



2528-9705



PATHOLOGY OF EMPLOYEES TRAINING PROCESS IN NATIONAL OIL PRODUCTS DISTRIBUTION COMPANY TO IMPROVE THEIR EFFECTIVENESS USING A THREE-BRANCH MODEL

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ABSTRACT

The current research entitled "Pathology of employees training process in National Oil Products Distribution Company to improve their effectiveness using a three-branch model" was conducted in five areas of Rasht, Chalous, Sari, Gorgan, and Bojnourd. The objective of this study is to identify the harms related to employees training and to introduce an effective model of employees training. This study is considered as an applied study in terms of nature and objective and mixed study in terms of investigating the variables. The research population in the qualitative section included managers, deputies, heads of departments (n=24), and in the quantitative section, it included 999 people, that 277 of them were selected as sample of the study based on Cochran formula. The tool to collect data in the qualitative section was grounded data method using a semi-structured interview. In the qualitative section, data were collected using field method and through researcher-developed 167-item pathology questionnaire and 120-item effectiveness questionnaire. The face and content validity of the research tool were confirmed by the professors and experts. The reliability of the questionnaires using the internal consistency and Cronbach's Alpha method was estimated 0.98 and 0.98, respectively. Data were analyzed by Friedman Rank test, exploratory and confirmatory factor analysis using SPSS20 and AMOS20 software. The results were obtained as follows: 1- In evaluation of effective components in employees training, 41 components were identified and ranked in process section, 72 components were identified and ranked in the structural section, and 16 components were identified and ranked in contextual or environmental section. 2- In process dimension harms, the components of job motivation (0.91), organizational indifference (0.78), job beliefs (0.78), searching (0.73), distrust (0.70), cognitive factor (0.63), learner preparedness (0.62), job attitude (0.53) and individual characteristics (0.49) were confirmed. 3. In the structural dimension harms, the components of educational design (0.97), centralized system (0.91), supervision (0.78), teaching (0.86) and organizational factor (0.85) were confirmed. 4. In contextual dimension harms, the components of communication with the university (1), political-economic factors (0.78), social communication (0.72) and non-supportive culture (0.56) were confirmed. The fit of research model was confirmed based on confirmatory factor analysis. In this model, the process dimension with the value of (1), the structural dimension with the value of (1), and the contextual dimension with the value of (0.9) explain the employees training variance.

Keywords: Pathology, Employees Training, Improving The Effectiveness, Three-Branch Model

INTRODUCTION

Development of human resources is one of the most important issues, which have drawn the attention of successful and prospective managers, since emphasis on having skilled employee is

the key for success of organizations (Murkani, 2015). Nowadays, humans are viewed as the most important sources of the organization in examining the resources and capabilities of the organization. Human beings are considered as the largest and most active value creators in organizations. The most important manifestation of organizations' and institutions' investments is human resources training (Daneshfard, 2009). Training human resources is tool to achieve this goal. This program in an organization can also meet the need for a specialist in the future and ensure solving the problems of employees. Thus, when employees are trained well in organizations, they can better contribute in enhancing the effectiveness of the organizations. However, the mere training and implementation of training courses cannot help the organization achieve its goals. Trainings should be provided based on scientific principles and methods, so that the outcomes meet the current needs. Otherwise, training will be useless and lead to waste of human capital (ibid).

Investigations on the implementation of the Seventh Administrative Transformation Program on the Iranian administrative system indicate that productivity in public organizations has been decreasing despite the presence of advanced technologies (Alvani and Danaei Fard, 2009). Training facilitates the learning process in areas to create relatively stable change in individuals and in order to improve the capability of doing the things. It can be associated with change in attitudes and behavior and skills of people. It can make changes in knowledge of employees, their attitudes to job and their interaction with colleagues or supervisors (Abiley, 2010). The major goal of employees training is to empower people to succeed in jobs, develop professionalism, and adapt to changes and new situations in work life in order to improve their performance and to meet their needs. Hence, the growth and development of human resources through their training has been increasingly considered by organizations. Modern transformational management efforts emphasize on this issue and most of management experts and educational planners agree that the key to the implementation of work in the organization and transformation and innovations beyond the organization is the use of effective mechanism of employee service (Fathi and Ajargah, 2009: 102).

