Encouraging the implication of shops in the city by means of retail associationism. The case of Bilbao

JON CHARTERINA ABANDO
PILAR ZORRILLA CALVO
University of the Basque Country

Received in June 2005; accepted in July 2005

Abstract

Retail activity in urban areas constitutes a key variable in the health of a city. For that reason, the processes of urban revitalization and retail revitalization run in parallel manner. Integrated management models for urban centres constitute a good framework to harness the competitiveness of the cities and their retail businesses, but they require of all implied participation, by means of a public – private cooperation.

Retail business participation needs to articulate the channels for it. In this sense, zonal associations constitute the organizational context to give voice to retail shops, but they are a pending subject, if we see the low rates of associationism in Spain.

In this paper, we analyse the relationship between factors featuring the retail business situation in cities, particularly its location, the length of time, and the number of employees, with respect to its affiliation to the zonal association, with the purpose of establishing guidelines to improve the rates of associative participation.

Key words

Urban retail shops, zonal retail associationism, open shopping city centre, public – private cooperation.

Resumen

El comercio minorista en los centros urbanos constituye un factor clave para la salud de una ciudad. De aquí que se asuma que los procesos de revitalización urbana y comercial discurren de forma paralela. En este proceso, se puede entender que los modelos integrados de gestión de centro urbano son un buen marco para afianzar la competitividad tanto de las ciudades como de los comercios, aunque requieren de la participación de todos los agentes implicados en un proceso de colaboración público-privada.

1 This article is the final version of a paper given during the 34th EMAC Conference: «Rejuvenating Marketing: Contamination, Innovation, Integration», held in Milan (Italy) from 24th to 27th May 2005.
2 Universidad del País Vasco / Basque Country University
   Departamento de Economía Financiera y Contabilidad, Comercialización e Investigación de Mercados
Para conseguir la implicación de los comercios en este proceso, se requiere contar con cauces adecua-
dos. En este sentido, las asociaciones de tipo zonal son un interlocutor válido para los comercios. Sin em-
bargo, su realidad dista mucho de ser la ideal, si se atiende a los bajos índices de asociacionismo que exis-
ten en España.

En este artículo se analiza la relación entre algunos de los factores que definen la situación de los comer-
cios en el centro urbano, particularmente su localización, antigüedad y número de empleados, precisando cuál
es efecto sobre la afiliación en torno a las asociaciones de carácter zonal. El objetivo último del estudio reali-
zado es proponer algunas pautas para que las asociaciones consigan mayores cotas de participación en torno
da éstas.

Palabras clave

Comercio minorista de centro urbano, asociacionismo de carácter zonal, centro comercial abierto, coope-
ración público-privada.

1. ZONAL ASSOCIATIONISM IN RETAILING: A KEY FACTOR
FOR THE HEALTH OF A CITY

Retail commerce activity constitutes one of the key factors to define the vitality and
the viability of a city (Ravenscroft, 2000). For that reason, retailing is an essential variable
to work with in order to impel and revitalize it. Thus, a city with attractive shops and
illuminated showcases draws consumers and visitors, gives life to its streets increasing
the security perception and improves its general attractiveness as a place to live, work
and do tourism.

Evidently, retailing can only exert attraction and improve the life of a city if it interacts
with the other variables that define its health: security, accessibility and mobility, cleaning,
tourist attractiveness, supply of entertainment, street animation or others. All these
factors appeal to an integral management model implicating all the agents that play a role
in citizen participation. To this end, the integrated management of the urban centre must
be contemplated in a frame of defined and perfectly planned work. We understand that
cities must develop and operate a planning methodology (Kotler et al 1994, p.75). In our
opinion, the most suitable approach is that of the market strategic planning for joint
improvement of shopping districts and city centres. This approach is characterized to be
based on, among other questions, a scheme of public-private collaboration. However,
what is the implication of this collaboration for the commercial sector? Particularly, in
which manner could small independent stores achieve their particular need to respond to
new challenges from the retailing sector together with their role as a group in city centre
revitalization?

