

The Evaluation of Scientific-Research Articles on Sports Management in Iranian Professional Journals

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Abstract: The current study aims to evaluate scientific-research articles on sports management in Iranian professional Journals. A qualitative research design and a quantitative content analysis as the observational research method were applied. The statistical population and the sample included all sports management research papers published on "*Harakat Journal*", "*Journal of Sports Science Research*", "*Olympic Quarterly Journal*" and "*Journal of Movement Science and Sports*", totally 433 articles from 1999 to 2010. After the checklist validated by relevant experts, the reliability between coders was obtained using Krippendorff's alpha ($= 0.82$). Results revealed that management skills in sports (37.18%), Sport Management Education (10.62%) and organizational theories in sports (9.46%) were the most common areas of study for Iranian professional journals. For sport industry segments, many papers dealt with sports in universities and schools (20%), professional sports (14.5%) and Sport Management Education (8%). Regarding gender, 16.62% focused on men's sports, 7.85% on women's sports and 31.17% on both, while this was unknown for the rest (44.34%). It was concluded that these studies may not cover all content fields and industrial elements of the sports and there is a need for further research on other issues less studied, especially on women's sports as women make up 50% of the population, although it seems that there is a good balance in relation to gender (rather than content areas and sport industry segments).

Key words: Content Analysis • Scientific-Research articles • Sports Management

INTRODUCTION

In recent decades, scientific disciplines have been faced a wide variety of developments. Therefore, taking advantage from valid indices is of great importance to measure and investigate scientific developments. This leads researchers and scholars to apply different methods and procedures which seem insufficient at first glance; however, they together can provide scientific views and insights about the status of an organization, a region or a country; also facilitate comparison of this status and other cases all over the world [1].

Form the past to now, most researchers and pioneers in academic course of sports management have noted that the professional man must have a comprehensive structure of the literature review and the knowledge of this field, so he can be prepared to educate and learn the course, with an emphasize on available jobs within sports industry [2]. Indeed, a knowledge structure should be a definition of the field under study. As Hancher

stated, literature structures must encompass the minimum principles and knowledge developed by professionals and experts (1994; quoted from Fielding *et al.* 1991) [3].

Since knowledge production and development in science are considered as indices to measure the growth of societies, so researcher should strive to be engaged in different fields; scientific workgroups and associations are required to find present deficiencies through constant strategies such as inviting to present research and papers, holding conferences or scientific lectures; and granting educational scholarship; and consequently, it paves the ground for establishing research centers, publishing professional journals and introducing new academic courses. Lack of attention to this importance will restrict the scientific community to a certain limited direction, also enforce researchers to study and explore just one field, overlooking other research areas [4].

With the respect to the social foundation of science, of the major issues are scientific relations. Technical and scientific journals are among special channels to develop

sciences and establish scientific relations; they try to play a role for two above functions in a wide range of scientific areas. A historical review of sciences show that there are different factors imposing an impact on formation, growth and development of any science in general and management knowledge in particular; technical and scientific journals, among them, can be cited which are to be published at regular intervals for an unknown length of time [5]. Scientific relationships and exchanges between scholars all around the world are being addressed through publishing scientific articles on various magazines and journals; hence, the rates of generation, growth and development of science within a certain country or for a certain field can be observed and utilized for making policy in related country's research and education system. Bibliometric studies are applied to evaluate general status of research. Such studies measure scientific productions quantitatively in order to determine how frequency of research is for a scientific course, a scientific institution and a country; which fields are chosen by scholars to research on; which fields are overlooked; which individuals and institutions conduct research and where; how much financial assistance such researches receive; and which effects they impact on the scientific environment [6].

Scientific research press, published regularly, carry out two social functions; i.e. knowledge production and creating scientific relationship. Today, to publicize their research findings in a quick and updated manner, scholars publish them as articles in journals and magazines; therefore, the press plays a significant role to meet scholars' needs. Given the importance of scientific journals in the relation of science and knowledge, they are necessary to be evaluated accurately and to do this, the content analysis procedure can be used [7].

The content analysis concerns with evaluating qualitative data scientifically and quantitatively. Qualitative data include a wide range from academic dissertations, papers presented on scientific conferences, to those articles published on technical scientific press. For the latter, the content analysis covers numerous research areas. Preliminary studies on research trends of articles are considered as a starting point for practical research. Publishing scientific journals and magazines leads to product knowledge and scientific insight. This needs a continuous evaluation and measurement of the press's performance [5].

