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The predictability of coaching efficacy on organizational commitment

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ABSTRACT

Present study aimed to evaluate the predictability of coaching efficacy on organizational commitment. Coaching efficacy was defined as the extent to which coaches believe they have the capacity to affect the learning and performance of their athletes (Feltz, et al, 1999). Casual research design, fieldwork data collection, and descriptive and inferential (structural equation modeling) statistical method were applied for current study. Coaches (soccer, martial art, swimming, and weight lifting) held valid coaching certificate and had, at least, one year of coaching experience consisted the population. Sampling executed based on optimum participant needed for structural equation modeling (453 coaches after drops). Results showed that most of the coaches (213 coaches) had championship records in national level and 9 percent of them raised athletes who reached the Olympic or international medals. The result of research about main goal of this study through structural equation modeling revealed that organizational commitment dimensions are predicted by coaching efficacy.

Key words: self efficacy, coaching efficacy, organizational commitment

INTRODUCTION

Coaching efficacy is the extent to which sport coaches believe they have the capacity to influence the learning and performance of their athletes. Two forms of coaching efficacy have received attention, and it is essential to differentiate between the two. One relates to coaches' confidence in their own abilities to facilitate the learning and development of their athletes, and the other relates to coaches' confidence in their players' abilities to perform given tasks [6, 8]. In this study, we have concentrated on earlier type which deals with the degree that coaches believe in their own capabilities.

Feltz, Chase, Moritz, and Sullivan (1999) developed a conceptual model for coaching efficacy which was based upon theorizing by Bandura (1977) as well as Denham and Michael's (1981) model of teacher efficacy, and it subsequently resulted in Coaching Efficacy Scale (CES). They theorized four dimensions (game-strategy efficacy, motivation efficacy, technique efficacy, and character-building efficacy) for this scale which were considered to be influenced by specific antecedents of coaching efficacy. It is also been suggested that dimensions of self efficacy will affect outcomes related to the coaching behavior [2, 6]

Feltz, Short, and Sullivan (2008) described that the concept of coaching efficacy comprised four dimensions: game strategy efficacy was defined as the confidence coaches have in their ability to coach during competition and lead their team to a successful performance. Motivation efficacy was defined as the confidence coaches have in their ability to affect the psychological skills and states of their athletes. Technique efficacy was defined as the belief coaches have in their instructional/ diagnostic skill. Lastly, character building efficacy involved the confidence coaches have in their ability to influence positive attitude toward sport in their athletes [7].

Meyer and Allen's (2007) three-component model of commitment was created to argue that commitment has three different components that correspond with different psychological states. Meyer and Allen created this model for two reasons: first "aid in the interpretation of existing research" and second "to serve as a framework for future research" [21]. Their study was based mainly around previous studies of organizational commitment. Meyer and Allen's research indicated that there are three "mind sets" which can characterize an employee's commitment to the organization:

Affective Commitment

AC is defined as the employee's positive emotional attachment to the organization. Meyer and Allen pegged AC as the "desire" component of organizational commitment. An employee who is affectively committed strongly identifies with the goals of the organization and desires to remain a part of the organization. This employee commits to the organization because he/she "wants to". This commitment can be influenced by many different demographic characteristics: age, tenure, sex, and education but these influences are neither strong nor consistent. The problem with these characteristics is that while they can be seen, they cannot be clearly defined. Meyer and Allen gave this example that "positive relationships between tenure and commitment maybe due to tenure-related differences in job status and quality" [22]. In developing this concept, Meyer and Allen drew largely on Mowday, Porter, and Steers's (2000) concept of commitment, which in turn drew on earlier work by Kanter (1968) [23, 24].

Continuance Commitment

Continuance Commitment is the "need" component or the gains versus losses of working in an organization. "Side bets," or investments, are the gains and losses that may occur should an individual stay or leave an organization. An individual may commit to the organization because he/she perceives a high cost of losing organizational membership (cf. Becker's 1960 "side bet theory"[25]). Things like economic costs (such as pension accruals) and social costs (friendship ties with co-workers) would be costs of losing organizational membership. But an individual doesn't see the positive costs as enough to stay with an organization they must also take into account the availability of alternatives (such as another organization), disrupt personal relationships, and other "side bets" that would be incurred from leaving their organization. The problem with this is that these "side bets" don't occur at once but that they "accumulate with age and tenure" [21].