In this sense, it seems clear that their efforts cannot be individual, of each store and
its corresponding retailer, because only as a group will it be possible at the same time to
reach objectives that are common and be valid interlocutors to the local Administration.
To this end, it is necessary to create and manage commercial street associations.
2. REVISION OF THE LITERATURE

Retailing in city centres in Spain has been characterized mainly by the presence of small and independent shops. Throughout the last three decades, they have suffered a deep process of transformation, in which many establishments have been forced to close their doors. Nevertheless, it is not possible to affirm that the extinction of this traditional retailing format is under way; many establishments have been able to adapt to a context of increasingly demanding consumers, and the irruption of new retailing formats.

The traditional function of associationism for retailing has evolved over time. The first role of retail associations was to demand better conditions for the retail business and act as a lobby against administrations. But nowadays, there is more emphasis on participating in a public-private partnership in order to manage efficiently city centre districts and unite efforts. Associations must be understood not only as platforms of representation of the commerce, but as a good manner to improve the competitiveness of the associated businesses by training their managers, giving services that benefit to them, developing plans of joint performance to impulse the district, etc. According to Lluch (1999, p. 39) associations will have to assume a clear position in the reform of the commercial structures.

Data about retail associationism in Spain reveals that only 18.5% of retailers are members of a street association. In the Basque Country, where we have developed our analysis, this rate is even lower, 17.1% on average (Ministerio de Economía, 1999). It seems that associations have little relevance to the eyes of the majority of retailers, which makes difficult to develop collaborative models.

Although there are several arguments that explain the low associationism rate, there is scarce empirical evidence. Some of the few representative examples are the studies of the Union of Retailers of Gijón (2001), analysing retailing in this city of northern Spain; Molinillo and Parra (2001), looking for an explanation to the low rate of associationism in Malaga, or the one of Barreiro, Losada and Ruzo (2001) focused on the Autonomous Community of Galicia.

In spite of the differences in the geographic context of the studies, very similar results and conclusions had been observed. Thus, arguments like the preference to act on their own, the refusal to collaborate with competitors, ignorance about the real role of the associations, the lack of information about their functions or the perception that the associations don’t work well, are pointed by non-associate retailers as reasons for not to be associated.

Taking into account these previous studies, and with the purpose of going deeper in the problematic that derived from the low rates of associationism for the implementation of the model of Open Retail City Centre\(^3\), we have done an empirical research and tested three hypothesis, as we present below.

---

\(^3\) According to Molinillo an Open Retail City Centre (translation from «Centro Comercial Abierto» in Spanish) is «a formula of commercial organization, with its own image and strategy, featuring the implication of all the agents from a delimited area of a city, with a global conception of commercial offer, services, culture and leisure» (See Molinillo, 2001, p. 29).
3. RESEARCH METHOD

Study design and sample

Data were obtained from personal interviews to store owners and managers. In particular, two different questionnaires were used, one for associated retailers and the other one for non-associated. The field work was done from June to September 2003.

The geographical area for the survey was the city of Bilbao (Spain), considering its following neighbourhoods: Casco Viejo, Indautxu, Ensanche, Santutxu, Txurdinaga, Otxarkoaga and Deusto.

From a total of 6343 stores, of which 1195 are associated and 5148 non-associated, a stratified sampling technique was used taking 447 elements in total (234 associated and 258 non-associated). Associated retailers were randomly chosen from lists, whereas non-associated retailers were selected using a random route procedure. Sampling error was 5% in each stratum. However, as the proportion of associates to non-associates varies significantly among commercial areas, non-associates’ weights within each zone had been leveraged in order to adjust to the real proportions of the population.

