

Mediatory effects of psychological empowerment and self-regulation on the relationships between leadership styles, self-efficacy and structural empowerment with job performance

Maryam Shamsifar¹ , Hasanali Veiskarami^{1*} , Masoud Sadeghi¹ , Firoozeh Ghazanfari¹ 

¹ Department of Psychology, Lorestan University, Khoramabad, Iran

Corresponding author and reprints: Hasanali Veiskarami. Department of Psychology, Lorestan University, Khoramabad, Iran.

Email: hveiskarami86@yahoo.com

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Abstract

Background: This study aimed at designing and testing a model of indirect relationship between leadership styles, self-efficacy, structural empowerment and job performance with the mediation of psychological empowerment and self-regulation among teachers in Khoramabad city.

Methods: The study was a correlation research via structural equations modeling. Population of the study were selected from high school teachers in Khoramabad city. We applied these questionnaires: Misha-Spreitzer psychological empowerment; Kappa Aydin et al self-regulatory; Patterson job performance; Blanchard-Hersey leadership styles; Kordnaji, Bakhshizadeh and Fathollahi structural empowerment; Woolfok and Shanen-Moran self-efficacy.

Results: Participants in this study were 202 (52.5%) females and 183 (47.5%) males. In regard to education, 6 (1.6%) participants had diploma degree; 36 (9.4%) participants had above diploma degree; 251 (65.2%) participants had bachelor degree; 91 (23.6%) participants had master's degree and 1 (0.3%) participant had a doctorate degree. The results of data analysis including 385 questionnaires completed by participants with Smart PLS (Partial Least Squares) software showed that model fits with data. Justifying and participatory leadership styles as well as structural empowerment had causal and indirect effects on job performance with mediation of psychological empowerment. Psychological empowerment and self-regulatory mediate the relationships between justifying leadership style and job performance; structural empowerment and job performance as well as self-efficacy with job performance.

Conclusion: Improving self-efficacy of teachers and structural empowerment helps to have self-regulating teachers with higher psychological empowerment. Self-regulation and self-efficacy and change in leadership style lead to structural empowerment in schools.

Keywords: Psychological Empowerment; Job Performance; Self-Regulatory; Structural Empowerment; Leadership style

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Introduction

Job performance is one of the main variables in organizational behavior. Job performance means assessment of whether employees do their job well in a certain working conditions or not. Improving job performance is one of the most important goals of organization managers due to efficacy improvement in society (1). Previous studies have shown the relationship between job performance and self-regulatory (2). Effects of self-regulation on job and academic performance have been shown in different studies (3, 4). Powerful individuals have self-control and self-regulation. They easily take responsibility and have a positive viewpoint about themselves, others and environment. Hence, they are optimistic about life and the future of their jobs (5). Saei has resulted in his study that self-regulation has a positive and meaningful relationship with psychological empowerment (6). The ideologists' perspective who consider empowerment from employees' viewpoint, empowerment reflects employees' psychological condition. Most of empowerment studies in private organizations have emphasized on individual factors such as intrinsic motivation. Nevertheless, other studies especially those in public sector have considered democratic-driven structures and style, which is another empowerment approach entitled structural empowerment (7). Structural empowerment includes management styles and techniques that have been created by power distribution and responsibility to lower levels of organization in order for them to be able to make career decisions (8). A study has shown the importance and direct relationship between organization structural empowerment and psychological empowerment (9). Other researchers consider empowerment from feelings and beliefs perspective. Any strategy and action

that affects individuals' beliefs and reinforces employees' self-efficacy will lead to empowerment (10). Abdollahey et al. states self-efficacy has a positive and meaningful relation with psychological empowerment (11). Some researchers have considered managers' leadership model being related to this issue (12). Today, organizations try to increase productivity via optimum use of all available tools and facilities including employees' self-efficacy. The result of Hassanpoor et al. study showed a meaningful relationship between leadership styles and psychological empowerment (13). Leadership styles are continuous and permanent behavioral models that individuals apply while working with others and they are comprehensible by others (14). Efficient human force is a major index of organization superiority. Thus, emphasis on efficient human force in education is very important. However, this important issue has not received much attention based on previous studies that are mentioned above. Most of studies with respect to employees' empowerment have been conducted in non-instructional organizations. Available studies with reference to teachers have not been modeled. Therefore, we aimed at studying general model of assumed relations of these variables among teachers. Since the direct and dual relationships of all variables are already approved based on previous findings, we study the mediatory effects of psychological empowerment and self-regulation on the relationships between leadership styles, self-efficacy and structural empowerment with teachers' job performance, which has not been studied before. Furthermore, we present a model concerning the relationship pattern of these variables, which has not been previously illustrated.