Normative Commitment

The individual commits to and remains with an organization because of feelings of obligation, the last component of organizational commitment. These feelings may derive from a strain on an individual before and after joining an organization. For example, the organization may have invested resources in training an employee who then feels a 'moral' obligation to put forth effort on the job and stay with the organization to 'repay the debt.' It may also reflect an internalized norm, developed before the person joins the organization through family or other socialization processes, that one should be loyal to one's organization. The employee stays with the organization because he/she "ought to". But generally if an individual invest a great deal they will receive "advanced rewards." Meyer and Allen based their research in this area more on theoretical evidence rather than empirical, which may explain the lack of depth in this section of their study compared to the others. They drew off Wiener's (2005) research for this commitment component [26].

In present study, we have tried to examine the anticipation ability of coaching efficacy on organizational commitment. Feltz and colleagues (1999) at the initial study on their self efficacy model and by using the total coaching efficacy measure hypothesized that coaching efficacy would predict coach's behavior in terms of positive feedback to players, time spent coaching, and commitment to coaching. Although, Feltz and colleagues (1999) in a survey which implemented on high school male basketball coaches revealed that commitment was not related to the construct [5, 7]. However, Kent and Sullivan (2003), surveying U.S. and Canadian intercollegiate coaches, found a relationship with the organizational commitment, defined as the extent to which workers in an organization are committed to the organization, its goals and values, and its processes (chelladurai, 1999). Rather than use single-

item methodology, they measured commitment in terms of affective, continuance and normative commitments. In a path analysis they found a significant and strong relationship between coaching efficacy and affective commitment and a lesser but still significant relationship with normative commitment [7]

MATERIALS AND METHODS

The statistical sample of study had consisted of 453 Iranian coaches in four different sports (soccer, swimming, martial arts and weight lifting), who had valid certificate for coaching and, at least, one year experience in coaching. According to optimum number of participant needed for surveying in structural equation modeling method [14], (5 to 10 participants for each research variable), the researches of present study determined that 550 coaches should take part in this investigation; But after data gathering revealed that some of questionnaires were not completely filled and, also, few participants recognized ineligible for study, so, the real sample number reduced to 453 participants

Researchers used Meyer & Allen's (1997) organizational commitment questionnaire (OCQ) and Feltz and colleagues (1999) coaching efficacy scale (CES) in this survey. Feltz, Chase, Moritz and Sullivan (1999) developed a model and a questionnaire to measure the confidence of coaches in their capabilities in affecting the learning and performance of their athletes. Coaching efficacy scale (also known as coaching confidence questionnaire) divided to four dimensions: game strategy efficacy, motivational efficacy, technique efficacy and character building efficacy. Tsorbatzoudis and et al (2003) conducted a survey to examine the psychometric properties of the Coaching Efficacy Scale. In Tsorbatzoudis' survey a first-order confirmatory factor analysis supported the basic factorial structure of the scale and examination of a higher order model of an overall coaching efficacy factor showed satisfactory fit, using second-order confirmatory factor analysis. Moreover, the scale showed satisfactory Cronbach of .82 and 30-day test-retest reliability of .73 [18, 19]. Sullivan et al (2012) reported that "Previous studies support the validity, reliability, and factor structure of this scale (Feltz et al., 1999; Myers et al., 2008)" [15]

Many researchers have investigated the psychometric properties of Allen and Meyer's organizational commitment questionnaire. The factor structure of Allen and Meyer's (1997) organizational commitment scale has been examined in several studies. Some of these studies include measures of all the three components (affective, continuance, and normative) whilst others focus only on affective commitment measure and/or continuance commitment measure.