Theoretical model

The theoretical model was analysed by means of a logit function. Three variables were taken as independent: (1) the store’s length of service in years; (2) the number of people working, as proxy of its size; and (3) the commercial zone or neighbourhood within which the store is located. Membership of the local retailing association was considered as the dependent (two group) variable. The three independent variables were collapsed from their original scales into dichotomous in order to avoid expected frequencies smaller than 5 for every cell of the table (Churchill and Iacobucci, 2002, p.620; Tejedor, 1985, p.34). Regarding the store’s length of service and the number of working people, the cutting score for each one was decided in order to split the frequencies in approximately two halves. This meant considering zero to ten years versus eleven or more for the first factor, and one or two people versus three or more for the second one. Finally, with regard to the neighbourhood, the resulting classification was that of the PERCO for Bilbao (‘Plan Especial de Revitalización Comercial’, or Special Plan for Commercial Revitalization), which differentiates Casco Viejo, Ensanche and Indautxu as ‘Attractive zones’ and the rest as ‘Non-attractive zones’. The former have a positive balance of real expenditure comparing the potential expenditure from their residents, whereas the latter show a negative balance.

Despite the scarce empirical literature analysing the relations of the factors listed above, descriptive evidence collected from a previous study (Zorrilla et al, 2003), as well as common sense let us posit the following hypotheses:

H1: There is more tendency to associate among those stores that have been more time in service.

A longer time in business gives more opportunities to a zonal association for convincing a particular store about the benefits of becoming a member. Also, the influence received
from knowing what other retailers nearby do, together with the bond of personal relations gained with them, especially with those who play a central role in the association supposedly favour the decision of becoming a member.

**H2: Smaller stores are more prone to associate than bigger ones.**

Smaller businesses have more difficulties in benefiting from economies of scale and scope, and also in reducing overheads and the costs of services and supplies. Associating with other retailers could suppose reaching discounts with at least some suppliers.

**H3: Stores located in non-attractive zones tend to associate more than those located in attractive zones.**

Previous empirical evidence shows that urban commercial areas compete not only with shopping centres located at the outskirts of a city, but also with attractive zones of the inner city (Ministerio de Economía, 1999; Zorrilla *et al*., 2003). For the case of non-attractive zones, it is especially necessary to join efforts in order to revert the outflow of inhabitants going out for their shopping.

The observed frequency table combining these four variables is:

<table>
<thead>
<tr>
<th>Zone</th>
<th>Length of service</th>
<th>No. of people</th>
<th>Member</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>No(*)</td>
<td>Yes</td>
</tr>
<tr>
<td>Attractive</td>
<td>10 years or less</td>
<td>1 - 2</td>
<td>55</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 or more</td>
<td>33</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>11 or more</td>
<td>1 - 2</td>
<td>51</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 or more</td>
<td>24</td>
<td>58</td>
</tr>
<tr>
<td>Non-attractive</td>
<td>10 years or less</td>
<td>1 - 2</td>
<td>32</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 or more</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>11 or more</td>
<td>1 - 2</td>
<td>27</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 or more</td>
<td>8</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>243</td>
<td>204</td>
</tr>
</tbody>
</table>

(*) These figures had been leveraged using real weights of non-members relative to members for each neighbourhood

Model selection has been done comparing Pearson’s $G^2$ coefficient. A minimum probability level of 0.15 to 0.25 is required to confirm that the model adequately fits the data from the table (Jobson, 1992, p. 57).
Table 2
Alternative logit models and model selection

