

# Effect of Psychological Capital on Employees' Job Performance in Forensic Medicine of Guilan, Mazandaran, and Golestan Provinces

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## ABSTRACT

**Objective:** The aim of this study was to investigate the effect of psychological capital on employees' job performance in forensic medicine of Guilan, Mazandaran, and Golestan provinces and to assess the impact of four components of psychological capital (self-confidence, hope, optimism, and resilience) on job performance.

**Method:** The present research was a descriptive, applied field study. Data were collected using a standard questionnaire. The statistical population included 292 staff and managers of forensic medicine offices in Guilan, Mazandaran and Golestan provinces, and the sample size was determined 175 by Cochran's method. Using questionnaires and non-probability convenience sampling, 77 from Guilan, 60 from Mazandaran, and 38 from Golestan were selected as the sample. Data analysis was done using regression, correlation, and analysis of variance tests in SPSS 20 software.

**Results:** The results showed that psychological capital and its four components affect the employees' job performance, and among the 4 components, hope and flexibility had the greatest and optimism had the least impact on job performance.

**Conclusions:** According to the study findings, the effects of psychological capital and its components on employees' job performance can be realized and employees' performance can be improved by training them on psychological capital and promoting its components.

**KEYWORDS:** Job performance; Psychological capital; Self-confidence; Optimism, Resilience

## 1. INTRODUCTION AND STATEMENT OF THE PROBLEM

In the present era, despite the dramatic changes and developments in the field of science and ICT which have directed organizations toward virtualization, organizations take advantage of people in order to achieve their overall and secondary objectives. Human resources, as the most important capital along with the economic and social capitals of organizations, play a role in advancing the organizational goals and, on the other hand, it is seen as a competitive advantage. The people in an organization are referred to as resources and competitive advantage while having high personal performance and helping organization to promote and improve its performance. In addition to having more effective organizational performance, employees can provide higher indicators of productivity for their organizations and make them more successful compared to their rivals (Afjeh and Miri, 2009). Existence of appropriate organizations in every society that can do their duties effectively is the most important means of achieving development and progress.

Today, a new concept called "positive psychology" has found its way to the organizations. Positive psychology is an aspect of psychology that studies the conditions and processes that contribute to the success of individuals, groups, and organizations (Youssef & Luthans, 2012).

Psychological capital, relying on positive psychology, was introduced by Luthans *et al.* (2006) as a competitive advantage for modern organizations. According to Luthans *et al.* (2008), psychological capital is a psychological positive developmental condition characterized by the following items: commitment and necessary efforts for success in the challenging tasks (self-confidence/self-efficacy), having a positive citation about present and future successes (optimism), stability in the path of target and if necessary, redirecting to reach the aim to achieve success (hope), and stability in the face of difficulties and problems to achieve success (flexibility / resiliency).

Performance is the actual and measurable result of efforts. In other words, performance is something which is really achieved through efforts and depends on the combination of the characteristics and capabilities of the employees or the employees' vision of their role (Sa'adat, 2011). Job is referred to a set of duties that a person will be paid for doing them (Rezaei-Dizgah *et al.*, 2014).

Luthans *et al.* suggest that psychological capital and its components can predict job performance and satisfaction, and also the sum of psychological capital components is a better predictor of work-related outcomes. They also found that by strengthening the psychological capital in an organization, its

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performance can be raised at least by 10%. Avey *et al.*, (2010) also found that psychological capital affects the performance of managers and employees.

Since the foundation of an organization is all tasks that are carried out by its members and any change in behavior and performance of staff is possible after the change in knowledge and attitude (Farajvand, 2013), the importance of the employees' performance and their role in realization of the organizational higher goals and increasing efficiency and effectiveness can be realized. According to the Vision Document that the Forensic Medicine Organization has predicted for its long-term goals and stresses the promotion of service quality and reducing the time to respond to references as well as achieving the ideal goal (becoming the largest forensic medicine organization in the Middle East), there is a need for using capable and skilled human resources, people who can do the predicted activities properly and help the organization to achieve its paramount goals with their positive mental attitudes. Therefore, the present research aims to study the effect of psychological capital and its components (self-efficacy, hope, optimism, and resilience) on employees' job performance.

