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### ABSTRACT

The purpose of this study was to construct a valid and reliable instrument to determine the competencies needed to manage the health & fitness clubs and indoor facilities of Youth & Sport Organizations in the Greek Municipalities. For the purposes of the study we used (with permission) the competencies of sport managers instrument constructed by Dr KL Toh. This questionnaire comprised 96 competency statements translated into Greek with reverse translation. Following standard procedures and with the help of five academic experts from Greece, six directors of the health & fitness clubs and indoor facilities of Youth & Sport Organizations of the municipalities constructed the final version of the questionnaire, comprising 72 questions. The instrument was then administered to a sample of 101 managers. Results analysis of the internal validity revealed that the Cronbach's alpha was 0.95. Exploratory factor analysis revealed eight factors comprising 69 competency statements: management techniques (15 items), sport science, (13 items), event management (10 items), public relations (8 items), computer skills/research (8 items), facilities management (5 items), governance (5 items), and safety/injury prevention (5 items). Further internal consistency of each factor revealed Cronbach's alpha coefficients from 0.76 to 0.97. It is concluded that the questionnaire developed in this study is a reliable and valid instrument to measure the competencies of the managers of health & fitness clubs and indoor facilities.

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**KEY WORDS:** *Competencies, directors, indoor sport facilities.*

## **INTRODUCTION**

### **THE CONCEPT OF COMPETENCY**

The concept of competence has been defined in a variety of ways in the literature. In most cases competencies are associated with tasks, skills, outputs, knowledge, processes, role expectations, responsibility, and core content related to specific fields or jobs.

According to Stark, et al (15), "professional competence is the most commonly referenced professional outcome and a primary objective of most educational programs" (pp. 243-244). The above authors view professional competence as lying in six areas: interpersonal communication, integrative competence, conceptual competence, technical competence, contextual competence, and adaptive competence.

DuBois (3), defines competence as a singular construct. This refers to an employee's capacity to meet or exceed a job's requirements by producing the job outputs at an expected level or quality within the constraints of the organization's internal and external environments.

According to McLagan (11), definitions generally refer to the people doing the work (orientations, skills, knowledge, attitudes, values, and commitments) or the work (results, tasks, and outputs). Through integrating these two definition-types, she views competencies as bundles of attributes which are a label for a collection of attitudes and skills, knowledge, tasks, outputs, and results. McLagan identified five different types of competencies:

1. Task competencies. These are the result of breaking down work into manageable tasks in order to eliminate performance variability and to spread the best practices.

2. Result competencies. These relate to an employee's ability to obtain a specific result.

3. Output competencies. A person or team produces, provides or delivers.

4. Knowledge, skills, and attitude competencies. These refer to attitudes, values, orientations, and commitments (attitude), to a specific subject matter (knowledge), and process abilities (skills).

5. Superior performance competencies refer to qualities that are unique to superior performers and are important because they help to distinguish between qualified and unqualified job candidates.

### **COMPETENCE RESEARCH IN SPORT MANAGEMENT**

Internationally a lot of studies have been done that investigate the sports management competencies needed to administer an athletic organization.

Since the department of sport management in our country was only established in 2003, similar studies were lacking. So professional preparation programs should include courses on work discipline in order one to improve the effectiveness of sports managers.

## **REVIEW OF LITERATURE**

### **SELECTING STUDIES**

The first researcher who attempt to identify the competencies needed to manage recreational sport was Jamieson (12). Her dissertation determined the competencies of recreational sport personnel in selected institutional settings. She drew up a list of twelve competency areas that formed the basis of her instrument. These competency areas included: management techniques, research, programming, governance, legality, philosophical foundations, business procedures, communications, officiating, safety/accident prevention, sport science and facility maintenance. Following a pilot study of her instrument, Jamieson finally included 112 competency statements measured on a three-point Likert scale to determine the required competencies at different levels of recreational sport.

Paris and Zeigler (13), investigated the management competencies needed to perform jobs in different management positions, using the Gainesville instrument that included 51 competency statements. The questionnaire was distributed to professors who taught physical education and athletic administration courses, representatives of the Faculties of the Department of Education Physical Education Council (FEPEC), physical education and athletic administrators, selected physical education departmental heads of secondary schools and community college chairpersons in Ontario, Canada. After results analysis, a six-dimension solution with a total of 40 items was used to compare the group differences. These were: communicator, planner, educator, evaluator, fiscal officer and leader. The authors reported that no significant differences were found between the compared groups. They suggested that the professors who teach management courses at the university level might find their competency statements useful when preparing future sport managers.

