El efecto de la situación económica actual en el nivel máximo de satisfacción del consumidor y el comportamiento de la clientela

RESUMEN

Este estudio analiza los factores que subyacen a los atributos del establecimiento comercial y determina su influencia en la satisfacción máxima del consumidor. Para ello, se evalúa la influencia que ejerce cada uno de estos factores en diversas muestras de consumidores que presentan distintas frecuencias de compra, tratando de determinar a la vez si la recesión económica ha ejercido alguna influencia en dicha relación. Los resultados obtenidos destacan la importancia de los atributos de proximidad al hogar y atención al cliente, y muestran cómo mientras que en el comienzo de la crisis una mayor frecuencia de compra tiende a estar asociada en mayor medida con los factores de conveniencia y servicios y calidad e imagen, en mitad de la crisis el menor número de factores que contribuyen a la satisfacción se puede observar en las muestras de consumidores que presentan la mayor y menor frecuencia, respectivamente. Los resultados sugieren que la situación económica actual no está contribuyendo en gran medida a alterar el comportamiento de la clientela.

Palabras Clave: Maximal customer satisfaction; food retailers; store, attribute perceptions; retail patronage behavior

The effect of the current economic situation on maximum level of customer satisfaction and retail patronage behaviour

ABSTRACT

This study examines the factors that underlie store attributes and determines their influence on maximal customer satisfaction. For this purpose, we assess the differential influence of store factors on several customer subsamples with diverse shopping frequency, and determine whether the economic downturn has exerted any influence on this relationship. The findings highlight the importance of the proximity to home and customer attention attributes, and show that whilst in the beginning of the crisis a higher shopping frequency has a greater propensity to enhance the convenience, services and quality image factors, in the middle of the crisis the smallest number of factors contributing to satisfaction can be observed in the subsamples with the highest and lowest shopping frequency, respectively. The results thus suggest that the current economic situation is not contributing strongly to changes in consumers’ patronage behaviours.

Keywords: Satisfacción máxima del consumidor; distribuidor minorista de alimentación; percepciones de factores y atributos; comportamiento de la clientela minorista

JEL classification: D1, M3, D4.
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ISSN: 2253-6299
Depósito Legal: AS-04989-2011
Edita: Cátedra Fundación Ramón Areces de Distribución Comercial de la Universidad de Oviedo
The effect of the current economic situation on maximum level of customer satisfaction and retail patronage behaviour

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1. INTRODUCTION

Retailers have recognized the need to account for patronage behaviour in their operations and to collect information on consumers’ expectations of and attitudes towards stores as an essential requirement for performance. Among other reasons, such information enables retail operators to make proper decisions about how to correctly meet consumers’ demands, especially in certain retail and service contexts, such as food retailing (e.g., Kelly & Stephenson, 1967; Lessig, 1973; Stephenson, 1969). According to prior research, the more a store offering can meet customers’ expectations, the more likely customers will be to become clients of that store (e.g., Kelly & Stephenson, 1967; Megicks, Memery, & Williams, 2008; Pan & Zinkhan, 2006).

Thus, it is important to emphasize that even though consumers tend to patronize more than just one store, they typically have a primary affiliation to a main store that captures the majority of their purchases (Rhee & Bell, 2002). For food retailers, being the first store that consumers patronize is especially important because, as Knox and Denison (2000) find, loyal customers spend twice as much in their primary store as in other stores. After determining the store’s target market, to attract customers, the retailer must develop the particular combination of specific elements of the chosen retailing mix. At the store level, consumers’ decisions are based on their perceptions of the retailing mix, which consists of a wide variety of store attributes, including the range of the merchandise carried, the store’s location, pricing, promotion, physical facilities, and the people who work there. These attributes refer to what has traditionally been called in-store marketing variables (e.g., Bäckström & Johansson, 2006), and they are part of the store-image concept (McGoldrick, 2002). Several studies (e.g., Ganesh, Reynolds, & Lucket, 2007; Gómez, McLaughlin, & Wittink, 2004; Martínez-Ruiz et al., 2010) have shown that consumers use these attributes to differentiate between food stores, thus providing a means for food retailers to use them as differentiating elements with respect to their competitors. Moreover, correctly managing these aspects can provide beneficial effects, such as enhancing the store’s reputation (Ou & Abratt, 2006), customer loyalty (e.g., Al-Awadi, 2002) and customer satisfaction (e.g., Gómez et al., 2004; Martínez-Ruiz et al., 2010).

With regard to the latter variable, customer satisfaction, if consumers perceive the store attributes and factors as superior to those of competitors’, they will obtain greater satisfaction with their purchases. Therefore, food retailers are especially concerned about achieving customer satisfaction to make their commercial strategies successful (Al-Awadi, 2002;...
Gómez et al., 2004), and thus they tend to search for resources and capacities on which to base their competitive strategies while taking into account customers’ satisfaction and needs (e.g., Davis, Mentzer, & Stank, 2008; González-Benito, 2002).

The relevant literature has commonly revealed that higher levels of customer satisfaction lead to greater customer loyalty (e.g., Anderson & Sullivan, 1993; Bolton & Drew, 1991; Boulding et al., 1993; Fornell, 1992; Oliver & Swan, 1989). In addition, prior research has argued that, among other beneficial effects, customer satisfaction helps secure future revenues (Fornell, 1992; Rust & Oliver, 1994; Rust et al., 1995), reduces the costs of future transactions (Reichheld & Sasser, 1990), decreases price elasticities (Anderson, 1996), and minimizes the likelihood that customers will defect if quality falters (Anderson & Sullivan, 1993).

