized in that the advertisement mediating computer comprises:

idea information storing means for storing the advertisement agent's idea information as related to the agent ID and idea classifying data for indicating at least one target commodity category;

idea information registering means for registering the agent ID, the idea information, and the idea classifying data sent from the agent-side computer at the idea information registering means;

means for receiving, from the client-side computer, a client ID, needs information, and mediation request data including needs classifying data for indicating at least one target commodity category;

means for selecting idea information data, from the stored idea information data, which have at least one same target category with one of target categories of the needs information, upon receiving the mediation request data;

means for sending the selected idea information to the client-side computer and sending the needs information to the agent-side computer corresponding to the agent ID.

5.3 Example 5 : Category 4 (JP:YES, *US:YES, EP:YES*)
(1) Claim 1

Claim 1 of example 5 is as follows:

A system for selling children's bicycles to provide commodity information on children's bicycles through the Internet, comprising:

means for entering information about what user desires including at least color and cartoon character desired by users,

means for entering physical information about user such as the height of users,

means for searching commodity information according to the information about what the user desires and determining the size information of the commodity according to the physical information about user,

means for creating made-to-order information according to the information about what the user desires and physical information about user in case the commodity choosing means cannot determine the commodity, and

means for receiving an order for the commodity chosen with the commodity choosing means or an order for the commodity according to the made-to-order information created with the made-to-order

information creating means.

(2) Reference

Reference discloses the following features:

・A commodity selling system through the Internet to provide commodity information on clothing to a consumer's computer.

・A user interface is employed for the user to choose commodity information on clothing and to enter information about what the user desires such as color and design to decide favorite commodity, and physical information about user such as height to decide the size of the commodity.

・The commodity selling system searches the commodity information database (see FIG. 1) using the information about what the user desires and physical information about user sent from the consumer's computer as search keys and, if a commodity that conforms to the conditions is present, sends the information to the consumer's computer.

・In case no commodity is present that matches the conditions, the commodity selling system creates information about a made to order matching the conditions and sends the information to the consumer's computer.

・The consumer's computer employs a user interface to output to the display any commodity information received from the commodity selling system and to give order instructions for purchasing the commodity.

FIG. 1

Commodity	Size	Design	Suitable height	Color
Sweater	S	V-neck	140 – 150	Red, Navy blue
Sweater	M	V-neck	150 – 160	Pink, Light navy blue
Sweater	L	V-neck	160 – 170	Dark red, Dark navy blue
Sweater	S	Turtle	130 – 155	Dark orange, Dark purple
Sweater	M	Turtle	150 – 175	Orange, Purple
Sweater	L	Turtle	170 – 185	Light orange, Light purple
…	…	…	…	…

(3) Inventive step

The JPO says the invention according to claim 1 lacks the inventive step requirement of Section 29(2).

The differences between an invention according to claim 1 and disclosed matter in the reference are i) the difference of goods to be sold i.e. chiledren's cycle VS clothes, ii) the difference of request information (claim allows usres to order commodities with popular cartoon character's drawing or not.

It would be obvious to make the claimed invention from reference invention by exchanging clothes with bicycles.   the selecting goods based on what cartoon character is common knowledge.

In my opinion, also in the US an invention according to claim 1 seems to be obvious from the referenc.   I think in the EPO, the invention according to claim 1 lacks the inventive step, because the differences i) and ii) do not contribute the inventive step.

7.   Other Examples of Examination for Comparison

I will compare the examination of statutory subject matter on a few more claim examples.

