The Causal Model of Authentic Leadership on Psychological Well-being and Job Satisfaction

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Abstract. This study aimed to investigate the impact of authentic leadership on psychological well-being and job satisfaction with mediating role of psychological capital among employees at Ministry of Sports and Youths. This was causal-applied study. The population consisted of all employees and managers at Ministry of Sports and Youth in 2018 (N= 831). The research tools included Avolio et al. Authentic Leadership Questionnaire, Luthans’s Psychological Capital Scale, Minnesota’s Job Satisfaction Standard Questionnaire, and Ryff’s Psychological Well-being questionnaire. The collected data were analyzed using partial least square (Smart PLS) and SPSS. Also, Sobel test and VAF were used to measure the impact and t-value of psychological capital. The findings showed that the authentic leadership impacted directly and indirectly on psychological well-being and job satisfaction of staff.
at Ministry of Sports and Youth with mediating role of psychological capital.

**Keywords:** Psychological Capital, Authentic Leadership, Psychological Well-being, Job Satisfaction.

1. Introduction

Today, organizations are more competitive than ever in order to survive in turbulent business world. Since the work quality of human resource is an important factor for success of organizations, especially in uncertainty conditions, the energetic and hard-working staff may provide valuable gains for organizations (Lu et al., 2014). Considering the benefits result from positive attitudes of staff in organizations, the researchers have been interested in studying this factor in work environments (Rottinghaus, Dee & Borgen, 2005). Meanwhile, the rapid and constant progress in change path is the prominent feature of organizations in twenty-first century. The unstable environment, development of technologies, global competition, diversity of workforce, and new organizational structures are some challenges faced by organizations (Huselid, 1995). Therefore, the organizations improve their services and satisfy their staff to success in competitions (Na’ami et al., 2018). Job satisfaction is a positive and pleasing feeling which arises from job appraisal or individual experience. However, this positive feeling may increase the efficiency of organization and improve greatly the physical and mental health of individuals (Mulki et al., 2006). The researchers define job satisfaction as general satisfaction of job conditions including payment, promotion, security, etc. (Ahmadi et al., 2012) and perceptions of staff in their job (Conway et al., 2008). Actually, the job satisfaction is a positive reflection of an individual's attitude and feeling about his/her job (Ansari et al., 2018). As much as individuals are satisfied with their jobs, they are more motivated to do their daily works and will be more productive (Oshagbemi, 1999). Considering the definitions, it can be said that the job satisfaction represents the positive feelings and attitudes of individuals on their jobs (Schwepker, 2001). In fact, the staff are required to interact with colleagues, superiors, and clients. They should perceive that they are useful and the community needs their
services. However, the life quality of individuals is influenced by their job satisfaction or dissatisfaction (Han et al., 2015). In this regard, the psychological well-being is one factor which determines satisfaction level at individual and organizational levels (Hasanzadeh & Bagherzadeh, 2018). The psychological well-being includes emotional responses of individuals, their general life satisfaction, and their efforts to achieve perfection and promotion by fulfilling their talents and abilities. It also addresses individuals’ positive and negative emotions, feelings, and social and psychological actions (Hooghe & Vannhout, 2011).

