FIG. 1

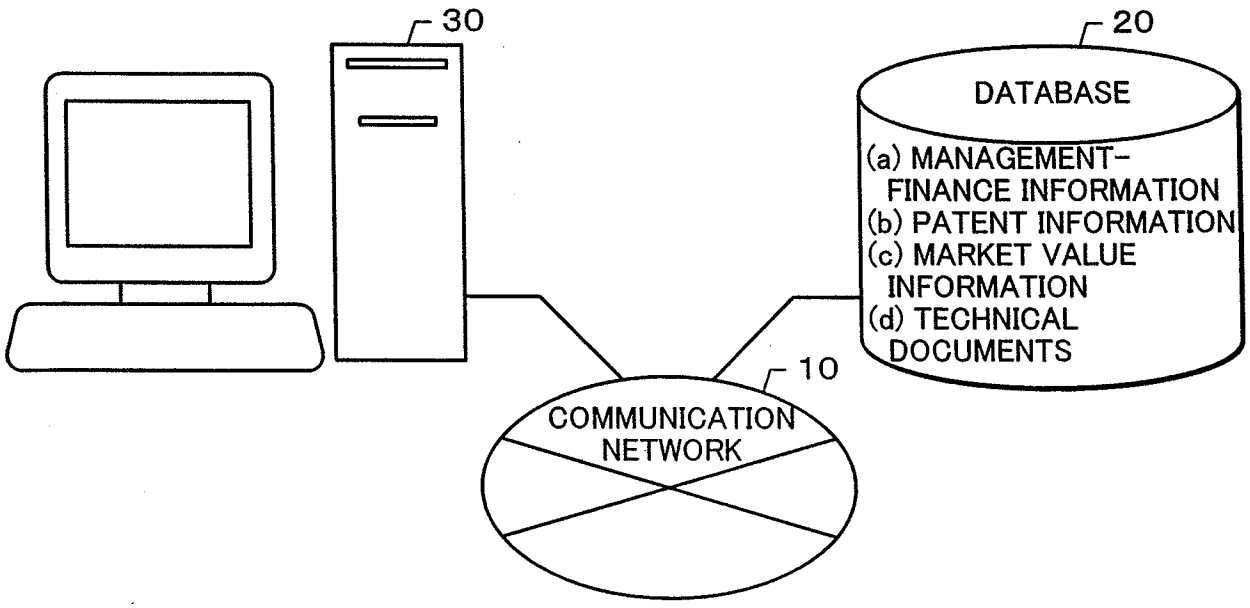

30
20
DATABASE
(a) MANAGEMENT-FINANCE INFORMATION
(b) PATENT INFORMATION
(c) MARKET VALUE INFORMATION
(d) TECHNICAL DOCUMENTS
10
COMMUNICATION NETWORK

FIG. 2

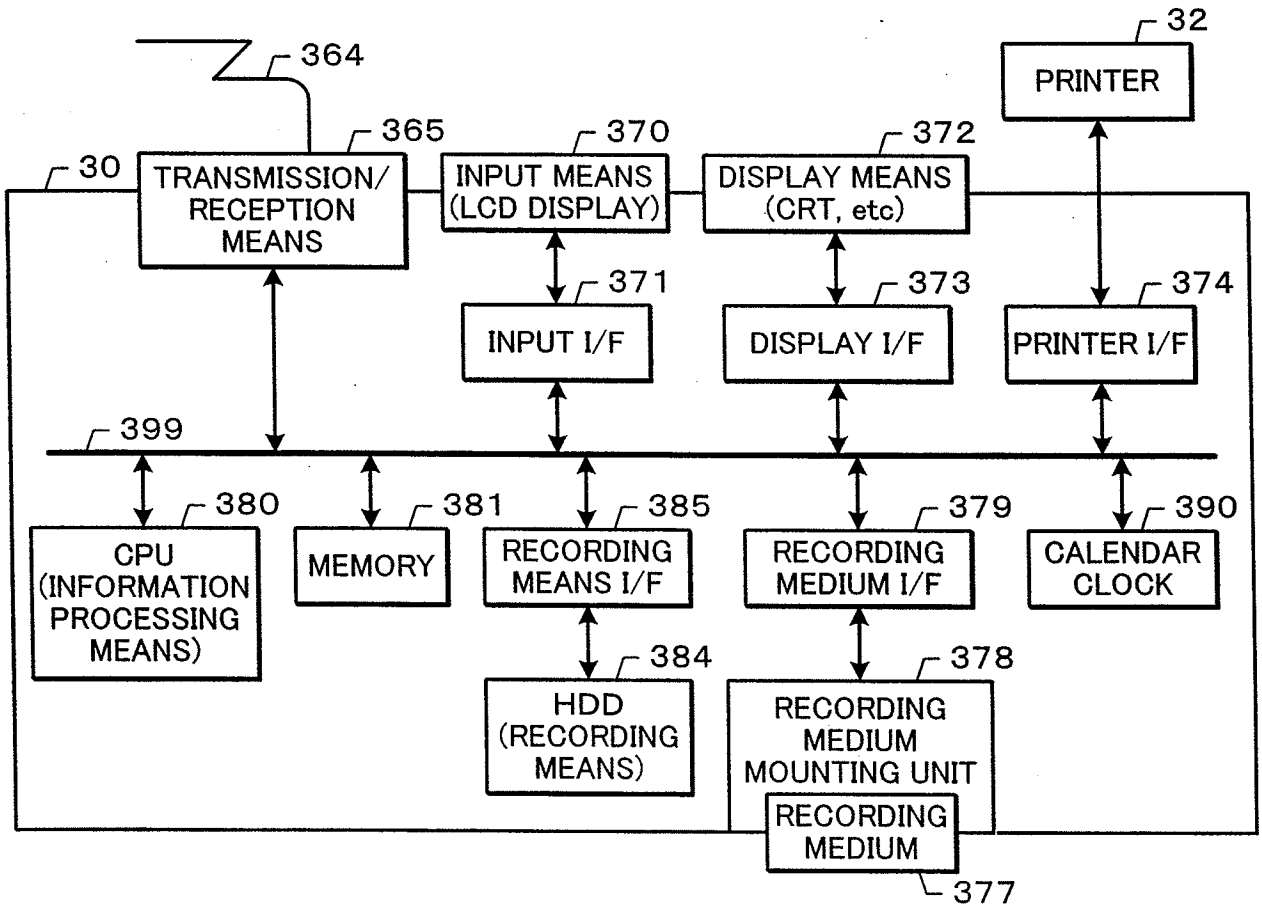

32
PRINTER
364
365
370
372
30
TRANSMISSION/ RECEPTION MEANS
INPUT MEANS (LCD DISPLAY)
DISPLAY MEANS (CRT, etc)
371
373
374
INPUT I/F
DISPLAY I/F
PRINTER I/F
399
380
381
385
379
390
CPU (INFORMATION PROCESSING MEANS)
MEMORY
RECORDING MEANS I/F
RECORDING MEDIUM I/F
CALENDAR CLOCK
384
378
HDD (RECORDING MEANS)
RECORDING MEDIUM MOUNTING UNIT
RECORDING MEDIUM
377

FIG. 3

(a) MANAGEMENT-FINANCE INFORMATION

| (A) Information on Size of Company | (B) Financial Information of Company | | (C) Combined Information of Company |
|---|---|---|---|
| Number of employees | Sales volume | Total assets | Sales volume per employee |
| Number of officers | Sales profit | Tangible fixed assets | R&D cost per employee |
| Capital | Operating profit | Amount of capital investment | Sales profit per employee |
| Number of plants/offices | Gross operating profit | Depreciation costs | Operating profit per employee |
| Ground floor area | Sales profit ratio | Patent royalty income | Gross operating profit per employee |
| Total floor area | Operating profit ratio | Financial assets (liquid assets and liquid liabilities) | |
| Ownership ratio of premises | Gross operating profit ratio | Interests paid/discounts | |
| Ownership ratio of building | Total market value to total assets ratio | Long-term prime rate (long-term borrowing rate) | |
| Number of employees (consolidated basis) | Total market value to stockholders' equity ratio | Short-term prime rate | |
| Number of officers (consolidated basis) | Total market value to sales volume ratio | Interest on bonds | |
| Capital (consolidated basis) | Total market value to gross operating profit ratio | 10-year government bond yield ratio | |
| Number of plants/offices (consolidated basis) | Total market value to operating profit ratio | Personnel costs, (including officers' compensation and labor costs) | |
| Ground floor area (consolidated basis) | Gross operating profit to total assets ratio | Welfare expenses | |
| Total floor area (consolidated basis) | Gross operating profit to stockholders' equity ratio | Capital stock | |
| Ownership ratio of premises (consolidated basis) | Operating profit to total assets ratio | Total number of outstanding shares | |
| Ownership ratio of building (consolidated basis) | Operating profit to Stockholders' equity ratio | Stock price (Nikkei Stock Average) | |
| | Stockholders' equity ratio | Taxes and public charges | |
| | Balance of total market value and stockholders' equity | | |
| | R&D cost | | |
| | R&D cost to sales volume ratio | | |
| | R&D cost to operating profit ratio | | |
| | R&D cost to gross operating profit ratio | | |

FIG. 4A

(b) PATENT INFORMATION

| (A) Application Related Matters | |
|---|---|
| Filing date | Number of filings |
| Application number | Number of request for examination |
| Title of the invention | Number of filings based on IPC |
| Inventors | Number of filings based on keywords |
| Applicants | Number of claims filed |
| Scope of claims | Years spent on examination requests |
| Abstract | Number of inventors |
| IPC | Number of applicants (number of joint applications) |
| FI | Number of domestic priority-claiming applications |
| F term | Number of domestic priority bases claimed in applications |
| Agents | Number of priority bases from foreign countries |
| Publication date | Number of applications in which an exception to loss of novelty is requested |
| Publication number | Number of applications in which examination is requested before laid-open |
| Existence of request for examination | Number of divisional applications |
| Date of request for examination | Number of withdrawn/abandoned applications |
| Priority date | Number of converted applications |
| Priority number | Number of expedited examinations |
| Date of publication of translations of PCT international application | Number of filings (in each country) |
| Number for publication of translations of PCT international application | Number of inventors in applications (in each country) |
| Date of domestic re-publication of PCT international application | Number of applicants in applications (in each country) |
| Number for domestic re-publication of PCT international application | Number of priority-claiming applications (in each country) |
| International filing date | Number of priority bases claimed in applications (in each country) |
| International application number | Number of divisional applications (in each country) |
| International publication date | |
| International publication number | |
| Designated countries | |

FIG. 4B

(b) PATENT INFORMATION

| (B) Registration Related Matters | |
|---|---|
| Registration date | Number of registrations |
| Issue date of registration | Number of claims registered |
| Registration number | Number of expired patents after registration |
| Scheduled day of expiration of right | Years spent from application to registration |
| Date of publication of examined application | Patent registration rate |
| Publication number of examined application | Patent allowance rate |
| Annual maintenance fee payment status | Years spent from request for examination to registration |
| Number of final decisions for rejection | Number of applications in which preferential examination is conducted |
| Date of final decision for rejection | Number of rejections issued |
| Number of claims decided to be finally rejected | Number of amendments filed |
| Number of appeals against final decision for rejection | Number of amendments filed (for formalities) |
| number of abandoned/withdrawn applications after request for examination | Number of written oppositions filed |
| Number of abandoned/withdrawn claims after request for examination | Number of appeals and trials |
| Number of invalidation trials | Number of registrations for creating patent right |
| Appeal/trial number | Number of registrations for extending term of patent right |
| Date of decision to appeal/trial | Number of transferred patents |
| Number of claims demanded for invalidation trial | Number of registrations (in each country) |
| Number of appeals to dismissal of amendment or trials for correction | Years required for registration (in each country) |
| Number of oppositions | Years spent on examination (in each country) |
| Number of claims demanded for opposition | Number of rejections issued (in each country) |
| Inventors of registered patent | Number of amendments filed (in each country) |
| Number of inventors of registered patent | Number of amendments filed (for formalities) (in each country) |
| Applicants of registered patent | Number of oppositions filed (in each country) |
| References cited | Number of applications in which preferential examination is conducted |
| | Number of rejections issued |
| | |

FIG. 5

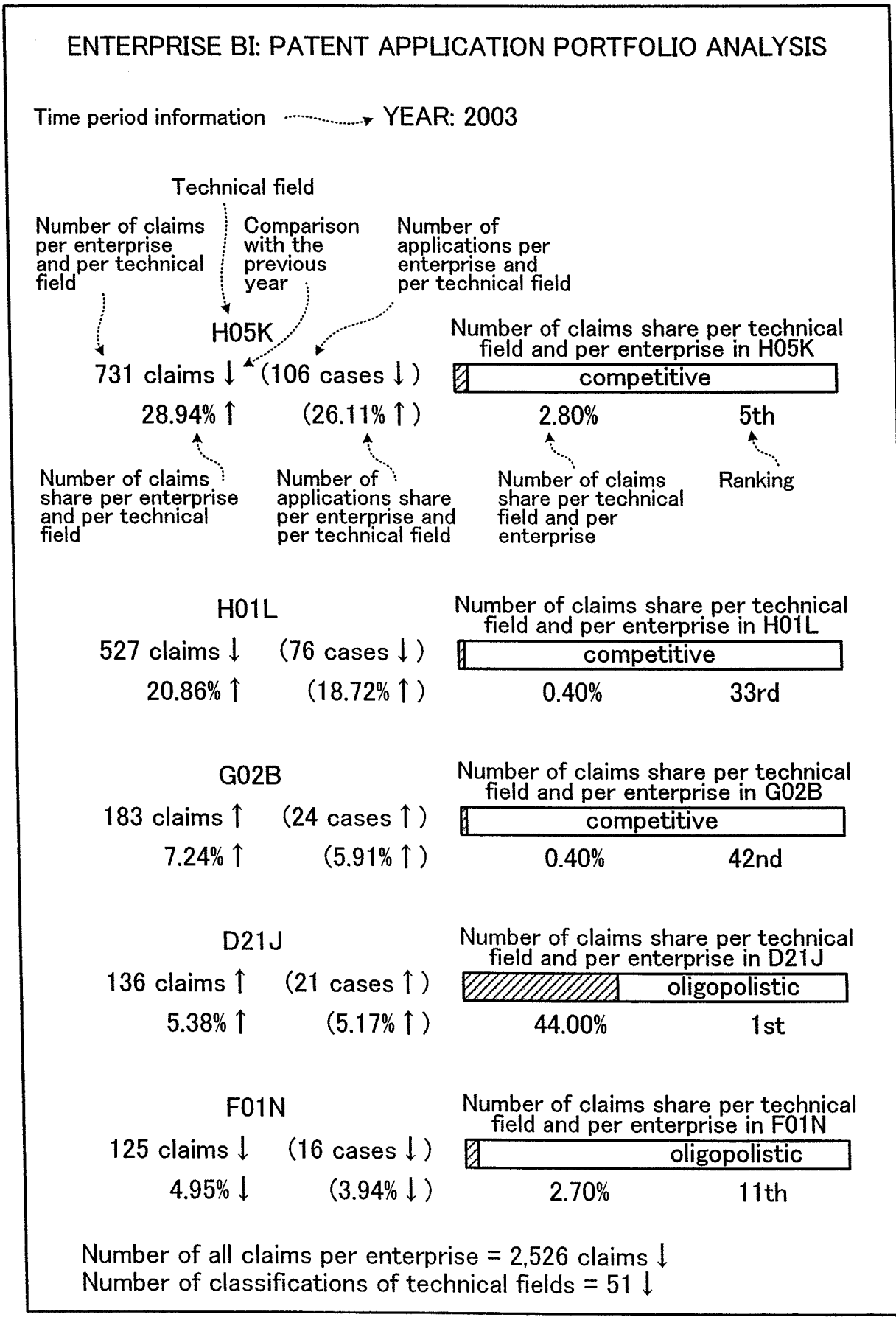

ENTERPRISE BI: PATENT APPLICATION PORTFOLIO ANALYSIS
Time period information
YEAR: 2003
Technical field
Number of claims per enterprise and per technical field
Comparison with the previous year
Number of applications per enterprise and per technical field
H05K
731 claims ↓
(106 cases ↓)
28.94% ↑
(26.11% ↑)
Number of claims share per technical field and per enterprise in H05K
competitive
2.80%
5th
Number of claims share per enterprise and per technical field
Number of applications share per enterprise and per technical field
Number of claims share per technical field and per enterprise
Ranking
H01L
527 claims ↓
(76 cases ↓)
20.86% ↑
(18.72% ↑)
Number of claims share per technical field and per enterprise in H01L
competitive
0.40%
33rd
G02B
183 claims ↑
(24 cases ↑)
7.24% ↑
(5.91% ↑)
Number of claims share per technical field and per enterprise in G02B
competitive
0.40%
42nd
D21J
136 claims ↑
(21 cases ↑)
5.38% ↑
(5.17% ↑)
Number of claims share per technical field and per enterprise in D21J
oligopolistic
44.00%
1st
F01N
125 claims ↓
(16 cases ↓)
4.95% ↓
(3.94% ↓)
Number of claims share per technical field and per enterprise in F01N
oligopolistic
2.70%
11th
Number of all claims per enterprise = 2,526 claims ↓
Number of classifications of technical fields = 51 ↓