6.1   Report on Comparative Study Carried Out Under Trilateral Project B3b[42]

(1) Hypothetical Claim Set A

For this claim set, the JPO and the USPTO showed the examination result for their study.   I will hypothesize probable results of an examination by EPO.

i) Claim 1   Category 1   (**JP:NO, US:NO**, *EP:NO*)

> A service method of granting points in accordance with an amount of the merchandise transaction, comprising the steps of:
> designating by a customer, a name of a person to whom points issued in accordance with the amount of the merchandise transaction are to be granted;

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[42] http://www.jpo.go.jp/saikine/tws/b3b_start_page.htm

selecting, in response to the name of the designated person, the address of the designated person from a customer list;
registering the address of the designated person in a customer list if the address is not available;

storing the value of the points granted to the designated person in the customer list; and

sending a notice that the points were granted, to the address of the designated person.

ii) Claim 2   Category 1   (**JP:NO, US:NO**, *EP:NO*)

A service method, wherein points are granted in accordance with an amount of the merchandise transaction made by a customer at a shop on the Internet, comprising the steps of:
designating by the customer, a name of a person to whom points issued in accordance with the amount of the merchandise transaction are to be granted;

selecting, in response to the name of the designated person, the e-mail address of the designated person from a customer list;
registering the e-mail address of the designated person in a customer list if the e-mail address is not available;

storing the value of the points granted to the designated person in the customer list; and

sending a notice that the points were granted, to the e-mail address of the designated person.

iii) Claim 3   Category 6   (**JP:YES, US:NO**, *EP:NO*)

A service method for granting points in accordance with an amount of the merchandise transaction at a shop on the Internet, comprising the steps of:

designating to a server, a name of a person to whom points issued in accordance with the amount of the merchandise transaction are to be granted;

selecting by the server, in response to the name of the designated person, the e-mail address of the designated person from a customer list storage unit, which is provided on the server;

registering by the server, the e-mail address of the designated person in a customer list storage unit if the e-mail address is not available;

storing by the server, the value of the points granted to the designated person in the customer list storage unit; and

sending by the server, a notice that the points were granted, to the e-mail address of the designated person.

iv) Claim 4   Category 6   (**JP:YES, US:NO**, *EP:NO*)

A service method for granting points in accordance with an amount of the merchandise transaction at a shop on the Internet, comprising the steps of:

designating to a server, a name of a person to whom points issued in accordance with the amount of the merchandise transaction are to be granted;

selecting by the server, in response to the name of the designated person, the e-mail address of the designated person from a customer list storage unit, which is provided on the server;

registering by the server, the e-mail address of the designated person in a customer list storage unit if the e-mail address is not available;

storing by the server, the value of the points granted to the designated person in the customer list storage unit; and

sending by the server, a notice that the points were granted, to the e-mail address of the designated person, and

the steps being characterized in that:

the points issued against the merchandise transaction are calculated as those issued against the cost of the merchandise transaction inclusive of taxes.

v) Claim 5   Category 6   (**JP:YES, US:NO**, *EP:NO*)

A service method for granting points in accordance with an amount of the merchandise transaction at a shop on the Internet, comprising the steps of:

designating to a server, a name of a person to whom points issued in accordance with the amount of the merchandise transaction are to be granted;

selecting by the server, in response to the name of the designated

person, the e-mail address of the designated person from a customer list storage unit, which is provided on the server;

registering by the server, the e-mail address of the designated person in a customer list storage unit if the e-mail address is not available;

storing by the server, the value of the points granted to the designated person in the customer list storage unit; and

sending by the server, a notice that the points were granted, to the e-mail address of the designated person, and

the steps being characterized in that:

the number of points awarded are increased to 10 times the number of points normally awarded for that merchandise transaction in one out of every twenty transactions.

vi) Claim 6   Category 4 (or 3)   **(JP:YES, US:NO**, *EP:YES*)

A service method for granting points in accordance with an amount of the merchandise transaction at a shop on the Internet, comprising the steps of:

designating to a server, a name of a person to whom points issued in accordance with the amount of the merchandise transaction are to be granted;

selecting by the server, in response to the name of the designated person, the e-mail address of the designated person from a customer list storage unit, which is provided on the server;

registering by the server, the e-mail address of the designated person in a customer list storage unit if the e-mail address is not available;

storing by the server, the value of the points granted to the designated person in the customer list storage unit;

calling by the server, a comprehensive list of merchandise from a merchandise information storing means for storing a list of merchandise corresponding with the name and price of the merchandise purchased or the number of points necessary for the purchase thereof;

converting by the server, the comprehensive list of merchandise into a list, such that the merchandise available merely by redeeming the value of the points can be distinguished from other merchandise; and

sending by the server, a notice that the points were granted, attaching thereto the comprehensive list of merchandise as converted, to the e-mail address of the designated person.

