

# Discriminante

## Resumen del procesamiento para el análisis de casos

| Casos no ponderados |   | N   | Porcentaje |
|---------------------|---|-----|------------|
| Válidos             |   | 150 | 100,0      |
| Excluidos           | Códigos de grupo perdidos o fuera de rango  | 0   | ,0         |
|                     | Perdida al menos una variable discriminante   | 0   | ,0         |
|                     | Perdidos o fuera de rango ambos, el código de grupo y al menos una de las variables discriminantes. | 0   | ,0         |
|                     | Total excluidos   | 0   | ,0         |
| Casos Totales       |   | 150 | 100,0      |

### Estadísticos de grupo

| Cliente del banco... |               | Media | Desv. típ. | N válido (según lista) |            |
|----------------------|---------------|-------|------------|------------------------|------------|
|                      |               |       |            | No ponderados          | Ponderados |
| A                    | Trato         | 6,48  | 1,34       | 50                     | 50,000     |
|                      | Rapidez       | 6,34  | 1,27       | 50                     | 50,000     |
|                      | Información   | 6,30  | 1,28       | 50                     | 50,000     |
|                      | Errores       | 6,24  | 1,12       | 50                     | 50,000     |
|                      | Ambiente      | 4,32  | 1,57       | 50                     | 50,000     |
|                      | Oferta        | 4,46  | 1,80       | 50                     | 50,000     |
|                      | Oficinas      | 2,46  | 1,39       | 50                     | 50,000     |
|                      | Comisiones    | 2,88  | 1,33       | 50                     | 50,000     |
|                      | Depósitos     | 3,08  | 1,43       | 50                     | 50,000     |
|                      | Créditos      | 2,66  | 1,36       | 50                     | 50,000     |
|                      | Mantenimiento | 2,54  | 1,31       | 50                     | 50,000     |
| B                    | Trato         | 4,82  | 1,21       | 50                     | 50,000     |
|                      | Rapidez       | 4,42  | 1,23       | 50                     | 50,000     |
|                      | Información   | 4,36  | 1,01       | 50                     | 50,000     |
|                      | Errores       | 4,58  | 1,05       | 50                     | 50,000     |
|                      | Ambiente      | 4,68  | 1,83       | 50                     | 50,000     |
|                      | Oferta        | 4,26  | 1,68       | 50                     | 50,000     |
|                      | Oficinas      | 4,64  | ,96        | 50                     | 50,000     |
|                      | Comisiones    | 4,48  | 1,16       | 50                     | 50,000     |
|                      | Depósitos     | 4,56  | 1,23       | 50                     | 50,000     |
|                      | Créditos      | 6,24  | 1,29       | 50                     | 50,000     |
|                      | Mantenimiento | 6,34  | 1,27       | 50                     | 50,000     |
| C                    | Trato         | 2,70  | 1,47       | 50                     | 50,000     |
|                      | Rapidez       | 2,66  | 1,10       | 50                     | 50,000     |
|                      | Información   | 2,74  | 1,47       | 50                     | 50,000     |
|                      | Errores       | 2,84  | 1,48       | 50                     | 50,000     |
|                      | Ambiente      | 4,62  | 1,61       | 50                     | 50,000     |
|                      | Oferta        | 4,24  | 1,68       | 50                     | 50,000     |
|                      | Oficinas      | 6,40  | 1,28       | 50                     | 50,000     |
|                      | Comisiones    | 6,48  | 1,42       | 50                     | 50,000     |
|                      | Depósitos     | 6,38  | 1,24       | 50                     | 50,000     |
|                      | Créditos      | 4,64  | 1,29       | 50                     | 50,000     |
|                      | Mantenimiento | 4,16  | 1,20       | 50                     | 50,000     |
| Total                | Trato         | 4,67  | 2,05       | 150                    | 150,000    |
|                      | Rapidez       | 4,47  | 1,92       | 150                    | 150,000    |
|                      | Información   | 4,47  | 1,93       | 150                    | 150,000    |
|                      | Errores       | 4,55  | 1,85       | 150                    | 150,000    |
|                      | Ambiente      | 4,54  | 1,67       | 150                    | 150,000    |
|                      | Oferta        | 4,32  | 1,71       | 150                    | 150,000    |
|                      | Oficinas      | 4,50  | 2,02       | 150                    | 150,000    |
|                      | Comisiones    | 4,61  | 1,97       | 150                    | 150,000    |
|                      | Depósitos     | 4,67  | 1,87       | 150                    | 150,000    |
|                      | Créditos      | 4,51  | 1,97       | 150                    | 150,000    |
|                      | Mantenimiento | 4,35  | 2,00       | 150                    | 150,000    |

### Pruebas de igualdad de las medias de los grupos

|               | Lambda de Wilks | F       | gl1 | gl2 | Sig. |
|---------------|-----------------|---------|-----|-----|------|
| Trato         | ,426            | 99,056  | 2   | 147 | ,000 |
| Rapidez       | ,386            | 117,110 | 2   | 147 | ,000 |
| Información   | ,426            | 99,094  | 2   | 147 | ,000 |
| Errores       | ,434            | 95,691  | 2   | 147 | ,000 |
| Ambiente      | ,991            | ,661    | 2   | 147 | ,518 |
| Oferta        | ,997            | ,250    | 2   | 147 | ,779 |
| Oficinas      | ,361            | 130,184 | 2   | 147 | ,000 |
| Comisiones    | ,437            | 94,799  | 2   | 147 | ,000 |
| Depósitos     | ,478            | 80,395  | 2   | 147 | ,000 |
| Créditos      | ,441            | 93,117  | 2   | 147 | ,000 |
| Mantenimiento | ,392            | 114,036 | 2   | 147 | ,000 |

## Análisis 1

### Prueba de Box sobre la igualdad de las matrices de covarianza

#### Logaritmo de los determinantes

| Cliente del banco...   | Rango | Logaritmo del determinante |
|------------------------|-------|----------------------------|
| A                      | 11    | 2,991                      |
| B                      | 11    | 2,600                      |
| C                      | 11    | 4,499                      |
| Intra-grupos combinada | 11    | 4,495                      |

Los rangos y logaritmos naturales de los determinantes impresos son los de las matrices de covarianza de los grupos.

#### Resultados de la prueba

|          |        |           |
|----------|--------|-----------|
| M de Box |        | 166,403   |
| F        | Aprox. | 1,127     |
|          | gl1    | 132       |
|          | gl2    | 57969,374 |
|          | Sig.   | ,151      |

Contrasta la hipótesis nula de que las matrices de covarianza poblacionales son iguales.

## Resumen de las funciones canónicas discriminantes

#### Autovalores

| Función | Autovalor          | % de varianza | % acumulado | Correlación canónica |
|---------|--------------------|---------------|-------------|----------------------|
| 1       | 3,642 <sup>a</sup> | 67,5          | 67,5        | ,886                 |
| 2       | 1,753 <sup>a</sup> | 32,5          | 100,0       | ,798                 |

<sup>a</sup>. Se han empleado las 2 primeras funciones discriminantes canónicas en el análisis.

### Lambda de Wilks

| Contraste de las funciones | Lambda de Wilks | Chi-cuadrado | gl | Sig. |
|----------------------------|-----------------|--------------|----|------|
| 1 a la 2                   | ,078            | 361,791      | 22 | ,000 |
| 2                          | ,363            | 143,801      | 10 | ,000 |

### Coefficientes estandarizados de las funciones discriminantes canónicas

|               | Función |       |
|---------------|---------|-------|
|               | 1       | 2     |
| Trato         | ,234    | ,195  |
| Rapidez       | ,332    | ,073  |
| Información   | ,179    | ,062  |
| Errores       | ,282    | ,021  |
| Ambiente      | -,158   | ,069  |
| Oferta        | ,034    | -,120 |
| Oficinas      | -,328   | -,169 |
| Comisiones    | -,094   | -,138 |
| Depósitos     | ,068    | -,107 |
| Créditos      | -,283   | ,439  |
| Mantenimiento | -,007   | ,776  |

### Matriz de estructura

|               | Función |       |
|---------------|---------|-------|
|               | 1       | 2     |
| Oficinas      | -,694*  | -,100 |
| Rapidez       | ,655*   | ,129  |
| Información   | ,605*   | ,096  |
| Trato         | ,592*   | ,201  |
| Errores       | ,589*   | ,150  |
| Comisiones    | -,580*  | -,191 |
| Depósitos     | -,535*  | -,173 |
| Ambiente      | -,043*  | ,036  |
| Oferta        | ,029*   | -,012 |
| Mantenimiento | -,368   | ,777* |
| Créditos      | -,400   | ,624* |

Correlaciones intra-grupo combinadas entre las variables discriminantes y las funciones discriminantes canónicas tipificadas

Variables ordenadas por el tamaño de la correlación con la función.

\*. Mayor correlación absoluta entre cada variable y cualquier función discriminante.

