What are the Driving Forces Behind Spanish Publishers?

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Abstract
This research intends to perform a situation analysis of the Spanish publishing sector to see to what extent private publishing companies adequately interpret market signals and adapt to them. The study raises several questions for the Spanish publishing market: first, how is the price elasticity of the sale of copies?; second, what impact does the greater or lesser number of private publishers have on the sale of copies?; third, how does the sale of copies condition the evolution of the average print run?; and fourth, what impact does reading habit have on issue sales? The analysis carried out concludes: firstly, that the sale of copies is a price-elastic function to the price of books; second, that the greater the number of publishing agents, the higher the level of book sales; thirdly, those publishing companies adapt the average print runs per title in a period based on the copies sold on the market in the previous period and, finally, fourthly, the existence of a positive and direct relationship between the copy sales and the number of regular readers. Spanish publishers face digital transformation -and changes in their respective business models-, without losing sight of the variables studied that act as driving forces for their behavior and design their strategy in the market.

Keywords Publishing houses · Book · Situation analysis · Print run · Spain · Reading habits

JEL Classification M2 · O32 · M1 · O33
Introduction

The Spanish publishing sector has great importance within the so-called cultural industries due to the volume of business it generates, the number of jobs, and its contribution to GDP, among other factors. Furthermore, the Spanish publishing industry is one of the most powerful in Europe and most internationally projected [20].

However, the publishing activity in Spain shows a series of trends that have been settling in recent years. In particular, it is worth highlighting the following: (a) the progressive shortening of the life cycle of books on the market; (b) the existence of more titles, but also fewer copies - that is, the decrease in the average print run; (c) the decline in the printed publishing, as a consequence of the growing commitment to digital publishing; and (d) reduction in the number of copies sold. These trends have caused a decrease in turnover in the Spanish publishing sector [19].

The economic crisis has led to lower purchasing power on the part of consumers and, as a result, a slowdown in consumption. But technological change and its corresponding disruptions have led to changes in readers’ habits. The current reader accesses information and publishers’ content otherwise [18]. On the contrary, the confinement by COVID 19 has had a positive impact on reading habits. Reading has been the faithful companion of many Spaniards during seclusion, valuing reading not only as an alternative for leisure but as a means of escape from the situation they have experienced. Reading helped to cope with the worst months of the pandemic [21].

Despite the dominance of the traditional marketing channel for paper books (compared to other formats and marketing channels), progressive development of online sales is evident [11, 25]. The pandemic altered many economic and social aspects, negatively impacting various sectors of activity. However, although the confinement temporarily closed the bookstores, consumers, faced with the impossibility of physically approaching the bookstores, found in online purchases the alternative route to access books, boosting in the short term the demand in these channels both for the paper book as for the electronic one [25].

In short, everything mentioned above has shaped the perfect storm of the publishing industry in Spain.

This research intends to perform a situation analysis of the Spanish publishing sector to see to what extent private publishing companies adequately interpret market signals and adapt to them.

The study raises several questions for the Spanish publishing market: first, how is the price elasticity of the sale of copies?; second, what impact does the greater or lesser number of private publishers have on the sale of copies?; third, how does the sale of copies condition the evolution of the average print run?; and fourth, what impact does reading habit have on issue sales?
Background

Through the analysis of the price elasticity of the demand for books, it is possible to observe the impact that the margins set by the intermediaries of the distribution channel have on the final price of the book [2]. Most of these intermediaries force the price maintenance or even the increase to protect their margins [32].

In many countries, like Spain, publishers set the final book price. The reason given is to protect the cultural values of the book market [1, 3, 31]. However, it is difficult to find convincing evidence, either theoretical or empirical, that the fixed price policy on books is the best option [26, 27]. Opponents of the fixed price-setting point out that the industry works best when it operates under free-market conditions and that the fixed price artificially increases the prices people pay for books [16]. Retailers should freely determine the price for their products based on actual demand [26]. Opponents of fixed pricing for books believe that governments can better support the book industry through policies that support literacy and the development of creative industries.

There are also not a large number of studies on the relationship and degree of incidence of the average book price on the sales of copies, although academic literature has dealt with the effects of the dispersion of prices on the Internet for e-books [4, 5, 30], the cannibalization of the used book sold on the Internet over the new book [12] or the analysis of models of Internet book consumption [7].