FIG. 6

CALCULATION EXAMPLE OF PATENT DIVERSIFICATION INDEX (PDI) (ENTERPRISE A)

CALCULATION 1

| ITEMS / ALL TECHNICAL FIELDS IN WHICH ENTERPRISE A FILED PATENT APPLICATIONS (IN 1999) | NUMBER OF CLAIMS PER ENTERPRISE AND PER TECHNICAL FIELD k(i) | PER ENTERPRISE AND PER TECHNICAL FIELD SHARE $s(i) = k(i)/K$ (Formula 7) | SEI INDEX PER ENTERPRISE AND PER TECHNICAL FIELD $F.SEI(i) = s(i)^2$ (Formula 8) |
|---|---|---|---|
| H01L | 10 | 0.033 | 0.001 |
| G06F | 26 | 0.087 | 0.008 |
| G11B | 40 | 0.133 | 0.018 |
| H04N | 60 | 0.200 | 0.040 |
| H01J | 164 | 0.547 | 0.299 |
| (No other fields) | | | |
| TOTAL | $K = \Sigma k(i)$ | $S = \Sigma s(i)$ | $F.SEI = \Sigma SEI(i)$ (Formula 9) |
| | 300 | 1.000 | 0.365 |
| PATENT DIVERSIFICATION RATIO (1 − F.SEI) | | | 0.635 |
| PATENT DIVERSIFICATION INDEX (Formula 10) $PDI = (1 - F.SEI) \times 100$ | | | 63.5 |

$$
\begin{aligned}
PDI &= (1 - F.SEI) \times 100 \\
&= (1 - \Sigma F.SEI(i)) \times 100 \\
&= \{1 - \Sigma s(i)^2\} \times 100 \\
&= \{1 - \Sigma (k(i)/K)^2\} \times 100 \\
&= \{1 - 0.365\} \times 100 \\
&= 63.5
\end{aligned}
$$

k(i) : NUMBER OF CLAIMS PER TECHNICAL FIELD

K : TOTAL NUMBER OF CLAIMS OF ALL TECHNICAL FIELDS

$s(i) = k(i)/K$ : SHARE PER TECHNICAL FIELD

$SEI(i) = s(i)^2$ : SEI INDEX PER TECHNICAL FIELD

F.SEI : TOTAL OF SEI INDEXES OF ALL TECHNICAL FIELDS

PDI : PATENT DIVERSIFICATION INDEX

FIG. 7

CALCULATION EXAMPLE OF PATENT DIVERSIFICATION INDEX (PDI) (ENTERPRISE B)

CALCULATION 2

| ITEMS / ALL TECHNICAL FIELDS IN WHICH ENTERPRISE A FILED PATENT APPLICATIONS (IN 1999) | NUMBER OF CLAIMS PER ENTERPRISE AND PER TECHNICAL FIELD k(i) | PER ENTERPRISE AND PER TECHNICAL FIELD SHARE $s(i) = k(i)/K$ (Formula 7) | SEI INDEX PER ENTERPRISE AND PER TECHNICAL FIELD $F.SEI(i) = s(i)^2$ (Formula 8) |
|---|---|---|---|
| H01L | 70 | 0.070 | 0.005 |
| G06F | 70 | 0.070 | 0.005 |
| G11B | 70 | 0.070 | 0.005 |
| H04N | 70 | 0.070 | 0.005 |
| H01J | 70 | 0.070 | 0.005 |
| H01B | 70 | 0.070 | 0.005 |
| G06D | 70 | 0.070 | 0.005 |
| G11H | 70 | 0.070 | 0.005 |
| H04B | 70 | 0.070 | 0.005 |
| H01B | 70 | 0.070 | 0.005 |
| G06B | 70 | 0.070 | 0.005 |
| G11P | 70 | 0.070 | 0.005 |
| H04G | 80 | 0.080 | 0.006 |
| H01C | 80 | 0.080 | 0.006 |
| (No other fields) | | | |
| TOTAL | $K = \Sigma k(i)$ | $S = \Sigma s(i)$ | $F.SEI = \Sigma SEI(i)$ (Formula 9) |
| | 1,000 | 1.000 | 0.072 |
| PATENT DIVERSIFICATION RATIO (1 − F.SEI) | | | 0.928 |
| PATENT DIVERSIFICATION INDEX (Formula 10) $PDI = (1 - F.SEI) \times 100$ | | | 92.8 |

$$
\begin{aligned}
PDI &= (1 - F.SEI) \times 100 \\
&= (1 - \Sigma F.SEI(i)) \times 100 \\
&= \{1 - \Sigma s(i)^2\} \times 100 \\
&= \{1 - \Sigma (k(i)/K)^2\} \times 100 \\
&= \{1 - 0.072\} \times 100 \\
&= 92.8
\end{aligned}
$$

k(i) : NUMBER OF CLAIMS PER TECHNICAL FIELD
K : TOTAL NUMBER OF CLAIMS OF ALL TECHNICAL FIELDS
$s(i) = k(i)/K$ : SHARE PER TECHNICAL FIELD
$SEI(i) = s(i)^2$ : SEI INDEX PER TECHNICAL FIELD
F.SEI : TOTAL OF SEI INDEXES OF ALL TECHNICAL FIELDS
PDI : PATENT DIVERSIFICATION INDEX

FIG. 8

CATEGORIES OF EVALUATION TYPE IN PATENT DIVERSIFICATION INDEX (PDI)

| CATEGORIES OF EVALUATION TYPE | PATENT DIVERSIFICATION INDEX (PDI) VALUE |
|---|---|
| SUPER GENERALIZED TYPE | 96 OR MORE |
| GENERALIZED TYPE | 90 OR MORE, LESS THAN 96 |
| BALANCED TYPE | 76 OR MORE, LESS THAN 90 |
| CONCENTRATED TYPE | 50 OR MORE, LESS THAN 76 |
| SUPER CONCENTRATED TYPE | LESS THAN 50 |

FIG. 9

CALCULATION EXAMPLE OF PATENT DIVERSIFICATION INDEX (PDI) (ENTERPRISE A)

EXAMPLES NOT LIMITED TO 2 POWER OF SHARE PER TECHNICAL FIELD IN SEI INDEX PER ENTERPRISE AND PER TECHNICAL FIELD (ENTERPRISE A)

| ITEMS / ALL TECHNICAL FIELDS IN WHICH ENTERPRISE A FILED PATENT APPLICATIONS (IN 1999) | NUMBER OF CLAIMS PER ENTERPRISE AND PER TECHNICAL FIELD k(i) | PER ENTERPRISE AND PER TECHNICAL FIELD SHARE s(i) = k(i)/K (Formula 7) | SEI INDEX PER ENTERPRISE AND PER TECHNICAL FIELD (SHARE POWERED BY kb) | | | |
|---|---|---|---|---|---|---|
| | | | 2 POWER OF SHARE F.SEI(i) = $s(i)^2$ | 3 POWER OF SHARE F.SEI(i) = $s(i)^3$ | 1.5 POWER OF SHARE F.SEI(i) = $s(i)^{1.5}$ | 0.5 POWER OF SHARE F.SEI(i) = $s(i)^{0.5}$ |
| H01L | 10 | 0.033 | 0.001111 | 0.000037 | 0.006086 | 0.182574 |
| G06F | 26 | 0.087 | 0.007511 | 0.000651 | 0.025514 | 0.294392 |
| G11B | 40 | 0.133 | 0.017778 | 0.002370 | 0.048686 | 0.365148 |
| H04N | 60 | 0.200 | 0.040000 | 0.008000 | 0.089443 | 0.447214 |
| H01J | 164 | 0.547 | 0.298844 | 0.163368 | 0.404188 | 0.739369 |
| TOTAL | K = $\Sigma$ k(i) | S = $\Sigma$ s(i) | F.SEI = $\Sigma$ SEI(i) = $\Sigma (s(i)^{\alpha})$ | | | |
| | 300 | 1.000 | 0.365 | 0.174 | 0.574 | 2.029 |
| PATENT DIVERSIFICATION RATIO (1 − F.SEI) | | | 0.635 | 0.826 | 0.426 | −1.029 |
| PATENT DIVERSIFICATION INDEX PDI = (1 − F.SEI) × 100 | | | 63.5 | 82.6 | 42.6 | −102.9 |

FIG. 10

EXAMPLES NOT LIMITED TO 2 POWER OF SHARE PER TECHNICAL FIELD IN SEI INDEX PER ENTERPRISE AND PER TECHNICAL FIELD (ENTERPRISE B)

| ITEMS / ALL TECHNICAL FIELDS IN WHICH ENTERPRISE B FILED PATENT APPLICATIONS (IN 1999) | NUMBER OF CLAIMS PER ENTERPRISE AND PER TECHNICAL FIELD k(i) | PER ENTERPRISE AND PER TECHNICAL FIELD SHARE s(i) = k(i)/K (Formula 7) | SEI INDEX PER ENTERPRISE AND PER TECHNICAL FIELD (SHARE POWERED BY kb) | | | |
|---|---|---|---|---|---|---|
| | | | 2 POWER OF SHARE F.SEI(i) = $s(i)^2$ | 3 POWER OF SHARE F.SEI(i) = $s(i)^3$ | 1.5 POWER OF SHARE F.SEI(i) = $s(i)^{1.5}$ | 0.5 POWER OF SHARE F.SEI(i) = $s(i)^{0.5}$ |
| H01L | 70 | 0.070 | 0.004900 | 0.000343 | 0.018520 | 0.264575 |
| G06F | 70 | 0.070 | 0.004900 | 0.000343 | 0.018520 | 0.264575 |
| G11B | 70 | 0.070 | 0.004900 | 0.000343 | 0.018520 | 0.264575 |
| H04N | 70 | 0.070 | 0.004900 | 0.000343 | 0.018520 | 0.264575 |
| H01J | 70 | 0.070 | 0.004900 | 0.000343 | 0.018520 | 0.264575 |
| H01B | 70 | 0.070 | 0.004900 | 0.000343 | 0.018520 | 0.264575 |
| G06D | 70 | 0.070 | 0.004900 | 0.000343 | 0.018520 | 0.264575 |
| G11H | 70 | 0.070 | 0.004900 | 0.000343 | 0.018520 | 0.264575 |
| H04B | 70 | 0.070 | 0.004900 | 0.000343 | 0.018520 | 0.264575 |
| H01B | 70 | 0.070 | 0.004900 | 0.000343 | 0.018520 | 0.264575 |
| G06B | 70 | 0.070 | 0.004900 | 0.000343 | 0.018520 | 0.264575 |
| G11P | 70 | 0.070 | 0.004900 | 0.000343 | 0.018520 | 0.264575 |
| H04G | 80 | 0.080 | 0.006400 | 0.000512 | 0.022627 | 0.282843 |
| H01C | 80 | 0.080 | 0.006400 | 0.000512 | 0.022627 | 0.282843 |
| TOTAL | $K = \Sigma k(i)$ | $S = \Sigma s(i)$ | $F.SEI = \Sigma SEI(i) = \Sigma (s(i)^{\alpha})$ | | | |
| | 300 | 1.000 | 0.072 | 0.005 | 0.267 | 3.741 |
| PATENT DIVERSIFICATION RATIO (1 − F.SEI) | | | 0.928 | 0.995 | 0.733 | −2.741 |
| PATENT DIVERSIFICATION INDEX PDI = (1 − F.SEI) × 100 | | | 92.8 | 99.5 | 73.3 | −274.1 |

FIG. 11

CALCULATION EXAMPLE OF PATENT COMPETITIVE POSITION INDEX (PCPI)

CALCULATION 3
NUMBER OF CLAIMS FILED BY EACH ENTERPRISE IN TECHNICAL FIELD 1 (H01L)

| ITEMS / ALL ENTERPRISES THAT FILED PATENT APPLICATIONS IN TECHNICAL FIELD 1 (IN 1999) | NUMBER OF CLAIMS PER TECHNICAL FIELD AND PER ENTERPRISE k(j) | PER TECHNICAL FIELD AND PER ENTERPRISE SHARE $s(j) = k(j)/K$ (Formula 11) | SEI INDEX PER TECHNICAL FIELD AND PER ENTERPRISE $C.SEI(j) = s(j)^2$ (Formula 12) | SEI SCORE PER TECHNICAL FIELD AND PER ENTERPRISE $SSEI(j) = s(j) \times C.SEI \times 100$ (Formula 14) |
|---|---|---|---|---|
| A | 10 | 0.020 | 0.0004 | 1.31 |
| B | 70 | 0.140 | 0.0196 | 9.16 |
| C | 4 | 0.008 | 0.0001 | 0.52 |
| D | 3 | 0.006 | 0.0000 | 0.39 |
| E | 15 | 0.030 | 0.0009 | 1.96 |
| OTHERS | 398 | 0.796 | 0.6336 | 52.11 |
| TOTAL | $K = \Sigma k(j)$ | $S = \Sigma s(j)$ | $C.SEI = \Sigma C.SEI(j)$ | |
| | 500 | 1.000 | 0.6546 | |

SEI SCORE PER ENTERPRISE IN H01L OF ENTERPRISE A = 1.31
B = 9.16
C = ···

$$SSEI(j) = s(j) \times C.SEI \times 100$$
$$= s(j) \times \{\Sigma C.SEI(j)\} \times 100$$
$$= s(j) \times \{\Sigma s(j)^2\} \times 100$$
$$= (k(j)/K) \times \{\Sigma (k(j)/K)^2\} \times 100$$

k(j) : NUMBER OF CLAIMS PER ENTERPRISE
K : TOTAL NUMBER OF CLAIMS OF ALL ENTERPRISES
$s(j) = k(j)/K$ : SHARE PER ENTERPRISE
$C.SEI(j) = s(j)^2$ : SEI INDEX PER ENTERPRISE
C.SEI : TOTAL OF SEI INDEXES OF ALL ENTERPRISES
SSEI : SEI SCORE PER ENTERPRISE

