FIG. 1

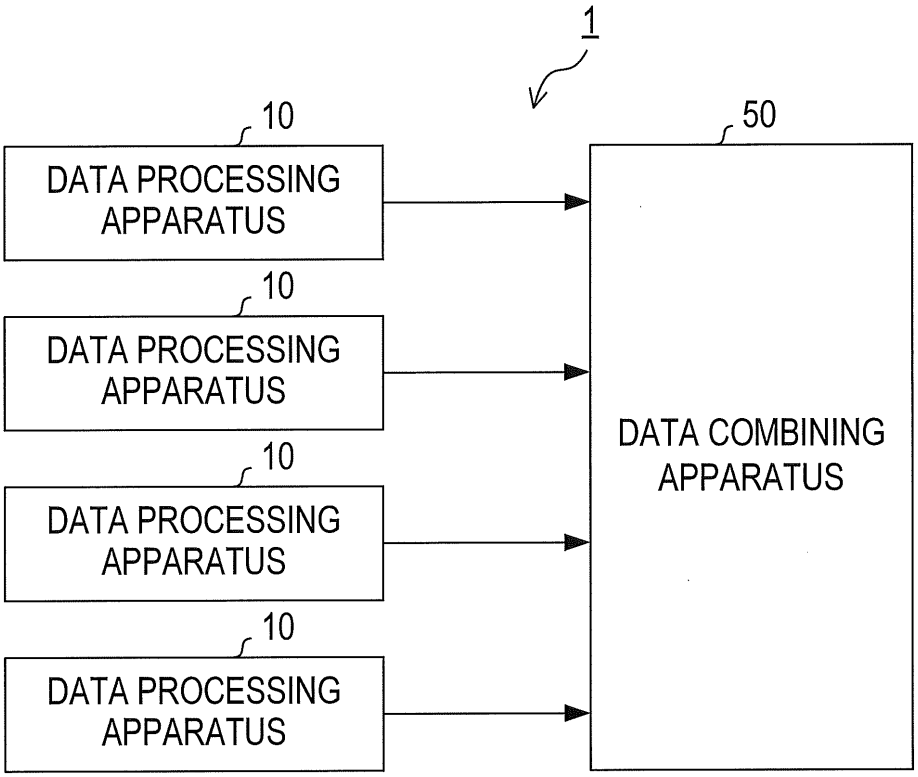
1
10
DATA PROCESSING APPARATUS
10
DATA PROCESSING APPARATUS
10
DATA PROCESSING APPARATUS
10
DATA PROCESSING APPARATUS
50
DATA COMBINING APPARATUS

FIG. 2A

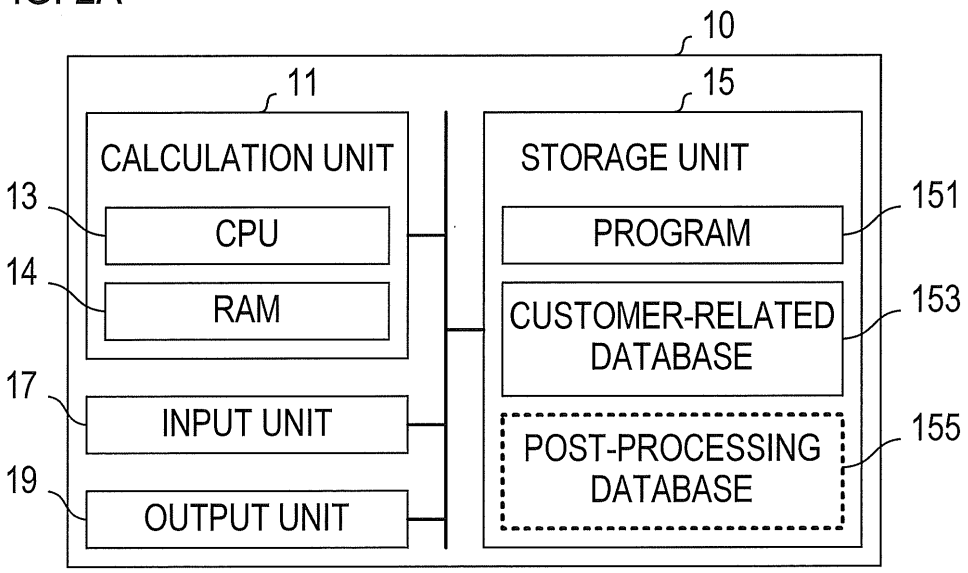
10
11
15
CALCULATION UNIT
STORAGE UNIT
13
CPU
14
RAM
17
INPUT UNIT
19
OUTPUT UNIT
PROGRAM
151
CUSTOMER-RELATED DATABASE
153
POST-PROCESSING DATABASE
155

