Designing an on-the Job-Training Model and examining it to Promote and Improve Staff's Performance

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Abstract

One of the traits of excellent organizations is to effectively use staff that present desirable performance and have engagement towards their organizations while trying to promote their knowledge, skill, and attitude and the other employees to solve issues and problems in working context. The aim of this research is to design an on-The- Job Training(OJT) Model and test it to promote and improve staff's performance among staff of Iran Forensic Medicine Organization (IFMO). This is a cross-sectional study which is done based on descriptive and analytical method. The study population is 2800 people working in IFMO in 2017 among which 338 persons were randomly selected based on Cochran's Formula using multi-stage clustering sampling among 15 selected provinces. Data was gathered via two researcher-structured questionnaires including OJT and performance improvement parameters. Face-related and constructive validity of the questionnaires were approved by elite and experts while using Cronbach's Alpha Coefficient showed an acceptable reliability, respectively 0.89 and 0.87. Some appropriate statistical indices were used to analyze the gathered data including frequency, Mean, SD, Pearson's Correlation Coefficient, and SEM. Findings show that there isa positive significant relationship between OJT's indices including need assessment, aims and priorities, content, planning and implementation, way of evaluation, executive management, facilities and equipment, technology and learners with PI's factors including job performance, individual performance, and organizational performance. Also, findings show that the best predictor is modern technology for PI regarding OJT-based model.

Keywords: OJT- Based Model, Performance, Improvement, Staff, IFMO.

Introduction

Iran Forensic Medicine Organization (IFMO), affiliated with judicial system, is known as an independent organization using elite and special experts to explore truth and help to implement justice in society. This organization presents its medical view based on accuracy, speed, and scientific principles legally and canonically.

Regarding globalization phenomenon, continuous progress in ITC, socio-economical changes, all organizations are facing with an increasing competition; thus, they have to train their employees in order to make them empowered for becoming ready for any newly-internationalized changes.

Undoubtedly, staffs are the most significant capital/resource for any organization. On the other hand, staffs are pivotal elements for an organization to be alive and therefore, their concerns and attitudes will directly affect their performance, consistency, and activities as well.

IFMO and its branches also face various changes as the other medical fields and new dimensions are emerging day by day. Today, based on complexities and diversification of crimes and felonies, it is impossible for IFMO to explore the truth without using new and scientific tools and modern technologies as well.

Some of the IFMO's activities are as following:

Doing expert-based affairs in clinical and general examinations, autopsy, determining the cause of death, identity recognition, toxicology, pathology, serology, setting up medical commissions for determining any medical neglecting, physical harms, psychiatric cause of death, organizing corpses in collective accidents and catastrophes, research activities, educational and training affairs in and out of the organization, training medical students, residents, interns, and so on.

Regarding the developed mission of IFMO, this study is to identify OJT indices and then design a model to be used for promotion and improvement of staff's performance.

Today in various countries, Forensic Medicine (FM) plays an important role in judicial affairs and justices. FM in Iran is an organization which is affiliated with judicial system. IFMO's newly-employees are trained while being recruited and then they are sent to their sections. They are trained in service based on individual, job, or organizational needs.

There are different factors affecting employees' performance including organizational identity, corporate climate, structure, leadership style, individual traits, ways and mechanisms used, technologies, facilities and so on.

Today, individuals working in any organization need to get more skills and knowledge since they need developmental abilities along with technological progress. Since technologies and the way of doing

affairs have changed, so one of the underlying actions for making organizations efficacious through continuous development of human resource by training (IFMO,2017).

Unbiased examinations are known as pivotal values for IFMO by which delivery of services are done based on medical, scientific, technologic, and diagnostic actions along with appropriate planning, implementation, control, effectiveness evaluation, and continuous development of working process and management. Maximum utilization of IFMO's people of trainings requires a unique way and a model by which the organization can be creative, innovative, and excellent regarding changes and competition among third millennium organizations.

Clearly, no organization can continue its activities without its staff. Staffs are the most important cause of organization setting up through long term time. Staffs are those players who play critical and significant role in their organizations; therefore, any organization should pay adequate attention to staffs' share to retain them to achieve their goals at the end.

One of the most common ways to make staff enthuse is to deliver desired services based on awareness and knowledge and undoubtedly, this awareness and promotion are done via some determined activities known as on-the-job training.

To implement and continue an OJT system leading to performance improvement(PI), some factors must be addressed including need-assessment, goal-setting, determination of content, planning and way of implementation, and way of evaluation of OJT courses along with leadership, motivation, reward, expectations, job organizing, and working context.

Staff's PI plays an initial role in organizational success. Human resource in today working context is placed higher than any other values and it makes a clear horizon before organizational managers and leaders as well.