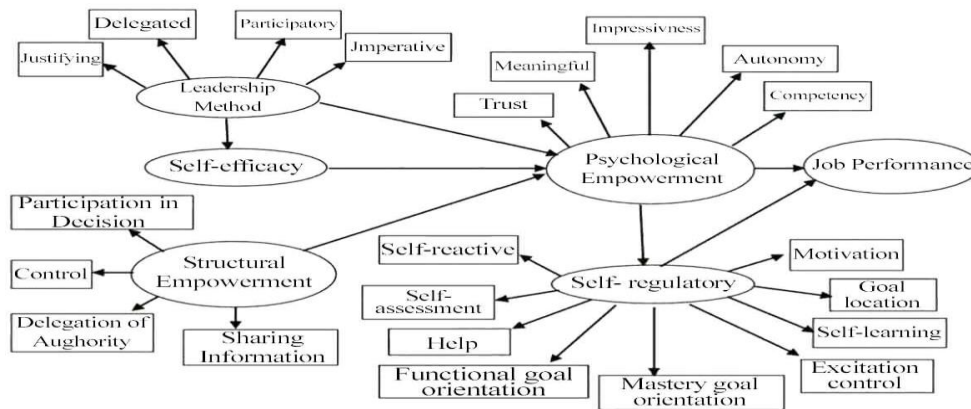


Figure 1. The suggested model for relationships between leadership styles, self-efficacy, structural empowerment with job performance by mediation of Psychological Empowerment and Self-Regulation

Methods

This study is a correlation research via structural equation modeling. In this study, the statistical population included all teachers (1092) who worked in the urban high schools of Khorramabad city (Capital of Lorestan province in Islamic Republic of Iran) during academic year 2017-2018. Determining the minimum sample size required for the collection of data for the structural equation modeling is very important. Despite lack of general agreement on the sample size needed for factor analysis and structural models, most researchers believe that the minimum sample size is 200 individuals (15). With the use of Cochran formula, the simple size of 285 individuals for the statistical population of 1092 seemed suitable but we considered sample size of 400 people for this study due to prediction of attrition. 400 teachers were randomly selected by the multi-stage sampling method, which is an extensive form of cluster sampling. In this method, people are selected in a multi-step manner and from larger to smaller units. For the purpose of this study, first Khorramabad city was divided into two districts and district 2 was selected randomly among these two districts.

Subsequently, 25 high schools were selected randomly from the list of high schools in this district. Finally, 16 teachers from each of these high schools were selected randomly. The next step was distributing questionnaires among 400 teachers, who were randomly selected through the above-mentioned method. Afterwards, the data from completed questionnaires were entered into our database. Following data entry, we used SPSS 24 software to calculate all correlation coefficients, reliability coefficients, and descriptive statistics results. Smart PLS software was applied to test the research hypothesis. In this study, standard coefficients between variables were reported as indicators of the relationship by software. The indirect effects of each variable were determined and estimated on the basis of path coefficients. Lastly, the researchers interpreted and discussed the results.

The following are the inclusion criteria for participation in our study:

- Not being retired
- Not having psychological disorder
- Having a willingness to participate in research

The following are the exclusion criteria for leaving our study:

- Unwillingness to continue participation in research
- Incomplete answer to questionnaire
- In case of unpredictable incidents such as a disease

Ethics compliance in research:

In this regard, written informed consent was obtained from each participant and they were informed about all stages of the research. Additionally, they were reassured that their personal information would not be shared with anyone and research results will be published as anonymous.

Tools:

Questionnaire of Hersey-Blanchard leadership style: in order to determine managers' leadership style, well-known Hersey-Blanchard questionnaire was used. This questionnaire has been made and standardized in 1986 based on situational theory. It contains 12 questions. Noorbaksh et al. have confirmed questionnaire content validity by sport management professors. Reliability coefficient of questionnaire was calculated by Cronbach alpha and was 0.79, which represents acceptable reliability of this questionnaire (9).