Studies have provided empirical support to demonstrate that the components are indeed distinguishable from one another (Dunham, Grube & Castaneda, 1994; McGee & Ford, 1987 and Reilly & Orsak, 1991). Dunham, Grube & Castaneda (1994) indicated that the range of reliability for affective commitment is 0.74 to 0.87, for continuance commitment is 0.73 to 0.81 and for normative commitment is 0.67 to 0.78 through Cronbach alpha test. Moreover, Karim and Noor (2011) evaluated the psychometric properties of Allen and Meyer's OCQ and found that the two measures to be distinguishable from one another i.e. the measures exhibited convergent as well as discriminant validity. The findings demonstrate that Allen and Meyer's Organizational Commitment measures are applicable to librarians in general and to academic librarians specifically.

In present study, descriptive statistics were applied for describing the main features of collected data and summarize the sample measures like central tendency and measures of variability or dispersion. In inferential part statistical analyze these methods were used: Kolmogorov-Smirnov test to confirm normal distribution of gathered data and Structural equation modeling (SEM) for testing and estimating causal relations of coaching efficacy and organizational commitment. Moreover, LISREL 8.80 and SPSS 14 used as statistical software

RESULTS AND DISCUSSION

The demographic characteristics of samples are presented in Table 1. The frequency of participants in gender factor is almost equal and most of coaches had been 20 to 40 years old (345 coaches). The most frequent sport was soccer and the least one had been weight lifting. Table 2 shows the result of two sample t-test for gender differences and ANOVA for age and sport group's differences in coaching efficacy. The result of two sample Student's t-test on coaching efficacy and between male and female coaches shows that significance level of 0.058. Moreover analysis of variance on age and kind of sport factors resulted in significance of 0.102 and 0.9, respectively.

Table 1. Demographics

Sex			Age			Sport		
groups	Frequency	percentage	Groups	Frequency	Percentage	Groups	Frequency	percentage
Male	245	54.1	20-29	183	40.4	Soccer	172	38
female	208	45.9	30-39	162	35.8	Martial arts	124	27.4
			40-49	66	14.6	Swimming	109	24.1
			50-59	30	6.6	Weight lifting	48	10.5
			60...	12	2.6			

Table 2. significance of variables

Variable	gender	age	Sport
Coaching efficacy	0.058	0.102	0.9

The education levels of coaches have been shown in table 3. Mostly, coaches had diploma (high school graduating degree) or bachelor degree. Moreover 258 coaches (57%) had studied in physical education and sport science and 195 coaches (43%) in other fields

Table 3. education level of coaches

Level	Frequency	Percentage
Diploma	206	45.5
BSc	137	30.2
MSc	86	19.0
PhD	24	5.3

Table 4 is about playing and coaching years of experience. Most of coaches have at least had 6 to 10 years experience in playing and also coaching. Another data gathered in this area of demographic characteristics was club, institutional, and national years of coaching experience. For example, 83 coaches (18.3%) had between 6 to 10 years of experience in coaching sport clubs; or in institutional coaching, the records of 220 coaches (48.6%) were between 1 to 5 years; or as an instance, 341 coaches (75.3%) had no experience of national coaching at all. Highest championship level of coaches had been measured in order to examine the level prior success of coaches (table 5).

Table 4. playing and coaching records

Years	Playing		Coaching	
	frequency	Percentage	frequency	Percentage
0-5	49	10.8	185	40.8
6-10	169	37.3	167	37.1
11-15	133	29.4	47	10.4
15-20	82	18.1	18	4.0
20...	20	4.4	35	7.7

Table 5. highest championship level of coaches

Level	Frequency	Percentage
Olympic, world, continent	32	7.1
International	81	17.9
National	213	47
State	115	25.4
Unanswered	12	2.6

Some statistical characteristics of dimensions of coaching efficacy and organizational commitment are shown in table 6 and table 7. Moreover the total Cronbach's alpha for organizational commitment and self efficacy were respectively equal to 0.884 and 0.892. Significant amount of self efficacy obtained from Kolmogorov-Smirnov normal distribution test was 0.989 which shows normal distribution.