IFMO's managers and practitioners are also trying to follow leading organizations and companies to use all required incentives to energize and motivate staff through OJT courses since they believe that working context is similar to the second house for staff and if the staff's needs are met logically and rationally, they will try to show the best performance.

This paper is to evaluate the existing status of OJT in IFMO while surveying the impact of OJT on staff's PI in IFMO and delivering applicable tactics and ways for staff's PI in IFMO are addressed. Also, extracting a model based on OJT to improve and promote staff working in IFMO and implementing the extracted model using specialists and experts' view working in IFMO are ultimately considered.

Fathivajargah(2010)has redefined OJT and said that it could be a systematic and continuous improvement of staff's knowledge,

skills, and behaviors by which they could help their welfare and its ultimate aim should be creatingmore ability in higher production, increasing the efficacy of the existing job and gaining better conditions to get higher positions.

Rabiy(2010) believes that performance is a set of acceptable and unacceptable feelings by which staff look at their work and it is a relative feeling separated from objective thoughts and behavioral intentions helping managers to understand employees' reactions and predict their next action and Afshan(2012) states that employees' performance means achievement of a specific task measured based on formerly set-criteria and they are speed, perfection, accuracy, and expenditure-oriented path. He goes on performance of employees can be emerged through the improvement of production status, easiness in applying newly-based technologies, and highly-motivated staff while Alavi(2008) claims that the purpose of PI is to change attitudes, values, and beliefs of staff somehow they can understand technical changes and implement them.

Fathivajargah(2010) states that OJT-based models can be descriptive or prescriptive. Descriptive models review conceptualizationof the existing status in organizations while prescriptive models define steps and determined principles of organizational OJT mechanism.

Bahitia(2009) believes that OJT modeling can be done based on three different ways: direct contact& distance training; official and unofficial, and concentrated and non-concentrated. He claims that any systematic OJT cycle must contain 8 elements consisting of Job analysis; preparation of job traits; goal-setting; preparation of learner; definition of content; selection of ways and tools; implementation of OJT; and performance evaluation.

Regarding a logic and rational style, Chan(2010) presents a model which is claimed to be practical and appropriate for all organizations known as ADDIE model standing for Analysis, Design, Development, Implementation, Evaluation.

There are some various models used and suggested by different individuals according to the identity of that organization as following:

Increased Effectiveness Model(Katz & Kahn,1985);
Transitional Model(Sanders,1992);
Systematic Model(Gentry,1994);
Flexible Model(Burk, 1995);
Assessment Model(Tracy &Tew,1995);
Individual OJT Model(Nasiri,1995);
Cognitive Model(Kyne,1996);
National in-Service Training Model(Townsend, 2000);
Approach Model (Buckley &Caple,2004);
Approach-based Model(Farshidi,2008);

One-to-one Training Model(Bahitia,2009);
In-Service Education asConsultancy(Fathivajargah,2010);
Standard –Based in-Service Education Model(Fathivajargah,2010);
Continuous Development Model &Ashridge Model(Fathivajargah,2010);
ISO-based Model (Agah,2010);
Procedural Model(Saemian,2011);
EFQM-based Model(Mosallaiy&Samimi,2012);
System-Oriented Model (Mohammadbeigi,2012);
Distance-Performance Model (Fadaiyan,2014).
When OJT and development plans are clearly defined and performed in any organization, individual staffs will have an opportunity to improve their existing skill and learn new skills. Employees being in OJT classes will understand if work and task are done based on right method and they will recognize their weakness and strength; therefore, they will consider how to help themselves to promote and get new skills and thus, they take part into OJT courses eagerly and make organization performance improve generally(Afaq, 2016).
This study is to survey the effective factors in designing an OJT-based model to find and apply the most applicable tactics to improve IFMO's staff performance regarding individual and organizational factors as well (See Fig.1).Results of this study can be used by top managers working in IFMO to assist them to determine what benefits are gained by OJT generally; how effective are the common and existing ways of training; and how OJT will be led to staff's PI and the promotion of productivity (See Fig.1).
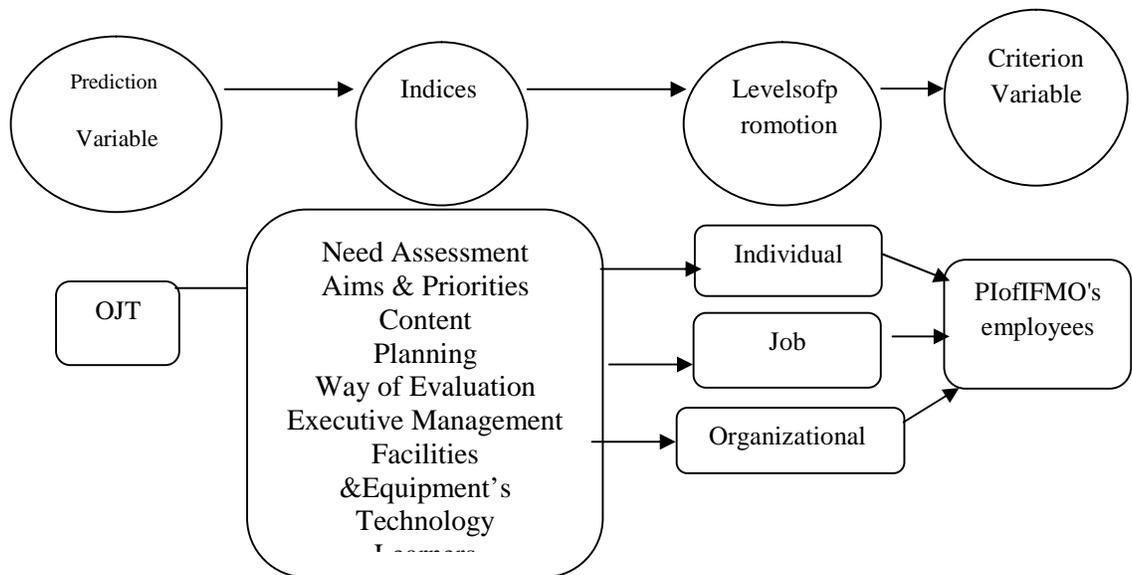
Fig1.Conceptual Framework(Reference: Author/Authors' experience and based on Exploratory Factor Analysis).