## Coeficientes de las funciones canónicas discriminantes

|               | Función |        |
|---------------|---------|--------|
|               | 1       | 2      |
| Trato         | ,174    | ,145   |
| Rapidez       | ,276    | ,061   |
| Información   | ,141    | ,049   |
| Errores       | ,229    | ,017   |
| Ambiente      | -,094   | ,041   |
| Oferta        | ,020    | -,070  |
| Oficinas      | -,268   | -,138  |
| Comisiones    | -,072   | -,106  |
| Depósitos     | ,052    | -,082  |
| Créditos      | -,216   | ,334   |
| Mantenimiento | -,005   | ,615   |
| (Constante)   | -1,090  | -3,821 |

*Coeficientes no tipificados*

## Funciones en los centroides de los grupos

| Cliente del banco... | Función |        |
|----------------------|---------|--------|
|                      | 1       | 2      |
| A                    | 2,498   | -,657  |
| B                    | -,428   | 1,830  |
| C                    | -2,070  | -1,172 |

*Funciones discriminantes canónicas no tipificadas evaluadas en las medias de los grupos*

## Estadísticos de clasificación

### Probabilidades previas para los grupos

| Cliente del banco... | Previas | Casos utilizados en el análisis |            |
|----------------------|---------|---------------------------------|------------|
|                      |         | No ponderados                   | Ponderados |
| A                    | ,333    | 50                              | 50,000     |
| B                    | ,333    | 50                              | 50,000     |
| C                    | ,333    | 50                              | 50,000     |
| Total                | 1,000   | 150                             | 150,000    |

### Coeficientes de la función de clasificación

|               | Cliente del banco... |         |         |
|---------------|----------------------|---------|---------|
|               | A                    | B       | C       |
| Trato         | 3,062                | 2,914   | 2,193   |
| Rapidez       | 6,518                | 5,862   | 5,225   |
| Información   | 5,020                | 4,728   | 4,350   |
| Errores       | 3,071                | 2,443   | 2,015   |
| Ambiente      | 1,012                | 1,390   | 1,421   |
| Oferta        | 1,471                | 1,239   | 1,417   |
| Oficinas      | 3,178                | 3,619   | 4,473   |
| Comisiones    | 3,987                | 3,935   | 4,370   |
| Depósitos     | 4,346                | 3,991   | 4,151   |
| Créditos      | ,886                 | 2,348   | 1,700   |
| Mantenimiento | 1,795                | 3,339   | 1,504   |
| (Constante)   | -82,346              | -87,089 | -74,894 |

*Funciones discriminantes lineales de Fisher*

## Análisis 1

### Estadísticos de clasificación

# Estadísticos por casos

|          | Número de casos | Grupo real | Grupo mayor        |              |    |              |   | Segundo grupo mayor |              |   | Puntuaciones discriminantes |           |
|----------|-----------------|------------|--------------------|--------------|----|--------------|---|---------------------|--------------|---|-----------------------------|-----------|
|          |                 |            | Grupo pronosticado | P(D>d   G=g) |    | P(G=g   D=d) | Distancia de Mahalanobis al cuadrado hasta el centroide | Grupo               | P(G=g   D=d) | Distancia de Mahalanobis al cuadrado hasta el centroide | Función 1                   | Función 2 |
|          |                 |            |                    | p            | gl |              |   |                     |              |   |                             |           |
| Original | 1               | 1          | 1                  | ,705         | 2  | ,996         | ,698  | 2                   | ,004         | 11,894  | 2,596                       | ,173      |
|          | 2               | 1          | 1                  | ,868         | 2  | 1,000        | ,283  | 2                   | ,000         | 18,542  | 3,023                       | -,746     |
|          | 3               | 1          | 1                  | ,594         | 2  | 1,000        | 1,043   | 2                   | ,000         | 20,513  | 3,495                       | -,434     |
|          | 4               | 1          | 1                  | ,613         | 2  | ,999         | ,978  | 2                   | ,001         | 15,735  | 3,139                       | ,096      |
|          | 5               | 1          | 1                  | ,338         | 2  | ,987         | 2,172   | 2                   | ,013         | 10,878  | 2,706                       | ,802      |
|          | 6               | 1          | 1                  | ,835         | 2  | ,999         | ,362  | 2                   | ,000         | 16,010  | 2,205                       | -,183     |
|          | 7               | 1          | 1                  | ,959         | 2  | ,999         | ,084  | 2                   | ,001         | 14,471  | 2,647                       | -,409     |
|          | 8               | 1          | 1                  | ,778         | 2  | ,999         | ,501  | 2                   | ,001         | 13,845  | 2,802                       | -,018     |
|          | 9               | 1          | 1                  | ,488         | 2  | 1,000        | 1,435   | 2                   | ,000         | 18,552  | 3,483                       | ,025      |
|          | 10              | 1          | 1                  | ,976         | 2  | 1,000        | ,048  | 2                   | ,000         | 16,228  | 2,566                       | -,865     |
|          | 11              | 1          | 1                  | ,850         | 2  | ,997         | ,326  | 2                   | ,003         | 12,125  | 2,479                       | -,087     |
|          | 12              | 1          | 1                  | ,906         | 2  | ,997         | ,198  | 2                   | ,003         | 11,635  | 2,241                       | -,294     |
|          | 13              | 1          | 1                  | ,588         | 2  | 1,000        | 1,061   | 2                   | ,000         | 23,610  | 3,160                       | -,446     |
|          | 14              | 1          | 1                  | ,425         | 2  | ,961         | 1,713   | 2                   | ,039         | 8,109   | 2,141                       | ,602      |
|          | 15              | 1          | 1                  | ,205         | 2  | 1,000        | 3,169   | 2                   | ,000         | 31,066  | 3,485                       | -,239     |
|          | 16              | 1          | 1                  | ,968         | 2  | ,998         | ,065  | 2                   | ,001         | 13,098  | 2,408                       | -,419     |
|          | 17              | 1          | 1                  | ,660         | 2  | ,999         | ,831  | 2                   | ,001         | 15,118  | 3,041                       | ,075      |
|          | 18              | 1          | 1                  | ,321         | 2  | 1,000        | 2,275   | 2                   | ,000         | 28,547  | 3,539                       | -,1749    |
|          | 19              | 1          | 1                  | ,825         | 2  | ,994         | ,384  | 2                   | ,005         | 10,789  | 2,231                       | -,099     |
|          | 20              | 1          | 1                  | ,746         | 2  | ,989         | ,586  | 2                   | ,011         | 9,537   | 2,004                       | -,073     |
|          | 21              | 1          | 1                  | ,923         | 2  | ,998         | ,160  | 2                   | ,002         | 13,092  | 2,526                       | -,259     |
|          | 22              | 1          | 1                  | ,996         | 2  | ,999         | ,008  | 2                   | ,001         | 14,595  | 2,537                       | -,580     |
|          | 23              | 1          | 1                  | ,578         | 2  | 1,000        | 1,096   | 2                   | ,000         | 21,939  | 2,660                       | -,692     |
|          | 24              | 1          | 1                  | ,679         | 2  | 1,000        | ,773  | 2                   | ,000         | 18,565  | 3,308                       | -,316     |
|          | 25              | 1          | 1                  | ,092         | 2  | 1,000        | 4,765   | 3                   | ,000         | 29,301  | 3,107                       | -,2754    |
|          | 26              | 1          | 1                  | ,711         | 2  | 1,000        | ,682  | 2                   | ,000         | 20,694  | 2,721                       | -,1453    |
|          | 27              | 1          | 1                  | ,982         | 2  | ,999         | ,036  | 2                   | ,001         | 13,337  | 2,363                       | -,525     |
