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THE USE OF CLUSTER ANALYSIS IN ENTREPRENEURSHIP RESEARCH: REVIEW OF PAST RESEARCH AND FUTURE DIRECTIONS (SUMMARY)

Michael D. Crum

Northern Michigan University, USA, mcrum@nmu.edu

Thomas E. Nelson

University of Cincinnati, USA

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≈ SUMMARY ≈

**THE USE OF CLUSTER ANALYSIS IN
ENTREPRENEURSHIP RESEARCH: REVIEW OF
PAST RESEARCH AND FUTURE DIRECTIONS**

Michael D. Crum, Northern Michigan University, USA

Thomas E. Nelson, University of Cincinnati, USA

Principal Topic

Cluster analysis is “a generic name for a variety of mathematical methods numbering in the hundreds that can be used to find out which objects in a set are similar” (Romesburg, 2004; p. 2). With cluster analysis, typically observations (cases) are grouped together based on how similar they are to each other with regards to certain variables. Cluster analysis is often used as an exploratory technique, although it can also be used in a confirmatory role (Fisher & Ransom, 1995). Cluster analysis has been employed in a number of studies in the entrepreneurship literature (Birley and Westhead, 1994; Gibcus et al., 2009; McMahon 2001) However, as noted by Ketchen and Shook (1996) cluster analysis is subject to a number of limitations, such as its reliance on researcher judgment, the absence of statistical tests to reject or fail to reject hypotheses, and a lack of a theoretical basis for developing clusters. When using cluster analysis on a set of data, a set of clusters will be generated by the algorithm, regardless of whether groups that are substantially distinct from each other actually exist (Barney & Hoskisson, 1990; Hatten & Schendel, 1977).

Method

The goal of this paper is to explore the use of cluster analysis in the entrepreneurship literature over the past 25 years. We searched EbscoHost for journal articles containing both the terms “cluster analysis” and “entrepreneurship” from the following journals: *Entrepreneurship and Regional Development*, *Small Business Economics*, *Journal of Business Venturing*, *Entrepreneurship Theory and Practice*, *Journal of Small Business Management*, *Journal of Developmental Entrepreneurship*, *Journal of Management Studies*, *Journal of International Entrepreneurship*, *Venture Capital*, *Academy of Entrepreneurship Journal*, *Academy of Management Review*, *Academy of Management Journal*, *Journal of Enterprising Culture*, and *Management Science*.

Results and Implications

Published articles making use of this technique in these entrepreneurship journals are reviewed and summarized, focusing on the clustering algorithm used, the level of analysis, and how the number of groups were determined. Based upon reviewing this literature regarding how cluster analysis has been used in the discipline, some recommendations for how cluster analysis techniques can be used in future research are discussed.

CONTACT: Michael Crum; mcrum@nmu.edu; (T): 906-227-2895; Northern Michigan University, 1401 Presque Isle Ave, Marquette, MI 49855, USA.