Research Methodology

The aim of this research is to design an OnThe- Job Training (OJT) Model and test it to promote and improve staff's performance among staff of Iran Forensic Medicine Organization (IFMO). This is a cross-sectional study which is done based on descriptive and analytical method. The study population is 2800 people working in IFMO in 2017 among which 338 persons were randomly selected based on Cochran's Formula using multi-stage clustering sampling among 15 selected provinces. Data was gathered via two researcher-structured questionnaires including OJT and performance improvement parameters in which 103 items of OJT and 28 items of PI were questioned respectively. Questions are based on Likert Scale ranging from completely agree, agree, no comment, disagree, and completely disagree. Face-related and constructive validity of the questionnaires were approved by elite and experts while using Cronbach's Alpha Coefficient showed an acceptable reliability calculated respective 0.89 and 0.87. Some appropriate statistical indices were used to analyze the gathered data including frequency, Mean, SD, Pearson's Correlation Coefficient, and SEM.

Findings

The first question raised by authors was what the main parameters of OJT and PI in IFMO would be. 9 main parameters were found for OJT and 3 main parameters were found for PI according to the gathered data analyses (See tables 1& 2).

The second question referred to the relationship between OJT and staff performance in IFMO. The results showed that there would be a positivesignificant relationship between OJT's variables and PI's ones (See table 3).

The third raised question was about the appropriateness of a structural model to determine the impact of OJT on performance. According to the gained results, the best predictor for OJT would be technology(r^2=0.92) while the best predictor for PI would be individual performance(r^2=0.96) (See Fig.2).

Also, all of the raised hypotheses were supported and showed that there is positive significant relationship between OJT and Staff's PI (See table 4).

The normalization of research variables was tested and confirmed (See table 5);thus, the primary and final model was approved(See tables6, 7&8).

Table 1.Mean and SD of On-The-Job Training (OJT)

Index	Mean	SD
Need assessment	80.29	10.65
Aims & Priorities	24.50	3.87
Content	29.74	4.16
Planning	40.93	6.64
Way of Evaluation	35.34	5.93
Executive Management	49.93	8.44
Facilities & Equipment	67.46	10.24
Technology	46.46	7.18
Learners	56.95	7.06
OJT	431.29	52.22

Table 2. Mean and SD of Performance Improvement (PI).

Index	Mean	SD
Job Performance	37.82	8.97
Individual Performance	43.46	9.75
Organizational Performance	21.10	5.27
Performance Improvement	102.37	21.54

Table 3.Matrix of correlation between OJT & PI

		1	2	3	4	5	6	7	8	9	10
1	PI	1									
2	NA	0.55**	1								
3	A&P	0.54**	0.58**	1							
4	C	0.59**	0.52**	0.68**	1						
5	Pl	0.63**	0.68**	0.70**	0.62**	1					
6	WE	0.63**	0.54**	0.64**	0.71**	0.74**	1				
7	EM	0.53**	0.50**	0.48**	0.54**	0.56**	0.58**	1			
8	F&Eq	0.58**	0.56**	0.52**	0.60**	0.57**	0.62**	0.71**	1		
9	T	0.65**	0.74**	0.62**	0.61**	0.73**	0.63**	0.68**	0.78**	1	
10	L	0.57**	0.49**	0.47**	0.57**	0.51**	0.56**	0.63**	0.72**	0.69**	1

PI(Performance Improvement);NA(Need Assessment);A&P(Aims &Priorities);C(Content); Pl(Planning); WE(Way of Evaluation);EM(Executive Management);F&Eq(Facilities& Equipment);T(Technology);L(Learners)

Table 4.Existing status of OJT.