|          | 28              | 1          | 1                  | ,640         | 2  | 1,000        | ,891  | 2                   | ,000         | 19,555  | 3,401                       | -,382     |
|          | 29              | 1          | 1                  | ,596         | 2  | 1,000        | 1,034   | 2                   | ,000         | 21,935  | 2,703                       | -,1653    |
|          | 30              | 1          | 1                  | ,846         | 2  | ,997         | ,335  | 2                   | ,003         | 12,097  | 2,479                       | -,079     |
|          | 31              | 1          | 1                  | ,578         | 2  | ,995         | 1,098   | 2                   | ,005         | 11,822  | 2,686                       | ,373      |
|          | 32              | 1          | 1                  | ,412         | 2  | 1,000        | 1,773   | 3                   | ,000         | 22,125  | 2,563                       | -,1987    |
|          | 33              | 1          | 1                  | ,338         | 2  | ,998         | 2,171   | 2                   | ,002         | 14,986  | 3,246                       | ,612      |
|          | 34              | 1          | 1                  | ,693         | 2  | 1,000        | ,732  | 2                   | ,000         | 22,024  | 3,092                       | -,1273    |
|          | 35              | 1          | 1                  | ,791         | 2  | 1,000        | ,469  | 2                   | ,000         | 20,028  | 3,155                       | -,852     |
|          | 36              | 1          | 1                  | ,885         | 2  | ,999         | ,244  | 2                   | ,001         | 15,182  | 2,836                       | -,297     |
|          | 37              | 1          | 1                  | ,945         | 2  | 1,000        | ,112  | 2                   | ,000         | 15,887  | 2,401                       | -,978     |
|          | 38              | 1          | 1                  | ,222         | 2  | ,999         | 3,013   | 3                   | ,001         | 17,799  | 1,991                       | -,2318    |
|          | 39              | 1          | 1                  | ,815         | 2  | 1,000        | ,410  | 2                   | ,000         | 19,367  | 3,130                       | -,759     |
|          | 40              | 1          | 1                  | ,971         | 2  | 1,000        | ,058  | 2                   | ,000         | 16,472  | 2,596                       | -,877     |
|          | 41              | 1          | 1                  | ,878         | 2  | 1,000        | ,260  | 2                   | ,000         | 18,844  | 2,944                       | -,903     |
|          | 42              | 1          | 1                  | ,518         | 2  | 1,000        | 1,317   | 2                   | ,000         | 23,101  | 2,748                       | -,1777    |
|          | 43              | 1          | 1                  | ,515         | 2  | ,998         | 1,327   | 2                   | ,002         | 13,725  | 2,984                       | ,387      |
|          | 44              | 1          | 1                  | ,825         | 2  | ,996         | ,385  | 2                   | ,004         | 11,545  | 1,878                       | -,666     |
|          | 45              | 1          | 1                  | ,474         | 2  | 1,000        | 1,493   | 2                   | ,000         | 22,345  | 3,705                       | -,464     |
|          | 46              | 1          | 1                  | ,080         | 2  | 1,000        | 5,056   | 3                   | ,000         | 33,100  | 3,483                       | -,2679    |
|          | 47              | 1          | 2**                | ,876         | 2  | ,999         | ,264  | 1                   | ,001         | 14,355  | -,035                       | 2,160     |
|          | 48              | 1          | 2**                | ,979         | 2  | ,998         | ,043  | 3                   | ,002         | 12,869  | -,462                       | 2,035     |
|          | 49              | 1          | 3**                | ,714         | 2  | ,999         | ,673  | 2                   | ,001         | 14,867  | -,1599                      | -,1844    |
|          | 50              | 1          | 3**                | ,211         | 2  | 1,000        | 3,117   | 1                   | ,000         | 22,026  | -,1634                      | -,2883    |
|          | 51              | 2          | 1**                | ,720         | 2  | ,986         | ,656  | 2                   | ,013         | 9,254   | 1,810                       | -,231     |
|          | 52              | 2          | 1**                | ,662         | 2  | ,983         | ,826  | 2                   | ,017         | 8,940   | 2,023                       | ,117      |
|          | 53              | 2          | 2                  | ,540         | 2  | 1,000        | 1,232   | 1                   | ,000         | 18,615  | -,006                       | 2,856     |
|          | 54              | 2          | 2                  | ,791         | 2  | ,998         | ,469  | 1                   | ,002         | 13,127  | ,186                        | 2,132     |
|          | 55              | 2          | 2                  | ,681         | 2  | ,997         | ,767  | 1                   | ,003         | 12,510  | ,377                        | 2,173     |
|          | 56              | 2          | 2                  | ,655         | 2  | ,985         | ,845  | 1                   | ,014         | 9,419   | ,473                        | 1,648     |
|          | 57              | 2          | 2                  | ,821         | 2  | ,999         | ,395  | 1                   | ,000         | 15,667  | -,075                       | 2,350     |
|          | 58              | 2          | 2                  | ,651         | 2  | ,998         | ,858  | 3                   | ,002         | 12,976  | -,1211                      | 2,326     |
|          | 59              | 2          | 2                  | ,615         | 2  | ,922         | ,973  | 3                   | ,077         | 5,944   | -,843                       | ,935      |
|          | 60              | 2          | 2                  | ,673         | 2  | ,985         | ,791  | 1                   | ,013         | 9,404   | ,434                        | 1,610     |
|          | 61              | 2          | 2                  | ,969         | 2  | ,995         | ,063  | 3                   | ,003         | 11,426  | -,237                       | 1,668     |
|          | 62              | 2          | 2                  | ,871         | 2  | ,998         | ,276  | 3                   | ,002         | 12,901  | -,810                       | 2,191     |
|          | 63              | 2          | 2                  | ,925         | 2  | ,994         | ,156  | 3                   | ,003         | 11,791  | -,087                       | 1,631     |
|          | 64              | 2          | 2                  | ,987         | 2  | ,997         | ,026  | 3                   | ,002         | 12,305  | -,267                       | 1,837     |
|          | 65              | 2          | 2                  | ,911         | 2  | ,987         | ,186  | 3                   | ,012         | 8,940   | -,652                       | 1,460     |
|          | 66              | 2          | 2                  | ,237         | 2  | 1,000        | 2,878   | 3                   | ,000         | 24,857  | -,401                       | 3,526     |
|          | 67              | 2          | 2                  | ,754         | 2  | ,964         | ,565  | 3                   | ,035         | 7,170   | -,872                       | 1,223     |
|          | 68              | 2          | 2                  | ,953         | 2  | ,999         | ,096  | 3                   | ,001         | 13,915  | -,294                       | 2,108     |
|          | 69              | 2          | 2                  | ,740         | 2  | ,998         | ,603  | 3                   | ,002         | 13,046  | -,1051                      | 2,293     |
|          | 70              | 2          | 2                  | ,413         | 2  | ,932         | 1,768   | 3                   | ,068         | 7,018   | -,1703                      | 1,452     |
|          | 71              | 2          | 2                  | ,891         | 2  | ,987         | ,232  | 3                   | ,013         | 8,922   | -,810                       | 1,536     |
|          | 72              | 2          | 2                  | ,375         | 2  | 1,000        | 1,964   | 3                   | ,000         | 18,708  | -,1121                      | 3,048     |

