

5 New Business Survival by Industry over Space and Time¹

5.1 Introduction

Setting up a firm can be an arduous task. Entering a market and competing successfully is subject to severe uncertainty and requires diverse qualifications that are rarely contained in one single person. As a result, a considerable proportion of new firms leave the market relatively soon after entering; thus, in some industries or regions only a minority of the entrants is able to survive for a longer period of time.

Understanding this selection process could contribute considerably to our knowledge about the main determinants that drive the market processes and the development of firm populations. While considerable progress in our knowledge about new-firm formation processes has been made in recent years (cf. Fritsch and Falck 2007), the determinants of success and failure of newly founded businesses are still rather unclear. One main reason for this deficit may be the lack of adequate data for analyzing the development of entry cohorts. A particular shortcoming of nearly all of the available studies is that they do not systematically account for the regional dimension. The results of the empirical analysis presented in this chapter clearly show that regional factors play an important role and add significantly to the explanation of new business survival.

Our analysis of new business survival is based on unique data of yearly start-up cohorts over a 15-year period. The data cover all private sector firms with at least one employee and are available for 52 industries and the 326 West German districts (*Kreise*). We do not know of any other study of

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new business survival that was based on such differentiated and comprehensive data. Due to this empirical base, we should be able to identify the influences on the success and failure of newly founded establishments that are specific to the particular industry, region, and period of time much more reliably than other analyses.

We begin with a review of the hypotheses and the empirical evidence on new-firm survival obtained so far (section 5.2). Section 5.3 briefly describes the data, and section 5.4 is devoted to the general survival pattern of the new establishments. The results of the multivariate analysis are reported in section 5.5. Finally, we summarize our main results and draw conclusions for policy as well as for further research (section 5.6).

5.2 Hypotheses

Empirical studies have shown that new firms are characterized by a relatively high risk of failure during the first years of their existence. The main reasons for such a *liability of newness* are the problems of setting up an organizational structure and getting the new unit to work efficiently enough to keep pace with their competitors. Another reason for the new firms' relatively high vulnerability to closure is that quite often the firms have to survive a certain time period before the first profit is attained. Some authors assume that older firms also face a relatively high likelihood of closing down. The reason for such a *liability of aging* could be the sclerotic inflexibility of established organizations (*liability of senescence*); an erosion of technology, products, business concepts, and management strategies over time (*liability of obsolescence*); or, particularly in the case of owner-managed firms, problems in finding a successor who is willing to take over the business.²

It is commonly assumed that survival rates should be higher in industries where the *minimum efficient size*, which has to be achieved in order to be profitable (Audretsch 1995, 77, 80; Wagner 1994), is relatively small (Audretsch et al. 2000; Tveterås and Eide, 2000). Accordingly, high *capital intensity* in an industry may be expected to hinder the set-up and survival of new firms due to the relatively large amount of resources that is needed for attaining the minimum efficient size (Audretsch et al. 2000; Mayer and Chappell 1992). This may explain the observation that the risk of failure is the lower the larger the initial size of the start-up. If new firms enter the market just barely below the minimum efficient size they may

² Aldrich and Auster (1986), Brüderl and Schüssler (1990), Carroll and Hannan (2000), Jovanovic (2001), Ranger-Moore (1997).