Dimensions	Mean	SD	t	P-Value
Need Assessment	4.22	0.56	40.18	0.001
Aims & Priorities	4.08	0.64	30.89	0.001
Content	4.24	0.59	38.58	0.001
Planning	4.09	0.66	30.27	0.001
Way of Evaluation	3.93	0.65	25.83	0.001
Executive Management	4.16	0.70	30.33	0.001
Facilities & Equipment	4.21	0.64	34.93	0.001
Technology	4.22	0.65	34.47	0.001
Learners	4.36	0.54	45.97	0.001

Table 5.K-S's Test to survey the normalization of research variables.

Variable	Skewness	Kurtosis	KS	Sig.
Performance Improvement	0.083	- 0.27	0.967	0.307
OJT	0.33	0.08	1.064	0.208

Table 6.Fitness Indices of Primary Model.

Index	^{2}/df	GFI	AGFI	TLI	CFI	PCFI	RSMEA
Value	7.08	0.82	0.73	0.87	0.90	0.72	0.13

Table 7.Fitness Indices of Final Model .

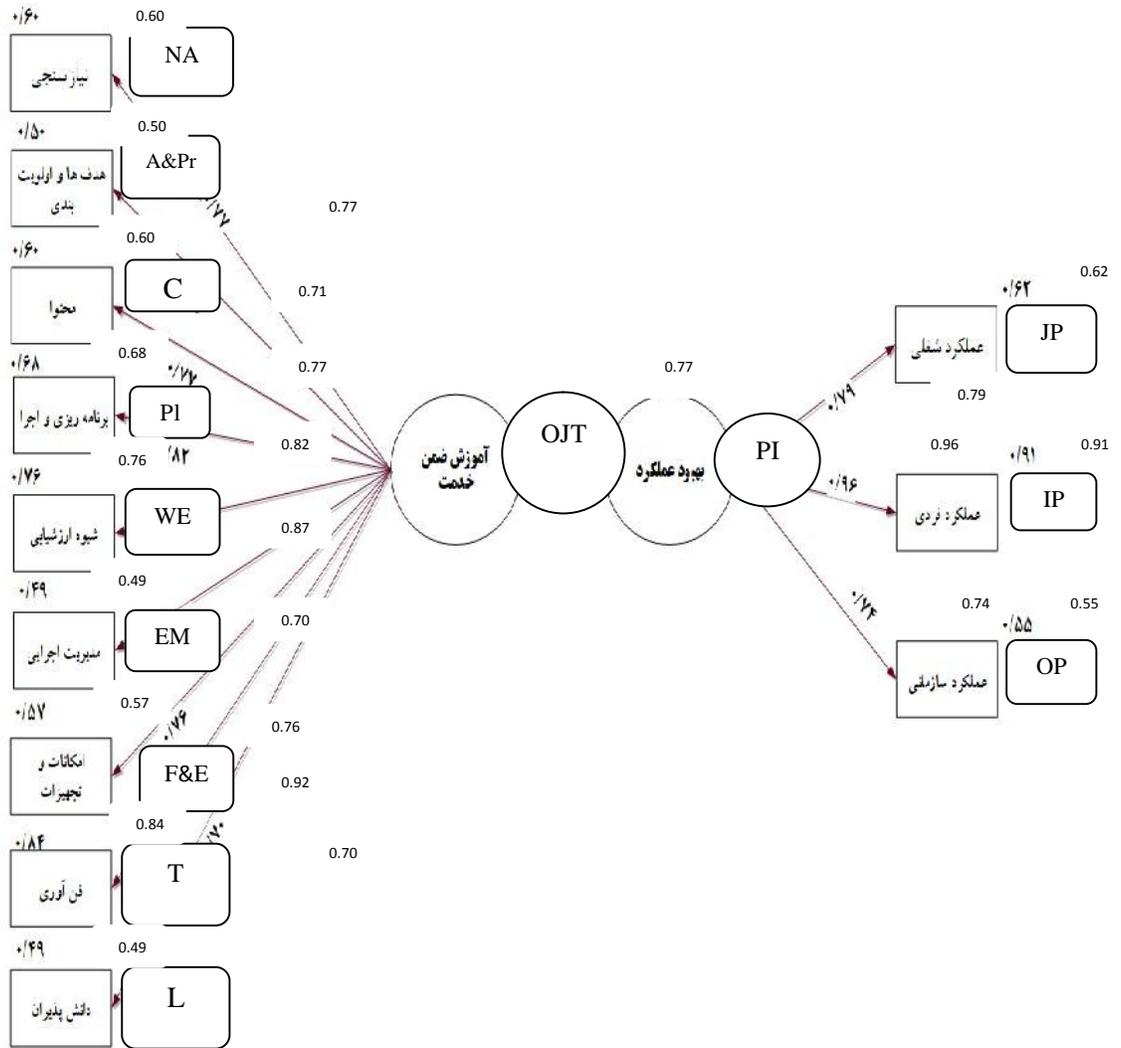| Index	^{2}/df	GFI	AGFI	TLI	CFI	PCFI	RSMEA
Value	2.80	0.94	0.90	0.96	0.97	0.73	0.07