Table 6. scores of self efficacy dimensions

Variables	min	max	Mean	SD	Cronbach's alpha	Significant coefficient (SIG)	t-statistics (T)
Game strategy efficacy	1	5	2.9014	0.73118	0.810	0.004	-2.870
Motivational efficacy	1	5	3.3271	0.77734	0.805	0.001	8.956
Technique efficacy	1	5	2.6274	0.83239	0.781	0.001	-9.528
Character building efficacy	1	5	2.9007	0.70559	0.761	0.003	-2.996

Table 7. scores of organizational commitment dimensions

Variables	min	max	Mean	SD	Cronbach's alpha	Significant coefficient (SIG)	t-statistics (T)
Affective commitment	1	5	2.8366	0.82407	0.852	0.001	-4.219
Continuance commitment	1	4.60	2.6382	0.80517	0.798	0.001	-9.564
Normative commitment	1	5	3.2468	0.79496	0.873	0.003	6.608

In figure 1, LISREL output revealed the significance amount of each questions of coaching efficacy scale and relations of dimensions with another obtained of confirmatory factor analysis statistical method which is used to determine the reliability of coaching efficacy scale. Also, statistical analysis about the questionnaire showed following amounts :

Chi square: 638.25 (which high Chi square was, maybe, because of high number of participants), degree of freedom (df): 183, the root mean square error of approximation (RMSEA): 0.074, goodness of fit index (GFI): 0.87, adjusted goodness of fit (AGFI): 0.85, and normed fit index (NFI): 0.93. Also, table 8 shows correlation (r) and significant coefficient between dimensions of coaching efficacy

Figure 1. LISREL output of coaching efficacy confirmatory factor analysis

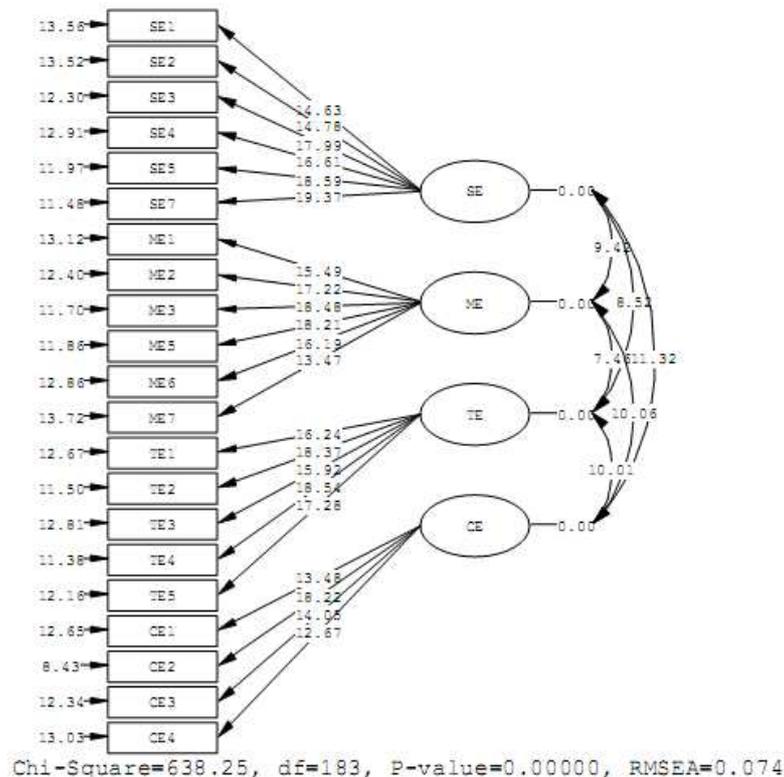


Table 8. correlation and significant between dimensions of coaching efficacy

	GSE		ME		TE		CBE	
	R	SIG	R	SIG	R	SIG	R	SIG
Game strategy efficacy (GSE)	1	1	-	-	-	-	-	-
Motivational efficacy (ME)	0.43	9.42	1	1	-	-	-	-
Technique efficacy (TE)	0.40	8.52	0.36	7.46	1	1	-	-
Character building efficacy (CBE)	0.51	11.32	0.47	10.06	0.47	10.01	1	1