2. Literature review
Ryff (1988) defines the psychological well-being as an individual's attempt to realize his/her potentials. According to Ryff's model, the psychological well-being is an emphasis on satisfaction of achievements, having purposeful life, and trying to grow and realize potentials. The psychological well-being is associated with joyful and deeply pleasing life (Ryan & Deci, 2001). This concept implies that the psychological well-being is not an outcome; it is a process which focuses on good living and realizing all abilities (Kazemi et al., 2017). Ryff (1988) conceptualized well-being on the basis of ideal life and in the sense of boosting potentials. He pointed out that this concept contains the same complementary criteria of psychological health. The World Health Organization (2004) defines mental health as a condition of well-being in which a person recognizes his/her abilities, cope with normal pressures of life, and works productively (Seidi et al., 2014). The psychological capital of staff is one factor affects mental health. In sports organizations, the psychological capital is considered to be a determining factor for success of managers (Sagas, 2004). In order to fill the gaps in combined human capital paradigm, the organizational behavior researcher were prompted to address the psychological capital concept (Kim, 2017). The psychological capital is rooted in positive psychology (Vishal, 2012). It features being committed to success in challenging tasks (self-confidence, self-efficacy), being optimistic and positive about future, sustainability to achieve goals, being hopeful to success and achieve effectiveness in organization, resistance at difficult times, and progress in dealing with problems (Ghasemzadeh et al., 2014). This new
organizational approach maintains that the weaknesses and malfunctioning of individuals should be neglected and their strengths and desirable qualities should be considered to improve their self-confidence, optimism, and hope and thereby, improve their individual and organizational performance (Arizi, 2007). According to researchers, the psychological capital may be considered as a competitive advantage in business world which invests on individuals (Ghasemzadeh et al., 2015). The level and quality of psychological capital is affected by roles and cultural and social situations of individuals in interactions and social relations (Ghasemzadeh et al., 2014). In general, the human capital—knowledge, skills, and abilities which make up individual's expertise— is a key to achieve sustainable competitive advantage in business (Bakker & Schaufeli, 2008). The psychological capital has been investigated in various dimensions including staff, top managers, and organization levels (Kim et al., 2017); it affects various factors of organizational success including organizational performance of employees. Unlike most employees who work in traditional business environments, the employees at sports organizations show unique characteristics such as excitement and pride in workplace (Anagnostopoulos, 2016). The psychological capital in organization may lead to important achievements such as satisfaction, high job performance, and psychological well-being (Kim, 2017). However, the studies show that the appropriate leadership in organization is one important factor to achieve proper performance. As one of the positive leadership methods (Cooper et al., 2005), the authentic leadership focuses on ethical aspects of leadership (Piran Nejad, 2013); it seems that this leadership method may provide necessary grounds for improving job satisfaction (Rahimnia & Hosseinpoor, 2016). The authentic leadership theory is the latest theory of leadership that has been suggested and operationalized in organizations. This theory focuses on psychological dimensions of leader and followers and the context in which they work (ibid). In authentic leadership, the leader's behavior is coordinated with followers’ behavior based on their values, beliefs, morals, and self-awareness; he/she uses individual abilities to communicate with followers (Penger, 2015). The authentic leaders are constantly seeking ways to earn support, achieve general acceptance, and improve their performance in order to deal with
negative perceptions of followers and achieve shared organizational goals. According to Robbins and Judge, the authentic leaders recognize their beliefs and values and act openly and unreservedly on the basis of these beliefs and values. So, the trust is the main feature of these leaders (Robbins, 2010). The trust and in particular, trust in leader, is an essential and lasting component of organizational success. Building trust in staff, the authentic leader may achieve desired goals of organization (Hasan & Ahmad, 2011). Despite the newness of this leadership style and lack of an agreed definite definition for it, there is a consensus on some aspects of authentic leadership such as the authentic leaders have self-awareness and act according to their original values and beliefs (Endrissat et al., 2007). These leaders are not involved in leadership activities due to personal privileges such as position, honor, boasting, etc., but due to their firm convictions (Shamir & Ilam, 2005). According to one of the most comprehensive definitions, the authentic leadership improves psychological capacities and creates positive ethical atmosphere to enhance self-awareness, create an institutionalized ethical vision, and achieve communication transparency (Walumbwa et al., 2010). There are various studies on variables of this research. Among them, Torkzade et al. (2016) found that the psychological capital plays a positive and significant mediating role in relationship between authentic leadership and performance. Karimi et al. (2015) investigated the effect of psychological capital of staff on their emotional and psychological well-being with mediating role of positive emotions, stress, and anxiety. They found that the high level of psychological capital in nurses increases their positive emotions, reduces their stress and anxiety, and increases their well-being. In general, the findings of their research emphasized on the need to pay more attention to components of psychological capital and provide strategies for intervention to improve the psychological and emotional well-being of nurses. Kim et al. (2017) explained the psychological capital and its outcomes in organizations and provided a conceptual model. They indicated that the various factors related to organization, leadership, and staff impacted directly on psychological capital and attitudes (satisfaction and psychological well-being) and behaviors of staff at sports organizations. Also, the mediating role of psychological capital was confirmed. Mirmohammadi and Rahimian
(2014) concluded that the authentic leadership had a positive and significant effect on psychological capital and creativity. Rego et al. (2012) examined the relationship between authentic leadership and creativity with mediating role of psychological capital. The findings indicated that as a mediator, the psychological capital is a suitable modifier in relationship between authentic leadership and creativity. Ellinger et al. (2013) concluded that the psychological capital impacts positively on commitment and organizational behavior of staff. Abbas and Raja (2011) showed that the promotion of psychological capital may lead to increased innovation, organizational commitment, and organizational performance; this may create a competitive advantage in organization. Increasing the desired organizational achievements and generating competitive advantage, therefore, the psychological capital may impact directly or indirectly on profitability of organization. Considering that there is no study on effect of psychological capital at sports organizations in Iran, this study aims to investigate the effect of this factor in sport organizations. It is hoped that the findings will help sports organizations practitioners and managers to focus on strengths and weaknesses of their human resources programs and strengthen their strengths and remove their weaknesses. However, the research question is: Whether the authentic leadership impacts on psychological well-being and job satisfaction of employees at Ministry of Sports and Youth with mediating role of psychological capital?