In another study Quain and Parks (14), examined the practitioners in the sport industry to find whether they would hire sport management graduates and what competencies were important in their respective careers. The authors categorized the sport careers for sport management graduates into six areas: aquatics, sport marketing, physical fitness, sport promotion, intramural recreation youth sports, sport administration and management. The subjects

were instructed to rate 50 courses of programs based on the career needs in their categories. 4 courses were chosen in the top 10 of each of the 6 sports careers. These were: budgeting, interpersonal communication, management and public relations. For the sport management career, the practitioners rated the top 10 courses as follows: accounting, public relations, management, budgeting, marketing, sales communication, interpersonal communication, athletic administration, computer utilization and mass communication. Quain and Parks (14), asked the subjects to rate the importance of the competencies in their career areas in sport. These areas were human relations, writing, time management, personnel management, public speaking, money management, personal fitness, and knowledge.

Lambrecht (9) investigated the competencies of athletic club managers, to establish whether there was a difference in the competencies needed to manage different sizes of these organizations. He divided sports clubs into three categories, based on the facilities and service provided to customers, annual revenue, and size membership. In the administered questionnaire the subjects rated the importance of the 33 competencies needed to manage sport clubs. Demographic information was also obtained from the subjects. Although the factor "communication with clientele" was rated highest by three groups, he didn't find significant differences in the 33 competency statements. Factor analysis revealed six factors in the grouping of the competencies: public awareness, design and control competencies, sport skills, budgeting, communication skill, and accounting. He suggested that these findings could be helpful when constructing a curriculum.

Afthinos (1) investigated the competencies needed for all Greek Sports' managers. The data collected from 132 managers at three levels (national, regional & local), who rated the importance of each of the 115 competency statements in the questionnaire developed by Jamielson. After results analysis he found that the top three competencies chosen by the first level managers were communications, management techniques and sport-events administration and philosophy. The second levels managers ranked communications, sports-events administration, and sports science as the top three competencies. The third level managers rated communications, philosophy and sports science as their top three choices. Managers of large establishments chose communications, financial management, management techniques, programming techniques and philosophy as the most necessary competencies. Managers of medium-sized establishments rated communications, programming techniques, and management techniques as the top three competencies. While managers of small establishments rated communications, sports science/ philosophy, and facility/maintenance/equipment as their top four choices. He found that local level managers were consistent in their ratings of the competencies regardless of the size of their group. The regional

and local level of managers rated differently the competencies of financial management, sport science, and safety/accident prevention.

Afthinos concluded that the sport for- all -managers desired more knowledge in the areas of computer utilization and research-related aspects.

Tsai (18) investigated the competencies needed by college recreational sport directors both in the United States and Taiwan. After data collection and analysis he found that the top 10 competencies rated by the sport directors from the US were: staff communications, communication with participants, public relations, decision making process, employee motivation, the handling of participants' complaints, supervision of staff and personnel, problem solving, delegating responsibilities, and time management. The top 10 important competencies rated by the Taiwanese sport directors were: staff communications, facility planning, intramural sports instructing ability, budget monitoring and control resource allocation, employee motivation, budget preparation, communication with participants, and special events.

Kim (6) identified the competencies needed for the managers of sport centers in the Republic of Korea using Jamieson's instrument and retaining 59 competency statements. The instrument was then distributed to the top, mid-level, and entry levels of sport managers to determine how important the 59 competencies were to their jobs. The results revealed that the top five competencies were: understanding the nature of sport, communicating, managing risks, developing leadership and identifying funding sources. He concluded that sports managers at different levels and different sizes of organizations in the Republic of Korea rated the competencies differently.

Lin (10) examined the competencies needed for the collegiate athletic directors, sport administrators, and commercial sports managers in Taiwan. He found that the majority of the sports managers in Taiwan were male, 45 years of age and had been in their present position for an average of 7 years. The top five competencies rated as important by all the managers were health and fitness management, marketing and business management, leadership, human resource and organization management and administration of physical education and athletics. The content areas of the top five courses chosen by the subjects were sport and business management administration of physical education and athletics, sport information, recreation and sales management and sport law philosophy and ethics. He concluded that the athletic directors, sport administrators and commercial sport managers rated the 22 competencies differently out of the 58 competencies listed in the questionnaires.

Horch and Schutte (4), investigated competencies of sports managers in German sports clubs and sport federations. Factor analysis identified seven groups of competencies and five groups of activities. The interviewees emphasized the importance of interpersonal communication, public relations, advertising and techniques of personal management. Most of the interviewees

emphasized management functions and areas of event management, budgeting, financing, and sponsorship. The evaluation of many competencies showed clear differences from job to job, but it was established that a broad qualification is needed, regardless of the type of job.