FIG. 2B

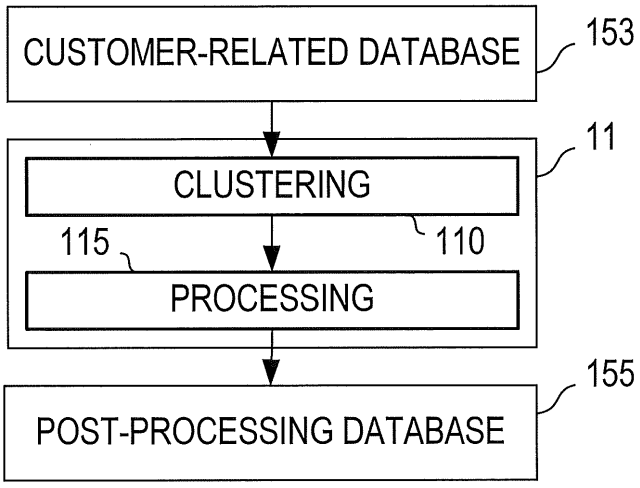
CUSTOMER-RELATED DATABASE
153
11
CLUSTERING
115
110
PROCESSING
155
POST-PROCESSING DATABASE

FIG. 3A

GENDER	AGE	PURCHASE PLACE	JAN CODE	NUMBER OF PURCHASES	UNIT PRICE
...	...	...	...	...	...

FIG. 3B

GENDER	AGE	PURCHASE PLACE	PURCHASE PRICE
...	...	...	...

FIG. 3C

GENDER	AGE	OCCUPATION	F PAPER SUBSCRIPTION STATE	G MAGAZINE SUBSCRIPTION STATE	...
...	...	...	...	...	...

FIG. 3D

GENDER	AGE	AREA	L SITE VISITING STATE	M SITE VISITING STATE	...
...	...	...	...	...	...

FIG. 4

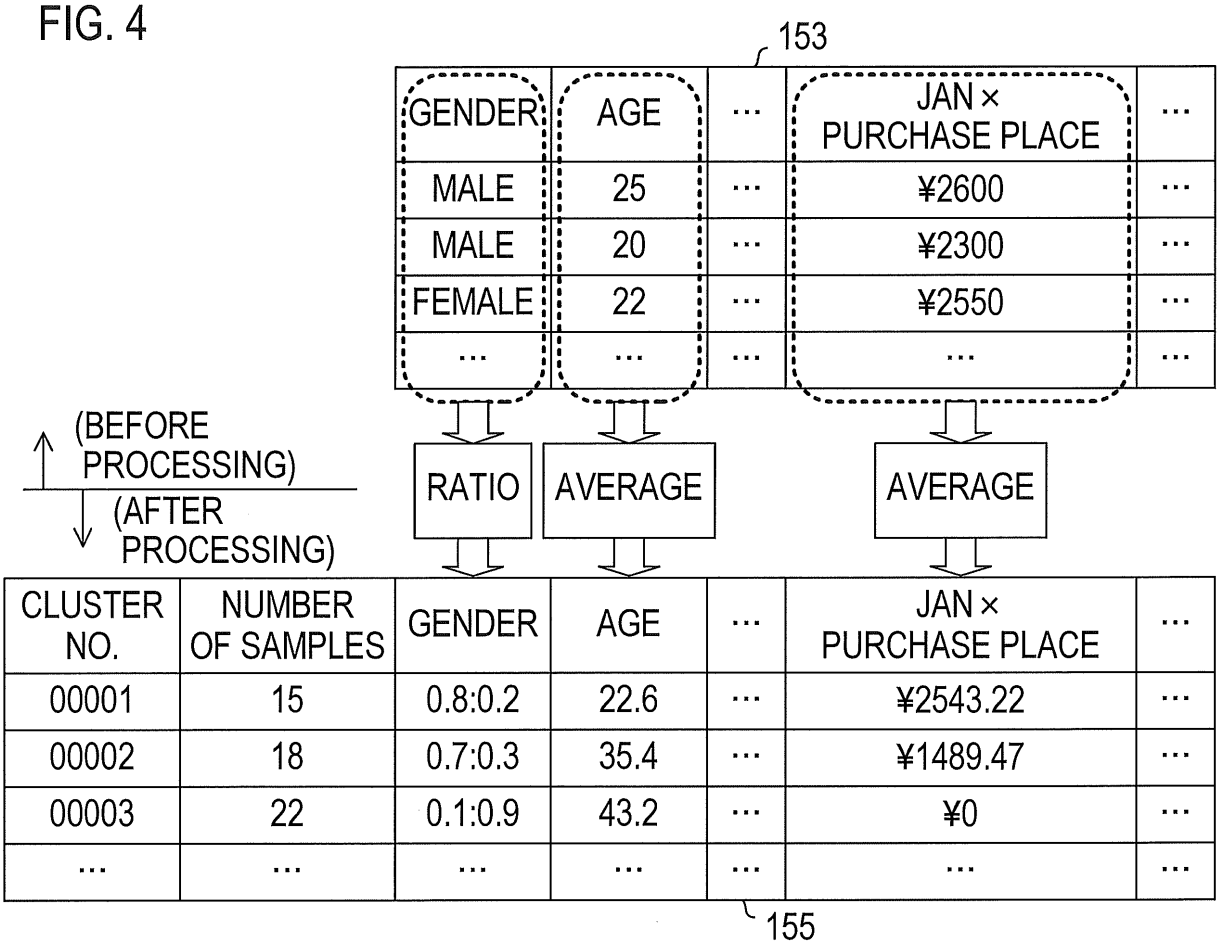
153
GENDER
AGE
…
JAN × PURCHASE PLACE
…
MALE
25
¥2600
MALE
20
¥2300
FEMALE
22
¥2550
(BEFORE PROCESSING)
(AFTER PROCESSING)
RATIO
AVERAGE
AVERAGE
CLUSTER NO.
NUMBER OF SAMPLES
00001
15
0.8:0.2
22.6
¥2543.22
00002
18
0.7:0.3
35.4
¥1489.47
00003
22
0.1:0.9
43.2
¥0
155