3. Method
This was an applied study. The partial least squares (PLS) method was used for data analysis; this method does not rely on assumptions such as normal distribution of data and size of sample. This method is also used to predict and explore potential relationships (Hooshangi et al., 2016). The population consisted of all staff at Ministry of Sports and Youth. The key question about sample size in structural equation modeling using PLS method is: how large the sample size should be to rely on findings? There are many answers to this question. Mueller (1996) uses the number of observed variables, number of structures or factors, and number of free parameters for estimation. Her et al. (2009) consider the complexity of model, method of estimating free parameters, multivariate
normalization, and amount of lost data in determining sample size. Considering above factors, however, the sample size in this study was determined to be equal to 265; this was enough for executing structural equation modeling. The research tools included Avolio et al. Authentic Leadership Questionnaire (2007), Luthans’s Psychological Capital Scale (2007), Minnesota’s Job Satisfaction Standard Questionnaire (1967), and Ryff’s Psychological Well-being Questionnaire (1967). Considering that the correlation and regression analysis methods are limited in determining causal relationships between variables (Pardon et al., 2009), the researchers have emphasized on using causal methods such as path analysis and structural equation modeling (Hooman, 2008). There are various models which are used for investigating the relationships between observed variables in structural equations modeling. This provides a quantitative test for a hypothetical model (Schumacker, 2004). However, the collected data was analyzed using SPSS software and smart PLS. All studies and in particular, the studies that use structural equation modeling approach are based on a conceptual framework. The models provide a conceptual or theoretical framework, can represent a hypothetical explanatory mechanism or structure, and may also be a method for organizing the findings of research and presenting them (Parhizgar & Aghajani Afroozi, 2013). Based on theoretical foundations of research variables and the conceptual model provided by Kim (2011), the research hypotheses were as follows.

Figure 1. Conceptual Model Provided by Kim (2017)
4. Findings
The descriptive statistics showed that the number of female and male participants was 95 and 170, respectively. The percentage of those who had under bachelor, bachelor, master, and Ph.D. degrees was 18.1%, 53.6%, 23.4%, and 4.9%, respectively. Also, the number of single and married subjects was 131 and 134, respectively. In terms of work experience, 7.2% was less than 10 years, 14% was 10-15 years, 22.6% was 16-20 years, and 16.2% was more than 20 years. And, 87, 60, 107, and 11 participants were respectively contractual, official, and certified employees at Ministry of Sport and Youth.