<table>
<thead>
<tr>
<th>Model</th>
<th>$G^2$</th>
<th>d.f.</th>
<th>$\alpha$</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\phi_{ijk}^Y = \lambda_{ijk} + \beta_Y + \beta_{Y,i}^A + \beta_{Y,j}^P + \beta_{Y,k}^Z + \beta_{Y,ij}^{AP} + \beta_{Y,ik}^{AZ} + \beta_{Y,jk}^{PZ} + \beta_{Y,ijk}^{APZ}$</td>
<td>$-$</td>
<td>$-$</td>
<td>$-$</td>
</tr>
<tr>
<td>[2]</td>
<td>2.07</td>
<td>1</td>
<td>0.1502</td>
</tr>
<tr>
<td>$\phi_{ijk}^Y = \lambda_{ijk} + \beta_Y + \beta_{Y,i}^A + \beta_{Y,j}^P + \beta_{Y,k}^Z + \beta_{Y,ij}^{AP} + \beta_{Y,ik}^{AZ} + \beta_{Y,jk}^{PZ}$</td>
<td>5.0436</td>
<td>2</td>
<td>0.0803</td>
</tr>
<tr>
<td>[3]</td>
<td>4.3386</td>
<td>2</td>
<td>0.1143</td>
</tr>
<tr>
<td>$\phi_{ijk}^Y = \lambda_{ijk} + \beta_Y + \beta_{Y,i}^A + \beta_{Y,j}^P + \beta_{Y,k}^Z + \beta_{Y,ij}^{AP} + \beta_{Y,ik}^{AZ} + \beta_{Y,jk}^{PZ}$</td>
<td>2.1609</td>
<td>2</td>
<td>0.3394</td>
</tr>
<tr>
<td>[4]</td>
<td>6.8234</td>
<td>3</td>
<td>0.0777</td>
</tr>
<tr>
<td>$\phi_{ijk}^Y = \lambda_{ijk} + \beta_Y + \beta_{Y,i}^A + \beta_{Y,j}^P + \beta_{Y,k}^Z + \beta_{Y,ik}^{AZ}$</td>
<td>5.2568</td>
<td>3</td>
<td>0.1539</td>
</tr>
<tr>
<td>[5]</td>
<td>4.7305</td>
<td>3</td>
<td>0.1926</td>
</tr>
<tr>
<td>$\phi_{ijk}^Y = \lambda_{ijk} + \beta_Y + \beta_{Y,i}^A + \beta_{Y,j}^P + \beta_{Y,k}^Z + \beta_{Y,ij}^{AP} + \beta_{Y,ik}^{AZ}$</td>
<td>7.3602</td>
<td>4</td>
<td>0.1180</td>
</tr>
<tr>
<td>[6]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\phi_{ijk}^Y = \lambda_{ijk} + \beta_Y + \beta_{Y,i}^A + \beta_{Y,j}^P + \beta_{Y,k}^Z + \beta_{Y,ij}^{AP}$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[7]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\phi_{ijk}^Y = \lambda_{ijk} + \beta_Y + \beta_{Y,i}^A + \beta_{Y,j}^P + \beta_{Y,k}^Z + \beta_{Y,ik}^{AZ}$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[8]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\phi_{ijk}^Y = \lambda_{ijk} + \beta_Y + \beta_{Y,i}^A + \beta_{Y,j}^P + \beta_{Y,k}^Z + \beta_{Y,ij}^{AP}$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[9]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\phi_{ijk}^Y = \lambda_{ijk} + \beta_Y + \beta_{Y,i}^A + \beta_{Y,j}^P + \beta_{Y,k}^Z$</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Where:

- $\phi_{ijk}^Y = \ln(F_{ijk})$, $F_{ijk}$ is the absolute frequency of the $ijk^{th}$ cell.
- $\lambda_{ijk}$ Overall geometric mean or constant.
- $\beta_Y$ Base line for the Non-members, the category taken as reference.
- $\beta_{Y,i}^A$ Effect on $\phi_{ijk}^Y$ of ‘Length of time’ (A) over the dependent variable (Y)
- $\beta_{Y,j}^P$ Effect on $\phi_{ijk}^Y$ of ‘No. of People’ (P) over the dependent variable (Y)
- $\beta_{Y,k}^Z$ Effect on $\phi_{ijk}^Y$ of factor ‘Zone’ (Z) over the dependent variable (Y)
- $\beta_{Y,ij}^{AP}$ Effect on $\phi_{ijk}^Y$ of the interaction between A and P over Y
- $\beta_{Y,ik}^{AZ}$ Effect on $\phi_{ijk}^Y$ of the interaction between A and Z over Y
- $\beta_{Y,jk}^{PZ}$ Effect on $\phi_{ijk}^Y$ of the interaction between P and Z over Y
- $\beta_{Y,ijk}^{APZ}$ Effect on $\phi_{ijk}^Y$ of the interaction between A, P and Z over Y