## **2. Theoretical principles**

### **2 - 1 Psychological Capital**

According to Luthans *et al.*, psychological capital is a positive psychological developmental state with the following characteristics: self-confidence/self-efficacy, optimism, hope, and flexibility/resiliency. Psychological capital, in deed, means "who you are (real self)" and "who you want to be (possible self)" on a developmental and growing basis (Choi *et al.*, 2014). The four characteristics are psychological states including behaviors, thoughts, and actions that have the ability to grow and develop through learning. As the positive capacity is a state, it provides the development and improvement of capabilities using the educational programs and in-work activities, and gives meaning to one's life in an interactive process in order to continue their attempt to change stressful situations (Newman, *et al.*, 2014).

#### **2 – 1 – 2 Self-confidence/self-efficiency**

It refers to commitment and efforts made to succeed at work, challenging tasks, and the confidence that people have in their abilities to perform a specific task. In other words, one with beliefs and confidence about his/her abilities does necessary measures in a way to achieve success through motivating themselves, supplying cognitive resources (Qingshan, *et al.*, 2014).

#### **3 – 1 – 2 Optimism**

Having positive citation about present and future success, optimism is a method in which people explain the positive and negative events and expect a positive result. Optimism is shown as being relatively positive in time and location. Optimists always expect good things happen in their lives (Qingshan, *et al.*, 2014).

#### **4 – 1 - 2 Hope**

Hop means stability towards the purpose and changing the direction to reach the target in order to achieve success if required. The ability to target, and visualize the paths necessary to achieve goals and have necessary motivation to achieve that goals (Qingshan, *et al.*, 2014).

#### **5 – 1 – 2 Flexibility/Resiliency**

Flexibility/Resiliency is the stability to achieve success in the face of hardships and problems. It is also defined as individual capacity to respond to and even thrive distressful conditions. Resiliency refers to the extent to which individuals are enabled to benefit from the negative experiences and to be compatible with changes and stressful life demands (Qingshan *et al.*, 2014).

### **2 – 2 Job performance**

Motowildo (2003) has defined performance as the overall value expected by an organization from behaviors that a person do them during a specified period. If the concept of performance is not explained, it cannot be measured and managed (Armstrong, 2006). Oxford Dictionary defines *performance* as fulfillment of doing and completion of any certain and accepted work or function.

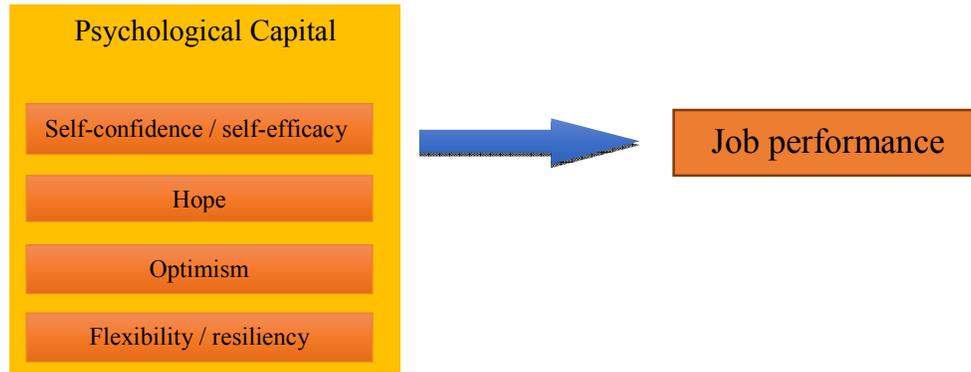
#### **1 – 2 – 2 Task performance**

Task performance includes the performance of staff who are directly involved in converting organizational resources into goods and services. In other words, task performance is a set of certain obligations that the employees must do it to receive their salary or continuity of their employment. Task performance can be raised in more general classes. A classification method for task performance is taking into account a degree which is the content of a fixed or variable job.

**2 – 3 - Research background**

In studies by Luthans *et al.*, (2007), they found out that psychological capital has an impact on job performance. They also found that the staff job performance can be enhanced by strengthening the psychological capital. Another study by Avey (2010) and Choi (2014) revealed that psychological capital affects the organizational outcomes, including staff and managers’ job performance and improves it.

**2-4 - conceptual model:**



**3. Research questions**

- Do psychological capital and its 4 components affect the staff job performance?
- Which aspects of psychological capital have the greatest impact on staff job performance?

**4. Hypotheses**

- Psychological capital affects the staff job performance.
- Self-confidence affects the staff job performance.
- Hope affects the staff job performance.
- Optimism affects the staff job performance.
- Resiliency affects the staff job performance.
- Mean of 4 psychological capital components is identical in the statistical sample.

