Learning to export with new managers

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Abstract

This paper analyses whether firms consciously prepare to enter international markets by hiring managers with previous export experience. Using a large sample of Spanish manufacturers, we show that firms have a larger probability of entering international markets if they hire managers with previous export experience. Our results are robust even when considering other variables, such as size and productivity, that may also influence firms' export status. This result indicates that firms may consciously self-select into international markets.

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1. Introduction

A large body of empirical studies has shown that exporters are more productive than non-exporters. The literature offers two reasons for this difference. The first explanation is that exporters have a productivity advantage over non-exporters before they enter foreign markets (ex-ante advantage). As exports involve sunk costs, only the most productive firms are able to recover them and to obtain profits in the international market. According to this explanation, firms self-select into export markets. The second explanation argues that firms learn from exporting, which allows them to achieve a higher efficiency level than non-exporting firms. As surveyed in Wagner (2007) and Greenaway and Kneller (2007), empirical studies find ample support for the self-selection hypothesis and mixed results for the learning-by-exporting hypothesis.

As noted by Esteve-Pérez and Rodriguez (2010), a shortcoming of the self-selection explanation is that it does not identify the source of heterogeneity across firms. Álvarez and López (2005) offer an explanation: they argue that ex-ante differences in productivity may arise due to conscious decisions by firms to enter international markets. To become more productive, firms may decide to adopt more advanced technology to upgrade their product to meet the demands of the target market, or they may undertake R&D investments to differentiate the product from other competitors. Álvarez and López (2005) and López (2009), using a sample of Chilean manufacturers, show that, in fact, firms that enter international markets increase their efficiency and investment level before they start exporting. Eliasson, Hansson and
Lindvert (2009) also finds support for the learn-to-export hypothesis using data on Swedish manufacturers.

In addition to investments in physical capital and technology, another important decision firms may take to increase their probability of success in exporting is to hire managers with prior experience in international markets. These managers bring knowledge of the characteristics of the export markets, the changes that should be introduced in the product to match the preferences of the new customers, the most suitable intermediaries for the firm and the level of competition. Here we investigate whether firms consciously self-select into international markets by hiring managers with prior experience in exports. Our analysis is similar to Sala and Yalcin (2009), who find that managers with previous export experience do not enhance Danish firms' probability of entering international markets. However, that paper was constrained by a small sample and low variation in their dependent variable, which may explain their counterintuitive result. In this paper, we use a large sample of Spanish manufacturing firms, combining data on their export status and managers. Our results show that firms that hire managers with export experience have a larger probability of becoming exporters. This result is robust when considering the inclusion of other variables, such as size and productivity, that may also influence a firm's export status.

The remainder of the article proceeds as follows. Section 2 presents our dataset and explains the estimating equation. Section 3 reports the results of the econometric analyses. Section 4 summarizes our conclusions.
2. Data and estimating equation

Data were obtained from the SABI database, which is maintained by the private firm Bureau van Dijk. SABI offers data on the accounts and balance sheets of Spanish firms; it also provides information on each firm's export status and the names of those with management responsibilities.\(^1\)

Our sample includes Spanish manufacturing firms that did not fail during the 2001-2008 period.\(^2\) In particular, this sample encompasses an unbalanced panel of 28,415 firms and 141,894 observations. To determine whether a firm had hired a new manager with export experience, we compared the list of managers in the actual year with the list of managers in the previous year. Once we identified the new manager, we searched the entire SABI database to ascertain whether this new manager occupied a management responsibility in a firm that had export experience.\(^3\)

Following Roberts and Tybout (1997), in order to analyse whether firms seeking to enter foreign markets hired managers with export experience, we used the following estimating equation:

\[
y_{i,t} = 1 \text{ if } \mu_i + \beta X_{i,t} + \alpha y_{i,t-1} + \epsilon_{i,t} \geq 0
\]

\[
y_{i,t} = 0 \text{ otherwise}
\]