Therefore, in this study we focus on the maximum level of customer satisfaction, which should be the objective of any retail manager in the sector (e.g., Al-Awadi, 2002; Barsky, 1995; Spiller, Bolten, & Kennerknecht, 2006). More specifically, we attempt to identify the factors that underlie these attributes and to analyse the relationship between customers’ perceptions of those factors and the maximum level of satisfaction they obtain with purchase. In addition, we aim to assess potential differences in the factors that contribute most to maximal satisfaction depending on the retail patronage behaviour, a variable we operationalise as shopping frequency, in accordance with a review of the literature. Furthermore, by taking into account the notion that unstable economic conditions may alter this relationship by changing consumers’ disposable income, we examine this relationship over time; that is, we consider two periods—one at the beginning of the economic crisis and one in the middle of the crisis. This is precisely one of the most important contributions to the literature: we consider two periods to test the empirical model, with the goal to observe whether the economic situation exerts a relevant influence on patronage behaviour. Figure 1 summarises the conceptual model of this research.
In the next section, we review some characteristic attributes of food stores identified in relevant literature, after which we consider the data we obtained from two samples of customers gathered over two periods—2008 and 2011—in retail food stores in a representative Spanish city. We establish the factors underlying these attributes for each considered period and propose hypotheses pertaining to the influence of perceptions of these factors on maximal customer satisfaction. To test our proposed hypotheses, we then perform a binary logistic regression analysis to confirm which factor has the greatest influence on the maximum level of customer satisfaction. In addition, our empirical analysis includes in each period different subsamples of customers according to their shopping frequency. Doing so enables us to assess the potential differences on the factors that influence maximal customer satisfaction depending on the consumers’ shopping frequency. After analysing the findings obtained, we discuss some notable conclusions and recommendations relative to managing food stores, mainly regarding the specific store attributes and factors that customers value more and the sources of differentiation for food retailers.
2. CONCEPTUAL FRAMEWORK

2.1. Maximal customer satisfaction and store factors

Enhancing customer satisfaction provides firms with innumerable benefits, and thus achieving the highest levels of customer satisfaction has been commonly regarded as a key strategic objective in retail sectors, such as food retailing (e.g., Al-Awadi, 2002; Barsky, 1995; Spiller et al., 2006). As a matter of fact, it has commonly revealed that higher levels of customer satisfaction lead to greater customer loyalty (Anderson & Sullivan, 1993; Bearden & Teel, 1983; Bolton & Drew, 1991; Boulding et al., 1993; Fornell, 1992; LaBarbera & Mazursky, 1983; Oliver, 1980; Oliver & Swan, 1989). In addition, prior research has argued that, among other beneficial effects, customer satisfaction helps secure future revenues (Fornell, 1992; Rust & Oliver, 1994; Rust et al., 1995), reduces the costs of future transactions (Reichheld & Sasser, 1990), decreases price elasticities (Anderson, 1996), and minimizes the likelihood that customers will defect if quality falters (Anderson & Sullivan, 1993).

Furthermore, some researches have observed that firms providing superior quality enjoy higher economic returns (Aaker & Jacobson, 1994; Capon et al., 1990; Nelson et al., 1992). In addition, satisfied customers’ word-of-mouth communication lowers the cost of attracting new customers and enhances the firm’s overall reputation, while that of dissatisfied customers naturally has the opposite effect (Fornell, 1992). At the internal level, improving quality and customer satisfaction reduces costs associated with defective goods and services, such as warranty costs, field service, reworking/replacing defective goods, and handling/managing complains (Crosby, 1979; Fornell & Wernerfelt, 1988; Garvin, 1988; Gilly & Gelb, 1982). For this reason, in this study we focus on the maximum level of customer satisfaction, which should be the objective of any retail manager in the sector (e.g., Al-Awadi, 2002; Barsky, 1995; Spiller, Bolten, & Kennerknecht, 2006). In food retailing, it is essential that retail managers identify how customers interpret store attributes that make up the store image (McGoldrick, 2002), properly differentiating between specific attributes and the underlying customer satisfaction factors. A satisfaction factor reflects a type of subjective benefit that consists of related measurable attributes (Gómez et al., 2004).

The links between store attributes and the underlying factors, as antecedents of customer satisfaction and customer satisfaction itself, have been rigorously investigated during the past decades (e.g., Bernhardt et al., 2000; Johnson, 1998; Mittal, Ross, & Baldasare, 1998; Szymansky and Henard, 2001). However, most research has not identified satisfaction factors or analyzed their influence on satisfaction, nor have they considered the maximum level of
customer satisfaction, which is a key objective for food retailers (e.g., Al-Awadi, 2002; Barsky, 1995; Spiller, Bolten & Kennerknecht, 2006), or the different aspects of retail patronage behaviour, such as shopping frequency. Therefore, in the next section, we present a series of hypotheses regarding the influence of store factors on the maximum level of customer satisfaction, while taking into account consumers’ retail patronage behaviour.