Para los datos originales, la distancia de Mahalanobis al cuadrado se basa en las funciones canónicas.  
Para los datos validados mediante validación cruzada, la distancia de Mahalanobis al cuadrado se basa en las observaciones.

# Estadísticos por casos

|          | Número de casos | Grupo real | Grupo mayor        |              |    |              |   | Segundo grupo mayor |              |   | Puntuaciones discriminantes |           |
|----------|-----------------|------------|--------------------|--------------|----|--------------|---|---------------------|--------------|---|-----------------------------|-----------|
|          |                 |            | Grupo pronosticado | P(D>d   G=g) |    | P(G=g   D=d) | Distancia de Mahalanobis al cuadrado hasta el centroide | Grupo               | P(G=g   D=d) | Distancia de Mahalanobis al cuadrado hasta el centroide | Función 1                   | Función 2 |
|          |                 |            |                    | p            | gl |              |   |                     |              |   |                             |           |
| Original | 73              | 2          | 2                  | ,881         | 2  | ,999         | ,254  | 3                   | ,001         | 15,408  | -,181                       | 2,269     |
|          | 74              | 2          | 2                  | ,676         | 2  | ,999         | ,784  | 3                   | ,001         | 14,616  | -1,007                      | 2,500     |
|          | 75              | 2          | 2                  | ,444         | 2  | 1,000        | 1,623   | 3                   | ,000         | 20,987  | -,425                       | 3,103     |
|          | 76              | 2          | 2                  | ,736         | 2  | ,960         | ,614  | 3                   | ,038         | 7,081   | -,649                       | 1,078     |
|          | 77              | 2          | 2                  | ,915         | 2  | ,990         | ,177  | 3                   | ,010         | 9,389   | -,788                       | 1,611     |
|          | 78              | 2          | 2                  | ,755         | 2  | ,974         | ,561  | 3                   | ,021         | 8,281   | -,295                       | 1,093     |
|          | 79              | 2          | 2                  | ,556         | 2  | ,897         | 1,174   | 3                   | ,102         | 5,512   | -1,051                      | ,943      |
|          | 80              | 2          | 2                  | ,796         | 2  | 1,000        | ,457  | 3                   | ,000         | 16,311  | -,399                       | 2,505     |
|          | 81              | 2          | 2                  | ,503         | 2  | ,874         | 1,376   | 3                   | ,122         | 5,315   | -,713                       | ,692      |
|          | 82              | 2          | 2                  | ,603         | 2  | ,998         | 1,010   | 3                   | ,002         | 13,374  | -1,260                      | 2,394     |
|          | 83              | 2          | 2                  | ,842         | 2  | ,999         | ,343  | 3                   | ,000         | 15,614  | -,413                       | 2,415     |
|          | 84              | 2          | 2                  | ,624         | 2  | 1,000        | ,942  | 1                   | ,000         | 18,558  | -,132                       | 2,754     |
|          | 85              | 2          | 2                  | ,998         | 2  | ,996         | ,003  | 3                   | ,003         | 11,392  | -,422                       | 1,774     |
|          | 86              | 2          | 2                  | ,143         | 2  | 1,000        | 3,895   | 1                   | ,000         | 24,571  | ,160                        | 3,713     |
|          | 87              | 2          | 2                  | ,420         | 2  | ,995         | 1,735   | 1                   | ,005         | 12,244  | ,767                        | 2,383     |
|          | 88              | 2          | 2                  | ,450         | 2  | 1,000        | 1,599   | 3                   | ,000         | 19,517  | -,765                       | 3,049     |
|          | 89              | 2          | 2                  | ,967         | 2  | ,997         | ,067  | 3                   | ,003         | 11,799  | -,653                       | 1,957     |
|          | 90              | 2          | 2                  | ,943         | 2  | ,998         | ,118  | 3                   | ,001         | 13,168  | -,581                       | 2,137     |
|          | 91              | 2          | 2                  | ,664         | 2  | ,999         | ,819  | 3                   | ,001         | 14,190  | -1,076                      | 2,461     |
|          | 92              | 2          | 2                  | ,565         | 2  | ,955         | 1,144   | 1                   | ,033         | 7,903   | ,203                        | ,967      |
|          | 93              | 2          | 2                  | ,505         | 2  | ,999         | 1,365   | 1                   | ,001         | 15,832  | ,356                        | 2,696     |
|          | 94              | 2          | 2                  | ,983         | 2  | ,995         | ,034  | 3                   | ,004         | 10,936  | -,361                       | 1,659     |
|          | 95              | 2          | 3**                | ,257         | 2  | ,702         | 2,719   | 2                   | ,282         | 4,543   | -,679                       | -,287     |
|          | 96              | 2          | 2                  | ,558         | 2  | ,998         | 1,168   | 3                   | ,002         | 13,618  | -1,320                      | 2,441     |
|          | 97              | 2          | 2                  | ,956         | 2  | ,991         | ,090  | 3                   | ,008         | 9,766   | -,531                       | 1,548     |
|          | 98              | 2          | 2                  | ,862         | 2  | ,999         | ,298  | 3                   | ,001         | 14,740  | -,562                       | 2,359     |
|          | 99              | 2          | 3**                | ,477         | 2  | ,869         | 1,479   | 2                   | ,131         | 5,257   | -1,839                      | ,022      |
|          | 100             | 2          | 3**                | ,803         | 2  | ,973         | ,439  | 2                   | ,026         | 7,661   | -1,667                      | -,646     |
|          | 101             | 3          | 1**                | ,501         | 2  | 1,000        | 1,382   | 2                   | ,000         | 23,036  | 2,693                       | -1,817    |
|          | 102             | 3          | 1**                | ,429         | 2  | ,915         | 1,693   | 2                   | ,083         | 6,491   | 1,433                       | ,090      |
|          | 103             | 3          | 2**                | ,880         | 2  | ,994         | ,256  | 3                   | ,006         | 10,388  | -,934                       | 1,844     |
|          | 104             | 3          | 2**                | ,822         | 2  | ,999         | ,393  | 3                   | ,001         | 15,205  | -,589                       | 2,435     |
|          | 105             | 3          | 3                  | ,942         | 2  | ,991         | ,120  | 2                   | ,009         | 9,554   | -1,997                      | -,834     |
|          | 106             | 3          | 3                  | ,468         | 2  | ,995         | 1,521   | 2                   | ,005         | 12,281  | -3,079                      | -,463     |
|          | 107             | 3          | 3                  | ,814         | 2  | ,996         | ,412  | 2                   | ,004         | 11,584  | -2,591                      | -,798     |
|          | 108             | 3          | 3                  | ,860         | 2  | ,993         | ,302  | 2                   | ,007         | 10,222  | -1,520                      | -1,176    |
|          | 109             | 3          | 3                  | ,458         | 2  | 1,000        | 1,561   | 2                   | ,000         | 19,777  | -3,236                      | -1,619    |
|          | 110             | 3          | 3                  | ,740         | 2  | ,998         | ,602  | 2                   | ,002         | 13,532  | -1,493                      | -1,691    |
|          | 111             | 3          | 3                  | ,975         | 2  | ,994         | ,051  | 2                   | ,006         | 10,212  | -1,979                      | -,965     |
|          | 112             | 3          | 3                  | ,687         | 2  | ,999         | ,750  | 2                   | ,001         | 14,860  | -2,933                      | -1,101    |
|          | 113             | 3          | 3                  | ,207         | 2  | 1,000        | 3,153   | 2                   | ,000         | 26,501  | -2,440                      | -2,909    |
|          | 114             | 3          | 3                  | ,614         | 2  | 1,000        | ,976  | 2                   | ,000         | 17,339  | -1,768                      | -2,113    |
|          | 115             | 3          | 3                  | ,144         | 2  | ,990         | 3,881   | 1                   | ,010         | 13,087  | -,615                       | -2,501    |
|          | 116             | 3          | 3                  | ,518         | 2  | ,998         | 1,317   | 2                   | ,002         | 13,464  | -3,106                      | -,679     |
|          | 117             | 3          | 3                  | ,377         | 2  | 1,000        | 1,952   | 2                   | ,000         | 23,217  | -2,751                      | -2,392    |
|          | 118             | 3          | 3                  | ,525         | 2  | 1,000        | 1,290   | 2                   | ,000         | 20,093  | -2,161                      | -2,304    |
|          | 119             | 3          | 3                  | ,586         | 2  | ,994         | 1,069   | 2                   | ,006         | 11,243  | -2,848                      | -,492     |
|          | 120             | 3          | 3                  | ,866         | 2  | 1,000        | ,287  | 2                   | ,000         | 15,505  | -2,451                      | -1,549    |
|          | 121             | 3          | 3                  | ,978         | 2  | ,995         | ,045  | 2                   | ,005         | 10,667  | -1,869                      | -1,101    |
|          | 122             | 3          | 3                  | ,964         | 2  | ,998         | ,073  | 2                   | ,002         | 12,876  | -2,337                      | -1,209    |
|          | 123             | 3          | 3                  | ,867         | 2  | ,997         | ,285  | 2                   | ,003         | 11,850  | -2,528                      | -,898     |
|          | 124             | 3          | 3                  | ,454         | 2  | 1,000        | 1,580   | 2                   | ,000         | 21,846  | -2,774                      | -2,213    |
|          | 125             | 3          | 3                  | ,683         | 2  | 1,000        | ,763  | 2                   | ,000         | 15,981  | -2,936                      | -1,283    |
|          | 126             | 3          | 3                  | ,744         | 2  | 1,000        | ,593  | 2                   | ,000         | 16,183  | -1,886                      | -1,920    |
|          | 127             | 3          | 3                  | ,648         | 2  | ,996         | ,866  | 2                   | ,003         | 12,676  | -1,260                      | -1,632    |
|          | 128             | 3          | 3                  | ,631         | 2  | 1,000        | ,922  | 2                   | ,000         | 18,897  | -2,257                      | -2,114    |
|          | 129             | 3          | 3                  | ,761         | 2  | ,999         | ,547  | 2                   | ,001         | 15,111  | -2,806                      | -1,246    |
|          | 130             | 3          | 3                  | ,748         | 2  | ,995         | ,581  | 2                   | ,005         | 11,075  | -2,635                      | -,661     |
|          | 131             | 3          | 3                  | ,829         | 2  | ,998         | ,375  | 2                   | ,002         | 12,709  | -1,583                      | -1,543    |
|          | 132             | 3          | 3                  | ,791         | 2  | 1,000        | ,468  | 2                   | ,000         | 16,840  | -2,352                      | -1,795    |
|          | 133             | 3          | 3                  | ,951         | 2  | ,998         | ,101  | 2                   | ,002         | 12,504  | -2,382                      | -1,118    |
|          | 134             | 3          | 3                  | ,340         | 2  | ,995         | 2,159   | 2                   | ,005         | 12,643  | -3,264                      | -,316     |
|          | 135             | 3          | 3                  | ,351         | 2  | ,910         | 2,092   | 2                   | ,090         | 6,729   | -2,462                      | ,220      |
|          | 136             | 3          | 3                  | ,495         | 2  | ,995         | 1,407   | 2                   | ,005         | 11,874  | -3,012                      | -,451     |
|          | 137             | 3          | 3                  | ,943         | 2  | ,998         | ,118  | 2                   | ,002         | 12,714  | -1,853                      | -1,439    |
|          | 138             | 3          | 3                  | ,506         | 2  | 1,000        | 1,363   | 2                   | ,000         | 18,855  | -1,770                      | -2,300    |
|          | 139             | 3          | 3                  | ,526         | 2  | ,999         | 1,286   | 2                   | ,001         | 16,345  | -1,407                      | -2,093    |
|          | 140             | 3          | 3                  | ,393         | 2  | 1,000        | 1,869   | 2                   | ,000         | 21,248  | -3,294                      | -1,781    |
|          | 141             | 3          | 3                  | ,846         | 2  | ,989         | ,334  | 2                   | ,011         | 9,354   | -2,254                      | -,624     |
|          | 142             | 3          | 3                  | ,930         | 2  | ,991         | ,145  | 2                   | ,009         | 9,663   | -1,734                      | -,992     |
|          | 143             | 3          | 3                  | ,853         | 2  | ,991         | ,318  | 2                   | ,009         | 9,704   | -2,302                      | -,659     |
|          | 144             | 3          | 3                  | ,630         | 2  | ,960         | ,925  | 2                   | ,040         | 7,290   | -2,189                      | -,218     |

Para los datos originales, la distancia de Mahalanobis al cuadrado se basa en las funciones canónicas.

Para los datos validados mediante validación cruzada, la distancia de Mahalanobis al cuadrado se basa en las observaciones.



### Estadísticos por casos

|          | Número de casos | Grupo real | Grupo mayor        |              |    |              |   | Segundo grupo mayor |              |   | Puntuaciones discriminantes |           |
|----------|-----------------|------------|--------------------|--------------|----|--------------|---|---------------------|--------------|---|-----------------------------|-----------|
|          |                 |            | Grupo pronosticado | P(D>d   G=g) |    | P(G=g   D=d) | Distancia de Mahalanobis al cuadrado hasta el centroide | Grupo               | P(G=g   D=d) | Distancia de Mahalanobis al cuadrado hasta el centroide | Función 1                   | Función 2 |
|          |                 |            |                    | p            | gl |              |   |                     |              |   |                             |           |
| Original | 145             | 3          | 3                  | ,913         | 2  | ,999         | ,182  | 2                   | ,001         | 13,679  | -1,900                      | -1,564    |
|          | 146             | 3          | 3                  | ,663         | 2  | 1,000        | ,821  | 2                   | ,000         | 18,167  | -2,795                      | -1,715    |
|          | 147             | 3          | 3                  | ,959         | 2  | ,998         | ,084  | 2                   | ,002         | 12,883  | -2,358                      | -1,197    |
|          | 148             | 3          | 3                  | ,863         | 2  | 1,000        | ,296  | 2                   | ,000         | 15,720  | -2,326                      | -1,652    |
|          | 149             | 3          | 3                  | ,744         | 2  | ,998         | ,591  | 2                   | ,002         | 12,856  | -2,780                      | -,877     |
|          | 150             | 3          | 3                  | ,968         | 2  | ,996         | ,066  | 2                   | ,004         | 11,011  | -1,813                      | -1,186    |

Para los datos originales, la distancia de Mahalanobis al cuadrado se basa en las funciones canónicas.