In their content analysis research from 2000 to 2002, Mondello & Pedersen (2003) examined the "*Journal of Sports Economics*" (for 55 articles) and found the largest

percentage of articles focused on team performance, payments (20%), job market research (12.9%), wage discrimination (9.4%) and control (governance) (9.4%), respectively. Regarding gender, most articles (81.2%) were focused on men's sports and (14.1%) on sports for both genders; while no one covers exclusively women's sports. In current 55 articles, total number of authors were 77; 33 articles were provided by one author (60%), 14 by two authors (25%) and 8 by three authors. Among these, 95.3% was developed by men, while women included only 4.7% of the researchers [8]. Pitts and Pedersen (2005) carries out a content analysis on sports management studies of the "*Journal of Sports Management*" (n= 233, the average per issue = 4.5). Among 435 authors, men and women were 263 (61%) and 158 (36%), respectively. 14 individuals (3%) were not recognized. 158 articles (68%) applied quantitative process; the rest included 74 cases with qualitative procedure and one case with a hybrid method (using both qualitative and quantitative). Regarding 74 qualitative articles, 38 cases (51%) were studied through a descriptive methodology, 22 (30%) through a theoretical research and 7 (10%) through interviews. Separate fields of anthropology, philosophy and focus groups covered 2 articles (each by 3%) only one article was done about history. The highest percentage of articles (38%) was related to management and organizational skills in sports. Sports marketing was placed second with 41 articles (18%), followed by sports industry in social context with 24 items (10%) and sports management education with 20 items (19%), respectively. Including 4 articles (2%), sports communication was the last. Furthermore, regarding gender, 100 items had no defined gender concentration; and among the rest of 123, 38 cases (31%) focused on men's sports, 14 (11%) on women's sports and 71 (58%) on sports for both [9]. Choi and Park (2007) conducted a comparative study on research trends between "*Journal of Sports Management*" and a Korean Journal of "*Sports Management*". According to their findings, the former published articles mostly about organizational theory (18%) and marketing (14%), while the latter was highly devoted to marketing (52%), followed by management and leadership (7%) [10]. In their content analysis, Sajjadi and colleagues (2010) investigated "*Harakat Journal*" for issues no. 1 up to 34 (n= 233, the average per issue = 4.5). Most articles were provided by three authors (104, 30%) and the less by five or more (17, 5%). In sum, there were 7,139 references with an average of 21.12 per issue. Descriptive research methodology was the most common applied for 158 cases; however, post-event assessment was the least by 21 cases [11].

Regarding the cost, time and energy spent for writing the articles, they are expected to have great value for scientific population of any country. For future research, therefore, it is necessary to determine content fields and research designs and methodologies.

Moreover, Aitchison (2011) noted that evaluating roles that gender play in connect analysis and research methodology is essential [12]. His findings can define content fields, research designs and methodology, gender concentration and elements of sports industry applied in scientific research papers, also determine other items overlooked. These findings can also help students and scholars to know the research status of articles and to make decision on and select content fields, gender concentration and elements of sports industry properly.

The main objectives of the current study are to analyze content fields, to evaluate attention paid to elements of sports industry and to investigate gender concentration for scientific-research articles on sports management published in "*Harakat Journal*", "*Journal of Sports Science Research*", "*Olympic Quarterly Journal*" and "*Journal of Movement Science and Sports*" consisting of 433 papers from 1999 to 2010.

The content area used in this study was developed in accordance with Iranian educational plan for sports management course, using related experts' views (Table 1).

Sports industry segments, as defined by Parks *et al.* (2003) [13], were applied with a few modifications (Table 2).

Methodology: The observational research methodology is considered as a qualitative design and the content analysis is among observational research procedures. The content analysis is consisted of two sections; quantitative and qualitative [14]. Quantitative content analysis includes a systematic repeatable review of relationship symbols through which numerical values are measured and defined based on valid principles and rules. Then, relationships between these values are analyzed using statistical procedures [15]. Therefore, to describe data the current study used a qualitative design with quantitative content method as the observational research methodology. The statistical population and the sample included all sports management research papers published on "*Harakat Journal*", "*Journal of Sports Science Research*", "*Olympic Quarterly Journal*" and "*Journal of Movement Science and Sports*", totally 433 articles from 1999 to 2010. To gather information required, a checklist was used (after approved by the experts).