\(^1\) SABI identifies the president, vice president, CEO and other members of the board of directors. 
\(^2\) The inclusion of firms that failed during the period of analysis would involve modeling the probability of failing and hence would substantially complicate the analysis. We also excluded firms with negative equity. 
\(^3\) We should highlight the limitations of our database. First, it may be the case that the new manager had export experience but that the firm it acquired that experience from is not included in the SABI database. Second, even if the firm was included in SABI, it may be that the new manager did not occupy a senior management responsibility before and was therefore not listed in SABI. Third, it might be the case that the export experience was acquired during a period not included in our sample.
where $y_{i,t}$ denotes export status, which has a value of 1 when the firm exports and 0 otherwise. A firm will export while the increment in current and expected profits is positive. The variation in the profitability of the export activity will arise from three sources: macro conditions ($\mu_t$), observable differences in a firm’s characteristics ($X_{i,t}$) and sunk costs ($y_{i,t-1}$). Macro conditions (exchange-rate movements, business cycle, credit-market conditions, trade-policy conditions and other time-varying factors) are captured with a year-specific dummy variable. Firm characteristics include variables that the literature has identified as influencing the firm's export status, which are reported in the SABI database: firm size (proxied by the number of employees), labour productivity (value-added per employee), labour quality (proxied by average wages), foreign participation in capital and the firm’s experience (proxied by the age of the firm). To analyse the influence of new managers, we included a variable with the number of new managers with export experience hired by the firm in the previous two years. In addition to these firm-specific variables, we also included dummy variables for industries in the two-digit NACE classification and controlled for spillovers from exporting firms in the same region (province NUTS 3), in the same industry and in the same industry and region. Finally, sunk costs are proxied by the persistence of the export status. If persistence is prevalent ($\alpha$ is positive and large), it will denote that exporting involves large sunk costs.

To take advantage of the panel nature of our dataset, we estimated a random-effects probit model. To avoid simultaneity problems, all firm-specific variables, except for the new manager variable, are lagged one year.

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4 Production is deflated using industry-level prices and wages with the consumer price index. Both deflators are obtained from the Spanish Statistical Institute database (www.ine.es).
3. Results of empirical analyses

Table 1 presents the results of our empirical analyses. It can be seen that the coefficient for the number of managers with export experience hired in the last two years is positive and statistically significant. This result indicates that firms that hired managers with export experience have a higher probability of starting to export than do other firms. Hence, the evidence shows that firms may consciously self-select into international markets by hiring managers with previous export experience.

With respect to the remaining variables, we found that export experience, size, labour productivity and foreign shareholders increase the probability of entering export markets. These results are in line with those obtained by previous studies that have analysed the determinants of entering foreign markets for Spanish firms (Mañez, Rochina and Sanchis, 2004 and 2008). In contrast to these studies, labour quality and age have a negative impact on the probability of export. Nevertheless, both coefficients are statistically not significant. Finally, with respect to spillovers, our results show that the existence of other exporting firms in the same industry and in the same region enhances the probability of export, which is also the case for the number of exporters in the same industry but in other regions. However, the number of exporting firms in the same region that do not belong to the same industry does not seem to contribute to entry into foreign markets.
4. Conclusions

Recent studies have argued that firms may consciously prepare to enter international markets. An important decision to enhance the probability of success in foreign markets is to have managers with previous export experience. Using a large sample of Spanish manufacturers, we show that firms have a larger probability of entering international markets if they hire managers with previous export experience. This result is robust even when including other variables, such as size and productivity, that may also influence a firm’s export status. This evidence indicates that firms may consciously self-select into international markets.

References


## Table 1. Probability to export

<table>
<thead>
<tr>
<th>Factor</th>
<th>Coefficient</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>New managers with export experience</td>
<td>0.062</td>
<td>0.024</td>
</tr>
<tr>
<td>Size (Log)</td>
<td>0.144</td>
<td>0.006</td>
</tr>
<tr>
<td>Labour productivity (Log)</td>
<td>0.114</td>
<td>0.017</td>
</tr>
<tr>
<td>Average wages (Log)</td>
<td>0.011</td>
<td>0.023</td>
</tr>
<tr>
<td>Foreign participation in capital</td>
<td>0.022</td>
<td>0.033</td>
</tr>
<tr>
<td>Age</td>
<td>-0.008</td>
<td>0.014</td>
</tr>
<tr>
<td>Exported previous year</td>
<td>3.427</td>
<td>0.014</td>
</tr>
<tr>
<td>Regional spillover</td>
<td>-0.223</td>
<td>0.104</td>
</tr>
<tr>
<td>Industry spillover</td>
<td>1.924</td>
<td>0.340</td>
</tr>
<tr>
<td>Regional+industrial spillover</td>
<td>1.582</td>
<td>0.059</td>
</tr>
<tr>
<td>Number of observations</td>
<td>141894</td>
<td></td>
</tr>
</tbody>
</table>

Note: numbers are the marginal effects of the random effects probit estimations evaluated at the means. Industry and year dummies were included but not reported. Standard errors in parentheses. ***, **, * indicate significance at the 1%, 5% and 10% respectively.