### 2.2. Identification of store attributes and underlying factors

In this study, we propose a series of hypotheses regarding the influence of store factors on maximal customer satisfaction, assessing potential differences depending on consumers’ shopping frequency (the retail patronage behaviour variable of interest). To do this, it is first necessary to identify the specific consumer satisfaction factors that underlie store attributes. Thus, we gathered information on consumer ratings of several store attributes in a Spanish city. An in-depth review of the relevant literature helped us select ten store attributes commonly considered in studies analysing store image (Hansen & Deutscher, 1977-1978; Lindquist, 1974; Martineau, 1958; McGoldrick, 2002; Zimmer & Golden, 1988) and satisfaction factors (Gómez et al., 2004; Johnson & Gustafsson, 2000; Spiller et al., 2006): reduced prices, sales promotions, quality of the offer, commercialized brands, proximity to the home, assortment, customer attention, additional services, store atmospherics, and opening times.

We designed a questionnaire that included questions to obtain general information about customer satisfaction, the aforementioned store attributes, and shopping frequency. The first question dealt with overall satisfaction, and from this question, we calculated a new variable that reflected the maximum level of customer satisfaction. This latter variable obtained a posteriori was a dichotomous variable, in which 1 meant that the customer was totally satisfied with the purchase and 0 otherwise. Questions 2–11 measured store attribute perceptions, ranging from 1 (poor) to 5 (excellent). Finally, question 12 asked about the respondent’s shopping frequency. We personally administered the questionnaire at the exit of grocery stores that operated under different retail formats—in particular, hypermarkets, supermarkets, discount stores, and convenience stores—in Cuenca (Spain). As previously mentioned, with the aim to assess the impact of the economic downturn, we collected two comparable samples of consumers in different periods. We gathered the first sample in March 2008, a period when the global economic crisis was just beginning and possibly many consumers were unaware of it (El Economista, 2008; Infobae.com, 2008). We collected the second sample three years later, in March 2011, a period when practically almost all
consumers were aware of the economic crisis. We gathered 422 valid questionnaires in 2008 and 565 in 2011. Although we used non-probabilistic convenience sampling, as shown in Table 1, the age, income, education, gender and marital status distributions do not differ significantly between both samples (p-value > 0.10), which yields two comparable samples in terms of socio-demographic composition (see Table 1).

Table 1. Socio-demographic characteristics of the valid samples, comparison 2008 and 2011

<table>
<thead>
<tr>
<th></th>
<th>2008 (n=422)</th>
<th>2011 (n=565)</th>
<th>Difference 2008-2011</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td>Chi-square=1.991; p=.992</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>T= -.858; p = .392</td>
</tr>
<tr>
<td>&lt;30</td>
<td>145</td>
<td>213</td>
<td></td>
</tr>
<tr>
<td>30-45</td>
<td>127</td>
<td>134</td>
<td></td>
</tr>
<tr>
<td>45-60</td>
<td>110</td>
<td>143</td>
<td></td>
</tr>
<tr>
<td>&gt;60</td>
<td>40</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
<td>Chi-square=6.986; p=.137</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>T= -1.490; p=.137</td>
</tr>
<tr>
<td>&lt;900 euros</td>
<td>102</td>
<td>117</td>
<td></td>
</tr>
<tr>
<td>900-2,100 euros</td>
<td>225</td>
<td>386</td>
<td></td>
</tr>
<tr>
<td>&gt;2,100 euros</td>
<td>95</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td>Chi-square=3.859; p=.425</td>
</tr>
<tr>
<td>Primary studies/</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>unfinished</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>secondary studies</td>
<td>168</td>
<td>209</td>
<td></td>
</tr>
<tr>
<td>Completed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>secondary studies/Professional</td>
<td>113</td>
<td>149</td>
<td></td>
</tr>
<tr>
<td>formation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Universitary studies</td>
<td>141</td>
<td>207</td>
<td></td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td>Chi-square=2.836; p=.092</td>
</tr>
<tr>
<td>Male</td>
<td>157</td>
<td>237</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>265</td>
<td>328</td>
<td></td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
<td></td>
<td>Chi-square=3.590; p=.464</td>
</tr>
<tr>
<td>Single</td>
<td>133</td>
<td>161</td>
<td></td>
</tr>
<tr>
<td>Married/Living</td>
<td>267</td>
<td>358</td>
<td></td>
</tr>
<tr>
<td>with partner</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>22</td>
<td>46</td>
<td></td>
</tr>
</tbody>
</table>

Considering the relationships among the store attribute variables and their high degree of correlation, we followed the methodology that Gómez et al. (2004) propose, among others. By applying a factor analysis of principal components with Varimax rotation, we identified a reduced set of factors that explains the greatest degree of variability in the variables. However, before conducting this analysis, we verified the sampling adequacy with the Kaiser–Meyer–Olkin (KMO) coefficient. In the first sample, the KMO measure is 0.760, and
in the second sample, it is 0.748. In both cases, the KMO measure is greater than the established limit of 0.5. In addition, Bartlett’s sphericity test reveals a high value in both cases that, with a level of meaning of 0.000, rejects the hypothesis of no significant correlation and ensures that the factor analysis of principal components is appropriate (George & Mallery, 1995).

