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Chapter XVII

Analyzing Strategic Stance in Public Services Management: An Exposition of NCaRBS in a Study of Long-Term Care Systems

Malcolm J. Beynon, Cardiff University, UK

Martin Kitchener, University of California, USA

Abstract

This chapter describes the utilization of an uncertain reasoning-based technique in public services strategic management analysis. Specifically, the nascent NCaRBS technique (developed from Dempster-Shafer theory) is used to categorize the strategic stance of each state's public long-term care (LTC) system to prospector, defender or reactor. Missing values in the data set are termed ignorant evidence and withheld in the analysis rather than transformed through imputation. Optimization of the classification of states, using trigonometric differential evolution, attempts to minimize ambiguity in their prescribed stance but not the concomitant ignorance that may be inherent. The graphical results further the elucidation of the uncertain reasoning-

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based analysis. This method may prove a useful means of moving public management research towards a state where LTC system development can be benchmarked and the relations between strategy processes, content, and performance examined.

Introduction

In public services research, strategy scholarship remains relatively under-developed even though reform programs in countries such as the United States (U.S.) and United Kingdom rest on assumptions that "management matters" (Meier & O'Toole, 2001; Thompson, 2000). It has been argued that progress in specifying and measuring public services strategy content has been hampered by the limited applicability of extant frameworks to public-sector contexts. To address this issue, Boyne and Walker (2004) present a classification scheme of public services strategy content that comprises two dimensions the authors suggest are conflated in existing work: (1) the relatively enduring nature of strategic stance towards innovation (the extent to which an organization is a prospector, defender or reactor) and (2) strategic action (the relative emphasis on changes in markets, services, revenues, external relationships and internal characteristics). While this framework offers a promising development towards the goal of specifying and examining relations among public-service strategy and performance, the authors provide little indication of how to assess strategic stance.

This chapter elucidates an approach to analyzing strategic stance in public services. The context of this exposition is a study of the ways that the 51^1 U.S. states' Medicaid long-term care (LTC) agencies address the policy goal of achieving a better balance between traditionally dominant institutional provision (e.g., in nursing homes) and alternative services provided in the home and community (HCBS), such as home health care. Specifically, this classification problem involves using selected concomitant state LTC system characteristics to allocate each state to one of the three classic groupings of strategic stance towards innovation: (1) prospector (pioneering), (2) defender (late adopter), and (3) reactor (adjusts only when forced to).

The classification technique elucidated here is the NCaRBS system (N state Classification and Ranking Belief Simplex), a development of the CaRBS system that was originally able to classify objects to one of only two different classes (Beynon, 2005; Beynon & Buchanan, 2004). This exposition of NCaRBS classifies objects (states) to the described three strategic stance groupings. The mathematical foundation of NCaRBS is through Dempster-Shafer Theory (DST), introduced in the work of Dempster (1968) and Shafer (1976). As such, NCaRBS operates within the domain of uncertain reasoning, particularly here in the presence of "ignorance" (see Smets, 1991). The ignorance involved in this exposition includes incomplete data and uncertainty in the evidential support of characteristics to the final classification of the states. A methodological concern relevant to the strategy stance application here is the issue of missing values. This chapter demonstrates that NCaRBS is able to uniquely manage their presence by considering them as ignorant values. This process removes the need to falsely transform the data set in any way.

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