Para los datos validados mediante validación cruzada, la distancia de Mahalanobis al cuadrado se basa en las observaciones.

# Estadísticos por casos

|                     | Número de casos | Grupo real | Grupo mayor        |              |    |              |   | Segundo grupo mayor |              |   | Puntuaciones discriminantes |           |
|---------------------|-----------------|------------|--------------------|--------------|----|--------------|---|---------------------|--------------|---|-----------------------------|-----------|
|                     |                 |            | Grupo pronosticado | P(D>d   G=g) |    | P(G=g   D=d) | Distancia de Mahalanobis al cuadrado hasta el centroide | Grupo               | P(G=g   D=d) | Distancia de Mahalanobis al cuadrado hasta el centroide | Función 1                   | Función 2 |
|                     |                 |            |                    | p            | gl |              |   |                     |              |   |                             |           |
| Validación cruzadaa | 1               | 1          | 1                  | ,484         | 11 | ,995         | 10,521  | 2                   | ,005         | 20,998  |                             |           |
|                     | 2               | 1          | 1                  | ,996         | 11 | 1,000        | 2,470   | 2                   | ,000         | 20,586  |                             |           |
|                     | 3               | 1          | 1                  | ,725         | 11 | 1,000        | 7,867   | 2                   | ,000         | 27,181  |                             |           |
|                     | 4               | 1          | 1                  | ,999         | 11 | ,999         | 1,646   | 2                   | ,001         | 16,238  |                             |           |
|                     | 5               | 1          | 1                  | ,033         | 11 | ,971         | 21,044  | 2                   | ,029         | 28,082  |                             |           |
|                     | 6               | 1          | 1                  | ,667         | 11 | ,999         | 8,514   | 2                   | ,000         | 23,771  |                             |           |
|                     | 7               | 1          | 1                  | ,604         | 11 | ,999         | 9,199   | 2                   | ,001         | 23,102  |                             |           |
|                     | 8               | 1          | 1                  | ,019         | 11 | ,998         | 22,852  | 2                   | ,002         | 34,989  |                             |           |
|                     | 9               | 1          | 1                  | ,415         | 11 | 1,000        | 11,337  | 2                   | ,000         | 28,077  |                             |           |
|                     | 10              | 1          | 1                  | ,975         | 11 | 1,000        | 3,814   | 2                   | ,000         | 19,774  |                             |           |
|                     | 11              | 1          | 1                  | ,887         | 11 | ,997         | 5,782   | 2                   | ,003         | 17,174  |                             |           |
|                     | 12              | 1          | 1                  | ,143         | 11 | ,994         | 15,949  | 2                   | ,005         | 26,345  |                             |           |
|                     | 13              | 1          | 1                  | ,147         | 11 | 1,000        | 15,846  | 2                   | ,000         | 38,554  |                             |           |
|                     | 14              | 1          | 1                  | ,057         | 11 | ,911         | 19,225  | 2                   | ,089         | 23,883  |                             |           |
|                     | 15              | 1          | 1                  | ,364         | 11 | 1,000        | 11,989  | 2                   | ,000         | 40,594  |                             |           |
|                     | 16              | 1          | 1                  | ,621         | 11 | ,998         | 9,010   | 2                   | ,002         | 21,500  |                             |           |
|                     | 17              | 1          | 1                  | ,911         | 11 | ,999         | 5,393   | 2                   | ,001         | 19,354  |                             |           |
|                     | 18              | 1          | 1                  | ,282         | 11 | 1,000        | 13,182  | 2                   | ,000         | 40,015  |                             |           |
|                     | 19              | 1          | 1                  | ,767         | 11 | ,993         | 7,386   | 2                   | ,007         | 17,249  |                             |           |
|                     | 20              | 1          | 1                  | ,055         | 11 | ,976         | 19,329  | 2                   | ,024         | 26,772  |                             |           |
|                     | 21              | 1          | 1                  | ,294         | 11 | ,998         | 12,994  | 2                   | ,002         | 25,172  |                             |           |
|                     | 22              | 1          | 1                  | ,527         | 11 | ,999         | 10,033  | 2                   | ,001         | 24,113  |                             |           |
|                     | 23              | 1          | 1                  | ,803         | 11 | 1,000        | 6,956   | 2                   | ,000         | 27,732  |                             |           |
|                     | 24              | 1          | 1                  | ,796         | 11 | 1,000        | 7,040   | 2                   | ,000         | 24,592  |                             |           |
|                     | 25              | 1          | 1                  | ,719         | 11 | 1,000        | 7,940   | 3                   | ,000         | 32,197  |                             |           |
|                     | 26              | 1          | 1                  | ,944         | 11 | 1,000        | 4,712   | 2                   | ,000         | 24,616  |                             |           |
|                     | 27              | 1          | 1                  | ,750         | 11 | ,998         | 7,586   | 2                   | ,002         | 20,427  |                             |           |
|                     | 28              | 1          | 1                  | ,733         | 11 | 1,000        | 7,781   | 2                   | ,000         | 26,240  |                             |           |
|                     | 29              | 1          | 1                  | ,148         | 11 | 1,000        | 15,823  | 2                   | ,000         | 36,676  |                             |           |
|                     | 30              | 1          | 1                  | ,514         | 11 | ,996         | 10,183  | 2                   | ,004         | 21,276  |                             |           |
|                     | 31              | 1          | 1                  | ,447         | 11 | ,993         | 10,955  | 2                   | ,007         | 20,909  |                             |           |
|                     | 32              | 1          | 1                  | ,323         | 11 | 1,000        | 12,567  | 3                   | ,000         | 32,219  |                             |           |
|                     | 33              | 1          | 1                  | ,837         | 11 | ,998         | 6,516   | 2                   | ,002         | 18,909  |                             |           |
|                     | 34              | 1          | 1                  | ,678         | 11 | 1,000        | 8,394   | 2                   | ,000         | 29,652  |                             |           |
|                     | 35              | 1          | 1                  | ,901         | 11 | 1,000        | 5,560   | 2                   | ,000         | 24,985  |                             |           |
|                     | 36              | 1          | 1                  | ,600         | 11 | ,999         | 9,242   | 2                   | ,001         | 23,724  |                             |           |
|                     | 37              | 1          | 1                  | ,700         | 11 | ,999         | 8,142   | 2                   | ,000         | 23,545  |                             |           |
|                     | 38              | 1          | 1                  | ,175         | 11 | ,999         | 15,165  | 3                   | ,001         | 28,685  |                             |           |
|                     | 39              | 1          | 1                  | ,784         | 11 | 1,000        | 7,184   | 2                   | ,000         | 25,961  |                             |           |
|                     | 40              | 1          | 1                  | ,786         | 11 | 1,000        | 7,165   | 2                   | ,000         | 23,269  |                             |           |
|                     | 41              | 1          | 1                  | ,405         | 11 | 1,000        | 11,472  | 2                   | ,000         | 29,797  |                             |           |
|                     | 42              | 1          | 1                  | ,337         | 11 | 1,000        | 12,358  | 3                   | ,000         | 34,074  |                             |           |
|                     | 43              | 1          | 1                  | ,706         | 11 | ,997         | 8,078   | 2                   | ,003         | 19,955  |                             |           |
|                     | 44              | 1          | 1                  | ,946         | 11 | ,995         | 4,663   | 2                   | ,004         | 15,473  |                             |           |
|                     | 45              | 1          | 1                  | ,562         | 11 | 1,000        | 9,646   | 2                   | ,000         | 30,435  |                             |           |
|                     | 46              | 1          | 1                  | ,346         | 11 | 1,000        | 12,234  | 3                   | ,000         | 40,255  |                             |           |
|                     | 47              | 1          | 2**                | ,144         | 11 | 1,000        | 15,936  | 3                   | ,000         | 32,007  |                             |           |
|                     | 48              | 1          | 2**                | ,938         | 11 | ,999         | 4,854   | 3                   | ,001         | 17,949  |                             |           |
|                     | 49              | 1          | 3**                | ,653         | 11 | 1,000        | 8,665   | 2                   | ,000         | 24,785  |                             |           |
|                     | 50              | 1          | 3**                | ,125         | 11 | 1,000        | 16,456  | 2                   | ,000         | 41,826  |                             |           |
|                     | 51              | 2          | 1**                | ,415         | 11 | ,997         | 11,340  | 2                   | ,002         | 23,352  |                             |           |
|                     | 52              | 2          | 1**                | ,246         | 11 | ,997         | 13,767  | 2                   | ,003         | 25,706  |                             |           |
|                     | 53              | 2          | 2                  | ,461         | 11 | 1,000        | 10,789  | 1                   | ,000         | 27,828  |                             |           |
|                     | 54              | 2          | 2                  | ,354         | 11 | ,997         | 12,132  | 1                   | ,003         | 24,063  |                             |           |
|                     | 55              | 2          | 2                  | ,562         | 11 | ,996         | 9,655   | 1                   | ,004         | 20,758  |                             |           |
|                     | 56              | 2          | 2                  | ,535         | 11 | ,979         | 9,948   | 1                   | ,020         | 17,730  |                             |           |
|                     | 57              | 2          | 2                  | ,924         | 11 | ,999         | 5,152   | 1                   | ,001         | 20,134  |                             |           |
|                     | 58              | 2          | 2                  | ,505         | 11 | ,997         | 10,287  | 3                   | ,003         | 21,943  |                             |           |
|                     | 59              | 2          | 2                  | ,147         | 11 | ,861         | 15,853  | 3                   | ,137         | 19,537  |                             |           |
|                     | 60              | 2          | 2                  | ,437         | 11 | ,978         | 11,069  | 1                   | ,020         | 18,802  |                             |           |
|                     | 61              | 2          | 2                  | ,783         | 11 | ,994         | 7,196   | 3                   | ,004         | 18,180  |                             |           |
|                     | 62              | 2          | 2                  | ,945         | 11 | ,998         | 4,702   | 3                   | ,002         | 17,086  |                             |           |
|                     | 63              | 2          | 2                  | ,371         | 11 | ,992         | 11,900  | 1                   | ,004         | 22,890  |                             |           |
|                     | 64              | 2          | 2                  | ,836         | 11 | ,996         | 6,522   | 3                   | ,003         | 18,485  |                             |           |
|                     | 65              | 2          | 2                  | ,509         | 11 | ,982         | 10,234  | 3                   | ,017         | 18,337  |                             |           |
|                     | 66              | 2          | 2                  | ,069         | 11 | 1,000        | 18,577  | 3                   | ,000         | 41,148  |                             |           |
|                     | 67              | 2          | 2                  | ,522         | 11 | ,949         | 10,094  | 3                   | ,051         | 15,958  |                             |           |
|                     | 68              | 2          | 2                  | ,218         | 11 | ,998         | 14,286  | 3                   | ,001         | 27,655  |                             |           |
|                     | 69              | 2          | 2                  | ,421         | 11 | ,997         | 11,275  | 3                   | ,003         | 23,245  |                             |           |
|                     | 70              | 2          | 2                  | ,136         | 11 | ,879         | 16,134  | 3                   | ,121         | 20,095  |                             |           |
|                     | 71              | 2          | 2                  | ,889         | 11 | ,984         | 5,758   | 3                   | ,015         | 14,061  |                             |           |
|                     | 72              | 2          | 2                  | ,816         | 11 | 1,000        | 6,789   | 3                   | ,000         | 23,423  |                             |           |

