

Factorial analysis of mass media influence on academic sports development

Benar Noshin¹, Emami Mina², Eftekhari Ozra³, Yeganeh Far Nastaran⁴, Khan Mohammadi Ali Mohammad⁵

¹Associate Professor at University of Guilan, Iran

²Master in Sport Management, University of Guilan, Iran

³Master in Sport Management, University of Shomal, Iran

⁴Lecturer at Islamic Azad University Bandar Anzali Branch, Iran

⁵Master in Sport Management, University of Guilan, Iran

Abstract:

Purpose: Main objective of this research was factorial analysis of mass media influence on academic sports development. **Material:** Methodology of the research was descriptive- correlation. Population of the research was composed of all referees, coaches and athletes participating in students' sports Olympiad of Iran Payam e Noor Universities in year 2014. Statistical sample of research was chosen randomly and consisted of 176 persons. Data gathering tool was a researcher made questionnaire; its superficial and content validity was approved by academic professors and media experts; also the stability of research tool was reported to be at an acceptable level. SPSS 23 software was used to analyze research data and also AMOS 24 software was used to analyze structure validity. **Results:** Findings showed there is a significant difference between current situation and desirable situation in all research dimensions. Also, factorial analysis of all research variables showed improvement of coaches' technical performance (0.86), improvement of referees' technical performance (0.85), and promotion of academic sport managers' awareness (0.83) respectively are mostly influenced by mass media. **Conclusion:** It should be kept in mind that academic sports development is one of the factors of the entire country sports development. Hence, it is crucial to attend to different dimensions of student sport's aspects such as human, financial, planning and etc., especially in championship area to be able to further macro objectives of country's sports development. Considering current conditions, mass media should have a new perspective on academic sports in order to be able to attend to their responsibilities to further the excellence of country's sports.

Keywords:

mass media, sports development, academic sport, women's sport.

Бенар Ношин, Емами Мина, Ефtekхари Озра, Еганех Фар Настаран, Кхан Мохаммади Али Мохаммад. Факторный анализ влияния СМИ на развитие академического спорта. Цель: Основной целью данного исследования был факторный анализ массового влияния средств массовой информации на развитие академического спорта. **Материал:** Методика исследования носит описательный характер - корреляция. Популяция для исследования состояла из судей, тренеров и спортсменов, принимающих участие в студенческой спортивной олимпиаде университетов Ирана Payam e Noor в 2014 году. Статистическая выборка исследования была выбрана случайным образом и состояла из 176 человек. Инструментом сбора данных был исследовательский опросник. Его было одобрено академическими профессорами и экспертами в области СМИ. Определялась стабильность исследовательского инструмента на приемлемом уровне. Для анализа данных исследования было использовано программное обеспечение SPSS 23, а также программное обеспечение AMOS 24 было использовано для анализа валидности. **Результаты:** Результаты показали, что имеются существенные различия между текущей ситуацией и желаемой ситуацией во всех измерениях исследований. Кроме того, факторный анализ исследований всех переменных показал улучшение технических показателей у тренеров (0.86), судей (0.85), а также содействие осведомленности спортивных менеджеров академического статуса (0.83) в основном под влиянием средств массовой информации. **Выводы:** Следует иметь в виду, что развитие академических спорта является одним из факторов развития спорта в стране. Следовательно, крайне важно принять участие в различных аспектах студенческого спорта, таких как людские, финансовые, планирования и т.д., особенно в области различных соревнований. Это дает возможность в дальнейшем решать макроцели развития спорта в стране. Учитывая текущие условия, средства массовой информации должны иметь новый взгляд на академический спорт для того, чтобы иметь возможность принять участие в дальнейшем совершенствовании спорта в стране.

средства массовой информации, спорт, академическая спорт, женский спорт.