Questionnaire of structural empowerment: structural empowerment questionnaire by Kordnaji et al. was used for studying structural empowerment (9). This questionnaire contains 12 questions. In this study, confirmatory factor analysis was used to determine validity of questionnaire. The obtained amount of RMSEA coefficient was 0.075 and the amount of factor load for each substance was between 0.65 and 0.87, which are close to suitability criteria. To determine reliability, Cronbach alpha was used. The total alpha coefficient was equal to 0.78 and Cronbach alpha coefficients of subscale were between 0.70 and 0.82. These results have confirmed reliability and validity of tool.

Questionnaire of Spreitzer and Mishra psychological empowerment: questionnaire of Spreitzer-Mishra psychological empowerment was used for measuring psychological empowerment. This questionnaire contains 15 questions. In this study, confirmatory factor analysis method was used to determine questionnaire validity. The results have shown that index amounts are close to suitability criteria and confirmatory factor analysis model has acceptable suitability. The obtained amount of RMSEA coefficient was 0.072 and the amount of factor load for each substance was between 0.66 and 0.84. Total Cronbach alpha coefficient was 0.87 and subscales Cronbach alpha coefficients were between 0.67 and 0.86, which represents reliability of the tool. Self-efficacy questionnaire of Moran and Woolfko: a short version of Shannen-Moran and Woolfko self-efficacy questionnaire was used for measuring teachers' self-efficacy. This questionnaire contains 12 questions. In this study, confirmatory factor analysis method was used to determine questionnaire validity. Obtained results have shown that the amounts of index were close to suitability criteria and confirmatory factor analysis model has an acceptable suitability. The obtained amount of RMSEA coefficient was 0.065 and factor load amount of each substance was between 0.70 and 0.79. Moreover, Cronbach alpha method was used to determine credit coefficient of this questionnaire. Total alpha coefficient was 0.83 and subscales Cronbach alpha coefficient were between 0.74 and 0.83. Self-regulatory questionnaire of Capa Aydin et al.: for measuring teachers' self-regulatory, Teacher Self-Regulatory Scale (TSRS) of Capa Aydin et al. was used (12). This questionnaire contains 49 questions and factors. The validity and reliability of English version of this scale has been studied by Moafian and Ostovar in nine provinces in Iran.

In this study, confirmatory factor analysis method was used to determine questionnaire validity. Obtained results have shown that index amounts are close to suitability criteria and confirmatory factor analysis model has acceptable suitability. The obtained amount of RMSEA was 0.07 and factor load amount of each substance was between 0.25 and 0.96. Job performance questionnaire of Patterson: Patterson job performance questionnaire (JPQ) was used for measuring job performance. This questionnaire contains 15 questions. Reliability of this scale was determined by Cronbach alpha and Semiring, which were respectively 0.85 and 0.85. The reported validity of this questionnaire was acceptable by correlating it with performance self-assessment. In this study, Cronbach alpha coefficient was used to evaluate questionnaire reliability coefficient. Cronbach alpha coefficient of JPQ was equal to 0.92, which represents appropriate reliability of questionnaire.

The total number of questions for the questionnaire of our study was 115 questions, which were answered by all participants. The scheduled time for answering all the questions was between 90 and 120 minutes.

Results

Fully completed 385 questionnaires were collected out of total 400 questionnaires that were distributed. Frequency distribution of two variables of gender and academic degree are reported in Table 1. According to this table, most participants in the study were females and had bachelor's degree. Partial Least Squares (PLS) method was used for analyzing the model. Collinearity indices were calculated to evaluate presuppositions. The results showed that none of study variables had problem in terms of VIF index. The second important presupposition about data were indices of model fitness with data. Structural model fitness indices by research data are reported in table 2.

Table 1. Frequency distribution of two variables of gender and academic degree

Variable	Classification	N (%)
Gender	Female	202 (52.5)
	Male	183 (47.5)
Academic Degree	Diploma	6 (1.6)
	Associate	36 (9.4)
	Bachelor	251 (65.2)
	Master	91 (23.6)
	PhD	1 (0.3)

Table 2. Fitness indices of model by research data

Index	Saturated model	Estimated model
SRMR (standardized root mean residual)	0.055	0.086
dULS (unweighted least squares discrepancy)	0.912	2.237
dG 1 (geodesic discrepancy 1)	0.680	0.772
dG 2 (geodesic discrepancy 2)	0.421	0.510
X ² (chi square)	923.101	1.063
NFI (normed fit index)	0.926	0.946