Para los datos originales, la distancia de Mahalanobis al cuadrado se basa en las funciones canónicas.  
Para los datos validados mediante validación cruzada, la distancia de Mahalanobis al cuadrado se basa en las observaciones.

# Estadísticos por casos

|                     | Número de casos | Grupo real | Grupo mayor        |              |    |              |   | Segundo grupo mayor |              |   | Puntuaciones discriminantes |           |
|---------------------|-----------------|------------|--------------------|--------------|----|--------------|---|---------------------|--------------|---|-----------------------------|-----------|
|                     |                 |            | Grupo pronosticado | P(D>d   G=g) |    | P(G=g   D=d) | Distancia de Mahalanobis al cuadrado hasta el centroide | Grupo               | P(G=g   D=d) | Distancia de Mahalanobis al cuadrado hasta el centroide | Función 1                   | Función 2 |
|                     |                 |            |                    | p            | gl |              |   |                     |              |   |                             |           |
| Validación cruzadaa | 73              | 2          | 2                  | ,813         | 11 | ,999         | 6,826   | 3                   | ,001         | 21,785  |                             |           |
|                     | 74              | 2          | 2                  | ,982         | 11 | ,999         | 3,509   | 3                   | ,001         | 17,166  |                             |           |
|                     | 75              | 2          | 2                  | ,404         | 11 | 1,000        | 11,479  | 3                   | ,000         | 30,952  |                             |           |
|                     | 76              | 2          | 2                  | ,632         | 11 | ,946         | 8,892   | 3                   | ,052         | 14,703  |                             |           |
|                     | 77              | 2          | 2                  | ,349         | 11 | ,985         | 12,202  | 3                   | ,014         | 20,677  |                             |           |
|                     | 78              | 2          | 2                  | ,245         | 11 | ,959         | 13,786  | 3                   | ,032         | 20,572  |                             |           |
|                     | 79              | 2          | 2                  | ,019         | 11 | ,767         | 22,784  | 3                   | ,232         | 25,179  |                             |           |
|                     | 80              | 2          | 2                  | ,870         | 11 | ,999         | 6,049   | 3                   | ,000         | 21,754  |                             |           |
|                     | 81              | 2          | 2                  | ,236         | 11 | ,794         | 13,945  | 3                   | ,200         | 16,697  |                             |           |
|                     | 82              | 2          | 2                  | ,947         | 11 | ,998         | 4,657   | 3                   | ,002         | 16,773  |                             |           |
|                     | 83              | 2          | 2                  | ,234         | 11 | ,999         | 13,975  | 3                   | ,001         | 28,944  |                             |           |
|                     | 84              | 2          | 2                  | ,225         | 11 | 1,000        | 14,144  | 1                   | ,000         | 31,366  |                             |           |
|                     | 85              | 2          | 2                  | ,988         | 11 | ,995         | 3,190   | 3                   | ,004         | 14,369  |                             |           |
|                     | 86              | 2          | 2                  | ,178         | 11 | 1,000        | 15,099  | 1                   | ,000         | 35,700  |                             |           |
|                     | 87              | 2          | 2                  | ,479         | 11 | ,992         | 10,583  | 1                   | ,008         | 20,336  |                             |           |
|                     | 88              | 2          | 2                  | ,927         | 11 | 1,000        | 5,085   | 3                   | ,000         | 22,959  |                             |           |
|                     | 89              | 2          | 2                  | ,878         | 11 | ,996         | 5,931   | 3                   | ,003         | 17,350  |                             |           |
|                     | 90              | 2          | 2                  | ,916         | 11 | ,998         | 5,299   | 3                   | ,002         | 18,101  |                             |           |
|                     | 91              | 2          | 2                  | ,730         | 11 | ,999         | 7,812   | 3                   | ,001         | 20,875  |                             |           |
|                     | 92              | 2          | 2                  | ,005         | 11 | ,875         | 26,607  | 1                   | ,098         | 30,980  |                             |           |
|                     | 93              | 2          | 2                  | ,593         | 11 | ,999         | 9,309   | 1                   | ,001         | 23,291  |                             |           |
|                     | 94              | 2          | 2                  | ,800         | 11 | ,993         | 6,989   | 3                   | ,005         | 17,505  |                             |           |
|                     | 95              | 2          | 3**                | ,937         | 11 | ,757         | 4,878   | 2                   | ,225         | 7,308   |                             |           |
|                     | 96              | 2          | 2                  | ,227         | 11 | ,997         | 14,117  | 3                   | ,003         | 25,995  |                             |           |
|                     | 97              | 2          | 2                  | ,619         | 11 | ,989         | 9,029   | 3                   | ,010         | 18,167  |                             |           |
|                     | 98              | 2          | 2                  | ,623         | 11 | ,999         | 8,984   | 3                   | ,001         | 23,150  |                             |           |
|                     | 99              | 2          | 3**                | ,373         | 11 | ,948         | 11,876  | 2                   | ,052         | 17,694  |                             |           |
|                     | 100             | 2          | 3**                | ,014         | 11 | ,998         | 23,777  | 2                   | ,002         | 36,180  |                             |           |
|                     | 101             | 3          | 1**                | ,187         | 11 | 1,000        | 14,896  | 2                   | ,000         | 42,451  |                             |           |
|                     | 102             | 3          | 1**                | ,038         | 11 | ,971         | 20,552  | 2                   | ,029         | 27,560  |                             |           |
|                     | 103             | 3          | 2**                | ,683         | 11 | ,998         | 8,335   | 3                   | ,001         | 21,426  |                             |           |
|                     | 104             | 3          | 2**                | ,769         | 11 | 1,000        | 7,364   | 3                   | ,000         | 26,352  |                             |           |
|                     | 105             | 3          | 3                  | ,859         | 11 | ,989         | 6,203   | 2                   | ,011         | 15,243  |                             |           |
|                     | 106             | 3          | 3                  | ,499         | 11 | ,994         | 10,350  | 2                   | ,006         | 20,564  |                             |           |
|                     | 107             | 3          | 3                  | ,061         | 11 | ,994         | 19,030  | 2                   | ,006         | 29,305  |                             |           |
|                     | 108             | 3          | 3                  | ,277         | 11 | ,989         | 13,251  | 2                   | ,010         | 22,427  |                             |           |
|                     | 109             | 3          | 3                  | ,036         | 11 | 1,000        | 20,726  | 2                   | ,000         | 38,981  |                             |           |
|                     | 110             | 3          | 3                  | ,726         | 11 | ,998         | 7,863   | 2                   | ,002         | 20,460  |                             |           |
|                     | 111             | 3          | 3                  | ,190         | 11 | ,991         | 14,832  | 2                   | ,009         | 24,188  |                             |           |
|                     | 112             | 3          | 3                  | ,088         | 11 | ,999         | 17,752  | 2                   | ,001         | 31,358  |                             |           |
|                     | 113             | 3          | 3                  | ,243         | 11 | 1,000        | 13,824  | 2                   | ,000         | 37,794  |                             |           |
|                     | 114             | 3          | 3                  | ,886         | 11 | 1,000        | 5,804   | 2                   | ,000         | 22,045  |                             |           |
|                     | 115             | 3          | 3                  | ,432         | 11 | ,982         | 11,134  | 1                   | ,017         | 19,214  |                             |           |
|                     | 116             | 3          | 3                  | ,821         | 11 | ,997         | 6,729   | 2                   | ,003         | 18,547  |                             |           |
|                     | 117             | 3          | 3                  | ,601         | 11 | 1,000        | 9,222   | 2                   | ,000         | 30,731  |                             |           |
|                     | 118             | 3          | 3                  | ,626         | 11 | 1,000        | 8,957   | 2                   | ,000         | 27,792  |                             |           |
|                     | 119             | 3          | 3                  | ,752         | 11 | ,992         | 7,558   | 2                   | ,008         | 17,291  |                             |           |
|                     | 120             | 3          | 3                  | ,502         | 11 | ,999         | 10,321  | 2                   | ,001         | 25,291  |                             |           |
|                     | 121             | 3          | 3                  | ,166         | 11 | ,993         | 15,382  | 2                   | ,007         | 25,214  |                             |           |
|                     | 122             | 3          | 3                  | ,325         | 11 | ,998         | 12,531  | 2                   | ,002         | 24,845  |                             |           |
|                     | 123             | 3          | 3                  | ,482         | 11 | ,996         | 10,544  | 2                   | ,004         | 21,604  |                             |           |
|                     | 124             | 3          | 3                  | ,157         | 11 | 1,000        | 15,597  | 2                   | ,000         | 36,138  |                             |           |
|                     | 125             | 3          | 3                  | ,884         | 11 | ,999         | 5,836   | 2                   | ,001         | 20,877  |                             |           |
|                     | 126             | 3          | 3                  | ,856         | 11 | 1,000        | 6,252   | 2                   | ,000         | 21,678  |                             |           |
|                     | 127             | 3          | 3                  | ,701         | 11 | ,996         | 8,136   | 2                   | ,003         | 19,549  |                             |           |
|                     | 128             | 3          | 3                  | ,126         | 11 | 1,000        | 16,417  | 2                   | ,000         | 34,381  |                             |           |
|                     | 129             | 3          | 3                  | ,303         | 11 | ,999         | 12,847  | 2                   | ,001         | 27,063  |                             |           |
|                     | 130             | 3          | 3                  | ,871         | 11 | ,994         | 6,042   | 2                   | ,006         | 16,179  |                             |           |
|                     | 131             | 3          | 3                  | ,863         | 11 | ,997         | 6,153   | 2                   | ,002         | 18,186  |                             |           |
|                     | 132             | 3          | 3                  | ,605         | 11 | 1,000        | 9,183   | 2                   | ,000         | 25,405  |                             |           |
|                     | 133             | 3          | 3                  | ,228         | 11 | ,997         | 14,083  | 2                   | ,003         | 25,911  |                             |           |
|                     | 134             | 3          | 3                  | ,033         | 11 | ,991         | 21,042  | 2                   | ,009         | 30,453  |                             |           |
|                     | 135             | 3          | 3                  | ,598         | 11 | ,875         | 9,259   | 2                   | ,125         | 13,152  |                             |           |
|                     | 136             | 3          | 3                  | ,116         | 11 | ,992         | 16,723  | 2                   | ,008         | 26,321  |                             |           |
|                     | 137             | 3          | 3                  | ,562         | 11 | ,998         | 9,650   | 2                   | ,002         | 21,836  |                             |           |
|                     | 138             | 3          | 3                  | ,808         | 11 | 1,000        | 6,884   | 2                   | ,000         | 24,311  |                             |           |
|                     | 139             | 3          | 3                  | ,099         | 11 | ,999         | 17,320  | 2                   | ,001         | 32,000  |                             |           |
|                     | 140             | 3          | 3                  | ,438         | 11 | 1,000        | 11,068  | 2                   | ,000         | 30,552  |                             |           |
|                     | 141             | 3          | 3                  | ,982         | 11 | ,988         | 3,509   | 2                   | ,012         | 12,277  |                             |           |
|                     | 142             | 3          | 3                  | ,407         | 11 | ,988         | 11,448  | 2                   | ,012         | 20,289  |                             |           |
|                     | 143             | 3          | 3                  | ,036         | 11 | ,984         | 20,787  | 2                   | ,016         | 28,976  |                             |           |
|                     | 144             | 3          | 3                  | ,032         | 11 | ,916         | 21,150  | 2                   | ,084         | 25,936  |                             |           |