Fig.2.Structural Model of PI.

Table 8.Regression coefficients of structural paths.

Index	Parameter		Standard Coefficient	Estimated Parameter	Critical Ratio	Sig.
OJT	→	PI	0.77	0.659	12.214	0.001
OJT	→	NA	0.77	1.00	-	-
OJT	→	A&Pr	0.71	0.33	13.83	0.001
OJT	→	C	0.77	0.39	15.07	0.001
OJT	→	Pl	0.82	0.67	16.67	0.001
OJT	→	WE	0.87	0.63	15.17	0.001
OJT	→	EM	0.70	0.72	13.76	0.001
OJT	→	F&Eq	0.76	0.93	14.81	0.001
OJT	→	T	0.92	0.80	18.46	0.001
OJT	→	L	0.70	0.60	17.39	0.001
PI	→	JP	0.79	1.00	-	-
PI	→	IP	0.96	1.32	18.99	0.001
PI	→	OP	0.74	0.55	14.73	0.001

Table 9.Factor Loading of On-The-Job Training (OJT) Questionnaire.

Index	FL	Sig.
Need assessment	0.74	0.001
Aims & Priorities	0.71	0.001
Content	0.73	0.001
Planning	0.82	0.001
Way of Evaluation	0.84	0.001
Executive Management	0.72	0.001
Facilities & Equipment	0.81	0.001
Technology	0.92	0.001
Learners	0.72	0.001

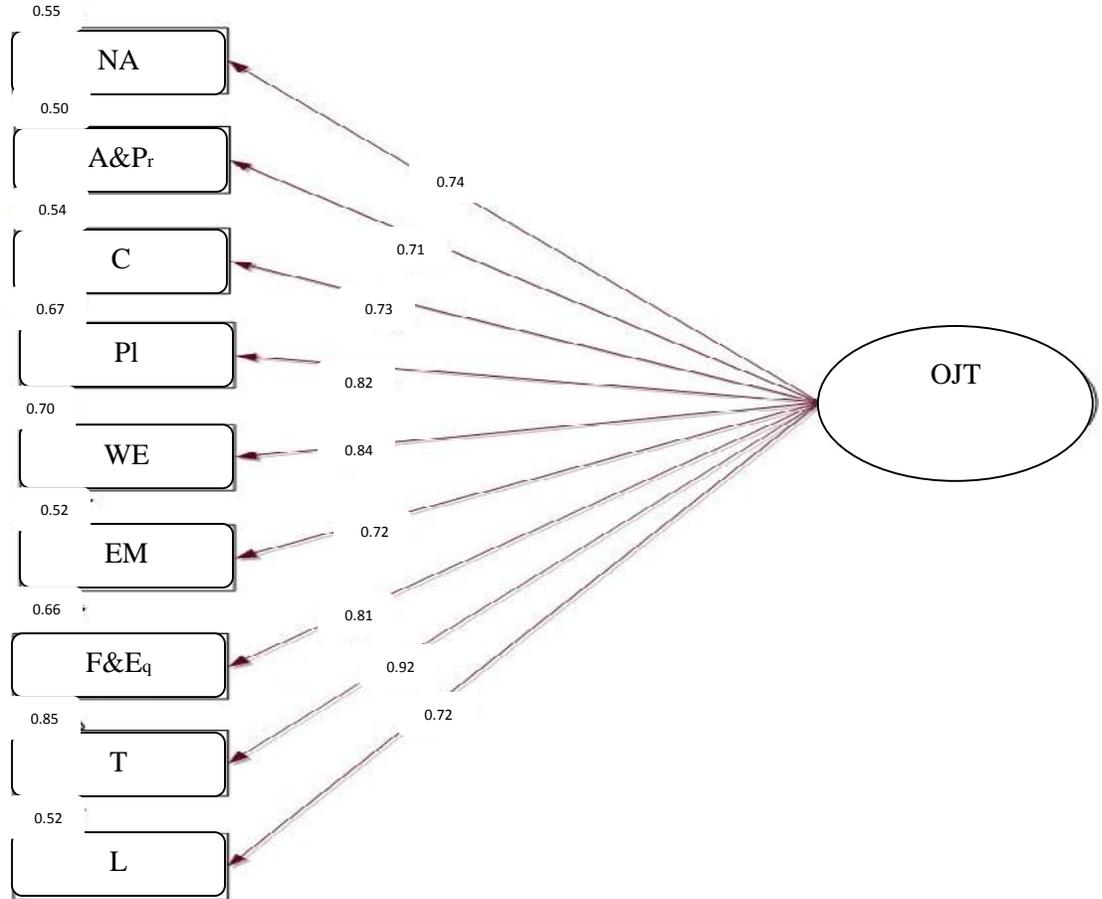**Fig.3.Confirmative Factor Analysis of OJT.**