Table 2 presents the factor loadings for a three-factor solution. In the first sample, the three factors account for 56.45% of the variation in the ten attributes, and in the second sample, these factors account for 54.92% of the variation. In the first sample, the first factor of services and convenience (CSC) accounts for 24% of the variance and pertains to assortment variety, proximity to the home, attention to customer, additional services, store atmospherics, and opening times. However, there is a slight difference in the composition of this factor in the second sample, which accounts for 29.74% of the variability; the second sample includes opening times, assortment variety, commercialized brands, additional services, and store atmospherics. The second factor of quality image (QI) is associated with perceived quality of the products and commercialized brands in the first sample, which accounts for 17.8% of the variance, and in the second sample, it is associated with quality of the products, proximity to the home, and customer attention and accounts for 13.75% of the variability. Finally, the factor of economic value of the purchase (EV) comprises the same variables in both samples—namely, reduced price and sales promotions—and accounts for 14.7% and 11.4% of the variance in the first and second sample, respectively.

We assessed the internal consistency of all factors using Cronbach’s alpha coefficient. Although an alpha level of 0.70 or higher has traditionally indicated an “acceptable” level of reliability (e.g., De Vaus, 2002; Nunally, 1978), in practice, the interpretation of this coefficient in particular contexts (e.g., social sciences) is generally more complicated, and as such, it is common to use smaller levels.
2.3. Hypotheses development

In both samples, the CSC factor includes assortment variety, store atmospherics, opening times, and additional services. These variables provide consumers with greater levels of service and convenience. For example, assortment variety, which reflects the variety of products and number of different items offered (Levy & Weitz, 1995), helps the retailer better define the retail strategy and serve the tastes and preferences of different customers (Buchanan, Simmons, & Bickart, 1999; Dhar, Pain, & Thomas, 2001). Greater variety helps the retailer attract more consumers and stimulates them to make more purchases. An ample product range also can diminish perceived costs (e.g., travel time, effort) associated with purchasing and facilitate the purchasing act by enabling a comparison across stores (Baker et al., 2002). Thus, a retail distributor that offers greater variety likely improves the convenience of the purchase situation, which in turn should increase customer satisfaction (Dellaert et al., 1998).

Store atmospherics also represent a key distinctive element of the retail strategy. For example, Kotler (1973) observes that the atmosphere of a store, as experienced by the senses—sight, sound, scent, and tactile—constitutes a retail element that has a significant influence on the purchase decision. Investigations in shopping centers indicate that consumers tend to make
purchases according to their attitudes towards the atmosphere (Finn & Louviere, 1990, 1996; Gentry & Burns, 1977). For example, recreational buyers who enjoy buying for leisure might impulsively buy because of the appealing décor of an establishment (Bellenger & Korgaonkar, 1980). Furthermore, Lambert (1979) suggests that establishments should provide rest areas and a suitable ambient temperature. The ambience of an establishment can intensify both pleasure and displeasure; therefore, time spent and purchase amounts are likely to diminish in disagreeable environments and increase in pleasant environments (Donovan et al., 1994).

Finally, opening times and other additional services provided by the retailer (e.g., parking) influence consumers’ self-satisfaction perceptions, which demand convenience. Convenience is a key modern benefit, and customers’ perceptions of it exert a positive influence on their satisfaction with the service (Al-Awadi, 2002; González-Benito & González-Benito, 2005). Consumers’ perception of time and the effort they must expend to shop also influence their perceptions of service convenience (Berry, 1995), and retail facilities can influence these perceptions. For example, available parking at the store allows consumers to go to the store by car, possibly spend less time traveling, and possibly purchase larger shopping baskets. All of this reduces transaction costs (e.g., time spent) associated with the purchase.

The composition of the CSC factor coincides with the findings observed by previous works in the relevant literature. For example, after reviewing studies on diverse retail stores, Lindquist (1974) identifies nine contributing categories that were derived from a wider set of store attributes, two of which were services and convenience. McGoldrick (2002) offers a complete summary showing that previous research on store attributes has generated 18 general factors comprising 90 specific attributes. Within these factors, services, location convenience, and other convenience elements were included. More recently, Gómez et al. (2004) identified three different factors, one of which was customer service.

Furthermore, several previous works have studied the antecedents of customer satisfaction in numerous contexts (Johnson, 1998; Oliver, 1997) and have examined how such factors influence overall satisfaction (e.g., Gómez et al., 2004; Mittal et al., 1998; Szymanski & Henard, 2001): in general, a positive performance on store factors positively affects overall satisfaction, though a negative performance on factors tends to have a greater impact on overall satisfaction than positive performance. Although prior research has not examined the maximum level of customer satisfaction, such an idea leads us to expect that positive perceptions of services and convenience also affect maximal customer satisfaction.
Moreover, by taking into account the importance of understanding retail patronage behaviour for food retailers, we aim to determine whether this relationship applies to different segments of consumers who exhibit diverse patronage behaviour, a variable we operationalise as shopping frequency. Because the considered factors exert a positive influence on overall satisfaction, a priori, we expect that depending on the level of consumers’ shopping frequency, superior perceptions of the CSC factors should enhance maximal satisfaction. As such, we propose the following hypothesis:

\[ H1: \text{Customers’ superior perceptions of the services and convenience offered by a food retailer enhance their maximum satisfaction, depending on their shopping frequency.} \]

As mentioned previously, for both samples the QI factor includes the variable of perceived quality, which retailers frequently use to differentiate their stores from competing stores (Binninger, 2007; Pan & Zinkhan, 2006). For example, the quality of the merchandise sold influences the value consumers perceive and constitutes an essential component of consumers’ evaluations of the establishment (e.g., Baker et al., 2002). Thus, the merchandise a store offers influences the retailer’s reputation and increases consumer purchases (Darden & Schwinghammer, 1985; Pan & Zinkhan, 2006).