FIG. 5A

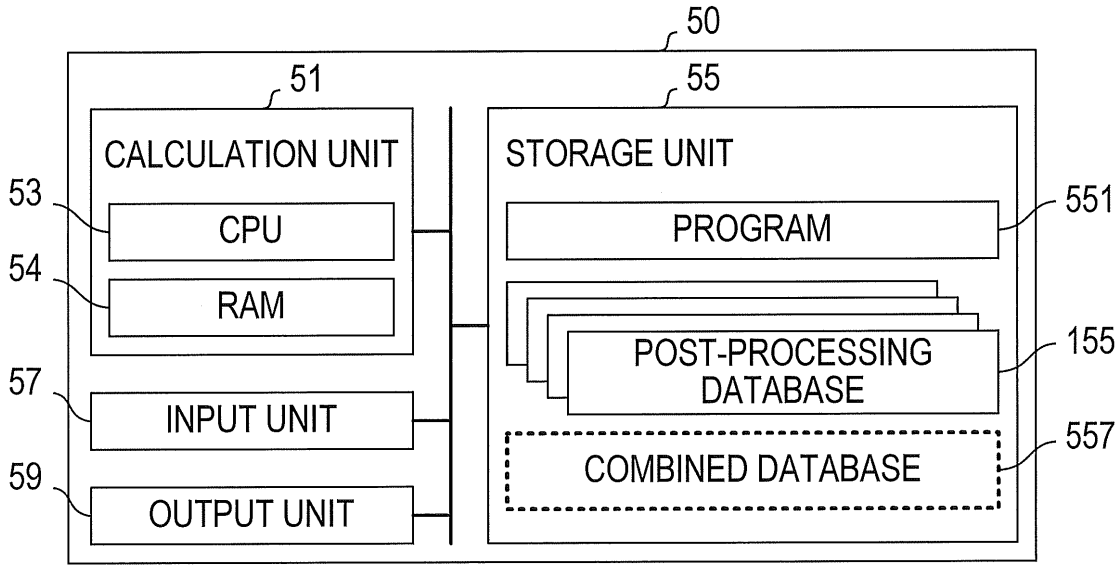
50
51
55
CALCULATION UNIT
STORAGE UNIT
53
CPU
54
RAM
57
INPUT UNIT
59
OUTPUT UNIT
551
PROGRAM
155
POST-PROCESSING DATABASE
557
COMBINED DATABASE

FIG. 5B

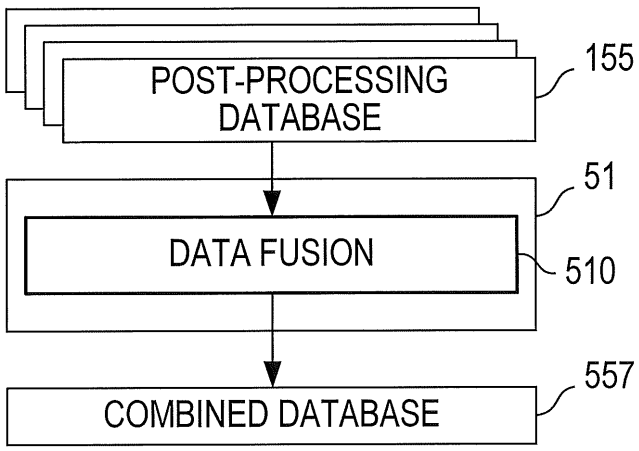
155
POST-PROCESSING DATABASE
51
DATA FUSION
510
557
COMBINED DATABASE

FIG. 6A

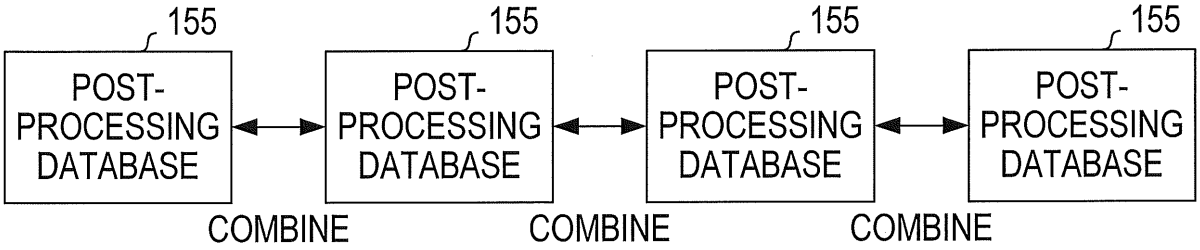
155
155
155
155
POST-PROCESSING DATABASE
POST-PROCESSING DATABASE
POST-PROCESSING DATABASE
POST-PROCESSING DATABASE
COMBINE
COMBINE
COMBINE