Table 15.Factor Loading of Performance Improvement (PI) Questionnaire

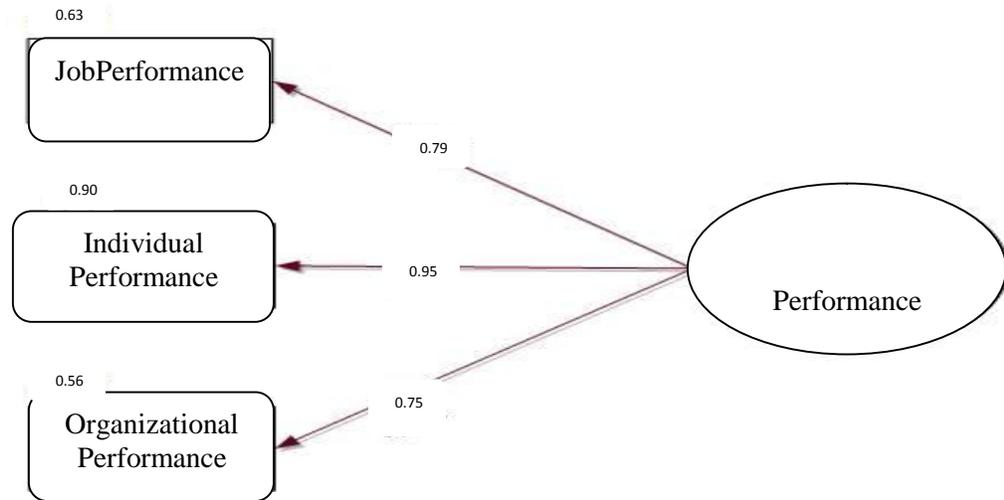| Index	FL	Sig.
Job Performance	0.79	0.001
Individual Performance	0.95	0.001
Organizational Performance	0.75	0.001

Fig.4.Confirmative Factor Analysis of PI.

Discussion

Pearson's correlation coefficient was used to analyze the research hypotheses and the relationship between OJT' indices and PI' factors and it was tested via SEM (See table 10). Results confirmed that there would be a significant relationship between OJT's Indices with PI's factors. Given model of OJT's indices affecting on PI has 12 explicit variables and 2 hidden ones analyzed by AMOS via Maximum Likelihood Method. The aim of goodness evaluation of the model is to recognize how well it is in harmony with empirical data. Goodness Parameters of the primary model was measured through SEM and showed that the primary model was not confirmed (See table 11); thus, modification indices were applied to make the model acceptable. The following modifications were done:

- Correlation between error of Facilities & Equipment(F&Eq) with Learners(L);
- Correlation between error of Executive Management(EM) and F&Eq;
- Correlation between error of Aims & Priorities(A&Pr) with Planning(Pl);
- Correlation between error of A&Pr with Content(C);
- Correlation between error of F&Eq with Technology(T);
- Correlation between error of EM with T;
- Correlation between error of Need Assessment(NA) with Way of Evaluation (WE);

- Correlation between error of C with T.

Results showed that the goodness indices were improved after modification of model (See table 12). Also, results based on regression coefficient showed that all of paths were significant (P=0.001). NA and Job Performance (JP) were considered as constant parameters. The path of OJT had an acceptable impact on PI (=0.77). The most value of OJT's factor loading refers to Technology (=0.92) and the least one refers to Executive Management and Learners (=0.70) while the most value of PI's factor loading refers to Individual Performance ((=0.96) and the least one refers to Organizational Performance((=0.74). The value of R^2 showed that 59% of PI's Variance could be predicted by OJT (See table 13).