Бенар Ношин, Емами Мина, Ефtekхари Озра, Еганех Фар Настаран, Кхан Мохаммади Али Мохаммад. Факторный анализ влияния СМИ на развитие академического спорта. Мета: Основную метой данного дослідження був факторний аналіз масового впливу засобів масової інформації на розвиток академічного спорту. **Матеріал:** Методика дослідження носить описовий характер - кореляція. Популяція для дослідження складалася з суддів, тренерів та спортсменів, які беруть участь у студентській спортивній олімпіаді університетів Ірану Payam e Noor в 2014 році. Статистична вибірка дослідження була обрана випадковим чином і складалася з 176 чоловік. Інструментом збору даних був дослідницький опитувальник. Його було схвалено академічними професорами і експертами в галузі засобів масової інформації. Визначалася стабільність дослідного інструменту на прийнятному рівні. Для аналізу даних дослідження було використано програмне забезпечення SPSS 23, а також програмне забезпечення AMOS 24 було використано для аналізу валидності. **Результати:** Результати показали, що є істотні відмінності між поточною ситуацією і бажаною ситуацією в усіх вимірах досліджень. Крім того, факторний аналіз досліджень всіх змінних показав поліпшення технічних показників у тренерів (0.86), суддів (0.85), а також сприяння обізнаності спортивних менеджерів академічного статусу (0.83) в основному під впливом засобів масової інформації. **Висновки:** Слід мати на увазі, що розвиток академічного спорту є одним з факторів розвитку спорту в країні. Отже, вкрай важливо прийняти участь в різних аспектах студентського спорту, таких як людські, фінансові, планування і т.д., особливо в області різних змагань. Це дає можливість в подальшому вирішувати макророзвитку спорту в країні. З огляду на поточні умови, засоби масової інформації повинні мати новий погляд на академічний спорт для того, щоб мати можливість взяти участь в подальшому вдосконаленні спорту в країні.

засоби масової інформації, спорт, академічний спорт, жіночий спорт.

Introduction

Sports development requires attention to several dimensions at macro, middle, and micro levels. One of the most important components of sports is academic sport which is, based on evidence, highly influential on students' mental and physical health [12] and its main

objective is to create the required context and appropriate opportunities for the pervasive stratum of college students, in order to attain healthy competitive and entertaining environment [5]. Physical activity and participation at university's sport programs can have a significant share in promotion of academic community's social, mental and physical health [8]. One of the main factors in cultural development is mass media [1, 6]. The most essential objective of mass media in support of each country's

national agenda could be sports development, which itself has several dimensions and axes [13].

Traditionally researchers have divided mass media into published and electronic. Published media includes newspapers and journals while electronic media includes radio, television, cinema, and internet (as modern media) [3, 10 and 11], all of which render direct influence on values and norms of the society since span of their activities includes a great number of the population of society [2]. Due to this reason, in most countries different media have established especial channels for sports [1].

Based on the discussion above, one of the important and influential factors in academic sports development is mass media. It is evident that effort to increase presentation of sport matches and programs as well as news coverage of women's sport in different sub-parts such as academic sport will be highly influential on more enhancement of participation and quality of performance of athletes, coaches and referees and will also result into development of other components of women's sport in the country. In this research, influence of television, radio, and press on academic sport development has been analyzed.

Analysis shows the existing distance between current situation in mass media and favorable situation of cultural development has a significant difference and this weakness is also observed in sports domain [1]. In their research Emami and Mallaei (2013) [4] have also reported that share of women's sport in TV news coverage was very minimal. Mahdavian Mashhadi (2008) [7] claimed mass media to play significant role in activating public, educative, championship, and technical sports especially in respect to women's sport. Ghasemi et al. (2008) described media role, particularly of the entire country TV, as important in development of championship sport and explained the importance of paying attention to

all sport components in television. Academic sport has always been studied and analyzed from different aspects; but in Iran it still has not reached the necessary dynamics as a study domain. On the other hand, importance and necessity of attention to influential factors on academic sport development and lack of professional studies in this area make the significance of this research more obvious. As a result, in this research, to analyze the influence of television, radio, and press (as mass media) on academic sport development, athlete students participating in Iran's sports Olympiad of Payam e Noor Universities' students has been approached.

Purpose

The purpose of this research was factorial analysis of mass media influence on academic sports development.