FIG. 12

CALCULATION 4
NUMBER OF CLAIMS FILED BY EACH ENTERPRISE IN TECHNICAL FIELD 2 (G06F)

| ITEMS / ALL ENTERPRISES THAT FILED PATENT APPLICATIONS IN TECHNICAL FIELD 2 (IN 1999) | NUMBER OF CLAIMS PER TECHNICAL FIELD AND PER ENTERPRISE k(j) | PER TECHNICAL FIELD AND PER ENTERPRISE SHARE $s(j) = k(j)/K$ (Formula 11) | SEI INDEX PER TECHNICAL FIELD AND PER ENTERPRISE $C.SEI(j) = s(j)^2$ (Formula 12) | SEI SCORE PER TECHNICAL FIELD AND PER ENTERPRISE $SSEI(j) = s(j) \times C.SEI \times 100$ (Formula 14) |
|---|---|---|---|---|
| A | 26 | 0.027 | 0.0007 | 1.75 |
| B | 70 | 0.072 | 0.0052 | 4.72 |
| C | 8 | 0.008 | 0.0001 | 0.54 |
| D | 5 | 0.005 | 0.0000 | 0.34 |
| E | 33 | 0.034 | 0.0012 | 2.23 |
| OTHERS | 828 | 0.854 | 0.7286 | 55.88 |
| TOTAL | $K = \Sigma k(j)$ | $S = \Sigma s(j)$ | $C.SEI = \Sigma C.SEI(j)$ | |
| | 970 | 1.000 | 0.7358 | |

SEI SCORE PER ENTERPRISE IN G06F OF ENTERPRISE A = 1.75
B = 4.72
C = ···

$$SSEI(j) = s(j) \times C.SEI \times 100$$
$$= s(j) \times \{\Sigma C.SEI(j)\} \times 100$$
$$= s(j) \times \{\Sigma s(j)^2\} \times 100$$
$$= (k(j)/K) \times \{\Sigma (k(j)/K)^2\} \times 100$$

k(j) : NUMBER OF CLAIMS PER ENTERPRISE
K : TOTAL NUMBER OF CLAIMS OF ALL ENTERPRISES
$s(j) = k(j)/K$ : SHARE PER ENTERPRISE
$C.SEI(j) = s(j)^2$ : SEI INDEX PER ENTERPRISE
C.SEI : TOTAL OF SEI INDEXES OF ALL ENTERPRISES
SSEI : SEI SCORE PER ENTERPRISE

FIG. 13

CALCULATION EXAMPLE 1 OF PATENT COMPETITIVE POSITION INDEX D (PCPID)
(PROCEDURE 2)

CALCULATION 5
SEI SCORE PER TECHNICAL FIELD AND PER ENTERPRISE (S.SEI) AND TOTAL OF SEI SCORES PER TECHNICAL FIELD AND PER ENTERPRISE OF ALL TECHNICAL FIELDS

| ENTERPRISES / TECHNICAL FIELDS | ENTERPRISE A | ENTERPRISE B | ENTERPRISE C | ENTERPRISE D | ... |
|---|---|---|---|---|---|
| H01L | 1.31 | 9.16 | 0.52 | 0.39 | 1.96 |
| G06F | 1.75 | 4.72 | 0.54 | 0.34 | 2.23 |
| G11B | 3.57 | 1.11 | ... | ... | ... |
| H04N | 4.12 | 0.13 | ... | ... | ... |
| H01J | 150.10 | 1.05 | ... | ... | ... |
| OTHERS | - | 0.04 | ... | ... | ... |
| TOTAL (T.SEI) PCPID (Formula 15) | T.SEI(A) | T.SEI(B) | T.SEI(C) | T.SEI(D) | |
| | 160.85 | 16.22 | ... | ... | ... |

PCPI(X) : PATENT COMPETITIVE POSITION INDEX
T.SEI(X) : TOTAL OF SEI SCORES OF ALL TECHNICAL FIELDS
S.SEI(X) : SEI SCORE OF EACH ENTERPRISE AND EACH TECHNICAL FIELD

$PCPI(X) = T.SEI(X)$
$T.SEI(X) = \Sigma [S.SEI(X)]$

FIG. 14

EXAMPLES OF EXCESS GROWTH RATE
FOR CALCULATION OF PATENT COMPETITIVE POSITION INDEX (PCPI)

CALCULATION 6
EXCESS GROWTH RATE OF NUMBER OF CLAIMS

| ITEMS \ ENTERPRISES | ENTERPRISE A | ENTERPRISE B | ENTERPRISE C | ... |
|---|---|---|---|---|
| GROWTH RATE $\kappa(X)$ OF NUMBER OF CLAIMS OF EACH ENTERPRISE | 5.0% | −1.0% | ... | ... |
| AVERAGE GROWTH RATE $\kappa(all)$ OF NUMBER OF CLAIMS OF ALL ENTERPRISES | 2.3% | 2.3% | ... | ... |
| EXCESS GROWTH RATE $\Delta\kappa(X)$ (Formula 16) | $\kappa(A)-\kappa(all)$ | $\kappa(B)-\kappa(all)$ | | |
| | 2.7% | −3.3% | ... | ... |

$\Delta\kappa(X) = \kappa(X)-\kappa(all)$

$\Delta\kappa(X)$ : EXCESS GROWTH RATE OF THE ENTERPRISE (X)
$\kappa(X)$ : GROWTH RATE OF NUMBER OF CLAIMS OF THE ENTERPRISE (X)
$\kappa(all)$ : AVERAGE GROWTH RATE OF NUMBER OF CLAIMS OF ALL ENTERPRISES

FIG. 15

CORRECTION EXAMPLES OF PATENT COMPETITIVE POSITION INDEX (PCPI)
BY EXCESS GROWTH RATE

CALCULATION 7
CORRECTION OF NUMBER OF CLAIMS BY EXCESS GROWTH RATE

| ITEMS \ ENTERPRISES | ENTERPRISE A | ENTERPRISE B | ENTERPRISE C | ... |
|---|---|---|---|---|
| PATENT COMPETITIVE POSITION INDEX T.SEI(X) (Formula 15) BEFORE CORRECTION | 160.85 | 16.22 | ... | ... |
| EXCESS GROWTH RATE $\Delta\kappa(X)$ (Formula 16) | 2.7% | −3.3% | ... | ... |
| PATENT COMPETITIVE POSITION INDEX PCPI(X) (Formula 17) CORRECTED BY EXCESS GROWTH RATE | T.SEI(A)× $(1+\Delta\kappa(A))$ | T.SEI(B)× $(1+\Delta\kappa(B))$ | | |
| | 165.19 | 15.68 | ... | ... |

$PCPI(X) = T.SEI(X) \times (1+\Delta\kappa(X))$

PCPI(X) : PATENT COMPETITIVE POSITION INDEX (CORRECTED BY EXCESS GROWTH RATE)
T.SEI(X) : PATENT COMPETITIVE POSITION INDEX (BEFORE CORRECTION)
$\Delta\kappa(X)$ : EXCESS GROWTH RATE OF THE ENTERPRISE (X)

FIG. 16

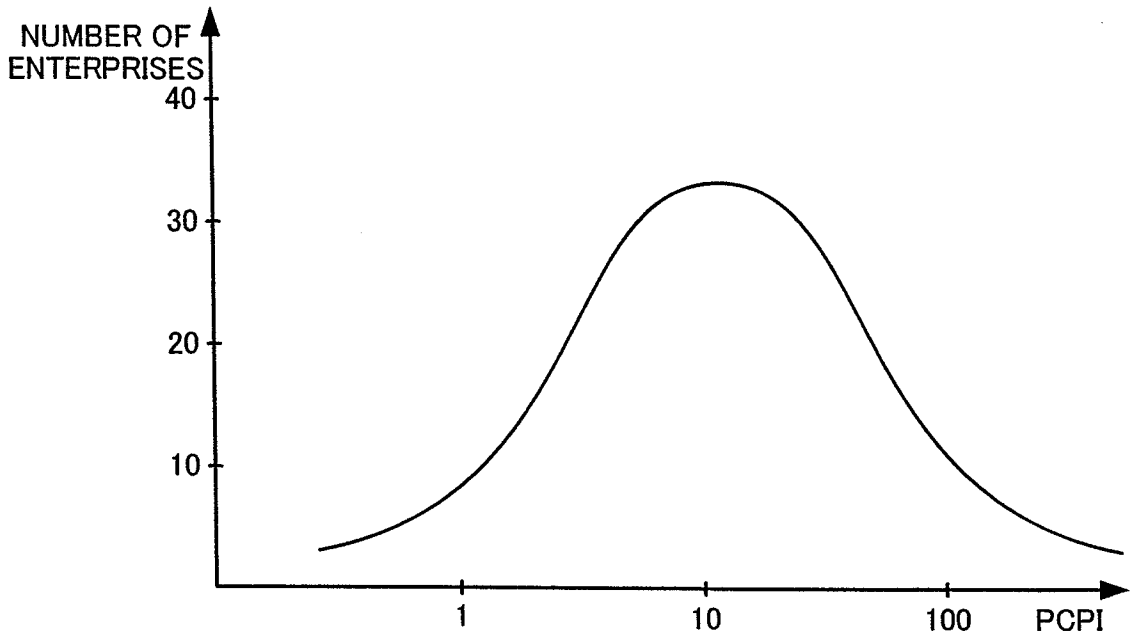



FIG. 17

| STAR RANKING CATEGORIES | RANGE | RATIO |
|---|---|---|
| ★★★★ SUPER STAR | X+2σ OR MORE | TOP 2.28% |
| ★★★☆ STAR PLAYER | X+σ OR MORE, LESS THAN X+2σ | TOP 2.28% TO 16% |
| ★★☆☆ PLAYER | X OR MORE, LESS THAN X+σ | TOP 16% TO 50% |
| ★☆☆☆ BYPLAYER | X−σ OR MORE, LESS THAN X | TOP 50% TO 84% |
| ☆☆☆☆ EXTRA | LESS THAN X−σ | TOP 84% TO BOTTOM (BOTTOM 16%) |

FIG. 18

| STAR RANKING | TYPE CATEGORY NAME |
|---|---|
| ★★★★ | SUPER STAR |
| ★★★☆ | STAR PLAYER |
| ★★☆☆ | PLAYER |
| ★☆☆☆ | BYPLAYER |
| ☆☆☆☆ | EXTRA |

FIG. 19

PATENT DIVERSIFICATION INDEX AND
PATENT COMPETITIVE POSITION INDEX,
STANDARDIZED PATENT COMPETITIVE POSITION INDEX
(EXAMPLE OF ENTERPRISE A)

[PDI] PATENT DIVERSIFICATION INDEX 63.5
CONCENTRATED TYPE

[PCPI] PATENT COMPETITIVE POSITION INDEX 165.20
★★★★
STAR PLAYER

[avgPCPI] STANDARDIZED PATENT COMPETITIVE POSITION INDEX 33.04
★★★
SUPER STAR

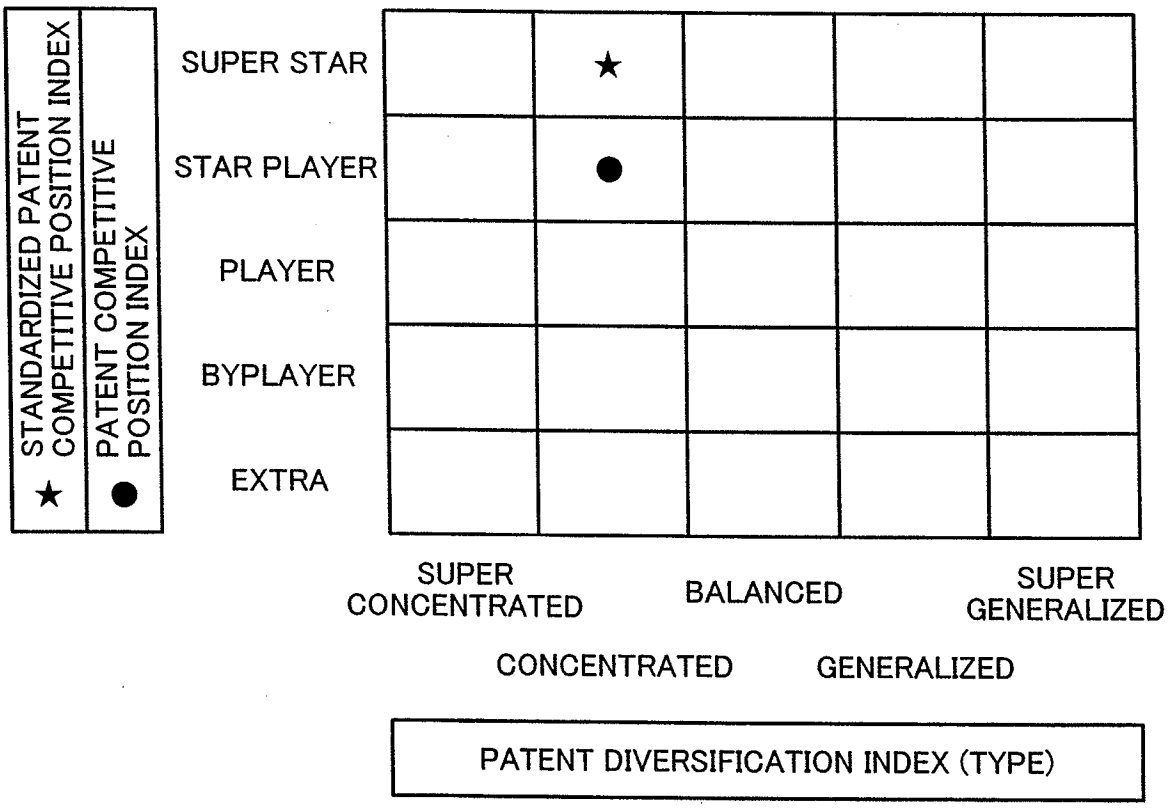


FIG. 20



PATENT DIVERSIFICATION INDEX AND
PATENT COMPETITIVE POSITION INDEX,
STANDARDIZED PATENT COMPETITIVE POSITION INDEX
(EXAMPLE OF ENTERPRISE B)