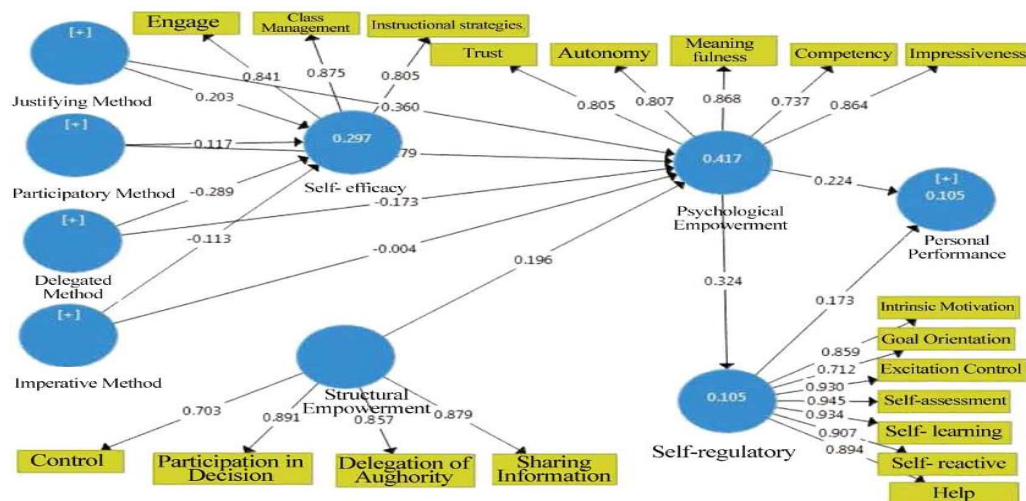


Figure 2. Standard coefficients of developed model

According to Table 2, it is noticeable that model has acceptable suitability with data. Standard regression coefficients are reported in Figure 2. Based on the reported results, exogenous and mediator variables had 10 percent increasing validity in predicting job performance. Indirect standard coefficient among study variables are reported in Table 3.

According to the reported results in Table 3, two leadership styles of justifying style ($P=0.002$; $t=3.061$) and participatory style ($P=0.044$; $t=2.02$) and structural empowerment ($P=0.004$; $t=2.914$) had indirect, significant causal relationship through intermediate effect of psychological empowerment with job performance. Furthermore, psychological empowerment and self-regulation mediated

the relationships between justifying leadership style ($P=0.009$; $t=2.633$), structural empowerment ($P=0.010$; $t=2.591$) and self-efficacy ($P=0.003$; $t=2.951$) with job performance.

Discussion

Our study confirmed that psychological empowerment per se mediates the relationship between justifying and participatory leadership styles with job performance, while psychological empowerment and self-regulation together mediated only the relationship between justifying leadership style with job performance. Adapting an appropriate leadership style leads to better

Table 3. Indirect standard coefficient of model

The path of indirect relationships	Main Samples	Mean (SD)	t	P
Structural empowerment » Psychological empowerment » Job performance	0.044	0.045 (0.015)	2.914	0.004
Imperative style » Psychological empowerment » Job performance	-0.001	0.000 (0.020)	0.042	0.966
Delegated style » Psychological empowerment » Job performance	-0.039	-0.037 (0.022)	1.725	0.085
participatory style » Psychological empowerment » Job performance	0.040	0.040 (0.020)	2.020	0.044
Justifying style » Psychological empowerment » Job performance	0.080	0.081 (0.026)	3.061	0.002
Delegated style » Psychological empowerment » Self-regulation » Job performance	-0.010	-0.009 (0.006)	1.543	0.124
Justifying style » Psychological empowerment » Self-regulation » Job performance	0.020	0.020 (0.008)	2.633	0.009
Imperative style » Psychological empowerment » Self-regulation » Job performance	0.000	0.000 (0.005)	0.040	0.968
Participatory style » Psychological empowerment » Self-regulation » Job performance	0.010	0.010 (0.005)	1.912	0.057
Self-efficacy » Psychological empowerment » Self-regulation » Job performance	0.047	0.046 (0.013)	2.951	0.003
Structural empowerment » Psychological empowerment » Self-regulation » Job performance	0.011	0.011 (0.004)	2.591	0.010