Material and methods

Participants: population of the research consisted of all participating referees, coaches, and athletes in Iran sports Olympiad of Payam e Noor Universities, 2014. Statistical sample of research consisted of 176 persons who were selected randomly.

Research Design: methodology of this research is descriptive - correlation. To gather research data a researcher made questionnaire was utilized. In order to determine superficial and content validity of research tool, the questionnaire was approved by academic professors and media experts. Questionnaire's stability was reported to be $\alpha=0.91$.

Statistical Analysis: to analyze research data, descriptive statistics (frequency, frequency percentage) and inferential statistics (Kolmogrov-Smirnov test and Wilcoxon) using SPSS 23 software were performed; also to analyze structure validity and to present measurement models of research variables AMOS 24 software was used.

Table 1. Description of Personal Characteristics of Respondents

Percentage	Frequency	Variable	Percentage	Frequency	Variable
78.7	137	Less than 1	32.8	57	18-21
16.7	29	1-2	48.9	85	22-26
2.9	5	3-4	13.2	23	27-31
1.7	3	More than 4	5.2	9	32-36
69.4	120	Less than 1	52.6	92	Physical Education
20.2	35	1-2	47.4	83	Other than Physical Education
5.2	9	3-4	6.3	11	Associate Degree
5.2	9	More than 4	85.1	148	Bachelor
36.6	63	Less than 1	8.6	15	Master and Higher
41.4	72	1-2	27.5	46	1-6
14.4	25	3-4	46.7	78	7-12
8.6	15	More than 4	22.2	37	13-18
			3.6	6	19-24

Results of the research

Demographic findings of the participating athletes are summarized in table 1.

Using Kolmogorov-Smirnov test, hypotheses of abnormal distribution of data was disapproved; hence to compare current situation and desirable role of mass media in academic sport development Wilcoxon test was used (Table 2).

Table 3 demonstrates the factor analysis of role of television, radio, and press, separately, on sports development.

From table 3, it is evident that factors of promotion of academic sports managers' awareness, improvement of coaches' technical performance, and improvement of referees' technical performance respectively take the highest influence from television, radio, and press.

Based on measurement model for level of influence of mass media on Iran's female academic sport development (figure 1), improvement of coaches' technical performance (0.86), improvement of referees' technical performance (0.85), and promotion of academic sport managers' awareness (0.83) respectively are the mostly influenced variables by mass media.

Discussion

Results of the research clarified that there is a significant

difference between current situation and desirable situation of influence of media under investigation in all research variables. In other words, mass media does not perform appropriately on their designated roles. Hence, media is expected to enhance their effort to achieve their prophecy regarding academic sport development. Rahimi Ajdadi (1996) [9] had indicated television, radio, and press have had a crucial and significant role in progression and development of women's sport in society and had been able to expand people's beliefs to criticize as well as make progress in the society. It is worth mentioning despite conduction of several studies over different periods of time on influences of mass media on different sport areas, yet there are still deficiencies in achieving the relevant objectives in case of media most especially in terms of women's sport. This represents a gap between mass media performance in broadcast of women's sport and results of the conducted researches.

Results of factorial analysis of this research showed that television renders respectively the most influence on promotion of academic sports managers' awareness (0.85), improvement of coaches' technical performance (0.80), and fair allotment of academic sport facilities (0.78). Based on results of research, it seems those engaged in different TV channels should pay much more attention

Table 2. Comparison of Current Situation and Desirable Role of Mass Media in Female Academic Sports Development