Koustelios (7), developed an instrument to identify the competencies needed to manage sport clubs in Greece. 202 sports club managers from three national club sport federations participated in his study. Analysis of the results revealed four factors consisting of fifteen competency statements: human resource management (5 items), marketing and communication (4 items), knowledge of sport (3 items), and financial management (3 items). Results showed that knowledge of sport and financial management were the top rated factors (competencies), following by marketing and communication. Human resources management was the lowest-rated factor (competency).

Another study by Koustelios (8), investigated the competencies needed to manage private fitness centers and to determine if organizational size plays a significant role in the perceived importance of managerial competencies. 186 fitness centers managers from a selected region in Greece took part in his study. The fitness centers were grouped according to organizational size. In the first group the members were < 100, in the second group 100-300 and in third > 300. Results analysis revealed four factors consisting of 16 competency statements: marketing and communication (5 items), human resource management (5 items), financial management (3 items) and administration (3 items). Significant differences were also observed in managing fitness centers of different organizational sizes. Managers of medium and large fitness centers considered that financial management, human resource management, and administration was of more importance than did their colleagues in smaller fitness centers.

Tripolitsioti, (16) in a preliminary study, examined managerial activities in the directors of youth and fitness clubs in the municipality of Athens, as proposed by Mintzberg. Eighteen directors took part in the study. Data were collected by personal interview. After results' analysis the following was found: More directors are males who have worked longer than females ( $p < 0.01$ ) and are thus more experienced. ( $p < 0.02$ ). Male directors consume more time for figurehead than females ( $p < 0.03$ ) and leadership ( $p < 0.05$ ), while females consume more time for maintenance/routine activities ( $p < 0.03$ ). No significant differences were observed in other managerial activities such as coordination, evaluation, policy making, conflict resolution and public relations. These preliminary results showed that health and fitness clubs in Athens municipality are administered by physical education teachers.

From the literature in competency studies, four instruments were developed, which were used and modified by researchers who prepared an instrument based on the job nature of their subjects and the research questions

they intended to answer. The four instruments were Jamieson's RSCA, Paris and Zeigler's Adapted Gainesville Statements, Quain and Parks instrument, Lambrecht's survey and the Toh questionnaire.

The Greek studies investigated the competencies of sport federations, private fitness clubs and sport-for-all. No study examined the competencies of the directors of health & fitness clubs and the directors of indoor facilities of Youth & sport organizations of the Greek municipalities. Thus, the purpose of this study was to construct an instrument to identify the competencies needed by the above mentioned managers to administer these athletic organizations.

## **METHODS**

### **SUBJECTS**

The subjects of his pilot study were 101 directors of health and fitness clubs and directors of indoor athletic facilities randomly chosen from the Athens and east Attica municipalities. The questionnaires were delivered by the fourth class students of sport management department of the Peloponnese University. The students instructed the directors to rate each competency according to a 5-point Likert scale. Then the students collected the completed questionnaires and returned it to the researchers.

### **INSTRUMENT**

For this study the questionnaire of competencies of sport managers developed by Dr Toh was modified and used. This instrument, consisting of 96 items, is an internally consistent, valid and reliable measure of six major areas of sport management, with thirty one statements in each (Toh, 1997).

After permission from the author the items of the questionnaire were translated into Greek. To ensure the accuracy of the translation the method of reverse translation was employed. First the instrument was translated from English into Greek by two experts in the related field and then from Greek into English by two other experts. The results were almost identical.

Then, six experts, representing prominent academics in research methods, sport management and sport sociology from Greece, were instructed to rate each competency according to a 5-point Likert scale. A criterion score of 3.0 was needed for a competency to be included in the final instrument. In this way from 96 statements 21 items were eliminated and 75 remained. The informal interviews with five directors of fitness centers and five directors of in-

door facilities of municipalities eliminated another 7 items, leaving 68. Four competency statements derived from the directors were also added to the questionnaire. So, the final versions of the instrument for the directors (fitness clubs & indoors facilities) included 72 competency statements.

## STATISTICS

The data collected from both the directors of fitness clubs and the directors of indoor facilities were entered into a Microsoft Excel 2003 software and later converted to the SPSS 13.0 statistical package for data analysis. The descriptive statistics as means, standard deviations, frequency rankings of the competency statements and percentages were used to obtain information from the data analysis. Cronbach's coefficient alpha was used to confirm the internal consistency reliability both between the total competency items and between items on each factor. Factor analysis was conducted to determine the number of factors in the instrument; factors loading of each competency statement that were larger than or equal to .40. A principal component analysis with varimax rotation was used to find a solution for factor analysis.