In his review of store attributes and factors, McGodrick (2002) identifies the quality of the merchandise, for which he considers attributes such as the quality of products, departments, and categories. Gómez et al. (2004) also investigate the factor of quality in their research. In addition, Binninger (2006) not only emphasizes the direct influence of perceived product quality on customer satisfaction but also finds an indirect effect, such that perceived quality increases the value the customer associates with the distributor’s brand.

According to the previous rationale regarding how store factors influence satisfaction, a priori we expect that a positive perception of the QI factor should also positively influence the maximum level of satisfaction. Because it seems reasonable to assume this relationship for consumers who exhibit different shopping frequencies, we propose the following hypothesis:

\[ H2: \text{Customers’ superior perceptions of the quality image offered by a food retailer enhance their maximum satisfaction, depending on their shopping frequency.} \]

Finally, the EV factor includes reduced price and sales promotions for both samples. These variables have traditionally been regarded as important elements for determining consumers’ perceptions of a store. Food retailers commonly employ prices strategically to create a certain
image in consumers’ minds. For this reason, many retailers design their price strategies to obtain a discount price positioning, featuring reduced prices for the products and product categories (i.e., loss leaders) that seem most relevant to consumers. This strategy often targets customers who exhibit greater price sensitivity (e.g., Dunne & Kahn, 1997). A discount price policy, whether in the form of low price levels or sales promotions, can benefit the retail distributor (Martínez-Ruiz et al., 2008) by increasing sales in a product category, accelerating purchases in the retail store, or creating traffic in the store (e.g., Arnold, Oum, & Tigert, 1983; Blattberg, Briesch, & Fox, 1995; Martínez-Ruiz et al., 2006; Walters & Rinne, 1986). However, in doing so, retailers should also take into account that some potential adverse effect might arise, such as associations between low prices and low quality perceptions (e.g., Dodds, Monroe, & Grewal, 1991; Rao & Monroe, 1989). Especially consumers with limited information resources tend to use price as an indicator (Rao & Monroe, 1988). Therefore, consumers might choose retail stores that sell at higher prices to reinforce their expectations of quality when they face conditions of uncertainty (Tellis & Gaeth, 1990).

Grace and O’Cass (2005) highlight the relationship between the economic dimension of the purchase and satisfaction, as do Zeithaml (1988) and McDougall and Levesque (1994). The latter authors posit that the monetary value of the purchase is an antecedent of satisfaction and perceived quality, because customers who believe that they receive value for their money are more satisfied than customers who do not. Considering that previous research has observed a positive relationship between this factor and overall satisfaction, it seems reasonable to assume this relationship for maximal customer satisfaction, depending on the diverse shopping frequencies exhibited by customers. Thus, we propose the following hypothesis:

\[ H3: \text{Customers’ superior perceptions of the economic value offered by a food retailer enhance their maximum satisfaction, depending on their shopping frequency.} \]

3. MODEL DEVELOPMENT AND ANALYSIS OF RESULTS
We conducted a binary logistic regression analysis using the customer database to test the proposed hypotheses. This technique is suitable for cases in which the objective is to explain the behaviour of a dichotomous endogenous variable according to other explanatory variables, as in our study. We hope to predict the dichotomous variable using CSC, QI, and EV. To determine the parameters of the model, we rely on the maximum verisimilitude method. The Cox–Snell and Nagelkerke statistical pseudo-R-square values attempt to quantify the proportion of variation explained by the model of logistic regression, similar to R-square in a
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linear regression model. The probability of the observed results, given the estimations of the parameters, is verisimilitude. Because verisimilitude is a small number and less than 1, most research uses −2 times the logarithm of the verisimilitude to measure the adjustment of the model to the data. A good model produces significant verisimilitude in the results (i.e., reduced value of the −2 log of the verisimilitude).

Table 3 presents the pseudo-R-square and −2 log of the verisimilitude values for the total samples of customers. The former measures are reasonable; the factors predict between 9.9% and 14.7% and between 11.5% and 17.5% of the variability in the probability of the maximum level of customer satisfaction, in the first and second sample, respectively. However, none of these statistics can explain variance in a way analogous to the R-square coefficient in the linear regression.

