

Levels of Analysis in Entrepreneurship Research: Current Research Practice and Suggestions for the Future*

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In their path-breaking article, Low and MacMillan (1988) suggest that entrepreneurship be defined as the “creation of new enterprise.” The purpose of entrepreneurship research should be to “explain and facilitate the role of new enterprise in furthering economic progress” (p. 141). Such a delineation, they hold, would encourage researchers to consider both micro- and macro-perspectives. They argue that researchers must acknowledge that entrepreneurship studies could and should be carried out at multiple levels of analysis and that these analyses complement each other. The reasons for studying entrepreneurship on multiple levels of analysis lie in the characteristics of the entrepreneurial phenomenon itself. Entrepreneurship takes place and has effects on different societal levels simultaneously. Schumpeter (1934) already linked the entrepreneurial initiatives of individuals to the creation and destruction of industries as well as to economic development. Several other scholars have contributed to increasing our understanding about entrepreneurship on different levels of analysis, ranging from the individual to the economy-at-large. The following paragraph highlights some of the levels of analysis that have been identified. In doing so it illustrates the richness of approaches.

It is individuals who carry out entrepreneurial initiatives (Schumpeter, 1934). These initiatives take place in organizational contexts (Moran & Ghoshal, 1999; Shane & Venkataraman, 2000), often resulting in the formation of new firms (Gartner, 1988; Schumpeter, 1934) or the rejuvenation and improved performance of established firms (Covin & Slevin, 1991; Lumpkin & Dess, 1996; Wiklund, 1999; Zahra, 1991). Entrepreneurial initiatives often result in innovations, which in turn may alter existing industries (Schumpeter, 1934), or create new ones (Aldrich & Martinez, this issue). The belief that such processes have profound effects on employment and economic growth on the societal level (Baumol, 1993; Birch, 1979; McGrath, 1999) is one of the major reasons for the increased interest in entrepreneurship.

The above summary does not only illustrate that studies on different levels of analysis can be valuable, but clearly shows that these levels are intimately entwined. Therefore, as Low and MacMillan suggested (1988, p. 152), there may be reason to integrate different levels of analysis in empirical research.

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Low & MacMillan made their recommendations over a decade ago. Given the rapid expansion of the entrepreneurship field it is valuable to examine to what extent their views have influenced subsequent research. The first purpose of this article is to examine what levels of analysis, or combinations thereof, are favored by entrepreneurship researchers, and whether this has changed over the past decade. Our second purpose is to give specific examples of progress related to the different levels of analysis. These examples illustrate that valuable knowledge can be obtained on different levels of analysis and we hope that they can inspire future research.

The choice and definition of level of analysis is not only important in relation to the design of empirical studies. It is also essential for the appropriateness of the utilization of different theories and the suitability of different conceptualizations of entrepreneurship (Davidsson & Wiklund, 2000; Gartner & Brush, 1999). Theories have been specifically developed to address, for instance, organizational or individual issues and are therefore not equally well suited for all levels of analysis. Our third purpose, therefore, is to discuss how future progress can be made through more frequent use of appropriate but largely overlooked levels of analysis and combinations of different levels of analysis. We hold that key to further progress is close correspondence between the conceptualization of entrepreneurship and level(s) of analysis.

In the remainder of the article, level of analysis refers to the hierarchy of aggregation of data. We make a principal distinction between micro and macro levels of analysis. More fine-grained categorizations of micro (e.g. individual, team firm) and aggregate (e.g. region nation) levels are possible as well as alternative hierarchies (e.g. firm → industry → economy-at-large vs. firm → region → nation). The level on which the principal research questions are posed and analyses carried out rather than the level at which data are collected determines the level of analysis. It is, for instance, common to first collect and then aggregate data from individuals in regional studies of entrepreneurship. If the analyses compare regional differences in entrepreneurial activity based on the aggregation of individuals, this would be a study at the regional level even though data were collected from individuals.

Levels of Analysis in Published Entrepreneurship Research

In order to assess what levels of analysis entrepreneurship researchers favor, we analyzed the contents of the two leading (Romano & Ratnatunga, 1997) U.S.-based entrepreneurship journal *Entrepreneurship Theory and Practice* (ETP) and *Journal Business Venturing* (JBV), as well as the leading European journal in the field, *Entrepreneurship and Regional Development* (ERD). In order to be able to see trends over the past decade, the 1998 contents were contrasted with the contents of the 1988 (BV) or 1989 (ETP; ERD¹) volumes of the same journals. The total number of articles for each period was very similar; 64 articles from 1988/89 and 63 from 1998. Both empirical (101) and conceptual (26) articles were included, whereas ETP leaching cases were excluded. A listing of the articles and their classification can be found in Höglund, Lundgren, and Songsong (1999).

¹ ERD was launched in 1989 and ETP changed to its current name and focus the same year.