Table 1. Measurement and structural model fitness indices

<table>
<thead>
<tr>
<th>Variables</th>
<th>Fitness of measurement models (reliability and validity)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cronbach's alpha</td>
</tr>
<tr>
<td>Authentic Leader</td>
<td>0.809</td>
</tr>
<tr>
<td>Psychological Capital</td>
<td>0.766</td>
</tr>
<tr>
<td>Psychological Well-being</td>
<td>0.831</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>0.847</td>
</tr>
</tbody>
</table>

First, the internal consistency of variables should be examined to ensure the fitness of structural equation model. For this purpose, the Cronbach's alpha coefficient and composite reliability was used to examine the internal consistency of research tools. The internal consistency is acceptable when the Cronbach's alpha coefficient and composite reliability are more than 0.7 and 0.8, respectively (Parhizgar & Aghajani Afroozi, 2013). In addition, the convergent validity was used to assess the validity; the mean of extracted variance is the most important indicator. According to Her et al. (Sarstedt, 2011), the optimal level to ensure convergent validity is at least 0.5. Also, the explained variance index was used to verify the fitness of structural equation model. The fitness indexes are shown in Table 1.
Table 2. Convergent Validity Results

<table>
<thead>
<tr>
<th>Structure</th>
<th>Psychological well-being</th>
<th>Job Satisfaction</th>
<th>Authentic leader</th>
<th>Psychological capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological well-being</td>
<td>0.733</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>0.770</td>
<td>0.753</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Authentic Leader</td>
<td>0.865</td>
<td>0.867</td>
<td>0.797</td>
<td>-</td>
</tr>
<tr>
<td>Psychological capital</td>
<td>0.575</td>
<td>0.620</td>
<td>0.769</td>
<td>0.773</td>
</tr>
</tbody>
</table>

Also, the divergent validity indicates that a structure in the model has more interaction with its indexes than another constructs; its results are presented in Table 2.

Table 3. Effect of independent variable on dependent variable

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Path</th>
<th>Dependent variable</th>
<th>Coefficient of determination</th>
<th>Estimation</th>
<th>P. Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authentic leader</td>
<td>&lt;---</td>
<td>Psychological well-being</td>
<td>0.769</td>
<td>1.034</td>
<td>30.415</td>
</tr>
<tr>
<td>Authentic leader</td>
<td>&lt;---</td>
<td>Job Satisfaction</td>
<td>0.774</td>
<td>0.970</td>
<td>32.799</td>
</tr>
<tr>
<td>Authentic leader</td>
<td>&lt;---</td>
<td>Psychological capital</td>
<td>0.591</td>
<td>0.769</td>
<td>28.906</td>
</tr>
<tr>
<td>Psychological capital</td>
<td>&lt;---</td>
<td>Psychological well-being</td>
<td>0.769</td>
<td>0.220</td>
<td>4.810</td>
</tr>
<tr>
<td>Psychological capital</td>
<td>&lt;---</td>
<td>Job Satisfaction</td>
<td>0.774</td>
<td>0.131</td>
<td>3.321</td>
</tr>
</tbody>
</table>

Table 3 indicates that the predictive variables impact significantly on dependent variables (P ≤ 0.05). Therefore, the research hypotheses are confirmed. In other words, considering the effect coefficients of authentic leadership, it can be said that the effect of authentic leadership on psychological well-being, psychological capital, and job satisfaction is estimated to be moderate; i.e. the authentic leadership in Ministry of Sport and Youth may lead to improved psychological well-being, psychological capital, and job satisfaction of staff.
Table 4. Model fitness assumptions