Table 3. Model summary: Total sample of consumers

<table>
<thead>
<tr>
<th>First sample (collected in 2008)</th>
<th>Second sample (collected in 2011)</th>
</tr>
</thead>
<tbody>
<tr>
<td>−2 log of the verisimilitude</td>
<td>R² Cox and Snell</td>
</tr>
<tr>
<td>431.610</td>
<td>.099</td>
</tr>
</tbody>
</table>

We provide the results of the analysis for all respondents in Table 4. In the first sample, the data pertaining to the estimated parameters indicate that the factors that influence the maximum level of customer satisfaction are CSC and then QI. Differences in the values of the coefficients show that CSC makes the greatest contribution to maximal satisfaction, while QI has the smallest effect. We do not detect any significant influence of the EV factor on satisfaction. Although in the second sample we again find that only the factors of CSC and QI affect the maximum level of satisfaction, their contribution differs: QI now has the greatest contribution. Thus, without considering different subsamples of consumers according to shopping frequency, three years later consumers habits changed, but only slightly: although this finding confers greater relevance to the QI factor, the EV factor still does not exhibit any significant influence on maximal satisfaction. Therefore, the relevance of two specific attributes are highlighted: proximity to the home and customer attention. They confer greater contribution to maximal satisfaction over other attributes.
Table 4. Relationship between explicative variables and maximum level of customer satisfaction: Total sample of consumers

<table>
<thead>
<tr>
<th></th>
<th>First sample (collected in 2008)</th>
<th>Second sample (collected in 2011)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimated Parameters</td>
<td>Estimated Parameters</td>
</tr>
<tr>
<td>Constant</td>
<td>1.223***</td>
<td>-1.490***</td>
</tr>
<tr>
<td>CSC</td>
<td>.711***</td>
<td>.556***</td>
</tr>
<tr>
<td>QI</td>
<td>.288**</td>
<td>.834***</td>
</tr>
<tr>
<td>EV</td>
<td>.24</td>
<td>.040</td>
</tr>
</tbody>
</table>

* p < 0.10; ** p < 0.05; *** p < 0.01

These findings support H1 and H2 for both the first and the second samples. When considering the total sample of customers, only CSC and QI influence the maximum level of satisfaction. At this point, we assess whether any significant differences arose in consumers’ behaviour during the past three years in response to the economic decline, according to the retail patronage behaviour variable considered. Therefore, we now examine the differences in the factors that exert any influence on maximal satisfaction depending on consumers’ shopping frequency. Doing so allows us to observe whether the findings differ when we investigate customer subsamples. Tables 5 and 6 contain the pseudo-R-square and the parameters estimated for the different customer subsamples obtained according to different shopping frequencies. In the subsamples collected in 2008, the values of the Cox–Snell and Nagelkerke pseudo-R-square are reasonable; the model with the greatest explanatory capacity contains consumers who purchase daily and can predict between 30.5% and 45.1% of the variability in the probability of maximum level of customer satisfaction. The smallest explanatory capacity appears in the model with consumers who purchase several times a week. However, in the subsamples collected in 2011, the greatest explanatory capacity corresponds to the model in which customers purchase once every two weeks, while the model with the smallest explanatory capacity is the one in which consumers purchase once a week.

Table 5. Model summary: Consumer subsamples according to shopping frequency

<table>
<thead>
<tr>
<th>Shopping frequency</th>
<th>First sample (collected in 2008)</th>
<th>Second sample (collected in 2011)</th>
</tr>
</thead>
<tbody>
<tr>
<td>~2 log of the verisimilitude</td>
<td>R² Cox and Snell</td>
<td>R² Nagelkerke</td>
</tr>
<tr>
<td>Daily</td>
<td>27.405</td>
<td>.305</td>
</tr>
<tr>
<td>Several times a week</td>
<td>114.777</td>
<td>.110</td>
</tr>
<tr>
<td>Once a week</td>
<td>190.207</td>
<td>.134</td>
</tr>
<tr>
<td>Every two weeks</td>
<td>34.721</td>
<td>.113</td>
</tr>
<tr>
<td>Less</td>
<td>33.803</td>
<td>.124</td>
</tr>
</tbody>
</table>
Table 6. Relationship between explained variables and maximum level of satisfaction: Consumer subsamples according to shopping frequency

<table>
<thead>
<tr>
<th></th>
<th>Daily</th>
<th>Several times a week</th>
<th>Once a week</th>
<th>Every two weeks</th>
<th>Less</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.243 ***</td>
<td>1.757 ***</td>
<td>1.022 ***</td>
<td>.960 **</td>
<td>-.076</td>
</tr>
<tr>
<td>CSC</td>
<td>1.728 **</td>
<td>.760 ***</td>
<td>.957 ***</td>
<td>.245</td>
<td>.268</td>
</tr>
<tr>
<td>QI</td>
<td>1.156 **</td>
<td>.485 **</td>
<td>.115</td>
<td>-.286</td>
<td>.132</td>
</tr>
<tr>
<td>EV</td>
<td>.452</td>
<td>.237</td>
<td>-.137</td>
<td>.712 *</td>
<td>.735 *</td>
</tr>
</tbody>
</table>

* p < 0.10; ** p < 0.05; *** p < 0.01

Second sample (collected in 2011)

<table>
<thead>
<tr>
<th></th>
<th>Daily</th>
<th>Several times a week</th>
<th>Once a week</th>
<th>Every two weeks</th>
<th>Less</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1.256 **</td>
<td>-1.506 ***</td>
<td>-1.501 ***</td>
<td>-1.694 ***</td>
<td>-2.517 ***</td>
</tr>
<tr>
<td>CSC</td>
<td>.319</td>
<td>.693 ***</td>
<td>.565 **</td>
<td>.675 **</td>
<td>1.003 **</td>
</tr>
<tr>
<td>QI</td>
<td>.845 **</td>
<td>.986 ***</td>
<td>.542 **</td>
<td>1.573 ***</td>
<td>-1.82</td>
</tr>
<tr>
<td>EV</td>
<td>-.152</td>
<td>.391 *</td>
<td>.066</td>
<td>-.086</td>
<td>-.551</td>
</tr>
</tbody>
</table>

* p < 0.10; ** p < 0.05; *** p < 0.01

Again, we observe slight differences in the factors that contribute most to maximal satisfaction depending on the period studied. With regard to the first period, for customers who shop daily, the factor that contributes most to the maximum level of customer satisfaction is CSC, followed by QI. The same trend appears for customers who buy several times per week. However, among customers who purchase weekly, only CSC influences the maximum level of customer satisfaction. Finally, among customers who display the lowest shopping frequencies—every two weeks and less—the only factor that influences the maximum level of satisfaction is EV.