Para los datos originales, la distancia de Mahalanobis al cuadrado se basa en las funciones canónicas.  
Para los datos validados mediante validación cruzada, la distancia de Mahalanobis al cuadrado se basa en las observaciones.

## Estadísticos por casos

|                                 |                 | Grupo real | Grupo mayor        |              |    |              |   | Segundo grupo mayor |              |   | Puntuaciones discriminantes |           |
|---------------------------------|-----------------|------------|--------------------|--------------|----|--------------|---|---------------------|--------------|---|-----------------------------|-----------|
|                                 |                 |            | Grupo pronosticado | P(D>d   G=g) |    | P(G=g   D=d) | Distancia de Mahalanobis al cuadrado hasta el centroide | Grupo               | P(G=g   D=d) | Distancia de Mahalanobis al cuadrado hasta el centroide | Función 1                   | Función 2 |
|                                 |                 |            |                    | p            | gl |              |   |                     |              |   |                             |           |
| Validación cruzada <sup>a</sup> | Número de casos |            |                    |              |    |              |   |                     |              |   |                             |           |
|                                 | 145             | 3          | 3                  | ,092         | 11 | ,998         | 17,568  | 2                   | ,002         | 30,493  |                             |           |
|                                 | 146             | 3          | 3                  | ,159         | 11 | 1,000        | 15,545  | 2                   | ,000         | 32,803  |                             |           |
|                                 | 147             | 3          | 3                  | ,167         | 11 | ,998         | 15,350  | 2                   | ,002         | 27,568  |                             |           |
|                                 | 148             | 3          | 3                  | ,464         | 11 | ,999         | 10,750  | 2                   | ,001         | 25,936  |                             |           |
|                                 | 149             | 3          | 3                  | ,823         | 11 | ,997         | 6,695   | 2                   | ,003         | 18,637  |                             |           |
|                                 | 150             | 3          | 3                  | ,971         | 11 | ,995         | 3,974   | 2                   | ,005         | 14,668  |                             |           |

Para los datos originales, la distancia de Mahalanobis al cuadrado se basa en las funciones canónicas.

Para los datos validados mediante validación cruzada, la distancia de Mahalanobis al cuadrado se basa en las observaciones.

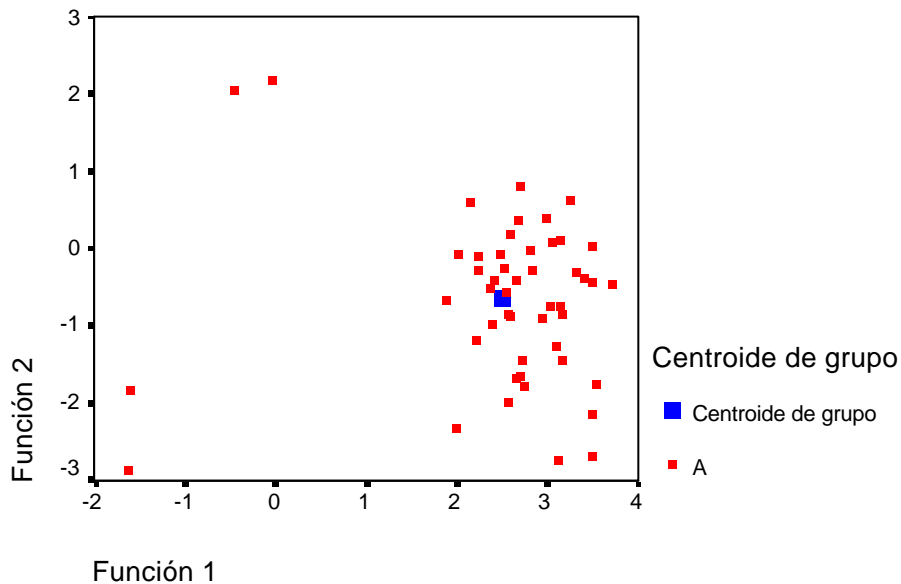
\*\* Caso mal clasificado

<sup>a</sup> La validación cruzada sólo se aplica a los casos del análisis. En la validación cruzada, cada caso se clasifica mediante las funciones derivadas a partir del resto de los casos.