<table>
<thead>
<tr>
<th>Structure</th>
<th>Communalities</th>
<th>R Squares</th>
<th>GOF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological well-being</td>
<td>0.635</td>
<td>0.769</td>
<td></td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>0.597</td>
<td>0.774</td>
<td></td>
</tr>
<tr>
<td>Authentic leader</td>
<td>0.543</td>
<td>-</td>
<td>0.644</td>
</tr>
<tr>
<td>Psychological capital</td>
<td>0.568</td>
<td>0.591</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>0.585</td>
<td>0.711</td>
<td></td>
</tr>
</tbody>
</table>

The GOF criterion is used to examine the fitness of model; the communalities are the shared mean of each construct and R2 is the mean value of R squares of structures within the model. Watzles et al. (2009) introduced 0.01, 0.25, and 0.36 as low, moderate, and strong values of GOF. Therefore, the value of 0.644 for GOF indicates a strong fitness of model. Finally, the Sobel test was used as one of the important tests to measure the significance of mediator variable in relationship between two variables and VAF was used to determine the indirect effect of mediator variable. The results of Sobel test showed that the effect of authentic leadership on psychological well-being is 19.44 and the effect of authentic leadership on job satisfaction is 17.45. It can be seen that the Z-value which is obtained in Sobel test is greater than 1.96 at a confidence level of 0.95%; therefore, the effect of psychological capital is
significant. According to VAF value, 0.14% of effect of authentic leadership on psychological well-being and 10% of effect of authentic leadership on job satisfaction is explained through indirect effect of psychological capital of staff at Ministry of Sports and Youth.

5. Discussion and Conclusions
This study aimed to investigate the impact of authentic leadership on psychological well-being and job satisfaction with mediating role of psychological capital among employees at Ministry of Sports and Youths. The main advantage of this study was the examination of structural relationships of four important and influential variables in an organization; this may help to understand how these variables affect each other. Also, this study examined authentic leadership and psychological capital to identify the factors affecting job satisfaction and psychological well-being of employees. The findings showed that the authentic leadership impacted directly and indirectly on psychological well-being and job satisfaction of staff at Ministry of Sports and Youth with mediating role of psychological capital. This is consistent with findings of Kim (2017), Mirmohammadi and Rahimian (2014), Rego et al. (2012), and Abbas and Raja (2011). Shamir and Ilam pointed out that the authenticity does not mean purpose-oriented adherence to values and beliefs; it is an internalized process (2011). Also, Vallumba et al. (2011) emphasized that the authentic leaders’ performance is not mimicry, but is based on supreme human values. Therefore, it can be said that the authenticity is adherence to absolute and supreme human values and this can be combined with psychological capital of staff and lead to increased psychological well-being and job satisfaction of staff at Ministry of Sports and Youth. Therefore, it is concluded that the authentic leadership is the visualization of staff’s psychological capital and therefore, it is expected that predictive and mediating variables impact on criterion variable. In explaining this finding, it can be stated that the psychological capital has always had strong effects on satisfaction of individuals. Based on findings, the staff with high level of psychological capital in Ministry of Sports and Youth could have high job satisfaction and psychological well-being. The individuals with high self-efficacy in their work will do much to achieve their career goals and
Despite the challenges faced by organizations, they will work hard and with high satisfaction. In general, the employees with high psychological capital hope to achieve their goals eagerly. They believe in their efficiency and that they can create a positive difference in work environment. All these positive factors contribute to their well-being and job satisfaction (Kim et al., 2017). According to findings, the organizations and in particular, the Ministry of Sport and Youth, may include the teaching of psychological capital in different programs and take advantage of its material and immaterial benefits. Nowadays, the organizations have increasingly recognized the importance of satisfaction and mental and psychological well-being of employees (Luthans et al., 2004). In general, the managers and planners of Ministry of Sport are expected to use authentic leadership, strengthen the psychological capital of employees in their organization, and create a desirable climate by observing honesty, accepting mistakes, expressing difficult facts, and expressing feelings positively. In fact, the leaders of Ministry of Sports and Youth should appear to be an authentic leader, improve the psychological capital of their employees, consider the staff as friend, and note friendly the mistakes they make.

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