In addition, the main goal of organizational trainings is the transfer of training to the workplace, but many researchers argue that it is not transferred in practice and organizations have failed to achieve their expected outcomes (Bahti et al., 213). Estimates show that only 10 to 15 percent of what is learned is transmitted to the workplace. Thus, if this problem is not solved and rate of transfer is not improved, the credibility and effectiveness of organizational training would be endangered (Kontoghiorghes, 2014). However, it should be stated that the long-term success of any organization depends largely on effective and continuous training of the employees and the new information used by them to improve their job performance to enhance the effectiveness of organization. Hence, continuous training of employees is the key component in success of an organization. In this regard, estimates show that most of formal capitals in training and improvement of organization has been wasted since most of the acquired knowledge and skills are not fully applied by learners (Handy, 2008). These estimates have increased the focus of attention on what factors inhibit or promote transfer of training (Dermol, 2014). However, the defect in employees training can challenge the process of achieving to short term and long term goals in line with 20-year vision document. The National Oil Products Distribution Company is one of the organizations requires the development of human resources and empowering them, due to rapid global developments in



the economic sectors, introduction of new technologies and innovations. For this reason, this company has provided various training courses for its employees in recent years to help them achieve its goals in empowering the employees.

The observations of researcher indicate that various courses have been held for the training and enhancing the skill of this company's employees. However, the implementation of these courses has been faced with difficulty in many aspects and it has not been able to leave positive impact on activities of employees and company productivity. The results of studies conducted in this regard suggest that untimely, unplanned and unnecessary training and without needs assessment will reduce the motivation and capability of employees and did not solve the organization problems (Nouri and Peydaei, 2010: 15). While much effort is made in Iran to develop and implement successful training courses and the necessary incentives are provided to employees, undesired quality of inputs and outputs reflects the fact that the employees training system In Iran does not receive appropriate inputs to provide appropriate outputs to the community. It highlights the importance of the pathology of the employees (Murkani, 2015: 75).

Thus, it should be stated that the study and pathology of training and its improvement is important as much as training human resources, since educational space of government employees have faced with problems and barriers despite the expansion of activities and diversity of educational and training methods (Mollaei Harandy, 2013: 11). Pathology is a systematic process of collecting the data to establish effective and useful interaction in line with solving the problems, challenges, pressures and environmental restrictions in the organization (Andrew Manzini, 2006: 54). The goal of pathology is to find out the causes or roots of recession or crisis in the natural process of phenomena, activities, and to develop a framework, which can motivate the employee to increase their efforts to achieve organizational goals (Murkani, 2015: 84). In organizational pathology issue, having a model prevents the occurrence of error and conceptual disturbance in pathological studies. A three-branch model was used in this research. Based on this model, all organizational events and phenomena can be evaluated. This model includes three branches of structure, context and content. The structure branch means all physical and non-human elements, factors, and conditions of the organization forming the physical and material body of the organization in interaction with each other. The process or behavior process refers to human and human relations within the organization. The context branch, as the most important branch, not only ensures the survival and growth of the other two branches, but also creates other branches. The relationship between structural, process, and contextual factors is so that no organizational event or phenomenon can be outside the interaction of these three branches (Harrison, 2005). Given what was stated above, this question is what process, structural and contextual harms are involved in employees training in National Oil Products Distribution Company and what factors are involved in effectiveness of employees training?

Research questions

Main questions

- What are the harms of employees training at National Oil Products Distribution Company?
- What are the components of employees training effectiveness?



Secondary question:

- What are the effectiveness components of employees training in structural, process and contextual dimensions?
- What are the ranks of employees training effectiveness components in structural, process, and contextual dimensions?
- What are the harmful components in the process dimension of employees training in National Oil Products Distribution Company?
- What are the harmful components in the structural dimension of employees training in National Oil Products Distribution Company?
- What are the harmful components in contextual dimension of employees training in National Oil Products Distribution Company?
- What is the desirable model of employees training employee in National Oil Products Distribution Company?

METHODOLOGY

The present research is applied in terms of objective and mixed study in terms of data collection. In this research, the researcher first qualitatively examined the subject with limited participants, and then, he developed the considered tool based on qualitative findings. Based on this method, and as the objective of this research was to pathology of employees training in National Oil Products Distribution Company, mixed method was used in order to in-depth study and further understanding of the subject. Given the necessity of performing qualitative research before the quantitative method, a sequential exploratory design and classification model as a research strategy in mixed methods were used in this research. The steps to perform the research were derived from Kreskul and Valcke (2011). These three steps included review of literature, qualitative study and quantitative study.