[PDI] PATENT DIVERSIFICATION INDEX 92.8
GENERALIZED TYPE

[PCPI] PATENT COMPETITIVE POSITION INDEX 15.68
★★★★
PLAYER

[avgPCPI] STANDARDIZED PATENT COMPETITIVE POSITION INDEX 1.12
★★★
BYPLAYER

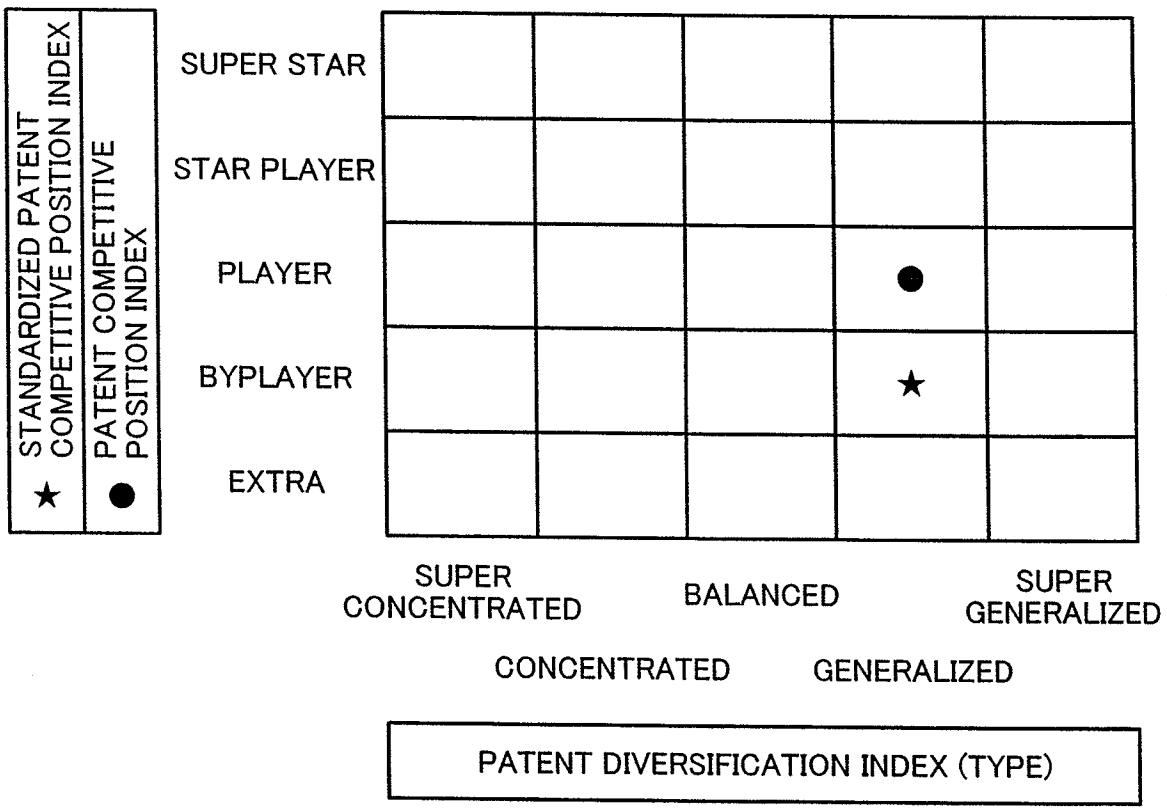


FIG. 21

PATENT COMPETITIVE POSITION INDEX (PCPI)
RANKING (MACHINERY AND SHIPBUILDING)

| ORDER IN PATENT COMPETITIVE POSITION INDEX | ORDER IN STANDARD-IZED PATENT COMPETITIVE POSITION INDEX | NAME OF ENTERPRISE | PATENT COMPETITIVE POSITION INDEX | STANDARD-IZED PATENT COMPETITIVE POSITION INDEX | PATENT DIVERSIFI-CATION INDEX TYPE |
|---|---|---|---|---|---|
| 1 | 9 | MI | 1477.62 | 5.24 | SUPER GEN-ERALIZED |
| 2 | 1 | TS | 365.06 | 45.63 | CON-CENTRATED |
| 3 | 45 | IS | 225.89 | 1.22 | SUPER GEN-ERALIZED |
| 4 | 42 | KW | 225.32 | 1.37 | SUPER GEN-ERALIZED |
| 5 | 6 | TK | 216.99 | 7.00 | GEN-ERALIZED |
| 6 | 16 | HK | 206.44 | 2.99 | BALANCED |
| 7 | 3 | TL | 204.26 | 11.35 | BALANCED |
| 8 | 15 | MU | 197.84 | 3.09 | BALANCED |
| 9 | 12 | MA | 175.60 | 4.88 | GEN-ERALIZED |
| 10 | 5 | JU | 175.33 | 8.77 | CON-CENTRATED |
| 11 | 21 | MZ | 159.65 | 2.62 | GEN-ERALIZED |
| 12 | 36 | HZ | 140.98 | 1.60 | SUPER GEN-ERALIZED |
| 13 | 35 | DK | 139.15 | 1.66 | BALANCED |
| 14 | 17 | BR | 135.51 | 2.95 | BALANCED |
| 15 | 11 | OR | 133.88 | 4.96 | BALANCED |
| 16 | 51 | SJ | 130.64 | 1.08 | SUPER GEN-ERALIZED |
| 17 | 24 | BH | 127.89 | 2.17 | GEN-ERALIZED |
| 18 | 61 | KB | 126.96 | 0.84 | SUPER GEN-ERALIZED |
| 19 | 13 | MK | 106.40 | 4.63 | GEN-ERALIZED |
| 20 | 34 | NS | 84.51 | 1.66 | BALANCED |

FIG. 22

STANDARDIZED PATENT COMPETITIVE POSITION INDEX (avgPCPI) RANKING (MACHINERY AND SHIPBUILDING)

| ORDER IN STANDARD-IZED PATENT COMPETITIVE POSITION INDEX | ORDER IN PATENT COMPETITIVE POSITION INDEX | NAME OF ENTERPRISE | STANDARD-IZED PATENT COMPETITIVE POSITION INDEX | PATENT COMPETITIVE POSITION INDEX | PATENT DIVERSIFI-CATION INDEX TYPE |
|---|---|---|---|---|---|
| 1 | 2 | TS | 45.63 | 365.06 | CON-CENTRATED |
| 2 | 22 | RE | 27.54 | 82.63 | SUPER CON-CENTRATED |
| 3 | 7 | TL | 11.35 | 204.26 | BALANCED |
| 4 | 65 | SA | 9.63 | 9.63 | SUPER CON-CENTRATED |
| 5 | 10 | JU | 8.77 | 175.33 | CON-CENTRATED |
| 6 | 5 | TK | 7.00 | 216.99 | GEN-ERALIZED |
| 7 | 34 | TY | 5.95 | 35.69 | CON-CENTRATED |
| 8 | 25 | SE | 5.65 | 67.80 | BALANCED |
| 9 | 1 | MI | 5.24 | 1477.62 | SUPER GEN-ERALIZED |
| 10 | 23 | HH | 5.14 | 71.93 | BALANCED |
| 11 | 15 | OR | 4.96 | 133.88 | BALANCED |
| 12 | 9 | MA | 4.88 | 175.60 | GEN-ERALIZED |
| 13 | 19 | MK | 4.63 | 106.40 | GEN-ERALIZED |
| 14 | 96 | KK | 3.45 | 3.45 | SUPER CON-CENTRATED |
| 15 | 8 | MU | 3.09 | 197.84 | BALANCED |
| 16 | 6 | HK | 2.99 | 206.44 | BALANCED |
| 17 | 14 | BR | 2.95 | 135.51 | BALANCED |
| 18 | 51 | IS | 2.91 | 14.54 | CON-CENTRATED |
| 19 | 53 | TJ | 2.87 | 14.35 | CON-CENTRATED |
| 20 | 27 | RK | 2.82 | 59.19 | BALANCED |

FIG. 23

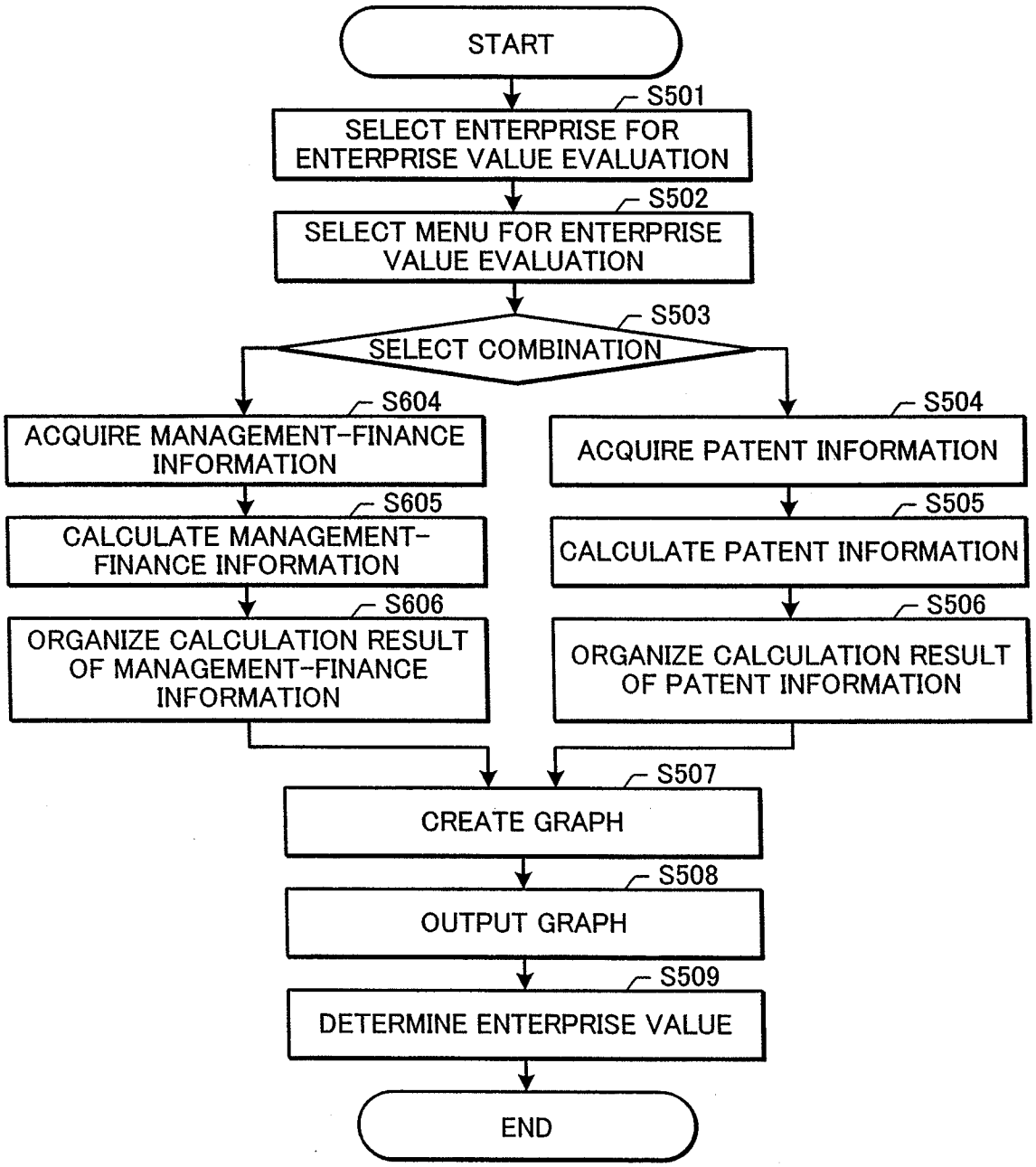

START
S501
SELECT ENTERPRISE FOR ENTERPRISE VALUE EVALUATION
S502
SELECT MENU FOR ENTERPRISE VALUE EVALUATION
S503
SELECT COMBINATION
S604
ACQUIRE MANAGEMENT-FINANCE INFORMATION
S605
CALCULATE MANAGEMENT-FINANCE INFORMATION
S606
ORGANIZE CALCULATION RESULT OF MANAGEMENT-FINANCE INFORMATION
S504
ACQUIRE PATENT INFORMATION
S505
CALCULATE PATENT INFORMATION
S506
ORGANIZE CALCULATION RESULT OF PATENT INFORMATION
S507
CREATE GRAPH
S508
OUTPUT GRAPH
S509
DETERMINE ENTERPRISE VALUE
END

FIG. 24

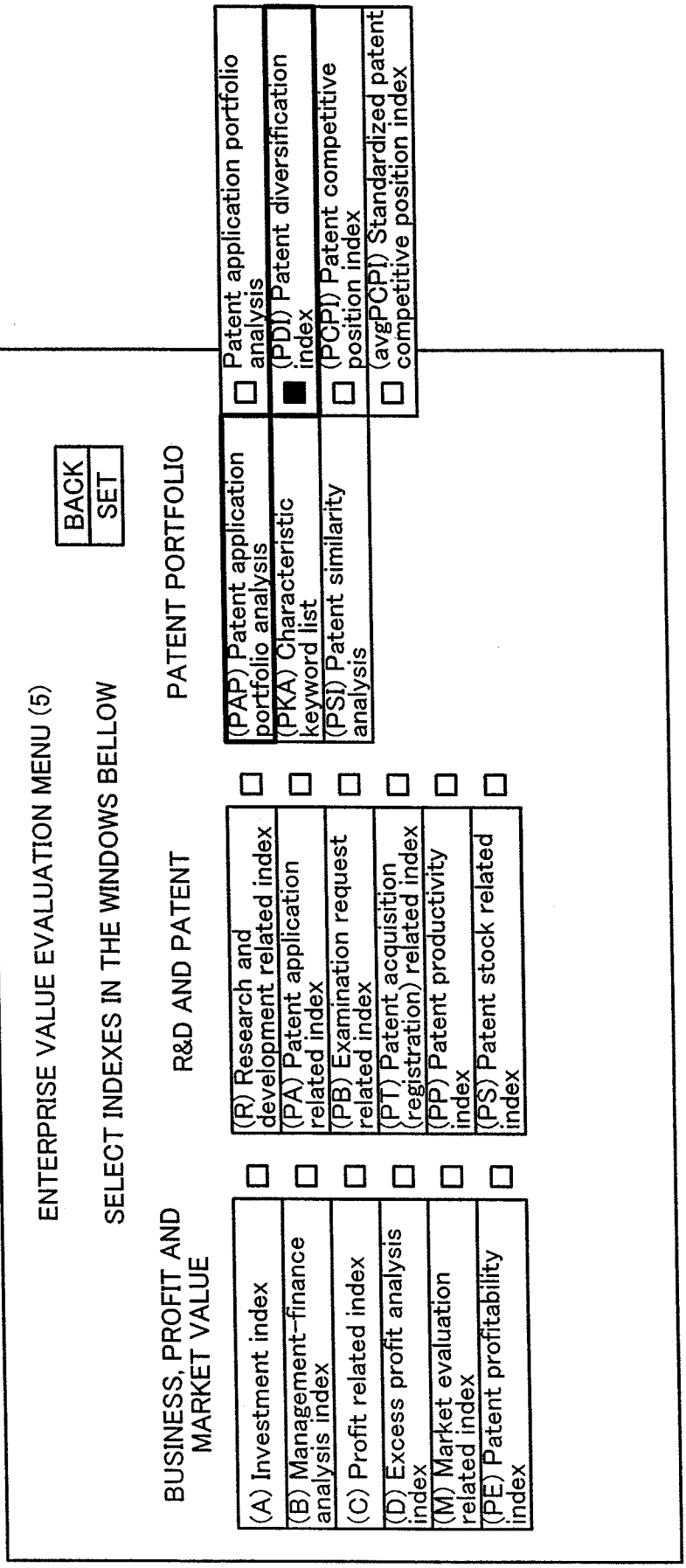

ENTERPRISE VALUE EVALUATION MENU (5)
SELECT INDEXES IN THE WINDOWS BELLOW
BACK
SET
BUSINESS, PROFIT AND MARKET VALUE
(A) Investment index
(B) Management-finance analysis index
(C) Profit related index
(D) Excess profit analysis index
(M) Market evaluation related index
(PE) Patent profitability index
R&D AND PATENT
(R) Research and development related index
(PA) Patent application related index
(PB) Examination request related index
(PT) Patent acquisition (registration) related index
(PP) Patent productivity index
(PS) Patent stock related index
PATENT PORTFOLIO
(PAP) Patent application portfolio analysis
(PKA) Characteristic keyword list
(PSI) Patent similarity analysis
Patent application portfolio analysis
(PDI) Patent diversification index
(PCPI) Patent competitive position index
(avgPCPI) Standardized patent competitive position index