LISREL output revealed the significance amount of each questions of organizational commitment questionnaire and relations of dimensions with another obtained of confirmatory factor analysis statistical method which is used to determine the reliability of coaching efficacy scale (figure 2). Also, statistical analysis about the questionnaire showed following amounts:

Chi square: 341.55 (which high Chi square was, maybe, because of high number of participants), degree of freedom (df): 87, the root mean square error of approximation (RMSEA): 0.080, goodness of fit index (GFI): 0.83, adjusted goodness of fit (AGFI): 0.89, and normed fit index (NFI): 0.93. Also, table 9 shows correlation (r) and significant coefficient between dimensions of coaching efficacy

Figure 2. LISREL output of organizational commitment confirmatory factor analysis

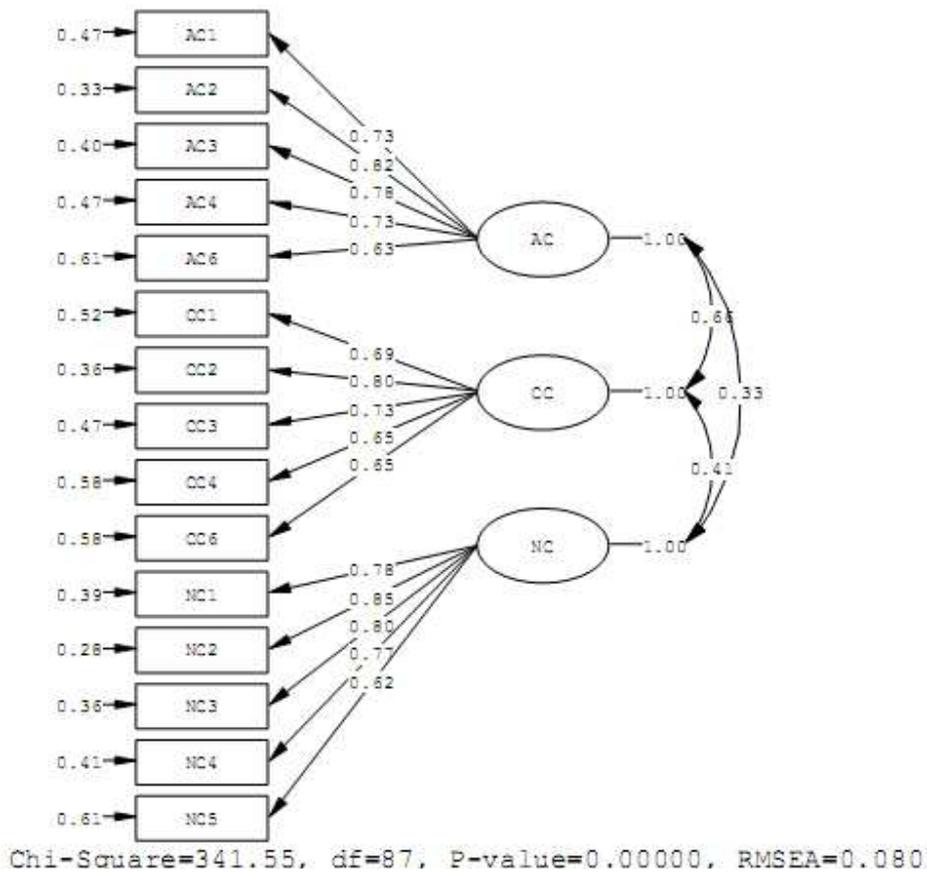
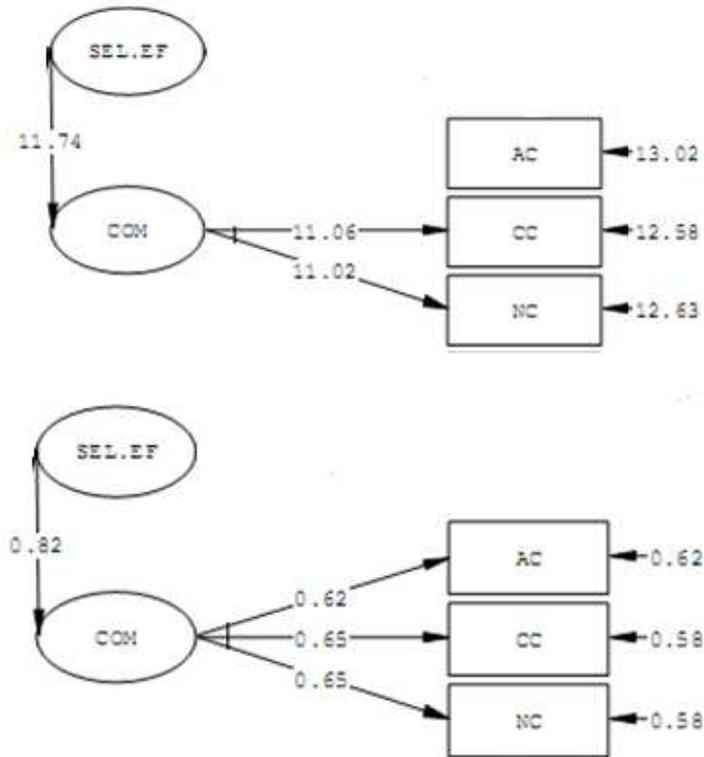