In the average price of the copy, there can be two opposing effects derived from the reduction of costs due to improvements in production processes: on the one hand, publishing companies can maintain their average print run of copies per title and lower the average price, or they may decide to expand their portfolio of titles by reducing their average print run and maintaining or even raising the average price per copy [13].

Regarding the number and size of publishers, academic literature observed that there are no economies of scale, that is, a minimum size of production high enough to act as a barrier to entry and avoid the existence of a large number of publishers and exclude a high degree of competition [29]. Besides this, the publishing industry hardly presents other barriers to entry [9, 17].

The paper book industry is critically dependent on the average print run of copies [13]. Consequently, the average print run is the adjustment mechanism used by publishers to offer more publishing novelties to the market: resources no longer invested in large runs can go to new titles [14, 23].

Governments recognize the benefits of reading and support policies that facilitate access to books [6]. Public policies for promotion and access to books have social effects [6, 24]. Reading influences individuals’ cognitive abilities [15, 22]. Access to books also appears to have long-term benefits, such as increased vocabulary, basic knowledge, and comprehension skills [24]. An improvement in literacy also positively impacts the local economy [8] and the economic development of a country [28].
Analysis and Results

This work starts from the econometric analysis derived from the data provided by: (a) the Overview of the Spanish publishing activity, for the period 2005–2020 and (b) the Survey of cultural habits and practices for the periods 2002–2003, 2006–2007, 2010–2011, 2014–2015 and 2018–2019.

Book sales and average price per copy

Spanish publishers fix the final book price, and the entire distribution channel must abide by it (Art. 9 of Law 10/2007, of June 22, on reading, books, and libraries). The reason behind this policy is to protect the cultural values of the book market [1, 3, 31].

The first question asked in this study has to do with the impact of book prices on sales. The academic literature has not addressed this issue in detail, although it has studied the consequences of the dispersion of prices on the Internet for e-books [4, 5, 30] or cannibalization of the second-hand book on the new book [12], among other aspects related to book prices.

This analysis proposes a simple equation to answer the question posed above, where \( V \) represents the annual sale of copies in the domestic market, in millions of euros, and \( P \) is the average price per copy, expressed in euros:

\[
V = \alpha_0 + \alpha_1 P + \epsilon
\]  

(1)

Table 1 summarizes the results generated by the linear regression, which shows both the reliability of the equation and the significance of the established relationship.

| \( \alpha_0 \)               | 7612.9838 | 846.861867 | 8.98,964,058 | 3.43577E-07 |
|-----------------------------|------------|------------|--------------|-------------|
| Variable V                  | −363,291,278 | 61,5,662,245 | −5,90,082,113 | 3.86254E-05 |
| Multiple correlation coefficient | 0.84,452,973 |            |              |             |
| Coefficient of determination R2 | 0.73,323,046 |          |              |             |
| R2 adjusted                 | 0.69,274,692 |          |              |             |
| Standard deviation          | 159        |           |              |             |
| Number of observations      | 16         |           |              |             |
| Degrees of freedom          |            |           |              |             |
| Sum of squares              | 1,432,159,75 | 1,432,159,75 | 34,81,968,997 | 3.86254E-05 |
| Average of squares          | 575,830,413 | 41,130,7438 |              |             |
| F                           | 1           |            |              |             |
| F critical value            | 15          |            |              |             |
Table 1 shows the different parameters used to evaluate the goodness of fit, which, in this case, is relatively acceptable: \( P \) explains the variability of \( V \) in a 71.3%, so the price variable reasonably explains the behavior of book sales.

The analysis developed points out the negative relationship between \( V \) and \( P \) and the statistical significance of the determined parameters. The analytic expression (1) is the following:

\[
V = 7613 - 363.29P.
\]  

The Eq. (2) is an elastic and negative slope function, confirming that publishing products are close substitutes [2, 32]. Figure 1 shows its graphic representation.

Although in Spain the book price is fixed and can only be modified by new reprints or editions, this variable affects the turnover significantly [1, 3, 31].

For this reason, the ability of publishers to exclusively dispose of the works of some authors guarantees that their products are distant substitutes, which would result in a reduction in the price elasticity of sales.

**Book Sales and Publishing Business**

Since the publishing business does not require great capital investments, economies of scale cannot act as a barrier to entry for new competitors [29]. Besides, the incoming companies do not find other barriers to access the publishing market [9, 17].