FIG. 6B

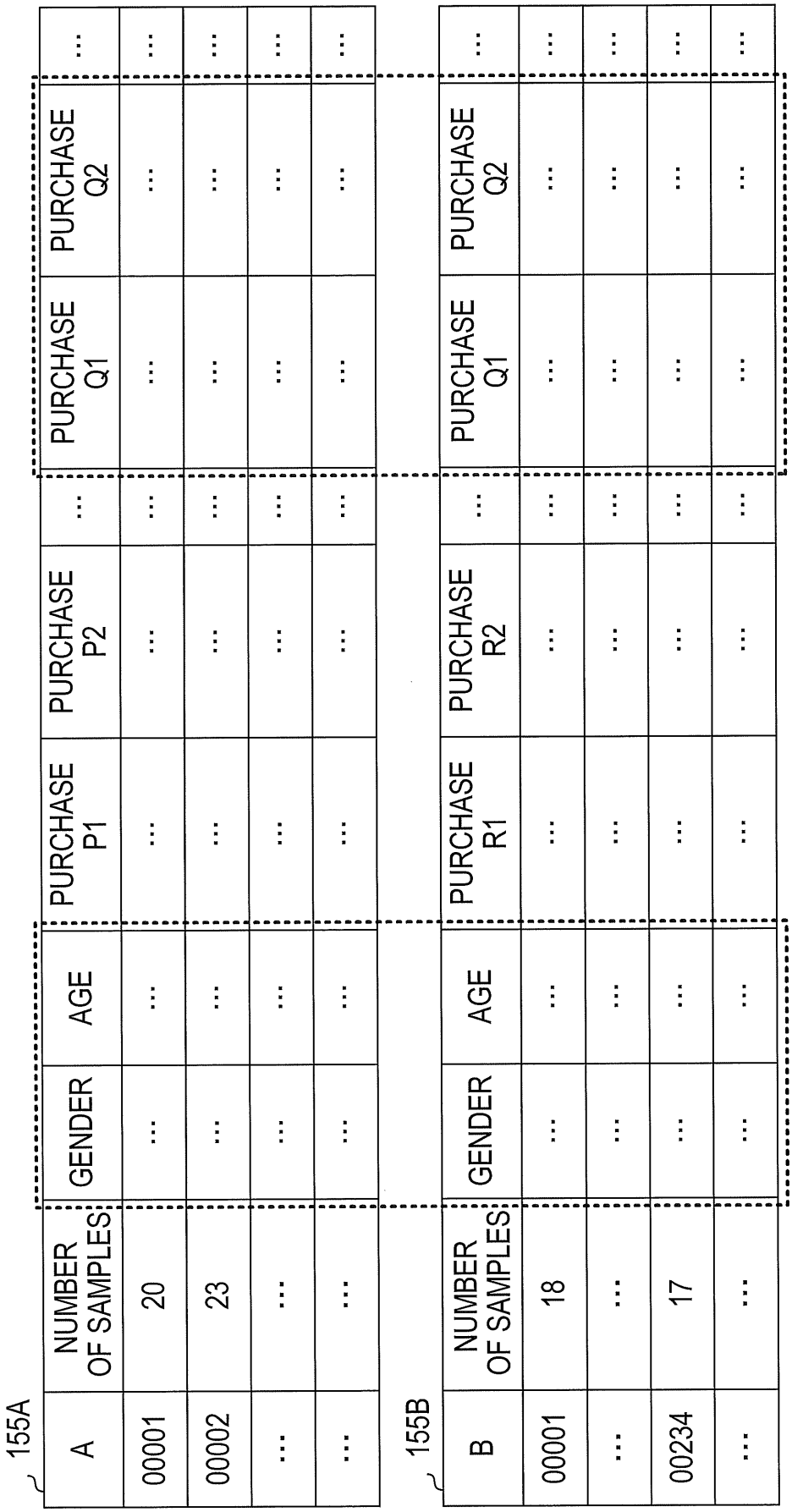
155A
A
NUMBER OF SAMPLES
GENDER
AGE
PURCHASE P1
PURCHASE P2
...
PURCHASE Q1
PURCHASE Q2
...
00001
20
00002
23
155B
B
NUMBER OF SAMPLES
GENDER
AGE
PURCHASE R1
PURCHASE R2
...
PURCHASE Q1
PURCHASE Q2
...
00001
18
00234
17

FIG. 6C

557

POST-PROCESSING DATABASE (155B)	POST-PROCESSING DATABASE (155B)	WEIGHT (NUMBER OF SAMPLES)
A00001	B20056	5.3
A00001	B00234	8.2
A00001	B01123	6.5
A00002	B00234	8.8
...	...	...