FIG. 25

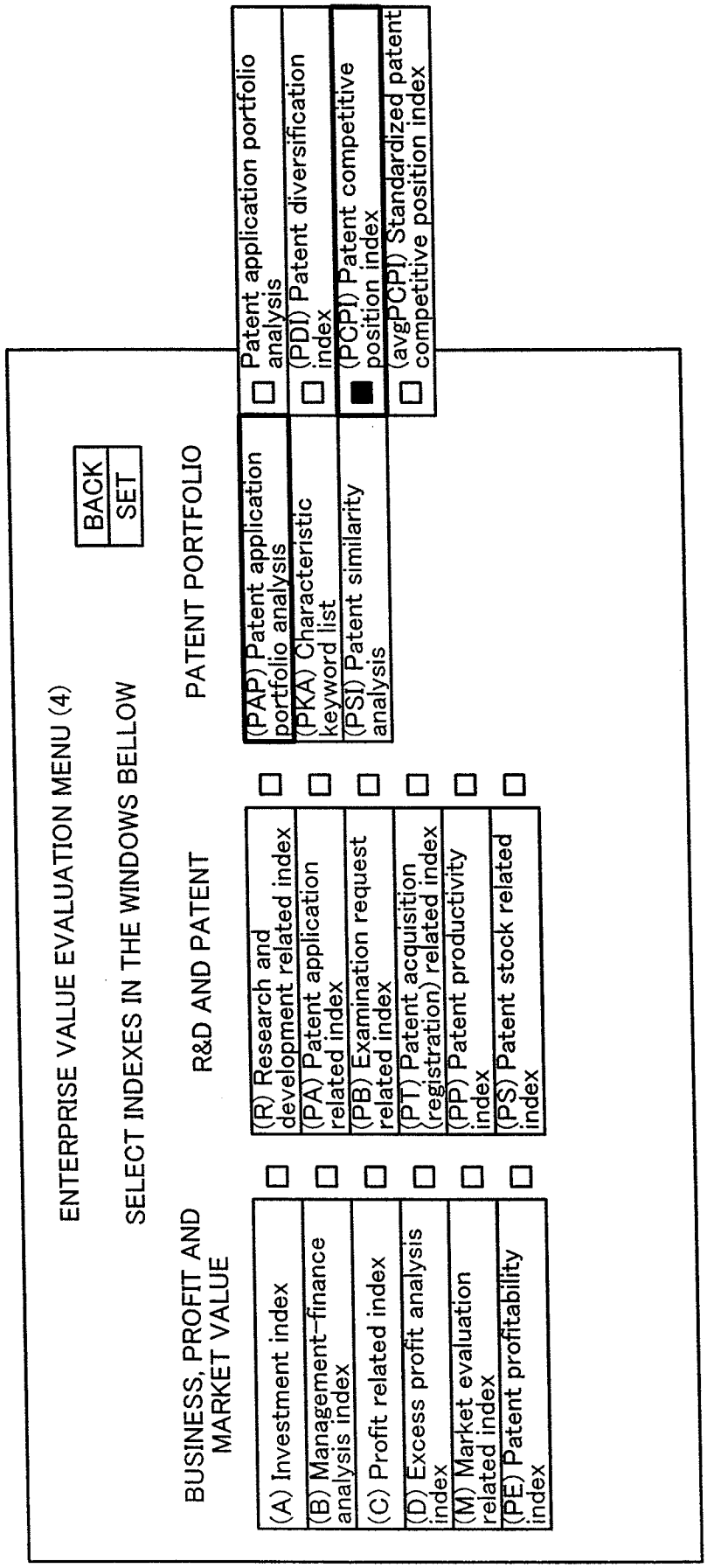

ENTERPRISE VALUE EVALUATION MENU (4)
SELECT INDEXES IN THE WINDOWS BELLOW
BACK
SET
BUSINESS, PROFIT AND MARKET VALUE
(A) Investment index
(B) Management-finance analysis index
(C) Profit related index
(D) Excess profit analysis index
(M) Market evaluation related index
(PE) Patent profitability index
R&D AND PATENT
(R) Research and development related index
(PA) Patent application related index
(PB) Examination request related index
(PT) Patent acquisition (registration) related index
(PP) Patent productivity index
(PS) Patent stock related index
PATENT PORTFOLIO
(PAP) Patent application portfolio analysis
(PKA) Characteristic keyword list
(PSI) Patent similarity analysis
Patent application portfolio analysis
(PDI) Patent diversification index
(PCPI) Patent competitive position index
(avgPCPI) Standardized patent competitive position index

FIG. 26

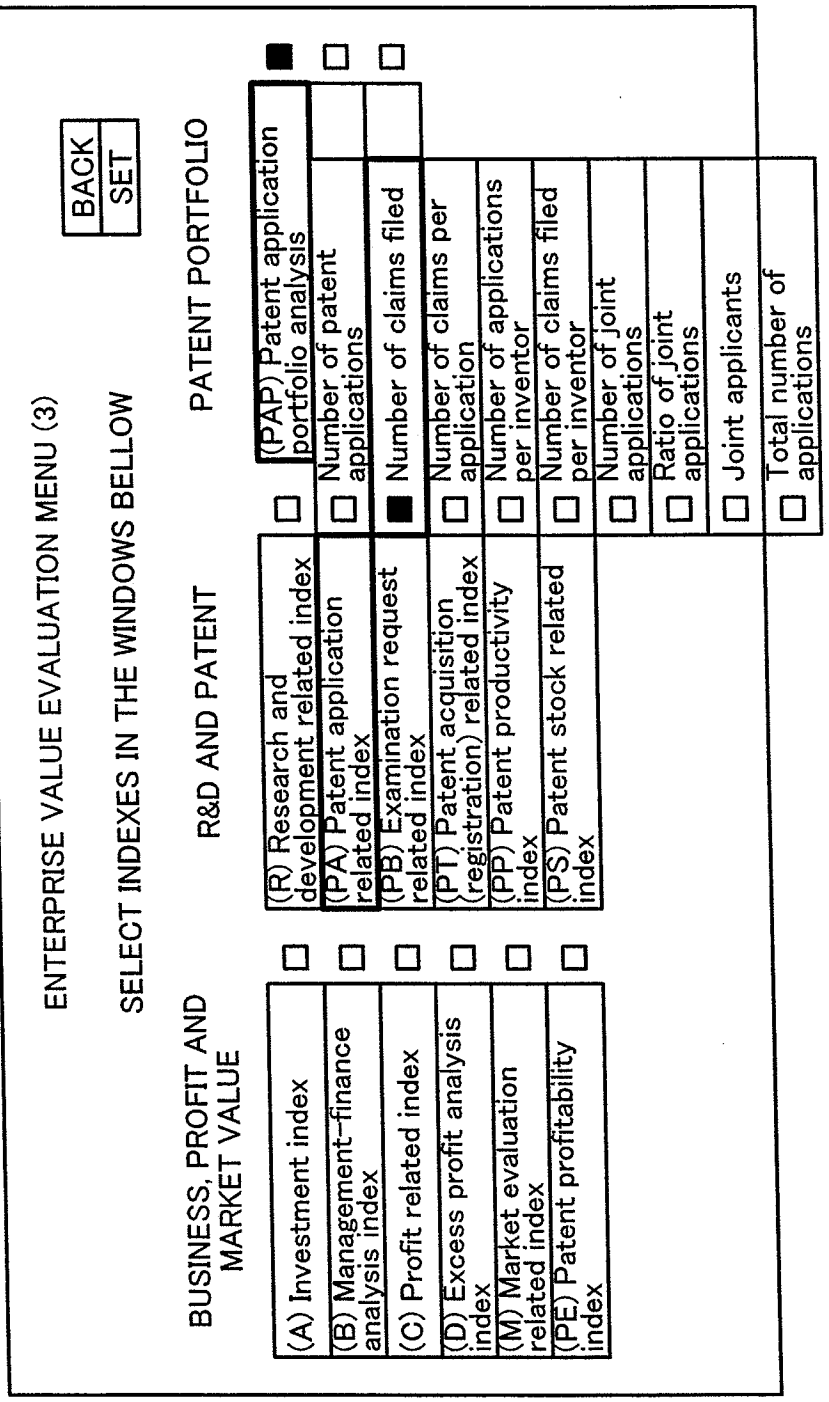

ENTERPRISE VALUE EVALUATION MENU (3)
SELECT INDEXES IN THE WINDOWS BELLOW
BACK
SET
BUSINESS, PROFIT AND MARKET VALUE
R&D AND PATENT
PATENT PORTFOLIO
(A) Investment index
(B) Management-finance analysis index
(C) Profit related index
(D) Excess profit analysis index
(M) Market evaluation related index
(PE) Patent profitability index
(R) Research and development related index
(PA) Patent application related index
(PB) Examination request related index
(PT) Patent acquisition (registration) related index
(PP) Patent productivity index
(PS) Patent stock related index
(PAP) Patent application portfolio analysis
Number of patent applications
Number of claims filed
Number of claims per application
Number of applications per inventor
Number of claims filed per inventor
Number of joint applications
Ratio of joint applications
Joint applicants
Total number of applications

FIG. 27

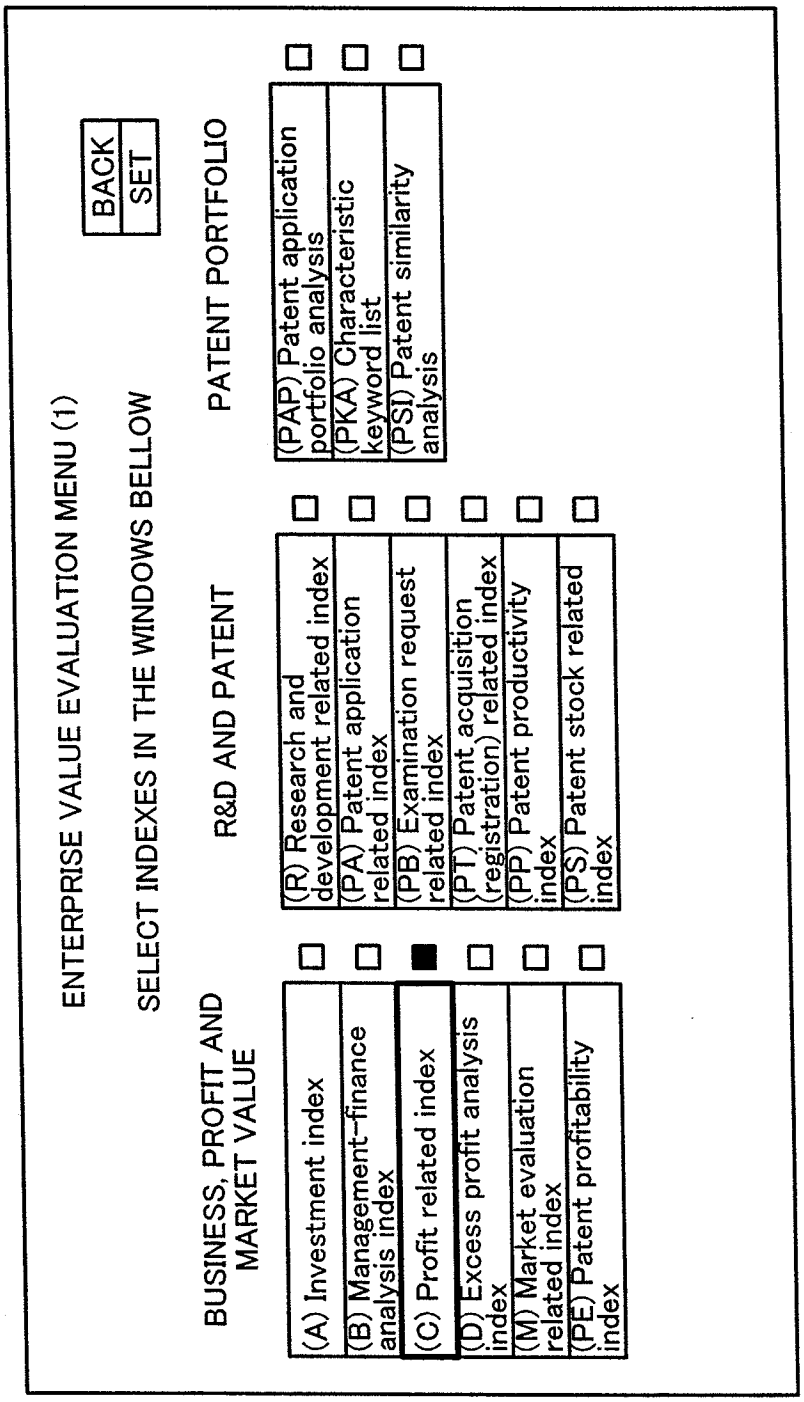

ENTERPRISE VALUE EVALUATION MENU (1)
SELECT INDEXES IN THE WINDOWS BELLOW
BACK
SET
BUSINESS, PROFIT AND MARKET VALUE
R&D AND PATENT
PATENT PORTFOLIO
(A) Investment index
(B) Management-finance analysis index
(C) Profit related index
(D) Excess profit analysis index
(M) Market evaluation related index
(PE) Patent profitability index
(R) Research and development related index
(PA) Patent application related index
(PB) Examination request related index
(PT) Patent acquisition (registration) related index
(PP) Patent productivity index
(PS) Patent stock related index
(PAP) Patent application portfolio analysis
(PKA) Characteristic keyword list
(PSI) Patent similarity analysis

FIG. 28

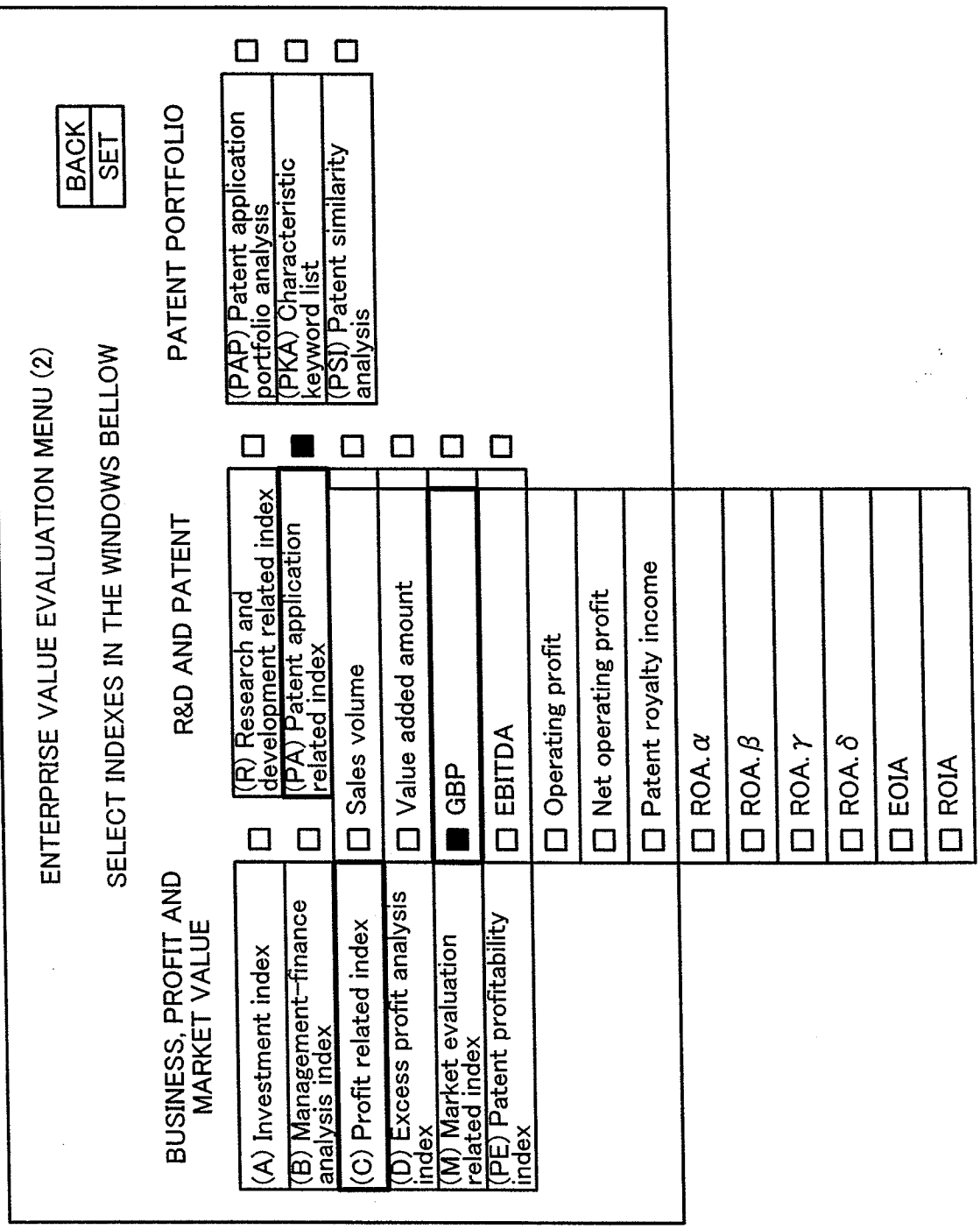

ENTERPRISE VALUE EVALUATION MENU (2)
SELECT INDEXES IN THE WINDOWS BELLOW
BACK
SET
BUSINESS, PROFIT AND MARKET VALUE
R&D AND PATENT
PATENT PORTFOLIO
(A) Investment index
(B) Management–finance analysis index
(C) Profit related index
(D) Excess profit analysis index
(M) Market evaluation related index
(PE) Patent profitability index
(R) Research and development related index
(PA) Patent application related index
Sales volume
Value added amount
GBP
EBITDA
Operating profit
Net operating profit
Patent royalty income
ROA. α
ROA. β
ROA. γ
ROA. δ
EOIA
ROIA
(PAP) Patent application portfolio analysis
(PKA) Characteristic keyword list
(PSI) Patent similarity analysis