## Gráficos por grupos separados

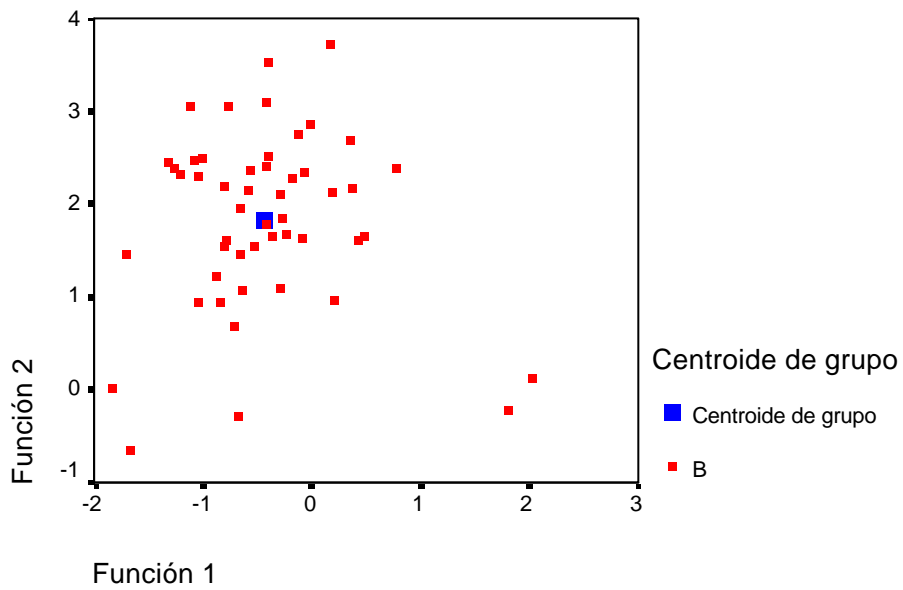
funciones discriminantes canónicas

Cliente del banco... = A

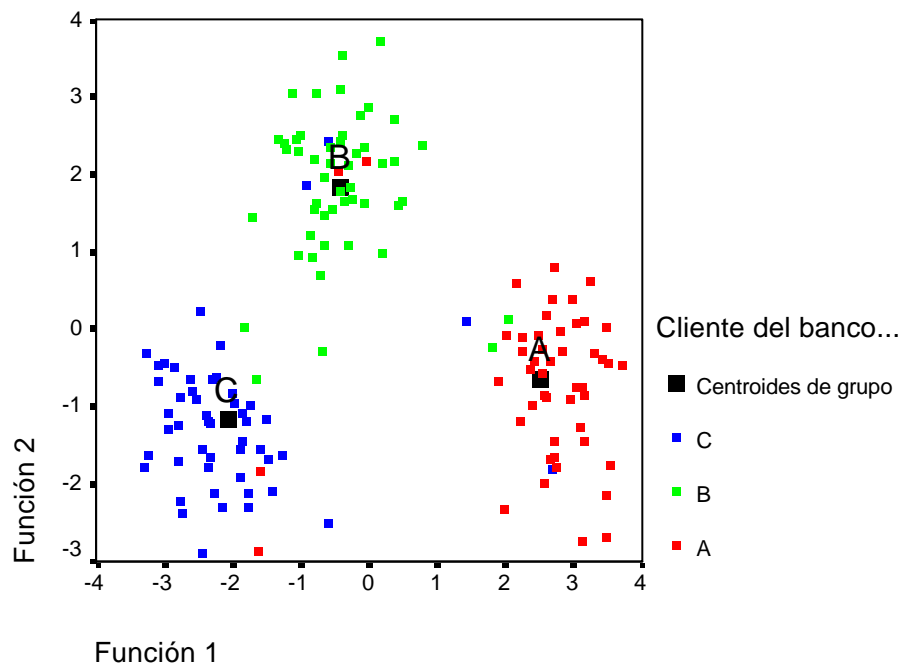


## funciones discriminantes canónicas

Cliente del banco... = B



## funciones discriminantes canónicas



### Resultados de la clasificación<sup>b,c</sup>

| Cliente del banco...            |          |   | Grupo de pertenencia pronosticado |      |      | Total |
|---------------------------------|----------|---|-----------------------------------|------|------|-------|
|                                 |          |   | A                                 | B    | C    |       |
| Original                        | Recuento | A | 46                                | 2    | 2    | 50    |
|                                 |          | B | 2                                 | 45   | 3    | 50    |
|                                 |          | C | 2                                 | 2    | 46   | 50    |
|                                 | %        | A | 92,0                              | 4,0  | 4,0  | 100,0 |
|                                 |          | B | 4,0                               | 90,0 | 6,0  | 100,0 |
|                                 |          | C | 4,0                               | 4,0  | 92,0 | 100,0 |
| Validación cruzada <sup>a</sup> | Recuento | A | 46                                | 2    | 2    | 50    |
|                                 |          | B | 2                                 | 45   | 3    | 50    |
|                                 |          | C | 2                                 | 2    | 46   | 50    |
|                                 | %        | A | 92,0                              | 4,0  | 4,0  | 100,0 |
|                                 |          | B | 4,0                               | 90,0 | 6,0  | 100,0 |
|                                 |          | C | 4,0                               | 4,0  | 92,0 | 100,0 |

a. La validación cruzada sólo se aplica a los casos del análisis. En la validación cruzada, cada caso se clasifica mediante las funciones derivadas a partir del resto de los casos.

b. Clasificados correctamente el 91,3% de los casos agrupados originales.

c. Clasificados correctamente el 91,3% de los casos agrupados validados mediante validación cruzada.

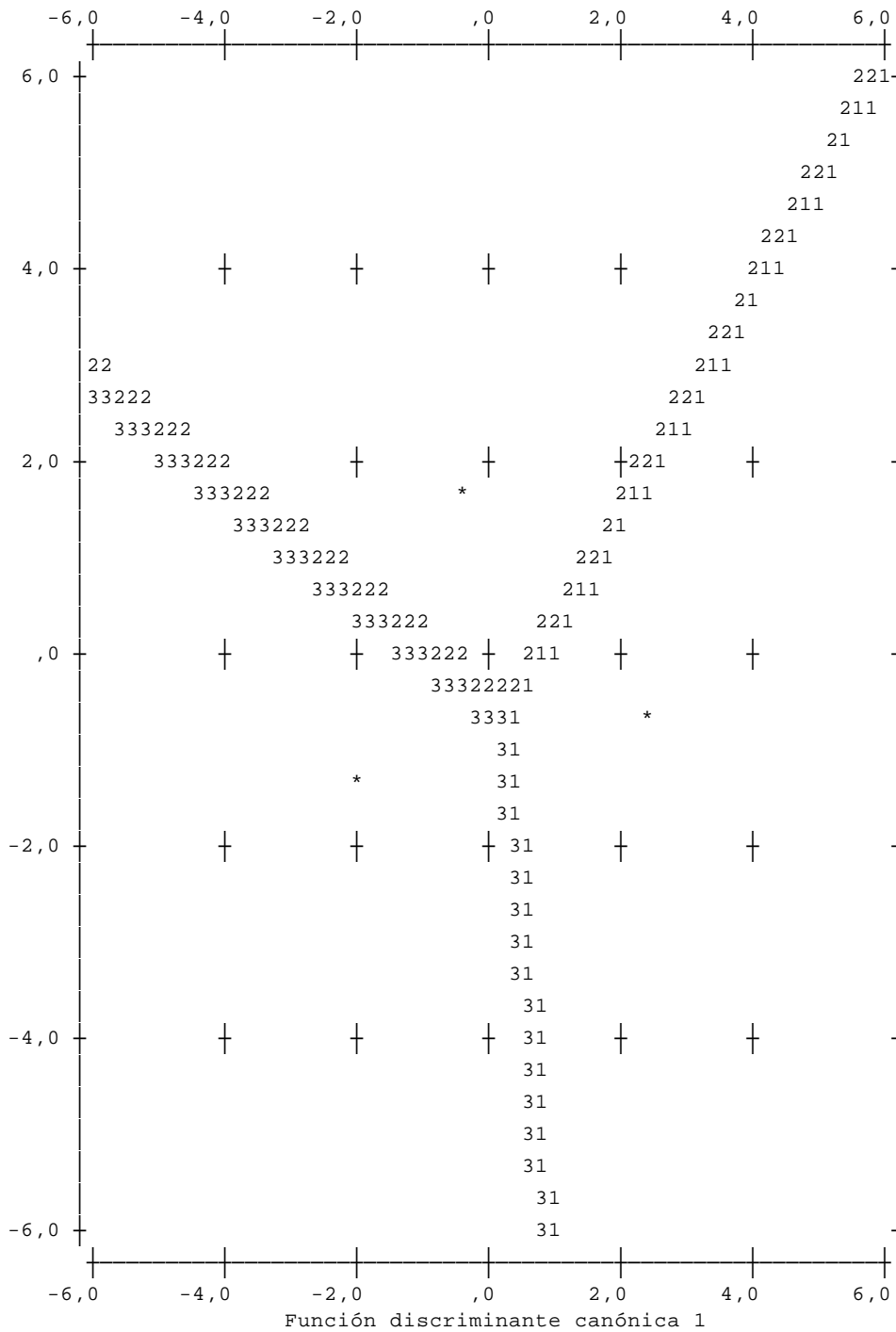
### Resumen del proceso de clasificación

|                          |   |     |
|--------------------------|---|-----|
| Procesados               |   | 150 |
| Excluidos                | Código de grupo perdido o fuera de rango    | 0   |
|                          | Perdida al menos una variable discriminante | 0   |
| Usados en los resultados |   | 150 |

# Mapa territorial

Discriminante canónica

Función 2



Símbolos usados en el mapa territorial

Símbol Grupo Etiqu

-----

|   |                              |   |
|---|------------------------------|---|
| 1 | 1                            | A |
| 2 | 2                            | B |
| 3 | 3                            | C |
| * | Indica un centroide de grupo |   |