FIG. 7

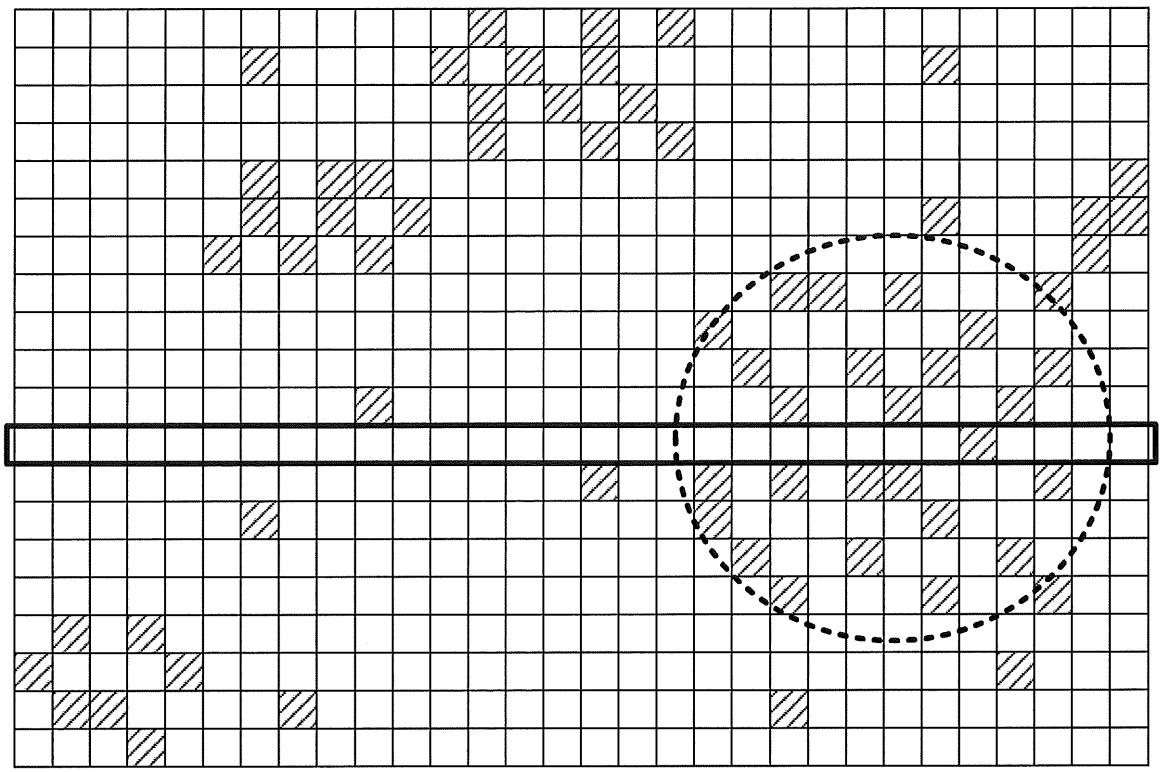

FIG. 8A

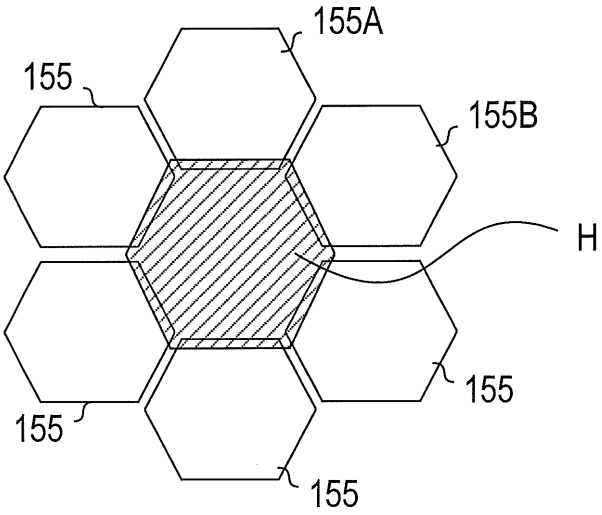

FIG. 8B

557

HUB DATABASE (H)	POST-PROCESSING DATABASE (155B)	WEIGHT (NUMBER OF SAMPLES)	POST-PROCESSING DATABASE (155B)	WEIGHT (NUMBER OF SAMPLES)	...
H00001	A12345	5.5	B00044	7.0	...
H00001	A00456	6.2	B02345	9.4	...
H00001	A11004	9.3	-	-	...

