Sport Management: A Bibliometric Study of Central Themes and Trends

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As the field of sport management grows, there is a clear interest on behalf of sport management academicians to reflect on the condition of the field. More recently, this focus on the state of the field has turned to statistical and mathematical methods employed by sociology of science to produce a more objective view of sport management research (Quarterman, Jackson, & Chen, 2006; Quatman & Chelladurai, 2008; Shilbury, 2011).

T.S Kuhn’s The Structure of Scientific Revolutions (1962) draws attention to the importance for the development of a strong science of unified paradigms. Pfeffer (1993) shows that the lack of consensus over fundamental assumptions in organizational science hampers the development of the field, as research develops in too many directions, spreading the limited intellectual resources over too wide of an area. Pfeffer’s concerns about these deleterious effects have been echoed in organizational theory (Ashworth, Michael, & Carley, 2007; Booth, 1998; Cannella Jr. & Paetzold, 1994; De Cock & Jeanes, 2006; Czarniawska, 1998; Denzin, 2010; Donaldson, 1998; Donmoyer, 1997; Fabian, 2000), as well as in entrepreneurship research (see Grégoire, Noël, Déry, & Béchard (2006) for a review) and strategic management literature (see Scherer (1998) for a review).

Given the strong connections between sport management and the fields enumerated above, questions about the level of coagulation in concepts, methods, and areas of interests become all the more relevant. This study takes a first step in this direction, investigating the central trends in sport management research reflected in articles published in the most established journals in this area. Using bibliometric methods (defined as statistical analyses of a body of literature to determine historical developments and patterns of authorship, publication, and use (ALA, 1983)), it is meant to provide a more objective perspective of research tendencies.

The central patterns present in the field are identified through analyses of keywords and cited articles trends. The keyword analysis focuses on co-occurrences of keywords in the same article as an indication of a link between the topics they represent (Cambrosio et al., 1993), identifying networks in which these kinds of relationships are strong. The second analysis determines co-citation patterns, under the assumption that two articles that are frequently cited together by subsequent literature are built around similar ideas and subjects (Small, 1973). Once these analyses are completed, the unifying themes of the identified clusters are outlined not by finding out the main ideas in the articles cited (Grégoire et al., 2006), but rather by turning to the citing articles and pinpointing the idea the citing article attributes to the reference in the text. 814 sources representing all the articles published in three established and respected sport management journals (i.e., Journal of Sport Management (JSM), the European Sport Management Quarterly (ESMQ), and Sport Management Review (SMR)) will be analyzed. The size of the sample is within the range of similar studies (cf. Grégoire et al., 2006; Raghuram, Tuertscher, & Garud, 2009; Schildt et al., 2006). It is expected that these articles will generate 20,000 to 30,000 unique cited sources, which will be imported from the ISI Web of Science website, with the help of a specialized software called Sitkis (Lane, Koka, & Pathak, 2006; Raghuram et al., 2009; Schildt & Mattsson, 2006; Schildt, Zahra, & Silanpaa, 2006). Of the intended 817 sources, so far only 397 citing articles (representing articles published in JSM between 1996 and 2010 and articles published in ESMQ between 2008 and 2010) and 18,826 unique references were imported and the keyword and co-citations analyses were performed on these data.

The keyword analysis was performed on the 1,510 unique uses of keywords added to the ISI database by authors or indexers (Courtial, 1994; Courtial, Cahlik, & Callon, 1994; Law & Whittaker, 1992). Since ESMQ articles’ keywords were not indexed in the ISI database, the sample was reduced to 311 articles. Using Sitkis, co-occurrence matrices were generated and then uploaded into Ucinet 6 (Borgatti, Everett, & Freeman, 1999). The keyword analysis was performed on the entire set of keywords, as well as on sets of keywords from articles published in four time periods (1990-1999, 2000-2005, 2006-2008, and 2009-2010), divided to ensure a more balanced distribution of numbers of articles. The networks were then visualized with Netdraw (Borgatti, 2002) and central keywords and cluster of keywords were identified visually. To ensure a higher level of precision, a set of supplemental analyses (univariate
statistics, hierarchical cluster analysis (Johnson, 1967), closeness (Newman, 1979)) were performed, retaining only those trends confirmed by all three analyses. One notable aspect was that, from 1990 to 2008, the field was composed of a main larger cluster and several dangling networks, suggesting a lower level of integration and coagulation. With regards to central keywords, a pattern that is present both in each period and at the general level was the central position of the term "Performance," suggesting that it functions as the dominant perspective of the field, while ethical and critical approaches are marginalized. Also, with the exception of the 1990-1999 period, the keyword "Model" plays a central role, even more important than "Performance," suggesting the role of theoretical models as coagulation vehicles.

The second analysis involves sourced references in the articles from JSM and ESMQ selected as primary data. In order to measure the strength of co-citation links, the Jaccard coefficient (Small & Greenlee 1980) was used, measuring the ratio between the number of times two articles were cited together and the sum of their total citation count. While several types of analyses are possible, a dense network subgrouping approach was preferred to multidimensional scaling and hierarchical clustering methods, because it reduces the level of subjective interpretation the researcher is called to exercise (Schildt & Mattsson, 2006). In essence, this method consists of creating clusters by starting with dyads of articles with the highest Jaccard coefficient and then adding articles that have the tightest connections with the nodes of the existing cluster, adding new nodes until a cut-off value selected by the researcher is reached. In order to make possible a comparison between sport management and other related research areas in which similar studies have been carried out (entrepreneurship (Grégoire et al., 2006; Schildt et al., 2006), virtual work (Raghuram et al., 2009) and family business (Schildt & Mattsson, 2006)), references with a citation count of 8 (i.e., 2% of the sample size of citing articles) were selected, as well as a Jaccard coefficient cut-off value of .15. Seventeen clusters were generated, which is a significantly lower number than in the above-mentioned studies. Of the obtained cluster, those containing only two articles and those composed only of methodological studies were eliminated. For the rest, the main themes identified were loyalty and attitude of fans (supporting the central role of "Attitude" in the keyword analysis), brand equity, national sport organizations, diversity in organizations, organizational culture, free agency and its impact on performance, sponsorship and image, and demand models in the context of sport. The high level of fragmentation suggests the need of further research and more interest in the research community for the state of the field from a consistency perspective.