Results

According to the results for the $G^2$ coefficient, models [5] and [8] fit the data satisfactorily. Also, it is possible to find out to which extent there is a significance increase from the latter to the former. This increase can be attributed to a concrete factor, as is the case for the interaction of Length of time and Zone over membership ($\beta_{YAZ}$), which model [8] ignores (Haberman, 1974, pp. 372-73; 1977, cited by Agresti, 2002, p. 68).

The table below shows the estimated factors and proportions of members and non-members for every combination of zone, length of time and size of the store.
### Table 3

Parameters and estimated frequencies and proportions of the logit model

<table>
<thead>
<tr>
<th>Zone of time</th>
<th>Length</th>
<th>No. of Years</th>
<th>Asoc.</th>
<th>( \lambda_{ijk} )</th>
<th>( \beta^Y_i )</th>
<th>( \beta^Y_i j )</th>
<th>( \beta^Y_i k )</th>
<th>( \beta^{Yyz}_{ijk} )</th>
<th>( \phi_{ijk} )</th>
<th>( \exp(\phi_{ijk}) )</th>
<th>( L ) ((\text{**}))</th>
<th>( F_{ijk} ) ((\text{**}))</th>
<th>( f_{ijk} ) ((\text{**}))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attractive</td>
<td>10 years</td>
<td>1 – 2</td>
<td>No</td>
<td>2.3202</td>
<td>-1.9142</td>
<td>0.5125</td>
<td>0.7016</td>
<td>0.0629</td>
<td>0.6861</td>
<td>0.7720</td>
<td>3.1411</td>
<td>23.129</td>
<td>2.327</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td>2.3202</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2.3202</td>
<td>10.178</td>
<td>1.000</td>
<td>10.18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 or more</td>
<td>No</td>
<td>3.3258</td>
<td>-1.9142</td>
<td>0.5125</td>
<td>0</td>
<td>0.0629</td>
<td>0.6861</td>
<td>0</td>
<td>2.673</td>
<td>22.647</td>
<td>2.320</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td>3.3258</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3.3258</td>
<td>27.821</td>
<td>1.000</td>
<td>27.82</td>
</tr>
<tr>
<td>Attractive</td>
<td>11 years</td>
<td>1 – 2</td>
<td>No</td>
<td>3.4911</td>
<td>-1.9142</td>
<td>0</td>
<td>0.7016</td>
<td>0</td>
<td>0.0629</td>
<td>0</td>
<td>0.7720</td>
<td>3.1134</td>
<td>22.497</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td>3.4911</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3.4911</td>
<td>32.822</td>
<td>1.000</td>
<td>32.82</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 or more</td>
<td>No</td>
<td>4.0805</td>
<td>-1.9142</td>
<td>0</td>
<td>0</td>
<td>0.0629</td>
<td>0</td>
<td>0</td>
<td>2.2292</td>
<td>2.812</td>
<td>2.320</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td>4.0805</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4.0805</td>
<td>59.175</td>
<td>1.000</td>
<td>59.18</td>
</tr>
<tr>
<td>Non-attractive</td>
<td>10 years</td>
<td>1 – 2</td>
<td>No</td>
<td>2.7799</td>
<td>-1.9142</td>
<td>0.5125</td>
<td>0.7016</td>
<td>0</td>
<td>0.0629</td>
<td>0</td>
<td>0</td>
<td>2.0798</td>
<td>8.003</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td>2.7799</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2.7799</td>
<td>16.117</td>
<td>1.000</td>
<td>16.12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 or more</td>
<td>No</td>
<td>2.5559</td>
<td>-1.9142</td>
<td>0.5125</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1.5542</td>
<td>3.171</td>
<td>3.506</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td>2.5559</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2.5559</td>
<td>12.882</td>
<td>1.000</td>
<td>12.88</td>
</tr>
<tr>
<td>Non-attractive</td>
<td>11 years</td>
<td>1 – 2</td>
<td>No</td>
<td>3.2536</td>
<td>-1.9142</td>
<td>0</td>
<td>0.7016</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2.0410</td>
<td>7.698</td>
<td>3.506</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td>3.2536</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3.2536</td>
<td>25.883</td>
<td>1.000</td>
<td>25.88</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 or more</td>
<td>No</td>
<td>2.9506</td>
<td>-1.9142</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1.0364</td>
<td>2.819</td>
<td>3.506</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td>2.9506</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2.9506</td>
<td>19.117</td>
<td>1.000</td>
<td>19.12</td>
</tr>
</tbody>
</table>

