

# Trade Credit: a vital resource in the entrepreneurial process

**Key words:** trade credit; SMEs; entrepreneurship; age

**JEL. G21, G32**

## 1. Introduction

Small and medium-sized enterprises (SMEs) form the backbone of most national economies around the world (OCDE, 2018), and constitute a vital ingredient for the success of the economy. In the European Union (EU), they represent 99% of all businesses (Eurostat, 2018). However, their inherent lack of transparency and lack of appropriate collateral exacerbate information asymmetries, resulting in the phenomenon known as “credit rationing” (Casasola-Martínez and Cardone-Riportella, 2009). It is note of worthy that obtaining an adequate access to financial resources is one of the biggest limitation to starting and growing a new business (Kerr and Nanda, 2009). Consequently, the entrepreneurship towards driving the creation of new SMEs in economies such as the EU can be limited due to the financial restriction.

The financing of a nascent firm depends largely on initial insider finance as the entrepreneur, friends, family, and trade credit, because younger firms are informationally non-transparent and undergo greater difficulties in obtaining intermediate external finance (Berger and Udell, 1998). The asymmetric information financial theory states that the use of the financing choices of a firm depends on its opacity regarding the relevant financial information available to lenders (Smith, 1987); the age of the firm can be considered a proxy of the firm’s financial transparency (La Rocca *et al.*, 2011). Moreover, the firm age also indicates the reputation of the firm. Thus, trade credit may play a relevant role for youngest firms that have not yet acquired a sufficient level of reputation and therefore present financing problems. In this case, suppliers could be able to channel trade credit to the customers with a lack of financial resources, acting as lenders due to their greater skill in obtaining soft information regarding its borrowers (Taketa and Udell, 2007). As firms mature, the role of trade credit could become less important, since older firms have had time to build up a track record and a relationship with creditors (Tsuruta, 2015).

In the European Union, trade credit amounts to an estimated 30% of GDP (OCDE, 2018), and more specifically in EU SMEs, trade credit is the primary resource after sources through financial intermediaries (Survey on the Access to Finance of EU enterprises (SAFE)). Clearly,

trade credit as a financial resource is crucial to small businesses, but is trade credit equally important for youngest firms, this is, firms in the early stage of their life?

Bearing this in mind, our research question is whether younger firms, which experience greater difficulties in accessing conventional financial resources, due to their higher level of information asymmetry, or without time to build an enough self-financing, establish a relationship with their suppliers from the first moment in their life cycle in order to ensure their production.

## 2. Data, variables and research methodology

The sample of SME studied belongs to the manufacturing sector. This is a highly relevant sector which, in 2014, was the second largest sector within the non-financial business economy of the European Union in terms of its contribution to employment (22%), and the largest contributor to non-financial business economy value added (25%) (European Commission, 2015). Moreover, in manufacturing companies, the purchases from suppliers represent a major percentage of firm costs (Cuñat, 2007), and the suppliers consider the value of the inputs delivered as strong collateral (Biais and Gollier, 1997).

We have used the *Analyse Major Databases from European Sources* (AMADEUS) by Bureau van Dijk. We have selected those SMEs whose parameters lie within the European Commission definition for every year under consideration. Our SME sample covers 12 EU countries over the period 2008-2014, which provide an unbalanced panel with 140,358 observations. The sample shows that EU manufacturing SMEs make major use of trade credit: on average, 27.7% of their resources are trade payables. In addition, trade credit usage exceeds the use of bank credit (10.7% for short-term bank credit, and 8.1% for long-term bank credit).