FIG. 29

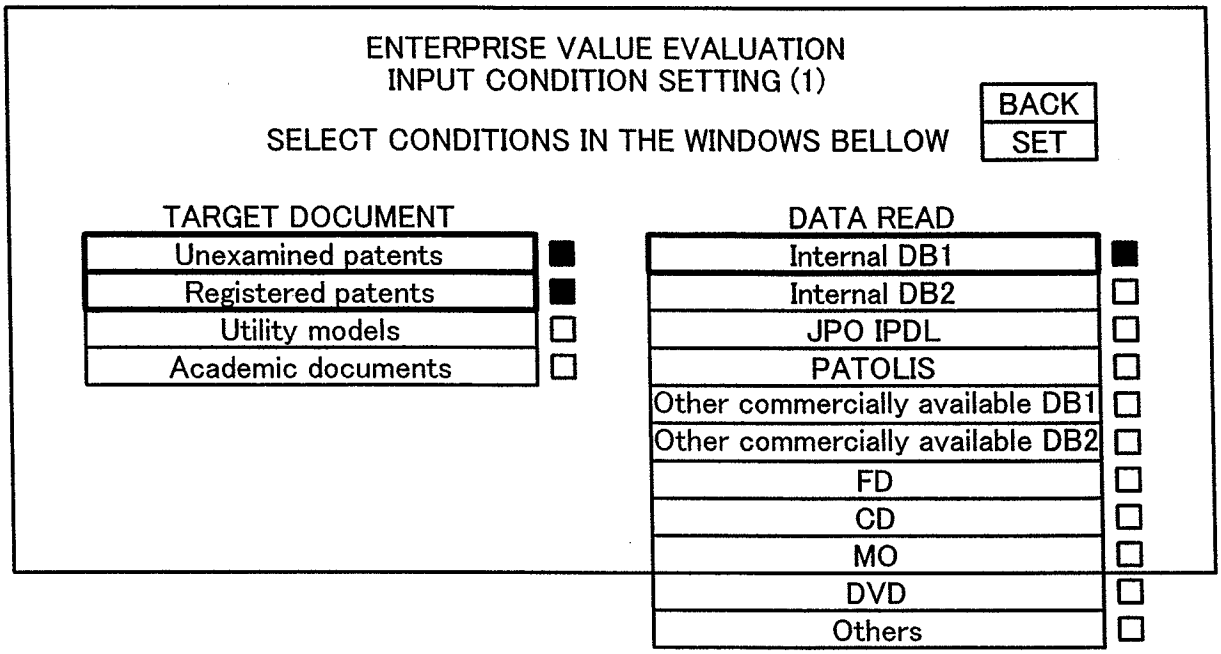

ENTERPRISE VALUE EVALUATION
INPUT CONDITION SETTING (1)
SELECT CONDITIONS IN THE WINDOWS BELLOW
BACK
SET
TARGET DOCUMENT
Unexamined patents
Registered patents
Utility models
Academic documents
DATA READ
Internal DB1
Internal DB2
JPO IPDL
PATOLIS
Other commercially available DB1
Other commercially available DB2
FD
CD
MO
DVD
Others

FIG. 30

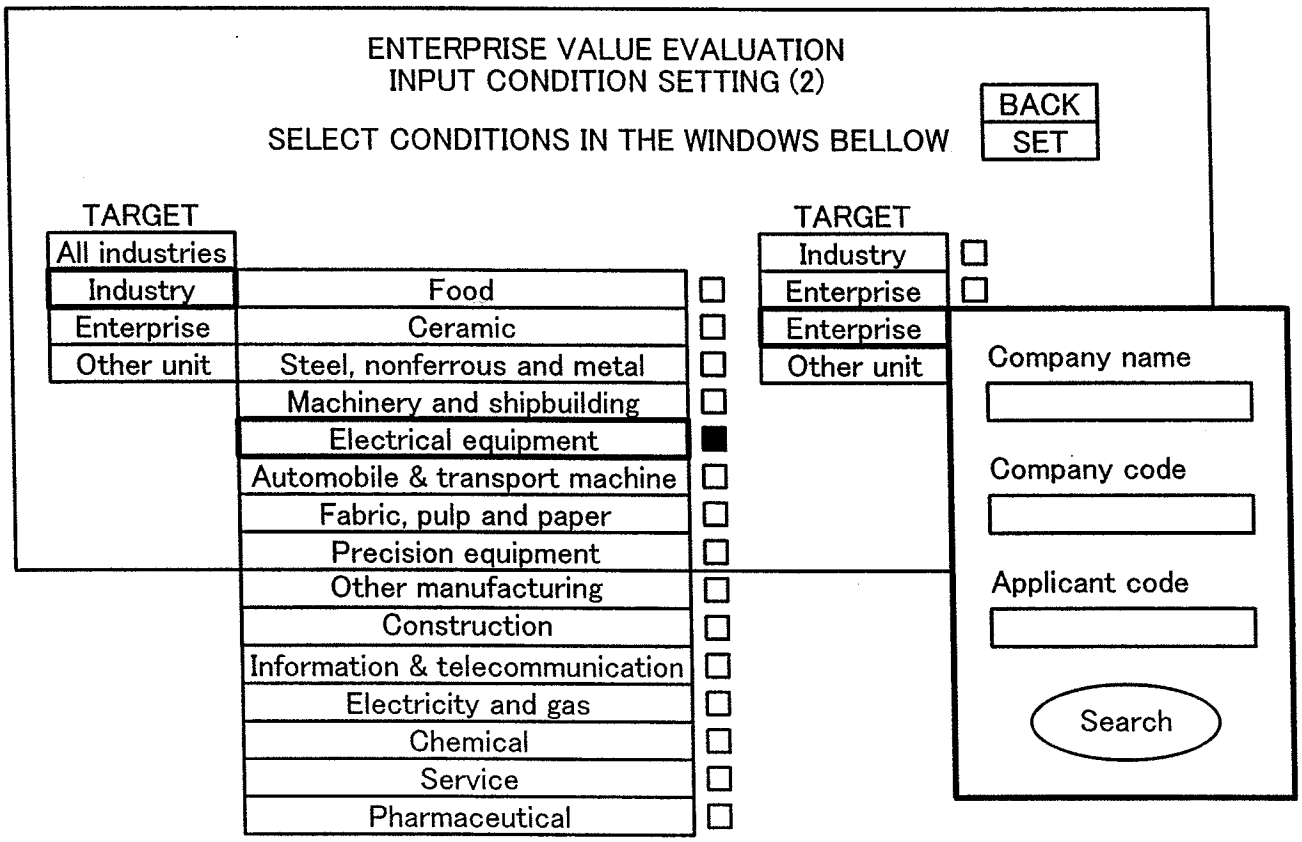

ENTERPRISE VALUE EVALUATION
INPUT CONDITION SETTING (2)
SELECT CONDITIONS IN THE WINDOWS BELLOW
BACK
SET
TARGET
All industries
Industry
Enterprise
Other unit
Food
Ceramic
Steel, nonferrous and metal
Machinery and shipbuilding
Electrical equipment
Automobile & transport machine
Fabric, pulp and paper
Precision equipment
Other manufacturing
Construction
Information & telecommunication
Electricity and gas
Chemical
Service
Pharmaceutical
TARGET
Industry
Enterprise
Enterprise
Other unit
Company name
Company code
Applicant code
Search

FIG. 31

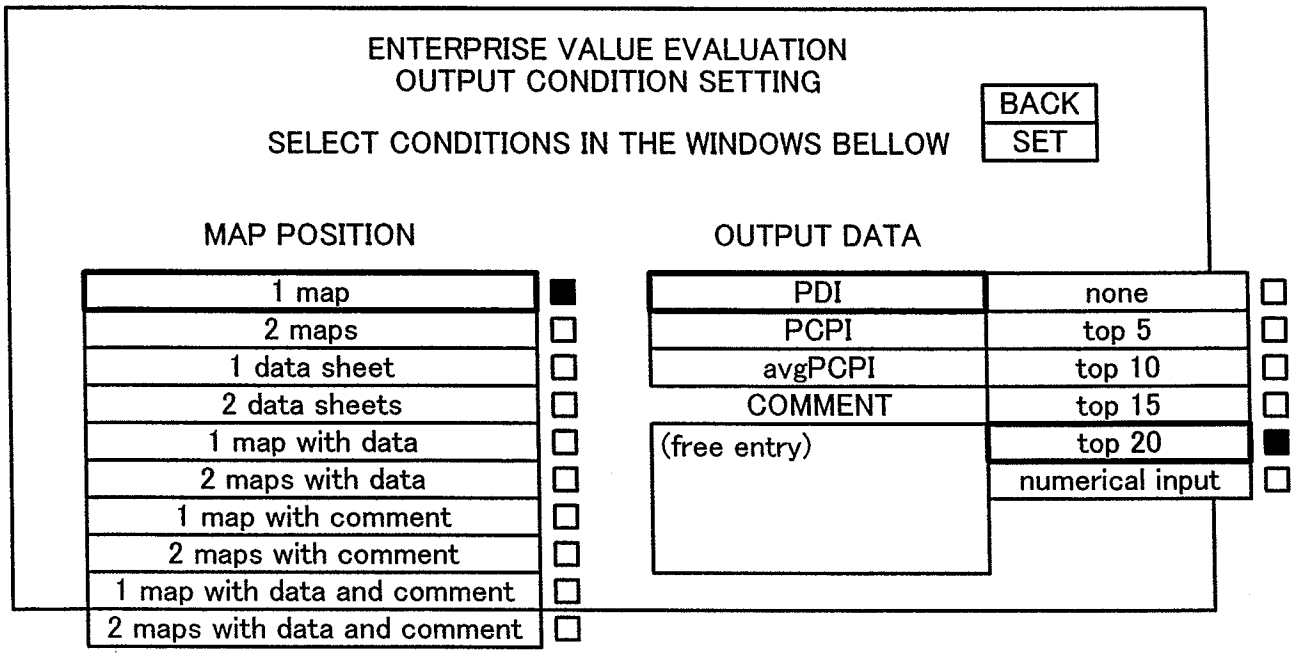

ENTERPRISE VALUE EVALUATION
OUTPUT CONDITION SETTING
SELECT CONDITIONS IN THE WINDOWS BELLOW
BACK
SET
MAP POSITION
1 map
2 maps
1 data sheet
2 data sheets
1 map with data
2 maps with data
1 map with comment
2 maps with comment
1 map with data and comment
2 maps with data and comment
OUTPUT DATA
PDI
PCPI
avgPCPI
COMMENT
(free entry)
none
top 5
top 10
top 15
top 20
numerical input

FIG. 32

"PATENT QUARTERLY JOURNAL" INDEX LIST OF ENTERPRISE VALUE EVALUATION SYSTEM

A: Business, Profit and Market Value Related Index (1)

| Index Group | Index | Formula |
|---|---|---|
| (A) Investment | Facility Investment Amount | {(Current Term Tangible Fixed Assets - Previous Term Tangible Fixed Assets)} + (Current Term Depreciation Cost) |
| | R&D Cost | Total Amount of R&D Cost |
| | Investment Trend Index | Term-on-Term Ratio of {(Facility Investment Amount) + (R&D Cost)} |
| (B) Management/Finance Analysis | Facility Investment Efficiency | (Value Added Amount)/(Tangible Fixed Assets) |
| | Labor Productivity | (Value Added Amount)/(Number of Employees) |
| | Labor Equipment Ratio | (Tangible Fixed Assets)/(Number of Employees) |
| | Labor Distribution Share | {(Personnel Expense to be Included in Selling Cost and Administrative Expenses) + (Labor Cost to be Included in Manufacturing Cost)}/(Value Added Amount) |
| | Total Factor Productivity | (Value Added Amount Rate of Change) - {(1 - Labor Distribution Share (To Value Added)) × (Depreciation Target Tangible Fixed Assets Rate of Change)} - {(Labor Distribution Share (To Value Added)) × (Number of Employees Rate of Change)} |
| | Cost-to-Sales Ratio | (Cost of Sales)/(Sales Volume) |
| | Cost of Sales-and-Administration Ratio to Sales | (Selling Cost and Administrative Expenses)/(Sales Volume) |
| | Interest Bearing Debt Ratio | (Interest Bearing Debt)/(Total Assets) |
| | Equity to Asset Ratio | (Equity Capital)/(Total Assets) |
| (C) Profit Related Items | Sales Volume | (Sales Volume) |
| | Value Added Amount | (Operating Net Profit) + (Interest Paid and Discount) + (R&D Cost) + (Depreciation Cost) + (Personnel Expense (including board members' remuneration)) + (Welfare Expense) + (Tax and Dues) (Operating Net Profit) = (Operating Profit) - (Interest Paid and Discount) |
| | Gross Operating Profit (GBP) | (Operating Profit) + (R&D Cost) |
| | Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA) | (Operating Profit) + (Depreciation Cost) |
| | Operating Profit | (Operating Profit) |
| | Operating Net Profit | (Operating Profit) - (Interest Paid and Discount) |
| | Patent Royalty Income | (Patent Royalty Income (Including Royalty Income of Trademarks and Brands, etc.)) |
| | ROA α | {(Value Added Amount) + (Patent Royalty Income)}/(Total Assets) |
| | ROA β | {(GBP) + (Patent Royalty Income)}/(Total Assets) |
| | ROA γ | {(EBITDA) + (Patent Royalty Income)}/(Total Assets) |
| | ROA δ | {(Operating Profit) + (Patent Royalty Income)}/(Total Assets) |
| | Earnings on Intellectual Assets (EOIA) | {(GBP) + (Patent Royalty Income)} - {(Financial Assets) × (Profit Ratio m)} + {(Tangible Fixed Assets) × (Profit Ratio f)} (Profit Ratio m): Application of Short Term Prime Rate; (Profit Ratio f): Application of Long Term Prime Rate |
| | Return On Intellectual Assets (ROIA) | (Earnings on Intellectual Assets)/(Total Assets) |