(*) \( L \) is the estimated leverage factor for each combination of \( i, j \) and \( k \) treatments.

(**) \( F_{ijk} = L \exp(\phi_{ijk}) \); (***) \( f_{ijk} = 100 \times \frac{F_{ijk}}{\sum_{k} F_{ijk}} \) for \( i \) and \( j \) constant.

\( \phi_{ijk} \) is the logarithm of the expected frequency for each cell of the table, excluding the leverage factor \( (L) \) for non-associates relative to associates. In the case of model [5], only the parameters of membership (dependent variable) and size resulted significant at 95%.4 In general, there is a tendency for not being a member, and this is particularly true for stores with only one worker. This rules out \( H2 \).

Regarding the length of time factor, it is non significant at 95%, although its effect is one of increasing the tendency for not to associate, as stated by \( H1 \). Finally, the zone, taken as a principal effect, is clearly non significant in model [5], which means that \( H3 \) should be rejected. However, its interactions with the length of time and size factors deserve some consideration. Although they are non-significant at 95%, as table 3 shows5,

---

4 However, it must be pointed out that this could change depending on the model taken as reference. For example, the three principal effects result to be significant in model [9].

5 This particular datum can be obtained dividing each coefficient by its corresponding standard error, and comparing the resulting value with the critical \( z \)-value of 1.95.
they make general significance increase notoriously from model [9] (principal factors with no interactions) to the selected model [5]. Regarding the sign of these interactions, either stores located in an attractive zone and having 2 or less people or stores from attractive zones with less than 11 years of experience have a tendency for being non-members.

Figure 1 summarizes the results from the proposed model:

4. DISCUSSION AND CONCLUSIONS

As figure 1 shows, being smaller, having less time in business, and being located in a attractive zone have all a negative impact on the tendency for joining the local association of retailers. Only in the case of the size factor can we state that there is a statistically significant influence on the dependent variable.

Paradoxically, the smallest and newest retailers turn out to be the most reluctant to associate, even though they could benefit more from scale or scope economies, the reduction of costs of supplies or the association’s expertise. Previous descriptive analysis from our survey showed us that these are real advantages, not perceived in general by retailers (Zorrilla et al., 2003). It seems clear that associations should communicate better these aspects, particularly to this group of retailers.

Finally, as regards to the survey, it is necessary to point out some limitations. Cost and time restrictions had conditioned the sampling method and field work. The peculiarities of Bilbao and the province of Biscay, in comparison with the rest of Spain or other countries should prevent us from generalizing these results, no matter how obvious they seem. More evidence should be collected from other regions.

As a final remark, it is worth noticing that, if participation in associations supposedly favours the survival of small independent stores, then it is capital to bring about a change of opinion among retailers about the associations’ role.
REFERENCES


MINISTERIO DE ECONOMÍA - SECRETARÍA DE ESTADO DE COMERCIO Y TURISMO; Dirección General de Política Comercial- (1999): *Estudio sobre la estructura del comercio minorista en España*.