The model to estimate the relation of age with trade credit is the next:

$$TCPAY_{it} = \beta_0 + \beta_1 AGE_{it} + \beta_2 AGE2_{it} + \beta_3 SIZE_{it} + \beta_4 PROFIT_{it} + \beta_5 GROWTH_{it} + \beta_6 CASH_{it} + \beta_7 STDEBT_{it} + \beta_8 LTDEBT_{it} + \text{time dummies} + \mu_{it} + \varepsilon_{it}$$

We define our variables according with previous financial literature. The dependent variable, trade credit (TCPAY), as the ratio of trade payables to total assets. The AGE variable is the logarithm of (1 + age), and we include AGE2 as the logarithm of (1+age)<sup>2</sup> in order to investigate whether the relation of age with trade credit is non-linear. We also include classic firm-determinants of trade credit as control variables. We consider firm size (SIZE) as the logarithm of the total assets. The profitability of a firm (PROFIT) is estimated as the ratio of earnings before interest and taxes to total assets. Growth (GROWTH) is defined as the annual

sales growth percentage. Liquidity (CASH) is defined as the ratio of cash to total assets. Finally, we include short-term bank credit (STDEBT), measured as the ratio of short-term loans to total assets, and long-term bank credit (LTDEBT), measured as the ratio of long-term loans to total assets.

#### **4. Results, conclusions and contribution**

Our results show a negative relationship between AGE and trade credit. This finding suggests that younger firms, which usually present more problems related to asymmetric information, tend to use more trade credit due to experiencing greater difficulties in obtaining conventional financial resources (Matias-Gama and Van Auken, 2015; Tsuruta, 2015). On the other hand, the square of age (AGE2) is significant in explaining the level of trade credit, and its coefficient has a positive sign. The change of sign of AGE2 regarding AGE, shows a significant non-linear relationship with trade credit (Petersen and Rajan, 1997; Alphonse *et al.*, 2006).

These results shown that financing of firms in the early stage of the entrepreneurial process depends on trade credit, because younger firms are informationally opaque and undergo greater difficulties in obtaining financial resources. As companies progress through their life, their capacity to generate internal resources becomes higher and they become more transparent and use financial resources of a more formal nature, such as bank credit, and less supplier financing. However, this negative relationship between age and trade credit is not indefinite, and once a SMEs enter a later stage of its life, this firm is no longer interested in continuing to reduce its levels of trade credit. This may be due to suppliers are willing to concede credit to maintain the business of their customers, and consequently, maintain their own business and future sales (Danielson and Scott, 2004).

With regard to control variables, SIZE and GROWTH present a positive relation with trade credit which shows that bigger SMEs use more supplier financing since the amount of assets of a firm is a proxy of the firm's solvency for suppliers (Petersen and Rajan, 1997), and that SMEs use trade credit to finance their growth (Cuñat, 2007). The negative coefficient of PROFIT clearly indicates the pecking-order theory and implies that firms of a greater profitability use less trade credit (García-Teruel and Martínez-Solano, 2010a, 2010b). Younger firms may lack the capacity to generate internal financial resources, and they use more trade credit (Canto-Cuevas *et al.*, 2016) although it is a more expensive type of credit (Atanasova, 2007). CASH shows a negative coefficient, which suggests that SMEs with a large liquidity cushion have a reduced reliance on credit from suppliers (Love *et al.*, 2007). Finally, the negative coefficients of short-term bank credit (STDEBT) and long-term bank credit (LTDEBT) provide

evidence that firms use more trade credit when they have difficulties in accessing short-term debt and long-term debt (Palacín-Sánchez *et al.*, 2018; Yazdanfar and Öhman, 2017), thereby showing that trade credit and bank credit are substitute financing resources.

These findings contribute not only to the academic knowledge but also to highlight the trade credit as a relevant resource to entrepreneurs, which can take advantage of their relationships with suppliers to overcome the early stage of the entrepreneurial process. This conclusion should also be considered when the policymakers regulate this relevant financial resource in order to solve the financial problems of SMEs and to design of trade credit initiatives at European level and at country level. The relevance of trade credit to alleviate financing constraints in the initial life stage of firms is evident, therefore, supplier financing can be used by the policymakers as a driver in the entrepreneurship financing environment. Finally, as future research along these lines, it would be of interest to continue deepening in the relation between trade credit and entrepreneurship.

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