FIG. 33

"PATENT QUARTERLY JOURNAL" INDEX LIST OF ENTERPRISE VALUE EVALUATION SYSTEM

A: Business, Profit and Market Value Related Index (2)

| Index Group | Index | Formula |
|---|---|---|
| (D) Excess Profit Analysis | Excess Value Added Amount | Sales Volume × {(Sales Volume Value Added Ratio) - (Industry Average Sales Volume Value Added Ratio)} |
| | Excess GBP | Sales Volume × {(Sales Volume GBP Ratio) - (Industry Average Sales Volume GBP Ratio)} |
| | Excess EBITDA | Sales Volume × {(Sales Volume EBITDA Ratio) - (Industry Average Sales Volume EBITDA Ratio)} |
| | Excess Operating Profit | Sales Volume × {(Operating Profit Ratio (To Sales)) - (Industry Average Operating Profit Ratio (To Sales))} |
| | Excess ROA $\alpha$ | (ROA $\alpha$) - (Industry Average ROA $\alpha$) |
| | Excess ROA $\beta$ | (ROA $\beta$) - (Industry Average ROA $\beta$) |
| | Excess ROA $\gamma$ | (ROA $\gamma$) - (Industry Average ROA $\gamma$) |
| | Excess ROA $\delta$ | (ROA $\delta$) - (Industry Average ROA $\delta$) |
| | Excess Earnings on Intellectual Assets (EXEOIA) | (Net Assets) × {(Ratio of Earnings on Intellectual Assets) - (Industry Average of Ratio of Earnings on Intellectual Assets) |
| (M) Market Evaluation Related Items | MVA | (Value of Stock) - (Shareholders' Equity) (Value of Stock) = (Total Number of Outstanding Stock) × (Stock Price) |
| | PBR | (Value of Stock)/(Equity Capital) |
| | Expected Intellectual Property Profit | {(Fixed Liabilities) × (Profit Ratio a) + (Value of Stock) × (Profit Ratio p)} - {(Financial Assets) × (Profit Ratio m) + (Tangible Fixed Assets) × (Profit Ratio f)}) (Profit Ratio a): (Weighted Average of Long Term Prime Rate and Bond Rate) × (1 - Corporate Tax) (Profit Ratio p): Calculated Based on Capital Asset Pricing Model (CAPM). Yield on Long Term 10-Year Government Bonds, Stock Investment Profit Ratio, $\beta$ Value were used; (Profit Ratio m): Application of Short Term Prime Rate (Profit Ratio f): Application of Long Term Prime Rate |
| (PE) Patent Profitability Related Items | Patent Profitability $\alpha$ | {(GBP) + (Patent Royalty Income)}/(Total Number of Effective Patents) |
| | Patent Profitability $\beta$ | {(Excess Value Added) + (Patent Royalty Income)}/(Total Number of Effective Patents) |
| | Patent Profitability $\gamma$ | {(Excess GBP) + (Patent Royalty Income)}/(Total Number of Effective Patents) |
| | Patent Profitability $\delta$ | (Excess Earnings on Intellectual Assets (EXEOIA))/(Total Number of Effective Patents) |

FIG. 34

"PATENT QUARTERLY JOURNAL" INDEX LIST OF ENTERPRISE VALUE EVALUATION SYSTEM

B: R&D and Patent Related Index (1)

| Index Group | Index | Formula |
|---|---|---|
| (R) R&D Related Items | R&D Cost Ratio $\alpha$ | (R&D Cost)/(Sales Volume) |
| | R&D Cost Ratio $\beta$ | (R&D Cost)/(Value Added Amount) |
| | R&D Cost Ratio $\gamma$ | (R&D Cost)/(GBP) |
| | R&D Cost Ratio $\delta$ | (R&D Cost)/(Total Assets) |
| | Number of Inventors | (Calculated Based on "Inventor" Column of Laid-Open Publications) |
| | Ratio of Inventors | (Number of Inventors)/(Number of Employees) |
| | R&D Cost per Inventor | (R&D Cost)/(Number of Inventors) |
| (PA) Patent Application Related Items | Number of Patent Applications | (Joint Application is Recorded as One Application) |
| | Number of Claims Filed | (Sum of Number of Claims of Laid-Open Publications) |
| | Number of Claims per Patent Application | (Number of Claims Filed)/(Number of Patent Applications) |
| | Number of application per Inventor | (Number of Patent Applications (Other Than Joint Applications))/(Number of Inventors) |
| | Number of Claims per Inventor (Patent Application) | (Number of Claims Filed (Other Than Joint Applications))/(Number of Inventors) |
| | Number of Joint Applications | (Number of Joint Applications Among Patent Applications Filed) |
| | Joint Filing Ratio | (Number of Joint Applications)/(Number of Patent Applications) |
| | Number of Applicants in Joint | (Number of Joint Applicants in Joint Applications) |
| | Patent Application Stock | (Cumulative Number of Patent Applications) |
| (PB) Examination Request Related Items | Number of Examination Requests | (Number of Examination Requests Filed) |
| | Years to Examination Request (Average) | [ $\Sigma$ (Date of Examination Request - Filing Date)]/[(Number of Examination Requests)×(Annual Number of Days)] |
| | Examination Request Ratio | (Examination Request Ratio Pertaining to Number of Patent Applications of Each Year) |
| | Cumulative Number of Examination Requests | (Cumulative Number of Examination Requests) |

FIG. 35

"PATENT QUARTERLY JOURNAL" INDEX LIST OF ENTERPRISE VALUE EVALUATION SYSTEM

B: R&D and Patent Related Index (2)

| Index Group | Index | Formula |
|---|---|---|
| (PT) Patent Acquisition (Registration) Related Items | Number of Patents Granted | (Number of Patents Granted) |
| | Number of Claims Registered | (Number of "Claims" in Registered Gazette) |
| | Years to Patent Granted (Average) | [ Σ (Patent Registration Date - Patent Filing Date)}/{(Number of Patents Granted)×(Annual Number of Days)} |
| | Patent Granted Ratio to Number of Applications | (Number of Patents Granted Each Year)/(Number of Patent Applications Filed Each Year) |
| | Patent Granted Stock | (Patent Granted Stock at End of Each Year) |
| | Patent Granted Ratio to Number of Examination Requests | (Number of Patents Granted Each Year)/(Number of Examination Requests Filed Each Year) |
| | Patent Granted Stock Ratio to Examination Request Stock | (Patent Granted Stock)/(Cumulative Number of Examination Requests) |
| | Number of Effective Patents Granted | (Number of Patents Granted Each Year) - (Number of Patents Invalidated Among Patent Registrations Each Year) |
| (PP) Patent Productivity | Patent Application Productivity | (Number of Claims of Patent Applications in a year)/(R&D Cost in a previous year) |
| | Examination Request Productivity | Correction of (Patent Application Productivity). (Patent Application Productivity) × (Estimated Examination Request Ratio) (Estimated Examination Request Ratio: Sought Based on Number of Examination Requests for Previous Applications in which the term for Examination Request is expired.) |
| | Patent Granted Productivity | Correction of (Patent Application Productivity). (Patent Application Productivity) × (Estimated Registration Ratio) (Estimated Registration Ratio: Sought Based on Number of Registrations of Previous Applications, Lapsed Years, Average Required Years to Patent Granted) |
| (PS) Patent Stock Related Items | Total Number of Effective Patents | (Patent Granted Stock) - (Patent Invalidation Stock) |
| | Patent Granted Renewal Ratio | (Total Number of Effective Patents)/(Patent Granted Stock) |
| | Years to Renewal Patent Granted | [ Σ (Scheduled Invalidation Date of Each Patent of the Total Number of Effective Patents - Year End)} |
| | Expiration (Average) | /{(Total Number of Effective Patents) ×(Annual Number of Days)} |
| | Patent Stock Index | (Total Number of Effective Patents) × (Years to Renewal Patent Granted Expiration (Average)) |
| | Total Patent Assets | [(R&D Cost)/(Number of Patents Granted)}×(Total Number of Effective Patents) |

FIG. 36

"PATENT QUARTERLY JOURNAL" INDEX LIST OF ENTERPRISE VALUE EVALUATION SYSTEM

C: Patent Portfolio Related Index

| Index Group | Index | Formula |
|---|---|---|
| (PAP) Patent Application Portfolio analysis | Patent Application Portfolio analysis | (Power of Number of Claims Share Per Technical Field) (Share: Share of Each Technical Field in an Enterprise or Share of each Enterprise in All Enterprises in a Technical Field) |
| | Patent Diversification Index (PDI) | $[1 - \Sigma(\text{Share of Each Technical Field in an Enterprise})^2]$ |
| | Patent Competitive Position Index (PCPI) | $\Sigma[\{\Sigma (\text{SEI Index Per Technical Field})\} \times (\text{Share of Each Company Per Technical Field})] \times (1 + \text{Excess Growth Rate})$ |
| | Average Patent Competitive Position Index (Average PCPI) | (Patent Competitive Position Index (PCPI))/(Number of Technical Fields covered by Company's Patent Applications (Average in 3 Years)) |
| (PKA) Characteristic Keywords | Characteristic Keywords | (Selected Keywords Having an Appearance Frequency That is Not Large in All Patent Publications and That is Large in Patent Publications of the Same Company) |
| | Number of Characteristic Keywords | (Representation of Character of an Enterprise by the Number of Keywords under a Constant Condition of Selecting the Characteristic Keywords) |
| (PSI) Patent Similarity Analysis | Patent Similarity Index | (Ratio of Patent Publications Having the Keyword of the Subject Patent Publication within a Population) |
| | Patent Similarity Index to the Same Company (PSIself) | (Patent Similarity Index (PSI) When the Population is the Same Company's Patent Publications) |
| | Patent Similarity Index to All Companies (PSIall) | (Patent Similarity Index (PSI) When the Population is All Patent Publications Including the Other Companies' Patent Publications) |
| | Normal Patent Publication | (Patent Publications Having Significantly Large PSIall) |
| | Exceptional Patent Publication | (Patent Publications Having Significantly Small PSIall) |

FIG. 37

RELATIONSHIP BETWEEN
PATENT COMPETITIVE POSITION INDEX (PCPI) AND
GROSS OPERATING PROFIT (GBP)

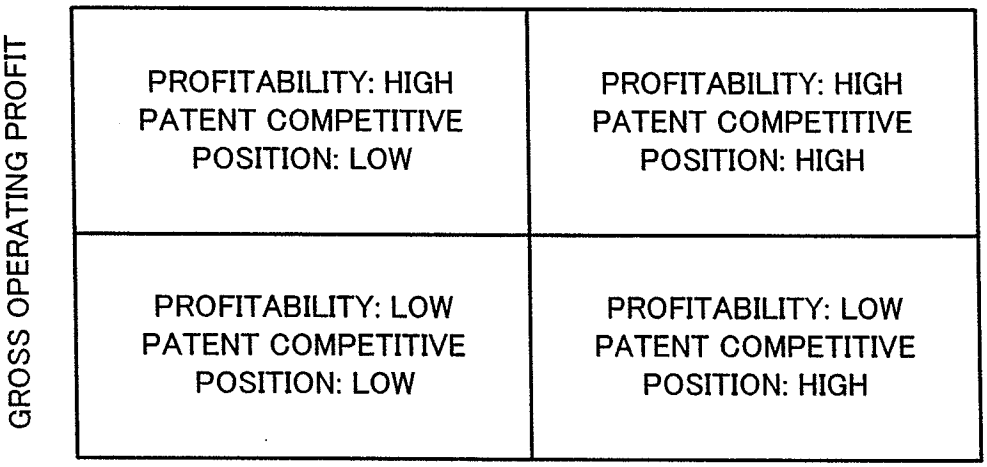


FIG. 38

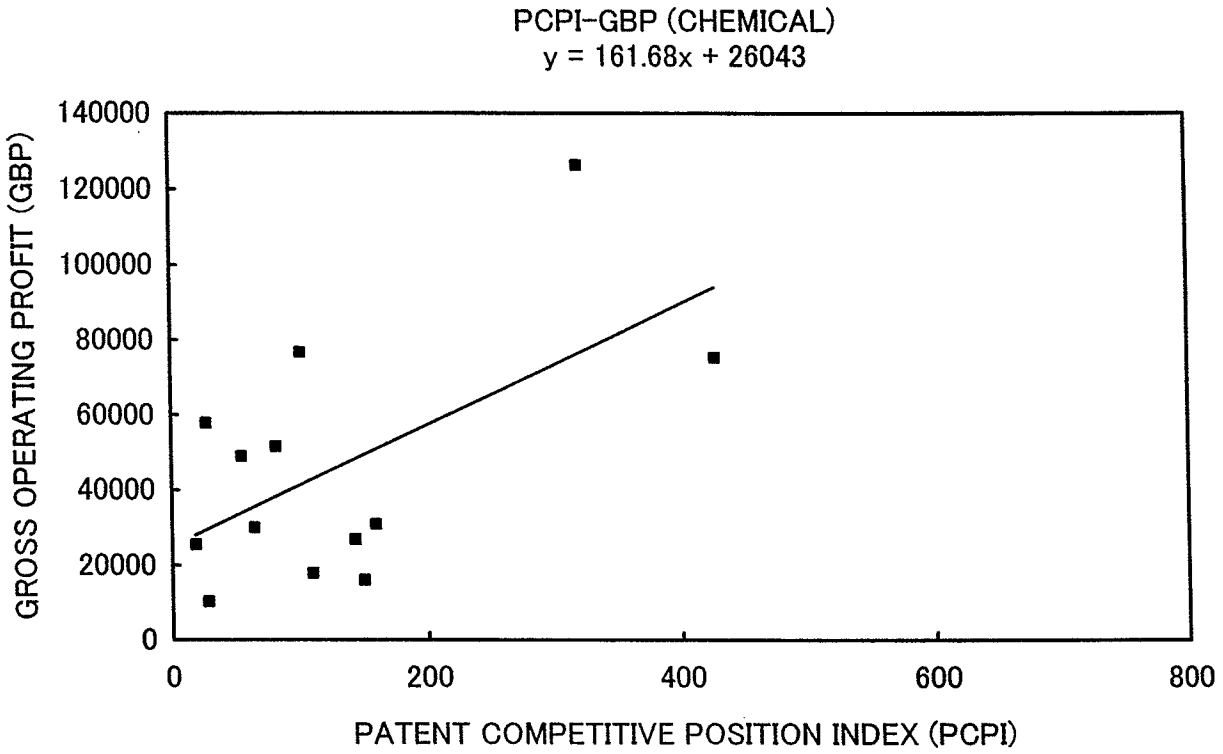

PCPI-GBP (CHEMICAL)
y = 161.68x + 26043
GROSS OPERATING PROFIT (GBP)
140000
120000
100000
80000
60000
40000
20000
0
0
200
400
600
800
PATENT COMPETITIVE POSITION INDEX (PCPI)