**5. METHODOLOGY**

The present research was an applied, descriptive-correlational field study. The sample consisted of 175 employees of forensic medicine of Guilan, Mazandaran and Golestan provinces in 2014 who were examined using non-probability convenience sampling. Data collection tools were a standard questionnaire on psychological capital developed by Luthans (2007) and Campbell's job performance inventory (1999). A total of 200 questionnaires were distributed among the respondents. Statistical analysis was done using regression analysis, correlation coefficient test, and ANOVA in SPSS software.

**Table of Cronbach's alpha coefficient of questionnaires**

Variable	Cronbach's alpha coefficient
Psychological capital	0.924
Self-efficacy/self-confidence	0.772
Optimism	0.860
Hope	0.808
Flexibility / resiliency	0.793
Job performance	0.924

**6. RESULTS**

Hypothesis 1: Psychological capital affects the job performance of forensic medicine staff.

**Regression analysis between psychological capital and job performance**

	R-value	R-square	Beta	Significant level of beta coefficients	Result
Psychological capital and job performance	0.530	0.281	+ 0.530	0.000	Confirmed

Regression test showed that the intensity of the relationship between two variables of psychological capital and job performance is about 0.530 and psychological capital, as an independent variable, can determine and predict job performance, as the dependent variable, by about 28.1%. Also, a significant positive relationship (impact) was found between psychological capital and job performance. (Beta = 0.530, Sig < 0.005)

Hypothesis 2: Self-confidence affects the job performance of forensic medicine staff.

#### Regression analysis of self-confidence and job performance

	R-value	R-square	Beta	Significant level of beta coefficients	Result
Self-confidence and job performance	0.315	0.099	+ 0.315	0.000	Confirmed

Regression test showed that the intensity of the relationship between self-confidence and job performance is about 0.315 and self-confidence can determine about 9.9% of job performance. Also, a significant positive relationship (impact) exists between self-confidence and job performance. (Beta = 0.315, Sig < 0.005)

Hypothesis 3: Optimism affects the job performance of forensic medicine staff.

#### Regression analysis of optimism and job performance

	R-value	R-square	Beta	Significant level of beta coefficients	Result
Optimism and job performance	0.251	0.063	+ 0.251	0.001	Confirmed

Regression test showed that the intensity of the relationship between two variables of optimism and job performance is about 0.251 and optimism can determine about 6.3% of job performance. Also, a significant positive relationship (impact) was observed between optimism and job performance. (Beta = 0.251, Sig < 0.005)

Hypothesis 4: Hope affects the job performance of forensic medicine staff.

#### Regression analysis of hope and job performance

	R-value	R-square	Beta	Significant level of beta coefficients	Result
Hope and job performance	0.482	0.232	+ 0.482	0.000	Confirmed

Regression test showed that the intensity of the relationship between hope and job performance is about 0.482 and hope can determine about 23.2% of job performance. Also, a significant positive relationship (impact) exists between hope and job performance. (Beta = 0.482, Sig < 0.005)

Hypothesis 5: Flexibility affects the job performance of forensic medicine staff.

#### Regression analysis of flexibility and job performance

	R-value	R-square	Beta	Significant level of beta coefficients	Result
flexibility and job performance	0.409	0.167	+ 0.409	0.000	Confirmed

Regression analysis showed that the intensity of relationship between two variables flexibility and job performance is about 0.409 and flexibility can explain about 16.7% of job performance rate. Also, a significant positive relationship (impact) was found between flexibility and job performance. (Beta = 0.409, Sig < 0.005).

Hypothesis 6: Mean of 4 components of psychological capital is identical in the sample.

		Total squares	Degrees of freedom	Mean square	F-statistics	Significance level
Self-confidence	Intergroup	0.070	2	0.035	0.098	0.906
	Intragroup	61.549	172	0.358		
	Total	61.620	174			
Hope	Intergroup	2.455	2	1.227	4.559	0.012
	Intragroup	46.298	172	2.269		
	Total	48.753	174			
Flexibility	Intergroup	0.293	2	0.146	0.654	0.521
	Intragroup	38.541	172	0.224		
	Total	38.834	174			
Optimism	Intergroup	0.383	2	0.191	1.409	0.247
	Intragroup	23.382	172	0.136		
	Total	23.765	174			

It can be seen that among the psychological capital dimensions, only Sig. value of hope is less than 0.05, and the difference between the studied provinces in terms of this variables is accepted to be significant at a confidence level of 95%.