(2) Hypothetical Claim Set B

For this claim set, JPO and USPTO showed the examination result for study. I make probable results of examination by EPO.

i) Claim 1   Category 1   **(JP:NO, US:NO,** *EP:NO*)

A method for approving the settlement of charges with a forward exchange contract by an individual consumer, the method being characterized in that it comprises:

issuing an invitation by a credit card issuing company A to a user of a credit card issued by company A to apply for a forward exchange contract of a currency D on a specified date, wherein the user is scheduled to make settlement of a small amount in a foreign currency;

application by the user for a forward exchange contract with company A for the purchase of a specified amount of currency D by submission of the user's name and credit card number to company A, said user becoming a participant in an application invitation program run by company A if the application is accepted;

performance by company A of a forward exchange contract for the purchase of currency D on a specified date for an amount at least equal to the forward exchange contracts of all participants in the application invitation program;

performing by a participant in the application invitation program of a transaction with a member shop in the program which can settle the transaction in the currency D;

submission by member shops of charges associated with the participant transactions to company A after a check of the participant status with company A has been completed;

totaling by company A, as closed on a specified date, of charges submitted by the member shops and determining the amount of the total charges in currency D; and

totaling the required settlements of the participant in currency D;

where the settlement amount is smaller than the amount of the forward exchange contract that was applied for by the participant approving the settlement amount at the exchange rate on a specified date, and in the event that it is greater than the amount of the forward contract applied for approving the settlement amount up to the amount of the forward exchange contract applied for at the exchange rate on a

specified date, and computing the excess at the exchange rate at the closing day used as the basis for charges.

ii) Claim 2   Category 3 (or 4)   **(JP:YES, US:YES**, *EP:NO*)

A method for processing data on computer system to implement a forward exchange contract by an individual consumer, wherein the data processing for the forward exchange contract is characterized in that it comprising of the steps of:

issuing an invitation by a web server of a credit card issuing company A to a user of a credit card issued by company A to apply for a forward exchange contract of a currency D on a specified date, wherein the user is scheduled to make settlement of a small amount in a foreign currency;

application by the user terminal for a forward exchange contract with company A for the purchase of a specified amount of currency D by submission of the user's name and credit card number to company A, said user becoming a participant in an application invitation program run by company A if the application is accepted;

performance by a forward exchange contract system of company A of a forward exchange contract for the purchase of currency D on a specified date for an amount at least equal to the forward exchange contracts of all participants in the application invitation program;

performing of a transaction with a participant in the application invitation program by a system of a member shop in the program which can settle the transaction in the currency D;

submission by a system of member shops of charges associated with the participant transactions to company A after a check of the participant status with company A has been completed;

totaling by the business system of company A, as closed on a specified date, of charges submitted by the systems of the member shops and payment of the charges by the business system of company A to the systems of the member shops in currency D; and

totaling by the business system of company A settlements of the participant in currency D;

where the settlement amount is smaller than the amount of the forward exchange contract that was applied for by the participant charging the settlement amount at the exchange rate on a specified date, and in the event that it is greater than the amount of the forward contract applied for computing the settlement amount up to

the amount of the forward exchange contract applied for at the exchange rate on a specified date, and computing the excess at the exchange rate at the closing day used as the basis for charges.

iii) Claim 3   Category 3 (or 4)   **(JP:YES, US:YES**, *EP:NO*)