FIG. 9A

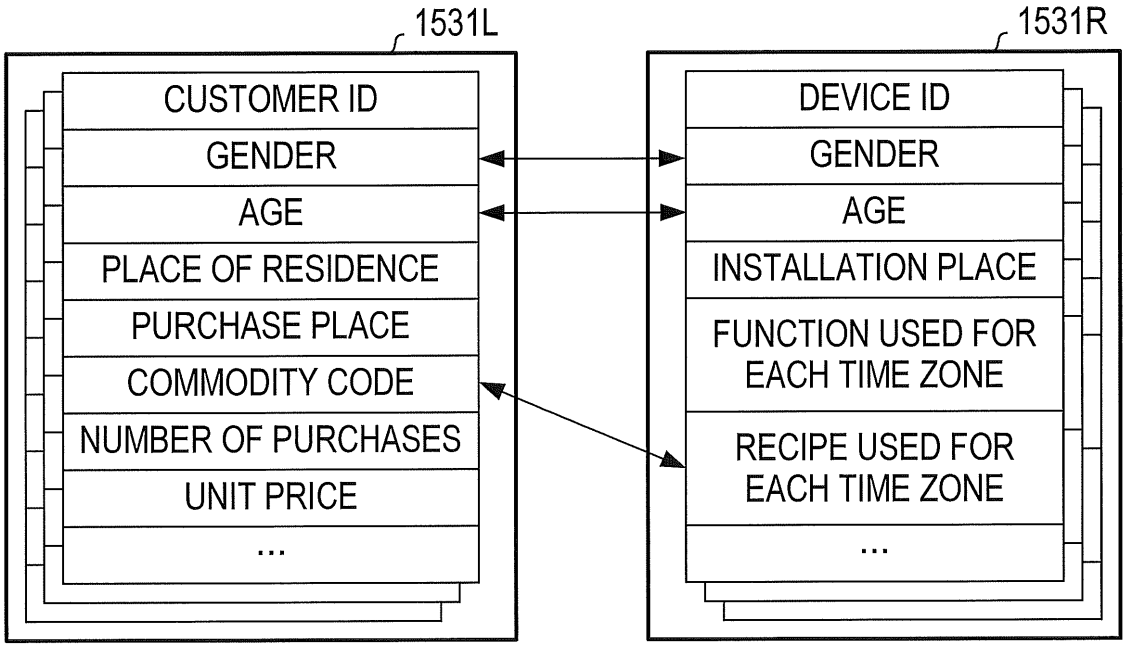
1531L
CUSTOMER ID
GENDER
AGE
PLACE OF RESIDENCE
PURCHASE PLACE
COMMODITY CODE
NUMBER OF PURCHASES
UNIT PRICE
...
1531R
DEVICE ID
GENDER
AGE
INSTALLATION PLACE
FUNCTION USED FOR EACH TIME ZONE
RECIPE USED FOR EACH TIME ZONE
...

FIG. 9B

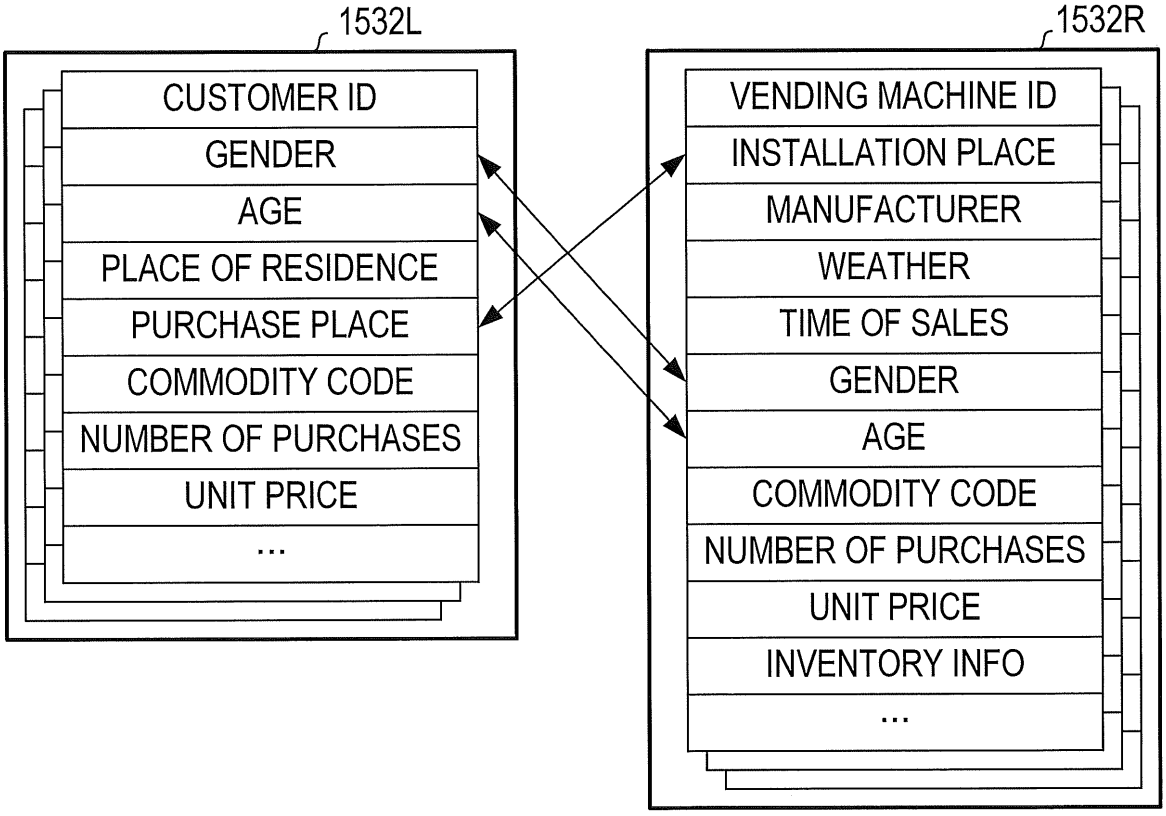
1532L
CUSTOMER ID
GENDER
AGE
PLACE OF RESIDENCE
PURCHASE PLACE
COMMODITY CODE
NUMBER OF PURCHASES
UNIT PRICE
...
1532R
VENDING MACHINE ID
INSTALLATION PLACE
MANUFACTURER
WEATHER
TIME OF SALES
GENDER
AGE
COMMODITY CODE
NUMBER OF PURCHASES
UNIT PRICE
INVENTORY INFO
...