Conclusion

This study was to survey the impact of OJT on PI among employees working in IFMO to draw a conceptual and practical model by which the staff make working procedure promote and therefore, improve their performance and achieve the ultimate aim of the organization; namely, productivity. To get the mentioned model, first of all, some effective factors were identified based on OJT courses and then, a conceptual framework was settled down and the impact of individual variables were measured and

finally, a proposed model was delivered by which employees and managers working in IFMO could help their, *b*ehavior, *a*ttitude, *c*ognition, *k*nowledge, and *s*kill which is so-called BACKS.

In order to get the best answer for the research questions, some appropriate statistical analyses were applied and findings showed that among diversified variables related to OJT, the following would have the most impact respectively (Question No. 1):

- Need Assessment;
- Aims &Priorities;
- Content;
- Planning;
- Way of Evaluation;
- Executive Management;
- Facilities & Equipment;
- Technology; and
- Learners.

Among various variables related to PI, the following were identified respectively (Question No.1):

- Job Performance;
- Individual Performance; and
- Organizational Performance.

Analyses of the gathered data showed that there would be positively significant relationship between OJT's identified indices and PI's identified factors (Question NO. 2).

Finally, the given model was analyzed in which 9 explicit variables of OJT and 3 explicit variables of PI were identified and the interrelationship among each of them showed and confirmed the structural model (Question No.3). Also, findings showed that all of the research hypotheses were supported.

Today, it is called the "Information Era" and organizations are not merely dependable upon material capitals rather than some considerable organizational values which are known as intellectual capital.

Knowledge, skill, and attitude are considered as valuable capitals by which any person can use them to present his/ her corporate identity. OJT is typically known as an unwritten capital on which employees are enthused and satisfied. Several factors affect PI among which Need Assessment, Aims & Priorities, Content, Planning, Way of Evaluation, Executive Management, Facilities & Equipment, Technology, and role of Learners along with Job Performance, Individual Performance; and Organizational Performance were identified and tested to deliver a proposed model used by IFMO for improving staff's performance(See Fig. 5).
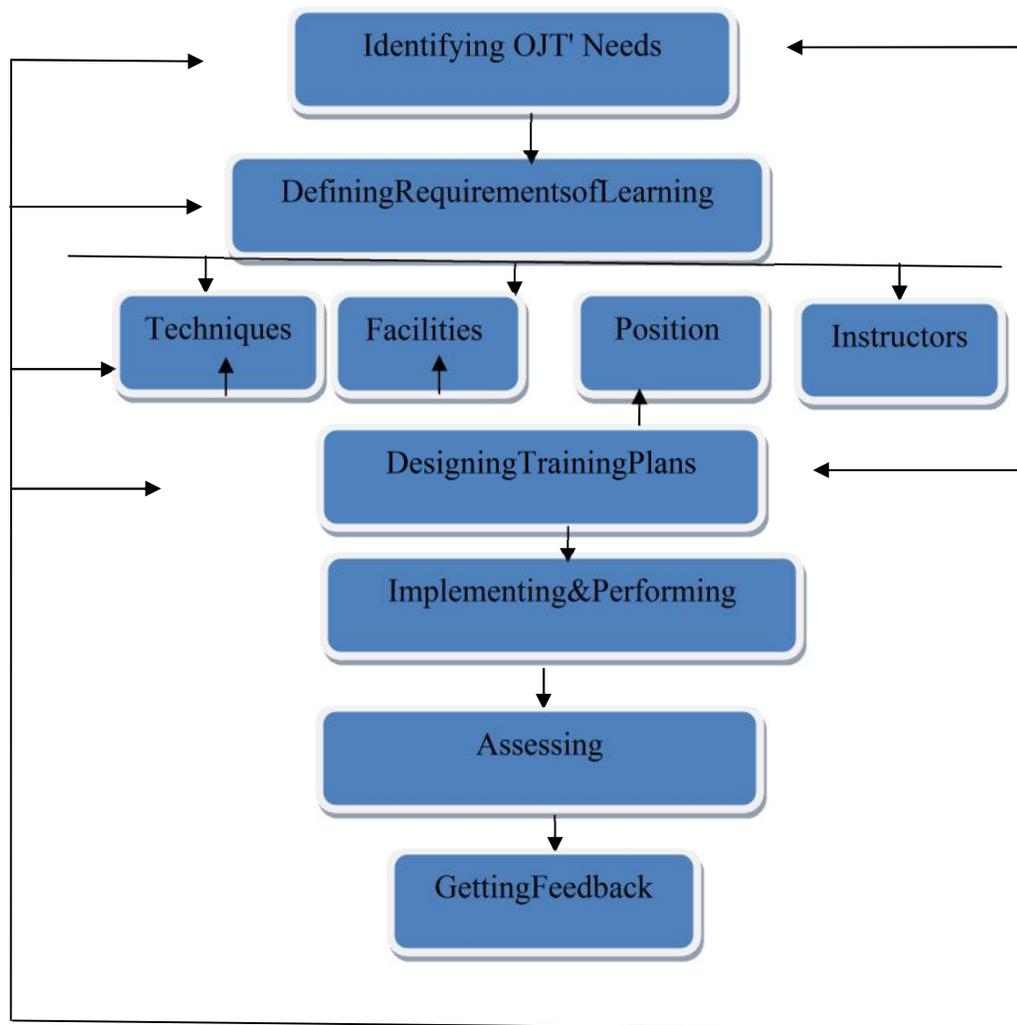
Fig5.A CausalModel of the Study based on explained indices

