

Pre-entry Capabilities and Establishment Size: Differences between Entrepreneurial Start-ups and First-time Diversifiers

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Short Abstract: This paper examines the influence of pre-entry resources and industry conditions on entry size of first-time diversifiers and de novo entrants. We address the issue of competitive advantage of diversifying firms over de novo entrants by comparing entry sizes of new plants by different kinds of first-time diversifiers (fully or partially owned establishments) and entrepreneurial entrants (spin-offs, serial entrepreneurs, and pure start-ups), and looking at the determinants of entry size decisions. We estimate models of entry size for entrepreneurial entrants and diversifying firms separately and together, using as explanatory variables the pre-entry characteristics of entrepreneurs and diversifiers, and industry control variables measuring competitive conditions and product life-cycles. Results show that differences in size between diversifying and de novo entrants are only significant for fully-owned new establishments in mature markets where economies of scale and concentration are significant. It may therefore be argued that, in growing markets with rapid technological change, first-time diversifiers possess enough flexibility to transfer resources across firms gradually and/or do not benefit from significant financial advantages.

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Background and Contribution

A significant stream of literature suggests that diversifying entry benefits from specific resources accumulated by established firms, who possess prior knowledge about how these strategic assets will match market opportunities (Peteraf, 1993). Klepper (2002) argues that pre-entry assets affect both entry decisions and subsequent success, so firms that are already established in other industries may have advantages over 'de novo' (or entrepreneurial) entrants.

However, it can be claimed that, as diversifying entrants possess pre-entry knowledge, so do de novo (or entrepreneurial) entrants. Prior knowledge of entrepreneurs enables them to better recognise opportunities (Shane, 2000), and provides them with capabilities to better organise to exploit those opportunities. This knowledge might be unique to entrepreneurs, making de novo entry a superior choice for opportunity exploitation (Alvarez and Busenitz, 2001). Baptista and Karaöz (2006) found that industry experience accumulated in paid employment by start-up companies' owners increases the chances of new firm survival. De novo entrants may also be serial entrepreneurs, i.e. individuals who, after owning one venture in a specific moment, start or acquire another business in a subsequent moment (Westhead and Wright, 1998). Knowledge accumulated by serial entrepreneurs may be translated into pre-entry resources capabilities. It can also be argued that it is the matching between the market entered and the firm's pre-entry resources that matters for the likelihood and success of entry, and not the nature or amount of these resources per se (Helfat and Lieberman, 2002).

Contrasts between first-time diversifiers and entrepreneurial entrants have deserved little attention. In this paper, we examine the influence of pre-entry resources and industry conditions on entry size of first-time diversifiers and de novo entrants. We address the issue of competitive advantage of diversifying firms over de novo entrants by comparing entry sizes of new plants by different kinds of first-time diversifiers (fully or partially owned establishments) and entrepreneurial entrants (spin-offs, serial entrepreneurs, and pure start-ups), and looking at the determinants of entry size decisions.

Entrepreneurial entrants may be smaller than diversifying ones because of binding liquidity constraints (Evans and Jovanovic, 1989), although some entrepreneurs – benefiting from specific human capital – should be able to obtain financing more easily than others (Colombo et al., 2005). Models of market evolution and firm learning, following Jovanovic (1982), suggest that de novo entrants start small due to uncertainty about their efficiency, and gradually adjust capacity in order to avoid incurring in irrecoverable costs. However, diversifying entrants also face uncertainty, and have more flexibility to transfer resources gradually. Moreover, since diversifiers can share tangible and intangible resources across markets (Teece, 1982), they may be able to be efficient and competitive at lower scales than entrepreneurial entrants. The relative strength of these arguments depends on the competitive and technological conditions of the markets.

Methodology

We estimate models of entry size for entrepreneurial entrants and diversifying firms separately and together, using as explanatory variables the pre-entry characteristics of entrepreneurs and diversifiers, and industry control variables. Our objective is to

determine whether entry size is significantly different for diversifying and entrepreneurial entrants, and to examine its determinants. Plant scale, measured one year after start-up, is assessed relative to the industry's minimum efficient scale (Lyons, 1980). The main model of entry size is estimated for both kinds of entrant using variables describing business owners' characteristics of diversifying and entrepreneurial entrants, and target industry control variables. Interest rates are included as an indicator of financial constraints. Other specifications based on the main model are estimated in order to check for robustness of the results. These models separate first-time diversifiers from entrepreneurial entrants.

Model estimation takes into account firm heterogeneity and time-varying regressors by using detailed longitudinal data on entrepreneurial entrants and diversifiers. Data are based on the Portuguese economy. The main data source is the '*Quadros de Pessoal*' (QP) Micro Data set, a unique database gathered from mandatory information submitted yearly by Portuguese firms to the Ministry of Social Security and Labour. The longitudinal matched employer-employee data include extensive information on the characteristics and mobility of firms, establishments, workers and business owners for the period 1984-2003. It is possible to identify different types of entrepreneurial and diversifying entrants, and single out first-time diversifiers.

Econometric modelling is driven by the theoretical framework to be tested and influenced by data characteristics. In the present study, we only observe those establishments that were actually founded. Mata (1996) estimated new firm size using a truncation model. To our knowledge, the only recent study comparing entry sizes for start-ups and diversifiers is that of Hariharan and Brush (1999), where no correction for truncation is performed. When only diversifying firms are considered, it is possible to use information for all potential first-time diversifiers, thus allowing us to estimate a two-step procedure correcting for selection bias. In this paper, a panel fixed-effects selection model is estimated under the assumptions imposed by Wooldridge (1995), considering firm-specific heterogeneity. As there is no information on nascent entrepreneurs who were not able to realize their entrepreneurial intentions, other models, including the central model of interest, require a panel version of the Tobit model with individual-specific effects, under the conditions set down by Greene (2004).

Results

Results show that differences in size between diversifying and de novo entrants are only significant for fully-owned new establishments in mature markets where economies of scale and concentration are significant. It may therefore be argued that, in growing markets with rapid technological change, first-time diversifiers possess enough flexibility to transfer resources across firms gradually and/or do not benefit from significant financial advantages.

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