FIG. 10A

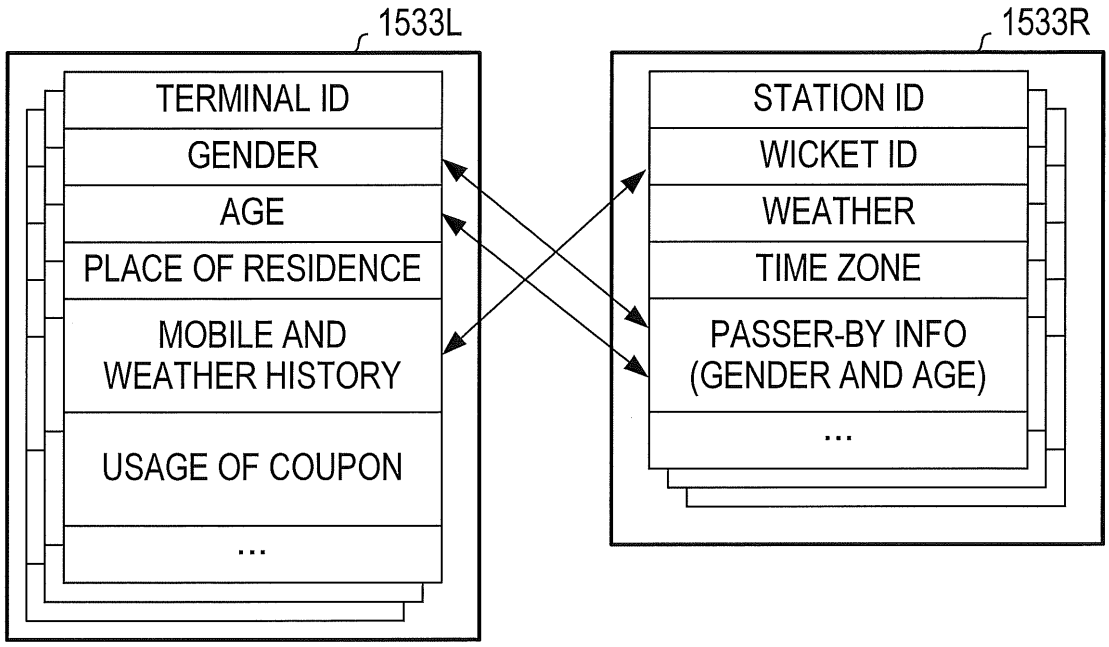

FIG. 10B

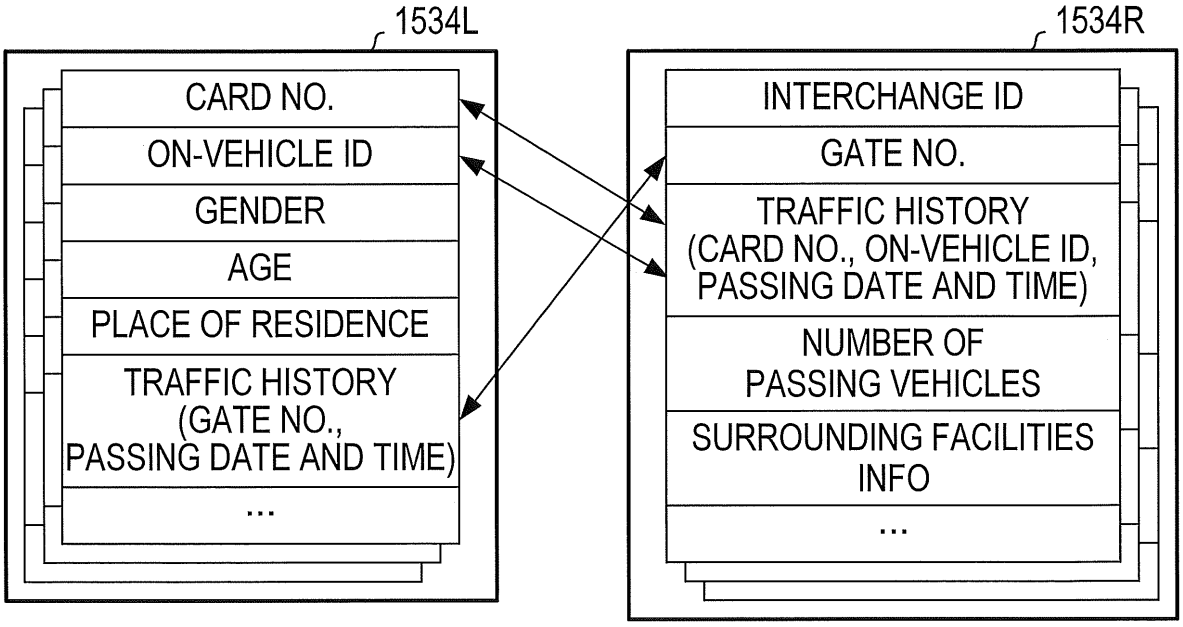