Overall Result	Significance Level	Z Statistics	Variable
Existence of Difference	0.001*	-9.151	Promotion of Public Awareness of Academic Sport
Existence of Difference	0.001*	-9.201	Athletes' Performance Improvement
Existence of Difference	0.001*	-9.538	Identification of Sports Talents
Existence of Difference	0.001*	-9.128	Improvement of Coaches' Technical Performance
Existence of Difference	0.001*	-9.516	Improvement of Referees' Technical Performance
Existence of Difference	0.001*	-9.732	Promotion of Academic Sports Managers' Awareness
Existence of Difference	0.001*	-9.110	Determining Academic Sports Strategies
Existence of Difference	0.001*	-10.088	Fair Allotment of Academic Sport Facilities
Existence of Difference	0.001*	-9.527	Increased Research on Academic Sport
Existence of Difference	0.001*	-9.836	Increasing Allocated Budget for Academic Sport
Existence of Difference	0.001*	-9.452	Increasing Sponsors and Public Investment
Existence of Difference	0.001*	-9.804	News Coverage of Academic Sport
Existence of Difference	0.001*	-9.826	Increased Employment and Entrepreneurship at Students' Olympiads
Existence of Difference	0.001*	-9.951	Increased Audiences for Academic Sports
Existence of Difference	0.001*	-9.431	Familiarity with Academic Sport Champions

*:p<0.05

Table 3. Factor Analysis of Role of Television, Radio, and Press on Academic Sport Development

		Standard Regression Weight of TV Influence on Research Items	Standard Regression Weight of Radio Influence on Research Items	Standard Regression Weight of Press Influence on Research Items	Significance Level		
Promotion of Public Awareness of Academic Sport	<---	.677	.644	.643	***		
Athletes' Performance Improvement	<---	.715	.748	.715	***		
Identification of Sport Talents	<---	.667	.672	.707	***		
Improvement of Coaches Technical Performance	<---	.805	.810	.675	***		
Improvement of Referees' Technical Performance	<---	.727	.718	.740	***		
Promotion of Academic Sports Managers' Awareness	<---	.850	.737	.723	***		
Determining Academic Sport Strategies	<---	.768	.778	.690	***		
Fair Allotment of Academic Sport Facilities	<---	.785	.793	.679	***		
Increased Research on Academic Sports	<---	.737	.612	.641	***		
Increasing Allocated budget for Academic Sport	<---	.651	.593	.575	***		
Increased Sponsors and Public Investments	<---	.642	.587	.563	***		
News Coverage of Academic Sports	<---	.553	.474	.549	***		
Increased Employment and Entrepreneurship in Students' Olympiads	<---	.581	.557	.513	***		
Increased Audiences for Academic Sport	<---	.596	.530	.600	***		
Familiarity with Academic Sport Champions	<---	.621	.479	.603	***		
RMSEA	CFI	IFI	NFI	AGFI	GFI	CMIN/DF	Fit Indices
0.055	0.97	0.97	0.92	0.88	0.92	1.537	Factor Analysis of TV's Role
0.059	0.96	0.96	0.91	0.86	0.91	1.604	Factor Analysis of Radio's Role
0.064	0.95	0.95	0.90	0.85	0.90	1.713	Factor Analysis of Press's Role

***:p<0.05

Table 4. Fit Indices of Measurement Model for Level of Influence of Mass Media on Academic Sport Development

RMSEA	CFI	IFI	NFI	AGFI	GFI	CMIN/DF	Fit Indices
0.062	0.97	0.97	0.93	0.86	0.91	1.673	Factor Analysis of Role of Mass Media