Acknowledgement

References

Afaq, A. K. (2016). Impact of Training and Development of Employees on Employee Performance through Job Satisfaction: A Study of Telecom Sector of Pakistan. *Business Management and Strategy, Vol. 7, No. 1*.

Afshan, S. &Nasir ,M . (2012) . Impact of Training on Employee Performance: A Study of Telecommunication Sector in Pakistan. *Interdisciplinary Journal of Contemporary Research in Business, Vol. 4, No. 6*, p. 646-661.

Agah, J. (2010).*What is the role of ISO-10015 Standard in Training Process?*Darab : Cement scientific, technical, and Economical Quarterly.(In Persian).

Alavi,S.S.(2008).Applying Electronic OJT: Views of Tehran Medical University staff and managers. Education Strategies Quarterly, Vol.3, No.2,P.47-50.In Persian.

Bhatia,S.K.(2009).*Training and Development:Concepts and Practices*. NewDelhi:Deep& Deep Publications.

Buckley, R .&Caple, J.(2004).*The Theory & Practice of Training*. England: Kogan Page.

Burke,R.(1990).*Programming for Staff Development*. Washington: Falmer press.

Chan, J. F. (2010).*Training Fundamentals:* Pfeiffer essential guides to training basics .John Wiley &Sons, 2010.

Fadaiyan, B.(2014). *Presenting a Model of OJT for promotion of Learners' Satisfaction: NIGC*. PhD Thesis, Tehran: Islamic Azad University, Science and Research Branch.(In Persian).

Farshidi, E . (2008) . *Logics of Modern Approach in Education Administration* . Hormozgan: Qeshm and SarkhunRefinery.In Persian.

Fathivajargah, K. (2010) . *Familiarity with OJT*. Tehran: Ministry of Education.(In Persian).

Fathivajargah, K.(2010). *Need Assessment in Educational Planning*. Tehran: HR Education and Teacher Education Main Office Publications.In Persian.

Fathivajargah, K . (2010) . *Effectiveness Evaluation of Training Courses.* Tehran: Aiyge Publications, 1sted.(In Persian).

Fathivajargah, K.(2010).*Essentials of Curriculum Planning.* Tehran: Iran zamin .(In Persian).

Fathivajargah, K.(2010).*Planning of OJT*. Tehran: SAMT, 6thed. In Persian.

Gentry,C.(1994).*Instruction Development.* Wadsworth Publishing Company.

Kyne, M.(1995).*Incorporating cognitive requirements into OJT*. Unpublished master's thesis, University of Dayton, Dayton, OH.

Mohammadbeigi, Y . (2012) . *Systematic Training in Organizations*. Tehran: Publications of Education Center and Iran Industrial Studies.In Persian.

Mosallaiy, M . R . &Samimi, SH . (2012) . *EFQM-based Model in NIGC* . Mashhad: Hasheminejad Martyr Gas Refining Company.In Persian.

Nassiri, M . (1995) . *Educational Management* . Tehran :University Press . In Persian.

Official Website of Iran Forensic Medicine Organization.(2017). Available from URL: www.imo.ir/?siteid. In Persian.

Rabiy,F.(2010).Impact of OJT's Courses on HR Efficacy based on University Staff's View. *Education Strategies Quarterly, Vol.4, No.2,*P.85-89.In Persian.

Saemian, A .(2011).*Training Modern Patterns in Iranian Companies and Organizations*. Isfahan: Management of Sustainable Profit and Productivity.In Persian.

Saunders,M. &Holdaway , K . (1992).*The In-House Trainer as Consultant.* London: Kegan Page.

Townsend,D.(2000).Training and Development.HR Monthly.

Tracy, J .&Tew , M .(1995). Effectiveness of Training. Hotel *&Restaurant Administration of Cornell Quarterly, Vol.36, No.6,*p36-42.