Therefore, it appears that a higher shopping frequency indicates a greater propensity to value the CSC and QI factors offered by the food retailer. The more frequently consumers shop, the greater is their awareness of the attributes that constitute these factors. In contrast, when consumers shop less frequently, they are more aware of the EV factor offered by the retailer. Thus, consumers who shop more frequently (and who likely purchase smaller baskets of goods) seem to attribute greater value to the aspects that add better convenience and services, as well as quality images, to the shopping experiences. Consumers who shop less frequently
likely purchase larger baskets and seem to prioritize the economic value offered by the retailer.

Considering the consumer subsamples collected in 2011, a period when the economic crisis was a common concern, we can detect some differences in the factors that contribute to maximal customer satisfaction depending on the shopping frequency. In the case of this more detailed analysis, the differences detected are not slight. For example, the smallest number of factors contributing to satisfaction occurs in the subsamples of consumers shopping daily (QI) and with a frequency of less than two weeks (CSC). Thus, it seems that after three years, the subsamples with the highest and lowest frequency, respectively, are those in which the food retailer has the smallest manoeuvring capacity. Furthermore, although QI was a significant factor in 2008 for consumers shopping with a daily frequency, CSC was not significant in 2008 for consumers who shopped with the lowest frequency.

The subsample of customers who shop several times a week is the one in which all the factors exert a significant influence on the maximum level of satisfaction, though their influence is differential: QI has the greatest influence, followed by CSC and then EV. Therefore, in 2011 the shopping frequency that represents the highest manoeuvring capacity for retailers is the one in which customers shop several times a week. This finding does not differ much from the 2008 findings. In this previous period, several times a week denoted the subsample of customers who provided the highest manoeuvring possibilities for the retailers, as did the subsample of customers who shopped daily, though the EV factor did not influence maximal customer satisfaction.

Finally, in the subsamples of consumers shopping several times a week and once a week, CSC and QI are the factors influencing maximal customer satisfaction, though their contribution changes. More specifically, for consumers shopping several times a week, the contribution of QI is higher than that of CSC, and for consumers shopping once a week, the contribution of CSC is similar to that of QI.

Thus, according to these results, in both the first and second samples, H1 and H2 are supported, but H3 is rejected. However, support for these hypotheses also differs depending not only on the subsample considered but also on the period. For example, in the first sample, H1 is supported for the consumer subsamples exhibiting a daily frequency, a several times a week frequency, and weekly frequency. In contrast, in the second sample, H1 is supported in all consumer subsamples, except the subsample of consumers with a daily frequency. With regard to H2, in the first sample, support is found for the consumer subsamples with the
highest shopping frequency (i.e., daily and several times a week), while in the second sample, support is found in all the subsamples, except for the subsample with the lowest shopping frequency. Finally, H3 is supported, but only for the subsamples with the lowest frequency (i.e., every two weeks or less) in the first sample and for the subsample of consumers shopping several times a week in the second sample.

As these findings show, regardless of the period considered, food retailers can use improved convenience, service, and quality-image offers to enhance customers’ maximum level of satisfaction. To a lesser extent, retailers can also use the economic value of the purchase to influence maximal satisfaction, though its relevance seems to be diluted as time goes by and concern with the economic crisis grows among consumers. In addition, the QI factor seems to acquire more importance as time goes by. Therefore, it seems that the different economic scenarios (i.e., more awareness of the crisis) modified traditional consumer patterns, and this is more apparent when taking the different consumer subsamples with diverse shopping frequencies into account. These results are coherent with the findings depicted in TNS (2009), where it was shown how over 50% of Spanish consumers tried to plan their shopping in the long-run, searching for quality and other value services aside from reduced prices and other monetary savings.

Surprisingly, even though consumers were more aware of the economic downturn in the second period, the lesser importance attributed to the EV factor remained and was even less important in the second period. The only difference is that the EV factor was valued by different subsamples of consumers depending on the period considered. That is, in the first sample, EV is significant in the consumer subsamples with the lowest shopping frequency, which is in contrast with the second subsample, in which this factor is significant in the consumer subsample that shops several times a week.