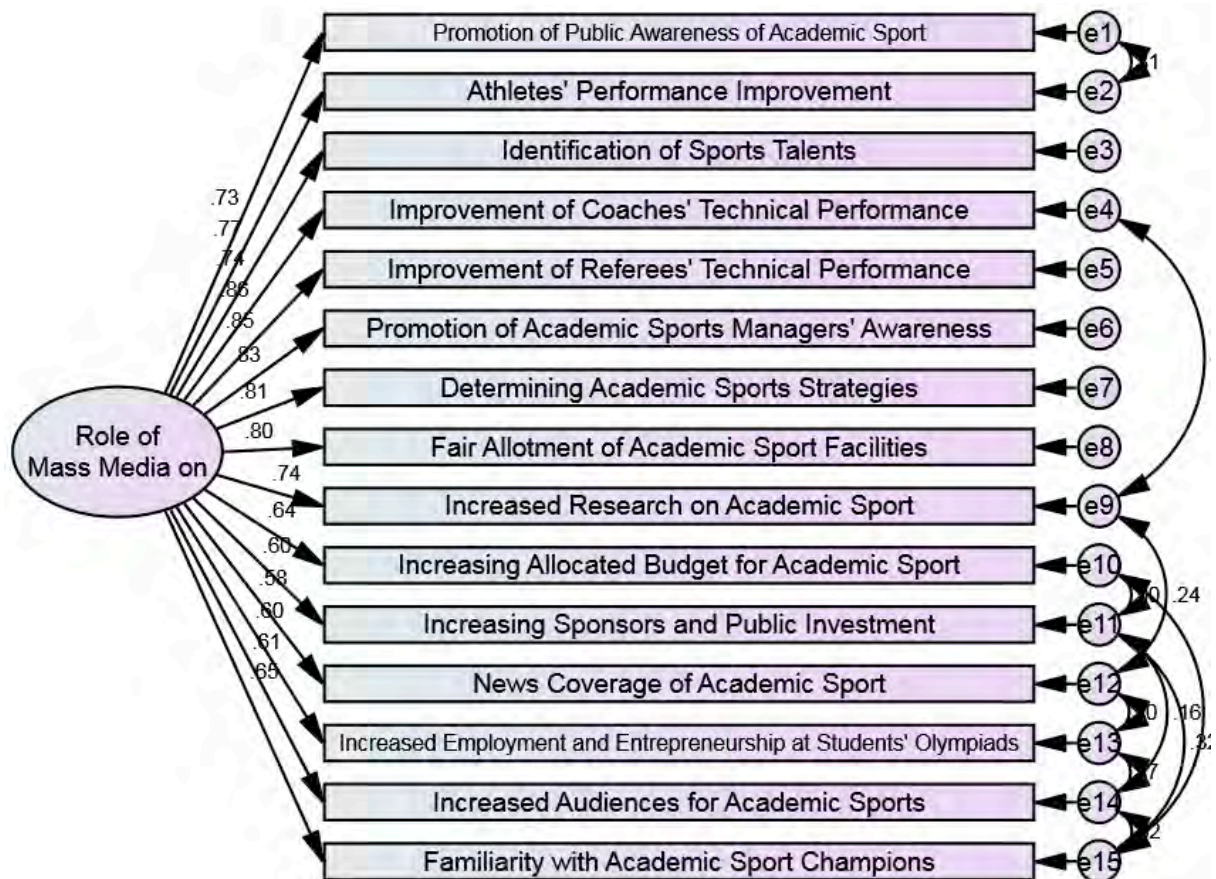


Figure 1. Measurement Model for Level of Influence of Mass Media on Iran's Female Academic Sport Development

to their performance in terms of sports; since television is amongst the most influential media on development of different sport areas which is, based on the related factor analysis, influential on development of dimensions of academic sport.

Results of factor analysis on radio demonstrated that this media is respectively influential on improvement of coaches' technical performance (0.81), fair allotment of academic sports facilities (0.79), and determining academic sports strategies (0.78). In other part, factor analysis of extensible variables that are influenced by press respectively include improvement of referees' technical performance (0.74), increasing academic sport managers' awareness (0.72), and improvement of athletes' performance.

Finally, overall factorial analysis of mass media influence on academic sport development showed improvement of coaches' technical performance (0.86), improvement of referees' technical performance (0.85), and increasing academic sport managers' awareness (0.83) are respectively the most influenced variables by mass media. Based on research findings, technical performance in women's sport events and matches is one of the most essential factors that is influenced by mass media. In other words, presentations and media reports of women's events will play significant role in increasing coaches, referees, and athletes' performance quality. This might be due to lack of visibility of valuable efforts of women in sports.