Subsets at 5% level		No.	Provinces
2	1		
	3.7600	60	Mazandaran
3.9632		77	Guilan
4.0632		38	Golestan

According to Duncan test table, it is determined that no significant difference exists between Guilan and Golestan provinces at level 2. Also, a significant difference exists between Guilan and Golestan at level 2 and Mazandaran at level 1.

In addition, the research question: Which aspect of psychological capital is more effective on job performance?

**Simultaneous Regression testing of the impact of psychological capital on job performance**

		Beta coefficients	Significance level of beta coefficient	Durbin-Watson statistics
<b>First model</b>	Self-confidence	0.150	0.031	1.794
	Hope	0.313	0.000	
	Flexibility	0.197	0.10	
	Optimism	0.067	0.335	

According to above table, the variables their significance level is less than 5% are considered (i.e. dimensions like self-confidence, hope and resilience); greater beta coefficient means more effectiveness on job performance. As a result, among the dimensions of psychological capital, hope has a greater impact on job performance.

**DISCUSSION AND CONCLUSION**

The study findings indicate that psychological capital and its components (self-efficacy, hope, optimism, and resiliency) affect the staff job performance. This result is consistent with the findings of studies conducted by Luthans *et al.* (2007), Avey *et al.* (2010), Choi *et al.* (2014), and Najjari *et al.* (2013). Also, the mean value of hope is significantly different from that of other psychological capital component in the statistical sample. Among the four components psychological capital, hope and resiliency have the greatest impact and optimism has the smallest impact on job performance. The coefficient of determination of the psychological capital is also higher than that of all its components.

**Recommendations**

- It is recommended to consider the training courses on promoting psychological capital and positive organizational behaviors as approved and in-service training courses.
- It is recommended to use psychological capital questionnaires in the recruitment and hiring of individuals for determination of their psychological capital in order to recruit those with higher psychological capital.
- It is recommended to promote humanistic attitudes towards the staff and pay attention to their motivational and health needs in order to strengthen their hope and optimism level.
- Considering and trusting in the physical and mental abilities of the staff and establishment of a meritocracy and merit system in recruitment, appointment, and job promotion in order to boost the staff confidence and flexibility.
- Getting the staff involved in organizational decision-making and considering their comments and suggestions can boost the staff self-confidence, hope, and optimism.
- It is recommended that pioneering managers develop psychological capital at work, because the employees model them in their work.
- Appreciation of active employees and managers who are responsible and those whose work quality is much higher than standards could enhance their hope, optimism, and self-confidence.

**Limitations**

- The use of non-probability convenience sampling that according to Scaran (2012), the members of statistical population have no possibility of being selected in the sample group as subject. This means that the findings obtained from the study sample cannot be confidently generalized to the statistical population.

- The use of closed questionnaire as the only means of measuring data that complete information cannot be achieved due to limited questions.
- The use of questionnaire as the only information measuring tool, because using multiple measuring methods including interviews can provide valuable data to researchers.
- Presence of other effective factors on the employees' job performance including IT, behavioral factors, underlying factors that are uncontrollable and effective on the research result.
- Presence of factors such as organizational climate prevailing the offices that affects the staff attitude and thus completing the questionnaire.
- Presence of factors such as organizational justice and spiritual and material rewards that affect the job satisfaction and thereby job performance.
- The unwillingness of many employees including managers for filling out the questionnaires.

#### **Recommendations for future research**

- Since the employees in forensic medicine offices only in Northern provinces (Guilan, Mazandaran, and Golestan) were studied in this research, it is recommended that the same study to be carried out on the staff of forensic medicine of other provinces as well as other governmental and nongovernmental organizations.
- To use other measurement tools such as interviews, observation etc., along with the questionnaires.
- To review the effect of psychological capital on other organizational variables such as the underlying performance, organizational commitment, organizational citizenship behaviors, job burnout and job satisfaction, talent management and human resource performance, and so on.
- To use pre-test and post-test methods for understanding the real impact of psychological capital on performance and other dependent variables. So that, two experimental and control groups should be selected and both groups should be pre-tested and after the implementation of the psychological capital training programs and taking post-test in both groups, the scores should be compared.
- To examine the existence of moderating variables such as organizational environment, stress, etc. for variables like psychology capital and job performance.
- To examine the impact of other psychological capital factors such as creativity, contemplations, emotional intelligence, etc. on job performance as a future research project.
- To examine the ways of psychological capital development and its application in working environments as a research project.
- To examine psychological capital and its factors in different regions of Iran and compare the results with developed and developing countries.

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