Table 9. correlation and significant between dimensions of coaching efficacy

	AC		CC		NC	
	R	SIG	R	SIG	R	SIG
Affective Commitment (AC)	1	1	-	-	-	-
Continuance Commitment (CC)	0.66	18.50	1	1	-	-
Normative Commitment (AC)	0.33	6.89	0.41	8.88	1	1

Structural equation modeling (figure 3) had been used for testing the hypothesis (coaching efficacy on organizational commitment). Result revealed confirmation of null hypothesis about effect of coaching efficacy: affective, continuance and normative respectively with the significance of 0.82 and standard evaluation factor of 11.74.

Figure 3. LISREL outputs of structural equation modeling



CONCLUSION

Result of research showed that there is a relationship between coaching efficacy and dimensions of organizational commitment, and this relationship is casual which means coaching efficacy predict and affect commitment but the study did not revealed the sturdy relationships. From a particular point of view, it seems that organizational commitment has not been taken seriously yet by some coaches. Perhaps because coaching in high school or youth level is not a full time job, coaches do not entirely devote them to the career, are not eager to continue coaching for long period of time and in result their commitment has not proper stability. In other word, none of the organizational commitment's subscale is that powerful to pave the ground for the reliable and strong commitment. Feltz and her colleagues (1999) used the coaching behavior assessment system (CBAS: Smith, Smoll and Hunt, 1997) to observe 15 coaches with the highest and 15 coaches with the lowest coaching efficacy scale score on 12 categories of coaching behavior including commitment. They found that commitment was not related to the construct [5,7] which this result, somehow, is not consistent with ht outcomes of present study .

It seems that if the dimensions of coaching efficacy have enough power, they can play a basic role for the emergence of organizational commitment in coaches. For example, it is more likely that a coach feels responsible and committed to his/her team or club if he/she shows high level efficacy in character building factor, because how you can teach your students commitment and build their character when you, as a coach, do not have any .

Kent and Sullivan (2003), surveying U.S. and Canadian intercollegiate coaches, in consistency with current study found a relationship between coaching efficacy and organizational commitment. Rather than use single-item

methodology, they measured commitment in terms of affective, continuance and normative commitments. In a path analysis they found a significant and strong relationship between coaching efficacy and affective commitment and a lesser but still significant relationship with normative commitment [7]. Generally, it seems that coaching efficacy, in a significant way; predict the characteristics of coaches who have situational and conceptual understanding about their job. High level of coaching efficacy works as shield against stressful factor involved with coaching carriers and nowadays life problems like economic crisis in order to maintain positive coaching behavior including organization commitment.

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