Therefore, based on research results and respondents' comments, audio and visual broadcast and presentation of women's sports on mass media is motivational sign to increase women's performance quality to even higher levels in sports fields. Motivation to being seen, encouraged, cheered, and supported by audiences both in sport arena and media is amongst important reasons to enhance women's performance quality in sports. Therefore, mass media such as television, radio, and press have a crucial and effective role to make this happen. Also, based on final measurement model of this research, media has a high influence on increasing academic sports managers' awareness especially in terms of women's sports. Since mass media especially television, due to extensive audience coverage, are important and effective tools to increase awareness and to direct beliefs and cultures, all over the world a great amount of attention is paid to them by audiences. Considering the research results, mass media due to this serious role, shall exert effort to transfer information and awareness such as sending messages and criticisms of those involved in sports as well as people of society to concerned managers and others in charge as much as possible. As it has been argued, one of the indirect communication channels of athletes or non-athlete people in society with concerned high officials is through influential media such as television and radio.

Other results of the final factor analysis of research

demonstrated that determining academic sport strategies, increased academic sport research, identification of sport talents, promotion of public awareness about academic sport, fair allotment of academic sport facilities, increased budget allocation to academic sport, increased sponsors and public investment, increased employment and entrepreneurship in students' Olympiads, and increased audiences for students' sports are also variables highly influenced by mass media in Iran.

Conclusions

It is evident that information dissemination role of media could be utilized as a tool for increase of public awareness level in respect to academic sport as well as to attract college students toward sports. Media, by taking advantage of advertising, information dissemination and education about sport and its advantages, can cause more active participation of female college students in

different fields of public sports as well as championships in universities. At the same time, if women's sport is broadcasted by media, it probably would increase investment and financial supports both from public and private sectors in terms of women's sport; since, one of main objectives of financial supporters is to be introduced to public and attract even more consumers. This would be possible in shadow of media's higher supports from women's sport. Another dimension of academic sport development by mass media is increased employment and entrepreneurship; this means support and introduction of entrepreneurs and others engaged in the field by mass media would perform as a motivational force for others to be creative and innovative at students' sport events and Olympiads.

Conflict of interests

The authors declare that there is no conflict of interests.

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Информация об авторах:

Бенар Ношин; <http://orcid.org/0000-0003-3765-916X>; noshin.benar@yahoo.com; Университет Гуилан; п/я 1841, Рашт, Иран.

Емами Мина; <http://orcid.org/0000-0002-2057-2423>; m.emami1991@yahoo.com; Университет Гуилан; п/я 1841, Рашт, Иран.

Ефтекхари Озра; <http://orcid.org/0000-0001-7445-7351>; ozra.eftekhari@gmail.com; Университет Шомал; п/я 731. Амол, Мазандаран, Иран.

Еганех Фар Настаран; <http://orcid.org/0000-0001-6314-0949>; blackscorpion_002@yahoo.com; Исламский Университет отделение Азад Энзели; п/я 43145-1655, Бандар Анзали, Иран.

Кхан Мохаммади Али Мохаммад; <http://orcid.org/0000-0002-2519-5727>; reza.k1999@gmail.com; Университет Гуилан; п/я 1841, Рашт, Иран.

Information about the authors:

Benar Noshin; Assistant professor; <http://orcid.org/0000-0003-3765-916X>; noshin.benar@yahoo.com; Faculty of Physical Education and Sport Sciences, University of Guilan; Box 1841, Rasht, Iran.

Emami Mina; Master in Sport Management; <http://orcid.org/0000-0002-2057-2423>; m.emami1991@yahoo.com; Faculty of Physical Education and Sport Sciences, University of Guilan; Box 1841, Rasht, Iran.

Eftekhari Ozra; Master in Sport Management; <http://orcid.org/0000-0001-7445-7351>; ozra.eftekhari@gmail.com; University of Shomal; P.O.Box 731. Amol, Mazandaran, Iran.

Yeganeh Far Nastaran; Lecturer; <http://orcid.org/0000-0001-6314-0949>; blackscorpion_002@yahoo.com; Islamic Azad University of Bandar Anzali Branch; P.O.Box:43145-1655, Bandar Anzali, Iran.

Khan Mohammadi Ali Mohammad; Master in Sport Management; <http://orcid.org/0000-0002-2519-5727>; reza.k1999@gmail.com; Faculty of Physical Education and Sport Sciences, University of Guilan; Box 1841, Rasht, Iran.

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