The second question has to do with the impact that a greater or lesser number of private publishers have on the sale of copies. To find an answer, let start from a simple expression that econometrically analyzes the relationship between copies

![Graph showing book sales vs. price per copy.](image)

**Fig. 1** Book sales and average price per copy. (*Source: own elaboration.*)
sold annually in the domestic market (L) –number of copies- and the number of private publishers (E):

\[ L = \beta E + \varepsilon \]  

(3)

Table 2 summarizes the results generated by the regression, showing both the reliability of the equation and the statistical significance of the established relationship. Table 2 shows the different parameters used to evaluate the goodness of fit, which, in this case, is very acceptable: E explains the variability of V in a 96.8%.

Thus, the analytical expression (3) would be as follows:

\[ L = 67,484E \]  

(4)

Therefore, it follows that the greater the number of publishing agents, the higher the level of book sales. Figure 2 shows the relationship between book sales and the number of publishers.

It is derived from this simple analysis that if during the period 2005–2020 the average number of copies per title was 3900 copies, then, considering the parameter of (4), the average number of titles produced per publishing company per year is 26–27 titles. Although the bigger publishing groups edit many more book titles, the econometric analysis suggests the following: (a) the atomization of the offer, with publishing companies looking for the micro-space of the market that allows them to develop their activity thanks to the almost non-existent barriers to entry [9, 17, 29], and (b) a possible stagnation in the publishing production of large groups, which could be offset, albeit only partially, by an export effort higher (Fig. 3).

**Book Sales and Average Print Run**

The paper book industry is critically dependent on the average print run of copies [13]. The calculation of a book print run derives from the publisher’s estimate about its potential reception in the market. It is a representation of sale expectations. The

| Table 2 | Copies sold and number of private publishers. (Source: own elaboration.) |
|---------|--------------------------------------------------------------------------|
| Variable E | Coefficients | Standard deviation | T statistic | Probability |
| E | 67,483,669 | 3,166,495 | 21,311,787 | 1,2544E-12 |
| Multiple correlation coefficient | 0,98,388,524 |
| Coefficient of determination R2 | 0,96,803,016 |
| R2 adjusted | 0,9,013,635 |
| Standard deviation | 35,859,1949 |
| Number of observations | 16 |
| Degrees of freedom | Sum of squares | Average of squares | F | F critical value |
| 1 | 5,840E+11 | 67,483,669 | 5,840E+11 | 454,192,264 | 4,5375E-12 |
| 15 | 1,9288E+10 | 1,285,881,860 |
| 16 | 6,0333E+11 |
shorter the print run, the fewer sales possibilities, and vice versa [18]. Consequently, the average print run is the adjustment mechanism used by publishers to offer more publishing novelties to the market: resources no longer invested in large runs can go to new titles [14, 23].

The third question has to do with the impact of the sale of copies on the decision to alter the average print run (Fig. 4).

The expression analyzed econometrically is the average print run of copies of a moment in time $t$ ($T_t$) and copies sold at an earlier time point, $t-1$ ($L_{t-1}$):
The results generated by the analysis, summarized in Table 3, show both the reliability of the equation and the statistical significance of the established relationship: the higher the sales level, the greater the print run and vice versa.

Table 3 shows the different parameters used to evaluate the goodness of fit in the econometric model analyzed and is very acceptable: L explains the variability of T in a 99.1%.

The analytical expression (5) would be:

\[ T_t = \gamma L_{t-1} + \epsilon \]  

(5)

The results generated by the analysis, summarized in Table 3, show both the reliability of the equation and the statistical significance of the established relationship: the higher the sales level, the greater the print run and vice versa.

Table 3 shows the different parameters used to evaluate the goodness of fit in the econometric model analyzed and is very acceptable: L explains the variability of T in a 99.1%.

The analytical expression (5) would be:

\[ T_t = 0.0203L_{t-1} \]  

(6)
Its graphic representation is shown below:

Publishing companies adapt the average print runs of a period based on the copies sold in the previous period. Thus, the statistical analysis confirms the relevance of the decision of the average print run [13] and how publishers adjust it according to the sales made [14, 23].

**Book Sales and Reading Habits**

Governments recognize the benefits of reading and support policies that facilitate access to books [6]. The increase in reading habits favors the development of any country [28] and, in hypothesis, has a positive impact on book sales [18].

The last hypothesis considered is the significant impact of reading habits on sales in the domestic market. Let assume the following econometric relationship:

\[ L = \delta H + \varepsilon \]  

(7)

where \( L \) is the number of copies sold, and \( H \) is the number of regular readers. The data of the econometric analysis are those reflected in Table 4.