Table 1. Sport Management Content Areas

| |
|---|
| Organizational theories (management) in sport |
| Management Skills in Sport (principles of management) |
| Sport Marketing |
| Sport Events Management |
| Sport Facilities Management |
| leisure Management and sport |
| Sport Economics and Finance |
| Communication in Sport |
| Sport historic |
| Sport Law |
| Sport Management Education |
| Other |

Table 2. sports industry segments

| |
|-------------------------------------|
| Professional Sport |
| Participant Sport |
| Sport Marketing |
| Sport Event and Facility Management |
| Sport Tourism |
| University & school sports |
| Sport Communication |
| International Sport |
| Health Promotion |
| Sport Management Education |
| Other |

Table 3: The result for content fields of sports management

| Sport Management Content Areas | f | p |
|----------------------------------|-----|--------|
| Management Skills in Sport | 161 | 37.18% |
| Other | 71 | 16.39% |
| Sport Management Education | 46 | 10.62% |
| Organizational theories in sport | 41 | 9.46% |
| leisure Management and sport | 28 | 6.46% |
| Sport Marketing | 26 | 6% |
| Sport Events Management | 22 | 5.08% |
| Sport Economics and Finance | 11 | 2.54% |
| Communication in Sport | 11 | 2.54% |
| Sport Facilities Management | 10 | 2.20% |
| Sport historic | 5 | 1.05% |
| Sport Law | 1 | <1% |
| Total | 433 | 100% |

Table 4: The result for articles focus on sports industry segments

| Sports industry segments | f | p |
|-------------------------------------|-----|--------|
| University & school sports | 87 | 20.09% |
| Professional Sport | 63 | 14.55% |
| Sport Management Education | 35 | 8.08% |
| Sport Marketing | 20 | 4.61% |
| Sport Event and Facility Management | 23 | 5.31% |
| Participant Sport | 14 | 3.23% |
| Sport Tourism | 8 | 1.84% |
| Sport Communication | 3 | <1% |
| Health Promotion | 9 | 2.07% |
| International Sport | 1 | <1% |
| Other | 170 | 39.26% |
| Total | 433 | 100% |

Table 5: Gender focus of article

| Gender Focus of Article | f | p |
|-------------------------|-----|--------|
| Male | 72 | 16.63% |
| Female | 34 | 7.85% |
| Both | 135 | 31.18% |
| unknown | 192 | 44.34% |
| Total | 433 | 100% |

Table 6: The number of authors

| Number of authors | f | p |
|-------------------|-----|--------|
| 1 author | 65 | 15.01% |
| 2 authors | 98 | 22.63% |
| 3 authors | 152 | 35.11% |
| 4 authors | 93 | 21.48% |
| 5&6 authors | 25 | 5.77% |
| Total | 433 | 100% |

When encoding the above checklist instructed, 10 articles was selected and provided to coders. This was aimed to remove potential problems occurred while encoding process.

Reliability Test: For a content analysis, reliability refers to the degree of conformity between coders on encoding process. More than 80% is the acceptable standard reliability. It will be difficult to interpret results when the reliability is less than 70% [15]. "Recal3", an online tool, can measure the reliability coefficients between coders or investigators for nominal data encoded by three or more coders. One is Krippendorff's alpha [16]; a developed reliability coefficient to measure conformity between observers, coders, judges and investigators. This was originally provided for content analysis; however, it has been widely used to investigate degrees of conformity between two or more data processing methods applied for an identical set of analytical subjects or units [17]. Due to the large volume of scientific articles, four coders were used in the current study and to determine its reliability, about 10% of articles were selected randomly in order to obtain a reasonable size [18] and provided to coders. Krippendorff's alpha was 0.82 that indicated a high conformity between the coders.

Findings and Result: Table 3 represents the result for content fields of sports management. Among 433 articles published in the press, 37.18% (161 cases) concerned with managerial skills in sports. Second was education and sports with 10.62 % (46 cases), followed by organizational theories with 9.46% (41 cases). All items and categories can be seen in Table 3.

Table 4 shows the result for articles focus on sports industry segments. Result reveals that sports of universities and schools were highly taken into consideration with 87 cases (20.09%). With 63 cases (14.55%), professional sports were second. Then, education was followed with 35 articles (8.08%). The rest is presented in Table 4.