FIG. 11A

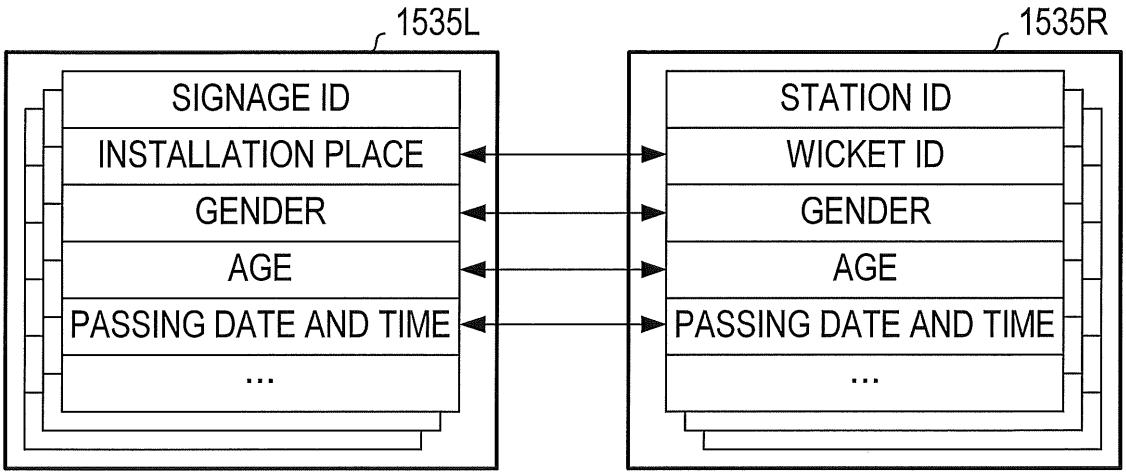
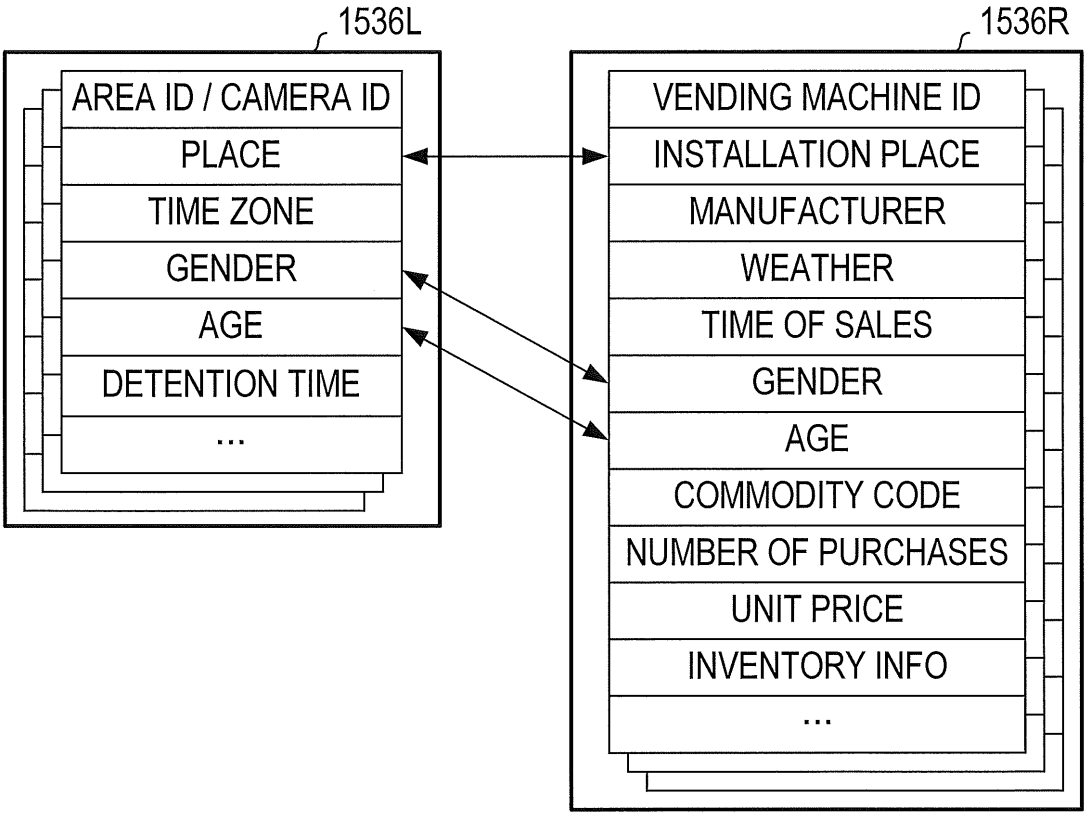
FIG. 11B