The method of claim 2 for processing data on computer system to implement the forward exchange contract by an individual consumer, the method being characterized in that it further comprises:

the providing of the invitation includes posting an advertisement on the web server of company A to invite users who own credit cards that were issued by the company A and who are scheduled to make a small amount of settlement in a foreign currency, to apply for a forward exchange contract and receiving the name and credit card number as well as the number of currency units entered from the user terminal in an application form on the display screen on their user terminal that appears when the users click on the advertisement page on the browser;

the application by the user terminal include inviting the applicant to close a forward exchange contract and accepting the application for the currency exchange contract if the credit card is valid and if the number of currency units is found to be within the credit limit of the credit card and;

upon acceptance of the application for the forward exchange contract closing the forward exchange contract in the currency D through negotiation between the forward exchange contract processing system of the company A and the forward exchange contract processing system of an exchange broker;

wherein the step for totaling charges on the settlement system of the company A includes totaling data on charges submitted via a charging system of the member shops as closed on a specified date after the participant in the application invitation program has performed the transaction with the member shops which can settle the transaction in the currency D, and after paying the charges in the currency D totaling transaction settlements by credit card in the currency D regarding the participant in the application invitation program.

iv) Claim 4   Category 3 (or 4)   **(JP:YES, US:YES**, *EP:NO*)

The method of Claim 3 for processing data on a computer system to

implement the closing of a forward exchange contract by an individual consumer, the method being characterized in that the validation step of the credit card comprising of:

Checking if the applicant is a gold card owner, and rejecting the applicant is not a gold card owner.

v) Claim 5   Category 3 (or 4)   **(JP:YES, US:YES**, *EP:NO*)

The method of Claim 3 for processing data on a computer system to implement the closing of a forward exchange contract by an individual consumer, the method further comprising the processing of settling the transaction at the exchange rate on the closing day being used as the basis of charges in the event that a credit card owner with the transaction record of more than a specified value has declared that he or she will not close any forward exchange contract against a certain transaction.

vi) Claim 6   Category 3 (or 4)   **(JP:YES, US:YES**, *EP:NO*)

The method of Claim 3 for processing data on a computer system to implement the closing of a forward exchange contract by an individual consumer, the method further comprising the process, wherein in the event that, when a merchandise transaction application is sent using the terminal of a credit card owner with a transaction record of greater than a specified value, to the on-line member shop on the Internet of the company A, data on the exchange rate fluctuations for a certain period in the past can be extracted, by an exchange rate forecast system in the on-line shop, from the database and then an applet for graphically indicating the exchange rate fluctuations will be sent to the browser on the terminal of the credit card owner, whereas if the credit card owner should send, using the terminal, a notice to the effect that he or she will not close any forward exchange contract for a certain transaction, the transaction can then be settled at the exchange rate on the designated date.

6.2 Training Materials Directed to Business, Artificial Intelligence, and Mathematical Processing Applications[43]

(1) Mutual Fund

i) Claim 1   Category 1   (*JP:NO*, **US:NO**, *EP:NO*)

A computerized method of allocating funds for a mutual fund among a plurality of funds in a group, comprising the steps of:

a. receiving at least one fund identifier for each of said plurality of funds;

b. receiving at least one risk ranking factor for each of said plurality of funds;

c. receiving at least one set of allocation parameters which correspond to the desired allocation of funds relative to a profile of said ranking factors;

d. storing the fund identifiers, the risk ranking factors and the allocation parameters on a computer readable medium;

e. receiving an initial investment value which is to be invested in the funds;

f. receiving an incremental investment allotment value and a period for the incremental investment allotment value;

g. receiving an indication of allowable level of investor risk; and

h. using the stored fund identifiers, the risk ranking factors and the allocation parameters in combination with the initial investment value, the incremental investment allotment value, the period for the incremental investment allotment value, an d the indication of allowable level of investor risk to provide an optimum account allocation between the funds in the group.

ii) Claim 2   Category 2   (JP:NO, **US:YES**, EP:NO)

The method of claim 1, further including the step of displaying the optimum account allocation on an investor monthly account summary report to an investor or broker.

iii) Claim 3   Category 2   (JP:NO, **US:YES**, EP:NO)

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[43] http://www.uspto.gov/web/offices/pac/compexam/examcomp.htm

The method of claim 1, further including the step of transferring funds between the mutual funds in the group according to the optimum account allocation.