4. CONCLUSIONS, FURTHER RESEARCH, AND STRATEGIC IMPLICATIONS

This research recognizes the influence of customer satisfaction—especially satisfaction due to customer perceptions of certain store attributes—on food retailers’ ability to differentiate themselves from other competitors and thereby obtain a stronger positioning in the market that in turn supports firm survival and competitiveness. In particular, we attempt to determine the influence of factors that underlie store attribute perceptions on the maximum level of customer satisfaction, which should be the focus of any retail manager in the industry. Furthermore, we assess the differential influence of those factors (1) depending on several
customers’ subsamples that exhibit diverse patronage behaviour—a variable we operationalise as shopping frequency—and (2) along time, that is, in two periods—one in 2008, at the beginning of the economic decline, and one in 2011, when the economic crisis was a common concern among consumers. We introduced this latter aspect in our investigation to determine whether the economic downturn exerted any significant influence on consumers’ patronage behaviours.

To achieve this goal, we first conducted an in-depth review of the relevant literature, which enabled us to identify key attributes suggested by prior literature. Then, using two comparable consumer databases collected in diverse food stores (hypermarkets, supermarkets, discount stores, and convenience stores) in a Spanish city and over two periods (2008 and 2011), we obtained the main factors that underlie these attributes according to a principal components factorial analysis. The factors identified were essentially the same regardless of the sample considered (i.e., CSC, QI, and EV), though little differences occurred in the composition of the CSC and QI factors depending on the period considered.

Because our objective was to analyze which factors displayed the greatest influence on the maximum level of customer satisfaction, we conducted a binary regression analysis for both samples of consumers as well as for the different subsamples obtained according to consumers’ shopping frequency. The results obtained confirm that for the total sample of customers, perceptions of service, convenience, and quality image exert positive and significant influences on the maximum level of customer satisfaction. Although both the CSC and the QI factors exerted a significant influence on maximal satisfaction regardless of the period considered, their contribution differed depending on the sample: that is, in the sample collected in 2008, the CSC factor had the greatest influence, and in the sample collected in 2011, the QI had the greatest influence. This finding emphasizes the importance to two specific store attributes such as proximity to the home and customer attention, which over any other attribute confer greater contribution to the maximum level of customer satisfaction.

In addition, we find further significant differences depending on the subsample of consumers we assess. With regard to 2008, perceptions of service and convenience had positive and significant influences on the maximum level of customer satisfaction for consumers who made daily, weekly, or multiple weekly purchases. People who shop daily or several times a week also expressed greater maximum satisfaction based on their perceptions of the quality image of the establishment. Finally, the economic value of the purchase had a positive and significant influence on the maximum level of customer satisfaction when customers
purchased less frequently. Therefore, in this period, we show that higher purchase frequencies have a greater influence on services, convenience, and quality but a lesser influence on the economic value of the purchase. That is, more frequent shoppers, who likely have smaller shopping baskets, seem to attribute greater value to convenience, services, and quality images. In turn, less frequent shoppers, who likely purchase larger baskets, seem to prioritize the economic value offered by the retailer.

In contrast, the findings observed three years later in the midst of the economic downturn reveal other differences. In general, the QI factor acquires a greater relevance in all consumer subsamples, with the exception of the consumer subsample that shops with the lowest frequency, in which we detected no influence of this factor. The CSC also has a significant influence on all the consumer subsamples, except for the subsample of consumers that shops frequently; the CSC acquired the higher relevance for consumers who shop with the lowest frequency. Finally, the EV factor loses importance; it is only significant in the subsample of consumers who shop several times a week.

These findings reinforce the need for food retailers to enhance their value propositions according to the convenience, services, and quality-image aspects, to the detriment of strategies that rely on high levels of promotions and price variations. In particular, it has been manifested how proximity to the home and customer attention may represent powerful ways to exploit the service, convenience and image benefits sought by consumers in grocery stores. Moreover, retailers should be especially careful to avoid the negative consequences of overuse of these elements in the midst of the unfavourable economic situation. These results are especially relevant to the food retailing sector. Retail operators need to find ways to maintain and even improve their competitive position in their dominant area. Many retail companies continually search for resources and internal capacities on which they can construct competitive strategies, in addition to developing the abilities necessary to determine how customers perceive them.

This study therefore offers several worthwhile recommendations for managing these types of stores over time, especially in situations involving economic conditions. First, we identify the factors that customers value most. These particular factors facilitate managers’ ability to define their strong and weak points and determine the areas they may need to improve to maintain their competitive position in the market over time. Second, this study reveals a group of underlying factors and determines the influence of each on the maximum level of customer satisfaction. Thus, managers can better design and implement marketing strategies that
support the amplitude and range of products and brands, services, and convenience offered; the quality image of the establishment; or the monetary value of the purchase, as appropriate. Third, this study considers both a total sample of customers and different customer subsamples derived on the basis of their shopping frequency and thereby offers additional value. Specifically, it highlights the elements that can help retailers construct a sustainable competitive advantage through differentiation and suggests the designs of marketing strategies that may help increase clients’ satisfaction, depending on the type of establishment and customer profiles. More specifically, retailers should use improved convenience, service, and quality-image offers to increase and enhance consumers’ shopping frequency, regardless of the period considered.

Many open questions remain in relation to this topic. For example, further research should analyze the impact of the detected factors on the degree of customer loyalty towards certain commercial formats and specific establishments. It is also interesting to use other segmentation variables, such as behavioural loyalty (e.g., number of stores considered by the consumer, monetary assignments to any of those stores) and intra-and-inter-format loyalty. Finally, we also consider the notion that the identified factors might influence the degree to which certain product categories are selected, particularly depending on shopping frequency.
REFERENCES


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