## RESULTS

The age of the subjects was  $40.38 \pm 4.8$  y (32 to 53 y) and the working years as directors were  $12.8 \pm 2.2$  y (4 to 16 y).

The Cronbach's alpha of the questionnaire was 0.97. The principal component analyses with varimax rotation revealed the following factors that were larger than or equal to .40. (table 1). The first factor was the management techniques (fifteen items), the second the sport science, (thirteen items), the third the event management (10 items), the fourth public relations (8 items), the fifth computer skills/research (8 items), facilities management (5 items), Governance (5 items), safety/injury prevention (5 items). In order to investigate the Cronbach's alpha internal reliability of the factors an other reliability test were executed. These results is presented in the table 2.

## DISCUSSION

The purpose of this pilot study was to construct a valid and reliable instrument to examine the competencies needed by the directors of health and fitness clubs and the directors of indoor facilities of youth and sport organizations of Greek Municipalities. We used for this study the Toh's competencies of sport managers instrument, because was the most appropriate one for

the following reasons: First, the three Greek studies that were conducted in a Greek athletic context didn't use this questionnaire. Second, it is the foremost instrument presented in the literature on the assessment of competencies of such jobs as the managers of fitness clubs and the directors of indoor facilities of youth and sport organizations. It is also one of the instruments in this area of research, that have reported evidence of reliability and validity for the data collected. Third, in order for an instrument to further demonstrate its utility, it should be continually validated using other samples and in further research.

**Table 1.** *Factors extracted from the principal component analyses with varimax rotation.*

# Factors	N	Eigenvalues	% of variance	Cumulative (%)
1 Management techniques	15	16,162	22,447	22,447
2 Sport Science	13	10,932	15,184	37,631
3 Event management	10	7,016	9,744	47,375
4 Public relations	8	6,573	9,129	56,504
5 Computer skills/research	8	5,981	8,306	64,81
6 Facilities management	5	4,442	6,169	70,98
7 Governance	5	3,263	4,532	75,512
8 Safety/injury prevention	5	2,897	4,024	79,536

**Table 2.** *The internal consistency reliability of the eight factors.*

#	Factors	N	Internal consistency reliability
1	Management techniques	15	0,97
2	Sport Science	13	0,87
3	Event management	10	0,98
4	Public relations	8	0,94
5	Computer skills/research	8	0,98
6	Facilities management	5	0,95
7	Governance	5	0,93
8	Safety/injury prevention	5	0,76
<b>Total</b>			<b>0,97</b>

As reported in the literature review, there are many studies that have investigated the competencies needed by a sport manager to administer an athletic organization.

But as Horch and Schutte (4) maintained, these competencies depend on the type of organization. For example, while the factors extracted from the original questionnaire by Toh were six with 31 items, studies conducted in other countries than the USA revealed other loading factors (2, 6, 10).

The eight basic competencies identified in the present investigation were: management techniques, sport science, event management, public relations, computer skills/research, facilities management, governance and safety/injury prevention. These results are in line with other studies that investigated the competencies of the managers of similar establishments. Afthinos (1) in his study «Greek Sport -for- all Managers» found similar competencies as communications, computer utilization, facility/maintenance/equipment, financial management and techniques management

Koustelios (7) in «the Greek Fitness Centres Managers' Study» showed that financial management, human resource management, administration/marketing & communication, were the most significant competencies. Also, Koustelios (7) in the «Greek Sport Club Managers» determined that knowledge of sport, financial management, marketing & communication and human resource management to be the most highly rated competencies.

It seems that in the Greek context, the management of athletic organizations requires either more or fewer competencies according to whether the manager administers a federation, private club or sport- for-all program.

This pilot study is the first after the establishment of the department of sport management at the Peloponnese University, investigating the competencies that should be required of managers of indoor facilities and fitness clubs of youth and sport organizations in the municipalities. There being such a large number of such facilities, research could easily employ the graduate students of the management department.

Because it is essential to draw on advice from practitioners, the results of the previously mentioned Greek studies, those of the present pilot study and of future investigations should be drawn on by academicians in order to construct proper curricula programs

In conclusion the finding of the present study, showed that the questionnaire developed in this study is a reliable and valid instrument to measure the competencies of the managers of health & fitness clubs and indoor facilities.

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