FIG. 39

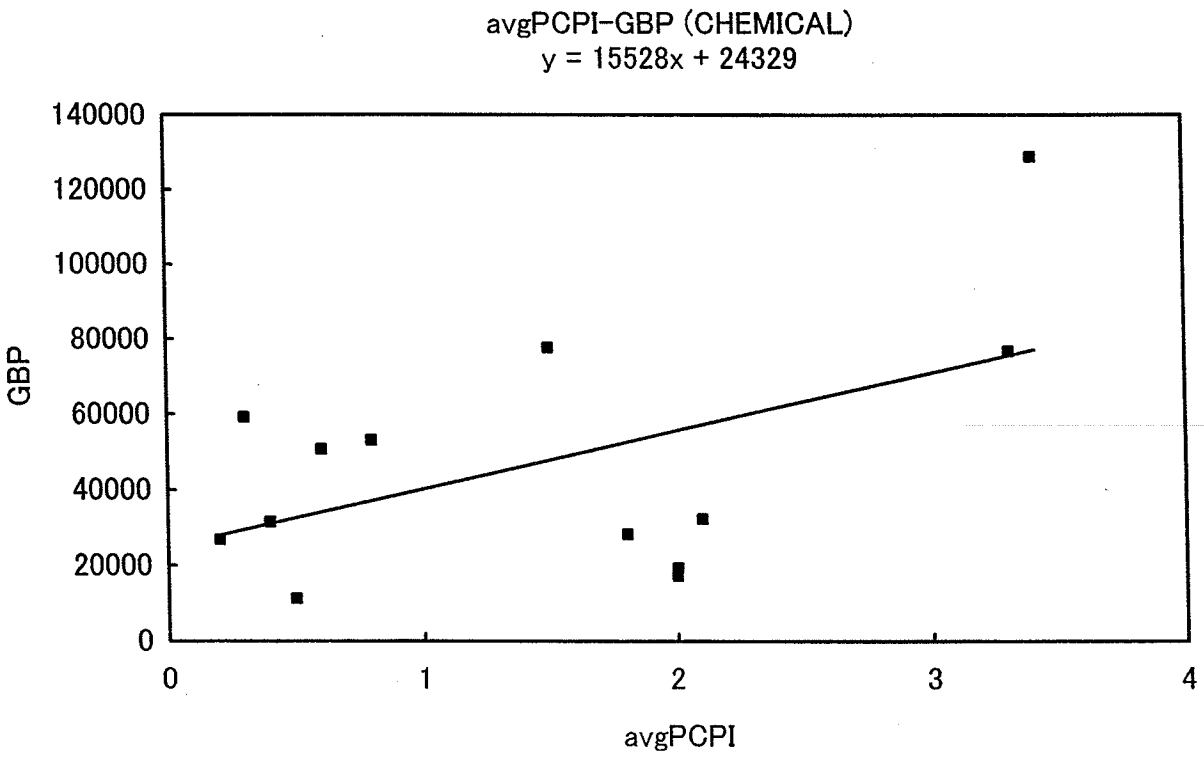

avgPCPI-GBP (CHEMICAL)
y = 15528x + 24329
GBP
140000
120000
100000
80000
60000
40000
20000
0
0
1
2
3
4
avgPCPI

FIG. 40

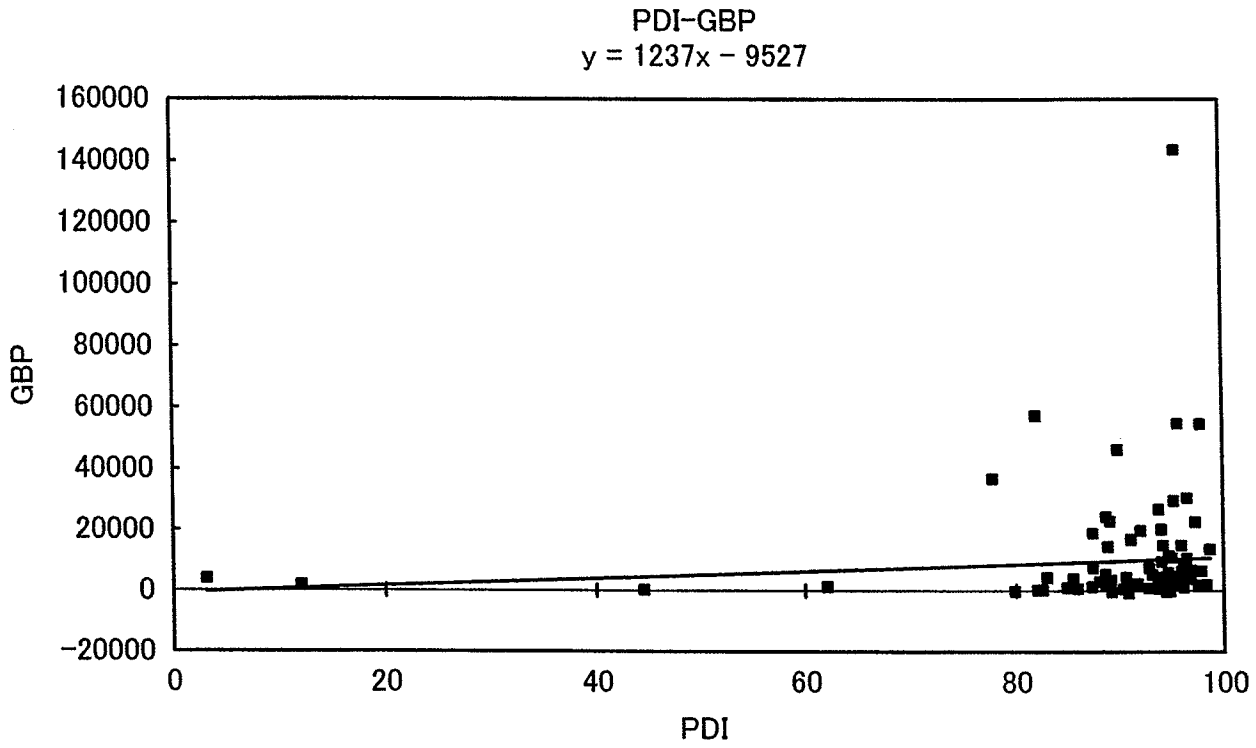

PDI-GBP
y = 1237x - 9527
160000
140000
120000
100000
80000
60000
40000
20000
0
-20000
GBP
0
20
40
60
80
100
PDI

FIG. 41

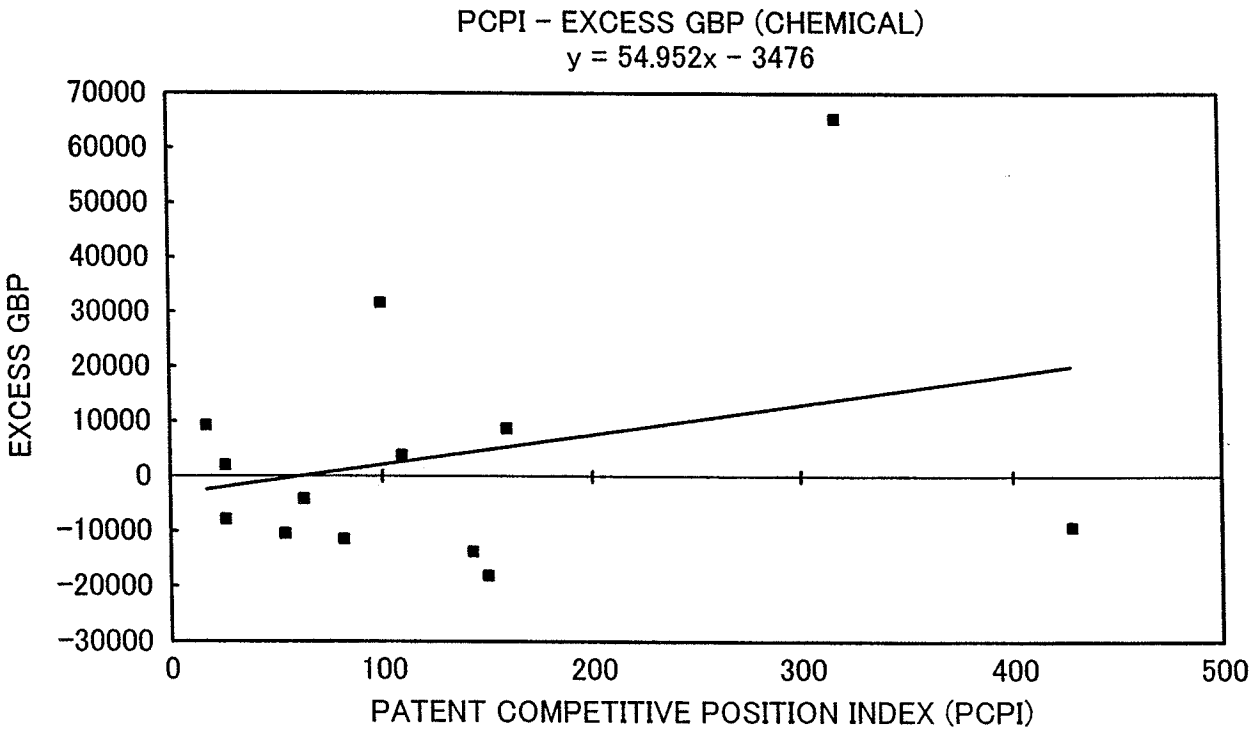

PCPI - EXCESS GBP (CHEMICAL)
y = 54.952x - 3476
70000
60000
50000
40000
30000
20000
10000
0
-10000
-20000
-30000
EXCESS GBP
0
100
200
300
400
500
PATENT COMPETITIVE POSITION INDEX (PCPI)

FIG. 42

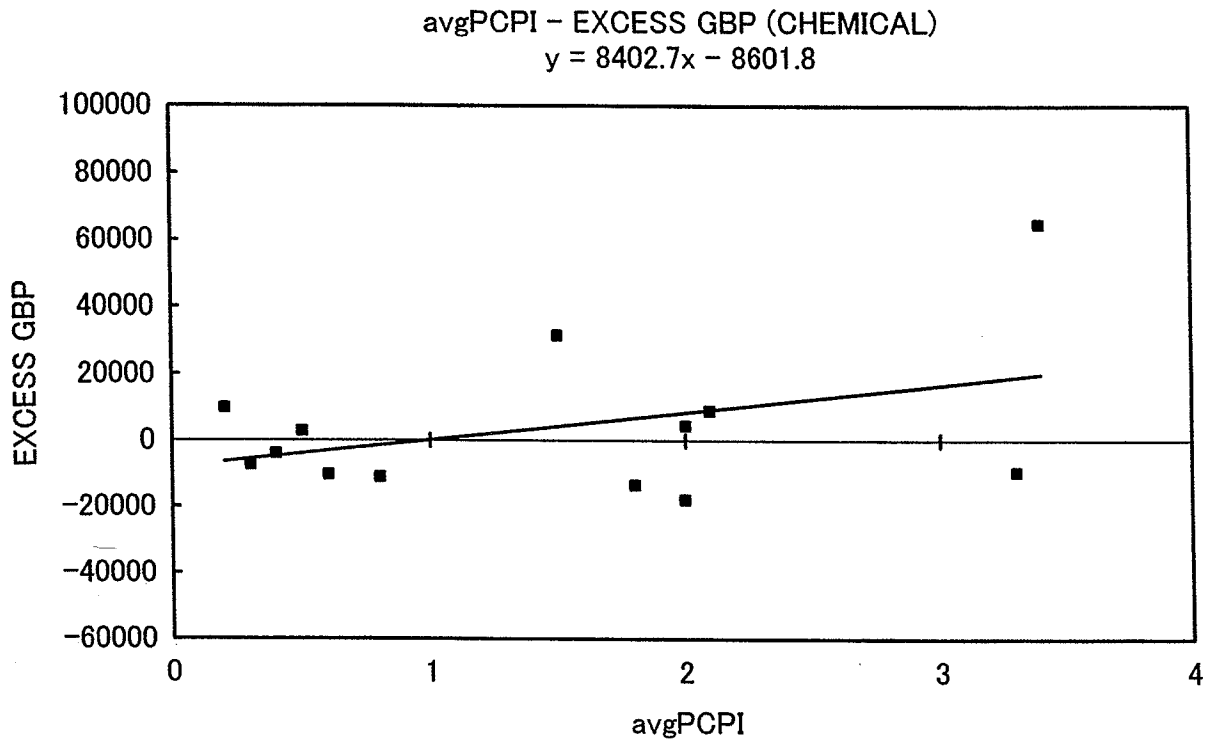
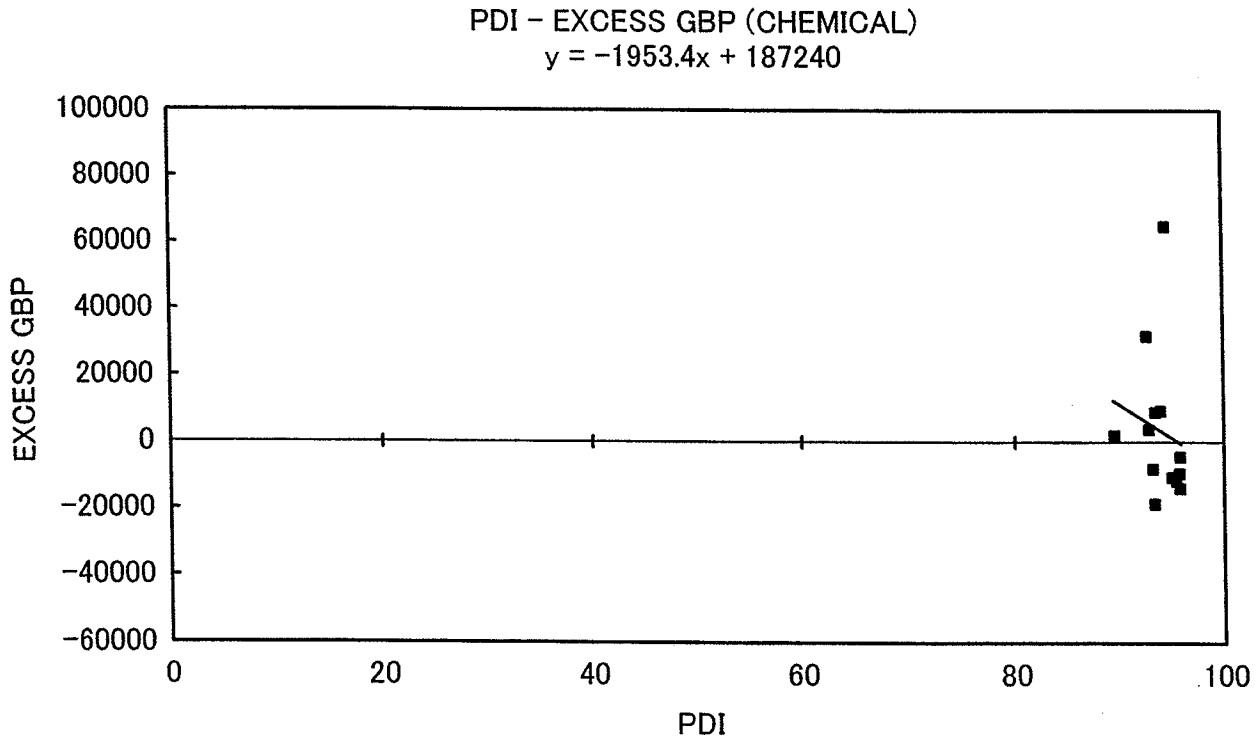

avgPCPI - EXCESS GBP (CHEMICAL)
y = 8402.7x - 8601.8
EXCESS GBP
100000
80000
60000
40000
20000
0
-20000
-40000
-60000
0
1
2
3
4
avgPCPI

FIG. 43


PDI - EXCESS GBP (CHEMICAL)
y = -1953.4x + 187240
EXCESS GBP
100000
80000
60000
40000
20000
0
-20000
-40000
-60000
0
20
40
60
80
100
PDI