Table 4 shows the different parameters used to evaluate the goodness of fit in the econometric model analyzed and is very acceptable: \( H \) explains the variability of \( L \) in a 92.7%.

The analytical expression (7) would be as follows:

\[ L = 0.0068H + \varepsilon \]  

(8)

Its graphic representation is shown below:

The analysis confirms a positive and direct relationship between the sales of copies and the number of regular readers. However, not all regular readers are frequent consumers in the publishing market: readers read more than publishers sell. Finally, public policies for the promotion and access to books have a significant social effect [6, 24] but do not impact the publishing market all that would be desirable.

**Table 4** Book sales and reading habits. (Source: own elaboration.)

| Coefficients | Standard deviation | T statistic | Probability |
|--------------|--------------------|------------|-------------|
| Variable L   | 0.00678,193        | 0.00,048,913 | 13,8,652,858 | 5,8619E-10 |
| Multiple correlation coefficient | 0.96,313,151       |            |             |
| Coefficient of determination R2 | 0.9,276,223        |            |             |
| R2 adjusted  | 0.86,095,563       |            |             |
| Standard deviation | 53,955,127      |            |             |
| Number of observations | 16              |            |             |

| Degrees of freedom | Sum of squares | Average of squares | F       | F critical value |
|--------------------|----------------|-------------------|---------|-----------------|
| 1                  | 5,5966E+11     | 5,5966E+11        | 192,246,152 | 1,4343E-09 |
| 15                 | 4,3667E+10     | 2,911,155,725     |         |                 |
| 16                 | 6,0333E+11     |                   |         |                 |

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Conclusions and Limitations

As indicated at the beginning, the general objective of this work was to carry out an analysis of the situation of the Spanish publishing sector that allows us to see to what extent private publishing companies adequately interpret and adapt to market signals.

The Spanish book sector had a turnover in the domestic market in 2020 for a total of 2439.93, which represents a growth of 0.8% more than in 2019 and generated more than 12,700 direct jobs. The book is the tenth most exported Spanish product. Copyright payments amount to € 211.7 million in 2020 and the sale of rights to € 23.8 million. Bookshops and bookstore chains continue as the leading channels for book sales, adding between them up to 53.5% of total turnover. The Internet suffered the highest increase, compared to 2019, with a 57.6% increase, going from 26.39 million euros to 41.60 million euros [10]. All these data confirm the importance of the Spanish publishing sector and justify the need to understand how publishers adapt to the market.

This study raises several questions for the Spanish publishing market: first, how is the price elasticity of the sale of copies?; second, what impact does the greater or lesser number of private publishers have on the sale of copies?; third, how does the sale of copies condition the evolution of the average print run?; and fourth, what impact does reading habit have on issue sales?

Through this approximate study of the Spanish publishing market, it has been possible to advance a series of answers to the research questions initially formulated.

Regarding the first question, the sale of copies is a price-elastic function. Although books have fixed prices in Spain, and publishers can only modify them by new reprints or editions, this variable significantly affects publishers’ turnover.

Regarding the second question, the greater the number of publishing agents, the higher the level of book sales. The large publishing groups produce many more titles, and the econometric analysis points to: (a) the atomization of the offer, with publishing companies looking for the micro-space of the market that allows them to develop their activity thanks to the almost non-existent barriers to entry and (b) a possible stagnation in the publishing production of the large groups, which could be offset, albeit only partially, by a more intense export effort.

Concerning the third question, publishing companies adapt the average print runs of a period based on the copies sold in the previous period. Thus, the statistical analysis confirms the relevance of the decision of the average print run and how publishers adjust it according to the sales made.

With respect to the fourth question, the analysis confirms a positive and direct relationship between the sales of copies and the number of regular readers. However, not all regular readers are frequent consumers in the publishing market: readers read more than publishers sell. Finally, public policies for the promotion and access to books have a significant social effect but do not impact the publishing market all that would be desirable.

It is necessary to point out some limitations of this study. Firstly, the analysis offered did not consider the role of the e-book in the Spanish publishing market,
still small, given that its turnover does not exceed 6% of the total. It will be necessary to undertake a broader study that integrates this line of business evaluating aspects analogous to those considered in this work. Secondly, this research did not analyze the role of public institutions and authors as publishers and their weight in the future panorama of publishing in Spain.

Finally, the results and conclusions obtained in this research highlight the complexity and dynamism faced by publishers in the Spanish publishing market. The driving variables studied are currently behind the adapting process of the publishing business models to technical change.

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