impression among employees and hence more efficacy. Managers as official representatives of organizations and at the highest point of administration, play a vital role in success of their organizations and achieving their goals through effective management and leadership styles. Hubertus et al. have discussed the effectiveness of human resources management (16). Some studies have shown that productive organization management has been successful in improving instructional and service organization performance. Ghanbari et al. have demonstrated the mediator role of psychological empowerment in relationship between organizational social and environment factors by improving and promoting individual performance in their study. Moreover, Shafie et al. have confirmed the relationship between leadership styles and staff performance (17). However, there is no available study that has specifically surveyed the role of psychological empowerment as a mediator in the relationship between variety of leadership styles and job performance. Thus, our assumption is that a manager who only orders or delegates all of responsibilities, would perhaps cause more work pressure and stress and will adversely affect a pleasant feeling of work, sense of empowerment and job performance.

According to the reported results in Table 3, variables of psychological empowerment and self-regulation mediate only relationship between justifying leadership style with job performance. Since there was no exact research like our study, we refer to the closest researches that have been done in this regard. Results of previous studies have shown the relationship between leadership styles and psychological empowerment (8, 12). Azimi et al. and Mahmoudi et al. have confirmed the relationship between psychological empowerment and self-regulation in their studies (3,4). Other studies have also confirmed the relationship between self-regulation with academic and job performance (1, 18, 19). From these results it can be inferred that leadership styles affect

job performance through the mediator effects of psychological empowerment and self-regulation. These results are consistent with mediation of self-regulation and psychological empowerment for confirming the relationship between justifying leadership style and job performance. In other words, a justifier manager unlike managers with other leadership styles will finally have employees with higher psychological empowerment who would organize their activities effectively and will have better job performance. On the other hand, directive managers or managers who devolve all responsibilities or are only contributors will have employees with lower psychological empowerment and self-regulation who would have worse job performance. Regardless, these explanations are only hypotheses to be investigated in future studies.

Some researchers consider empowerment from the perspective of feelings and beliefs. Our study showed that self-efficacy affects job performance with mediation of psychological empowerment and self-regulation. Since there was no exact research that has studied the role of psychological empowerment and self-regulation mediators together in relationship between self-efficacy and job performance, we refer to the closest researches. Empowerment is not an action that can be done by managers but it is employees' attitudes towards their jobs and roles in organization. Any strategy and action that can influence individuals' beliefs and promote self-efficacy of employees will lead to empowerment (10). Abdollahi et al. have suggested that self-efficacy has a positive and meaningful relationship with psychological empowerment (11). Empowering is the process of increasing motivation to perform the task by enhancing self-efficacy (20). When an individual believes that he/she is not able to achieve expected results or is not able to prevent unacceptable outcomes, his motivation for working will be decreased. However, there are other factors that affect human behavior but all of them depend on self-efficacy.

Saei et al. has stated that self-regulation has a positive and meaningful relationship with psychological empowerment (6). Powerful individuals have self-control and self-regulation. They take responsibility easily and have a positive attitude towards themselves, others and environment. Additionally, they are optimistic about their jobs (4).

Another variable that has been addressed in this study is structural empowerment. According to the statistical results in Table 3, it is clear that psychological empowerment and self-regulation alone or together mediate the relation between structural empowerment and job performance. Structural empowerment includes all managerial styles and techniques that have been created for distributing power and responsibility among lower organization levels so that individuals would be able to make work decisions (7). When power and responsibility are reassigned to employees, they will feel more meaningful and competent and will have better performance. Results of studies by Patterson et al., Kordnajib et al., Manojlovich and Cho have confirmed the relationship between structural empowerment and psychological empowerment (8, 9, 21, 22). On the other hand, Azimi et al. and Mahmoudi et al. have confirmed the relationship between psychological empowerment and self-regulation in their studies (3, 4). Other studies have also confirmed the relationship between self-regulation and job performance (1, 2, 18, 19). From these results it can be inferred that structural empowerment affect job performance through mediator effects of psychological empowerment and self-regulation. These results are consistent with the findings of our study.

Our study had following limitations: lack of previous similar models for comparison; a large number of questions in our questionnaire, which could have a negative impact on the accuracy of responses by participants; self-reporting questionnaire of this study with its associated disadvantages and biases such as social desirability bias.

Therefore, we suggest that future studies take these limitations into consideration.

Conflict of interest

Authors declare no conflict of interests.

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