Table 5 shows gender focus of article. This concentration was appeared as 16.63% (72 articles) for men, while it was 7.85% (34 articles) for women. Also, 31.18% (135 articles) focused on both genders.

Regarding research design, 387 articles (91%) applied quantitative process; 33 (7%) with qualitative process and 13 (2%) with a hybrid method. Among these, 380 articles were non-experimental/empirical and 7 cases were semi-empirical. Furthermore, from 33 qualitative items, 15 articles were descriptive, theoretical and anthropological studies each included 5 cases, 4 cases was about history, 2 articles about observation and each philosophy and interview covered just one article.

In the relation to statistical methods, among 387 qualitative papers, more that 27.13% applied correlations (Pearson and Spearman by 77 and 28, respectively). More than 15.5% (60 articles) used descriptive data to give summarized information. To analyze findings, about 13.69% carries out different T –tests (independent T, dependent T and on-way T by 48, 2 and 3 cases, respectively). Chi-square was applied in more than 8% (31 articles) and variance analysis (ANOVA) was conducted through 8.25 % (32 articles). Other statistical methods used were: factor analysis (25 articles), Friedman (21), multiple regression (16), Mann-Whitney U (15 articles), Kraskal Wallis (11 articles) and various statistical tests (18 articles).

Table 6 represents the number of authors. According to these findings, most articles were provided by three authors (152 articles). For more details refer to the table.

Finally, gender which was defined based on the name of first author, ranked 13.75% (59 ones) for women and 86.25% (374 ones) for men.

DISCUSSION AND CONCLUSION

According to the research findings, result was obtained as following: In the journals under study, 433 scientific-research papers were published on sports management. Regarding content fields and review literature, some fields has been less studied, consequently

a few articles were available. As the result revealed, managerial skill in sports (37.18%) was studied more compared to other subjects. Education and sports subject (10.62%) was followed it. Findings indicated an unequal concentration on content fields. The above finding of the current study is compatible with of Pitts and Pedersen (2005) research obtaining an unequal content fields and different concentration for articles on sports management.

For sports industry, the study obtained 20% for articles dealing with sports of schools and universities and 14.5% with professional sports. This is consistent with Pitts and Pedersen (2005) research about inequality and lack of balance between different sectors of sports industry. They achieved to 39.5% for sports of universities, public sports and professional sports were placed by 13.5% and 12.8%, respectively. Furthermore, this finding confirmed Mondello & Pedersen (2003). Through their study on "*Journal of Sports Economics*", they found that 80% of articles were focused on professional sports, while 7.1% dealt with academic sports. According to the present findings, it can be concluded that sports industry faces also some inequality. Because no or very few research has been conducted on some related fields, this does not meet research needs for sports and sports industry.

Regarding gender concentration, it seems there is a good balance, so that 16.62% focused on men's sports, 7.85% on women's sports and 31.17% on sports for both genders. Although 44.34% has an unknown concentration on gender. Men's sports, however, have been taken highly to consideration. This finding is consistent with Pitts and Pedersen (2005), Mondello & Pedersen (2003) and Pedersen and Pitts (2001) [19] and confirms previous results.

Authors' gender defined based on the name of first author was ranked 13.75% for women and 86.25% for men. This may be due to the high number of male scholars in the country. Pitts and Pedersen (2005), it was found 36 % and 61 % for women and men, respectively (3% unknown), while Mondello & Pedersen (2003) presented 95.3% for men and 4.7% for women. These results are in consistent with the present study and reveal that men have more participation in research activities than women, because of the high number of male scholars.

In sum, it can be concluded that the articles being studied may not cover the literature fully and there is a need to further research on the other issues less studied. Regarding elements of sports industry, there is inequality between focused sectors, so researchers have to be

focused on sectors not or less studied. It is necessary to pay more attention to women's sports as women make up 50% of the population and play great roles on national success (for example, in Olympic and Asian championships), although it seems that there is a good balance in relation to gender (rather than content fields and elements of sports industry).

At the end, managers and directors of Iranian professional journals are advised to determine research needs (content fields) on coming years. It seems to select such fields depends on researchers' desires; however, managers and directors can guide researchers towards research needs and deficiencies. This will be accomplished through a comprehensive and well-organized plan.

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