Quantitative methodology

The quantitative step of this research includes determining the importance and prioritization of employees training harms and to identifying the effective components in the employees training of National Oil Products Distribution Company. Thus, the research method is survey type of descriptive method. For this purpose, based on the results of the qualitative research, a researcher-developed questionnaire was designed and applied in research domains, and then, analyzed.

Statistical population and sample size in quantitative research:

The research population included all 999 managers, deputies, heads of departments and experts and employees of the National Oil Products Distribution Company distributed in five areas (Rasht, Chalous, Sari, Gorghon and Bojnourd). The research sample size was calculated by using the Cochran formula. Based on this formula, the sample size proportional to the research statistical population (n=999 people) was determined to be 277 people with an accuracy of 0.05.

Review of literature

Soltani et al. (2018) conducted a research entitled "Pathology of organizational trainings in one of the military centers of the Armed Forces using a FPSS model among 120 managers and

experts using descriptive-survey method. The research results revealed that the studied has a relatively good status in both functional and process dimensions of FPSS model, but has no good status in systemic and structural dimensions of FPSS model. Rahmani et al. (2017) conducted a research entitled "pathology of human resources in Imam Khomeini Hospital Complex based on three-branch model". Their results showed that the maximum mean and standard deviation related to motivational dimension and job satisfaction and the minimum standard deviation related to dimension of improvement of methods. Among the components studied, the behavioral component obtained the highest score and the contextual component obtained the minimum score. Correlation between structural, behavioral and contextual factors and demographic characteristics showed that the relationship of these factors and gender variable is statistically significant.

In a research entitled "evaluating the current status of training courses and presenting a qualitative model for promoting the effectiveness of training courses" using mixed method at the level of tax affairs employees, Ezzati et al. (2017) concluded that the current status of needs assessment, goals, content, instructors, organizing, evaluation and motivation of employees in training courses was at the moderate level from the viewpoint of Tax Affairs Organization experts. In a study entitled "The Pathology of in-service training courses from the viewpoint of faculty members based on C3 Model", Farhadi and Khorasani (2016) concluded that the pathology of in-service courses in structural factors relative is weaker compared to contextual and content factors. In addition, significant difference was found between the views of faculty members in terms of field of the specialty and years of service, and in the contextual factors, a significant difference was found among the views of male and female faculty members.

Najfizadeh et al. (2016) carried out a study entitled "Pathology of performance management system in Qazvin University of Medical Sciences using a three-branch model". Their research findings revealed that the harms of performance management system of employees in a three-branch model included structural, behavioral, and environmental harms. Hosseini et al. (2015) carried out a research entitled "The pathology of in-service training based on the OEM model". Their research findings revealed that among the dimensions examined (input, process, output, and output), inputs were evaluated more undesirable compared to other dimensions and learners with bachelor degree evaluated in-service trainings more desirable than others. In a research entitled "evaluation of the factors influencing the transfer of training in in-service training of non-faculty members of Tehran University Using the Holton Model", Abasalt Khorasani et al (2015) concluded that the individual and organizational factors had the highest impact on the transfer of training in work environment. Among the University of Tehran employees, individual factors affecting the transfer of training with mean of (2.68) was considered as ordinary barrier to transfer of training, organizational factors with mean of (3.47) were considered as ordinary barriers and educational factors with mean of (3.07) were considered as ordinary barrier of transfer.

In a research entitled "The supportive role of supervisor in training and job performance (an empirical study)", Sunyoung et al. (2018) concluded that supervisor's support of training has a direct impact on learning motivation. Having knowledge on needs and learning motivation has a direct and significant impact on transfer of training and job performance. In a research entitled "The factors predicting the transfer of training in professional health jobs participating



in quality improvement training interventions", Ahmed Ayed (2017) concluded that factors affecting the transfer of training are placed in three classes of personality traits, training course and work environment. The characteristics of trainees included attitudes toward change, motivation, mental processing skills, individual skills and personality traits, curiosity, humility, conscience, flexibility, wisdom and positive thinking. In a research entitled "evaluation of the effect of work environment factors on the transfer of employees training," Kanokporn et al. (2016) concluded that the environmental factors of the work environment directly affect the behavior of the transfer of training of participants and indirectly affect it through the MT of individuals. Kanokporn et al. (2016), in a study entitled "The impact of work environment factors on the transfer of employees training," came to the conclusion that the environmental factors of the work environment directly affect the behavior of the transfer of the education of participants and indirect through the MT of individuals.

In a study entitled "The evaluation of the effects of employees' empowerment, teamwork and employees training program on organizational commitment", Jalal HaniSha (2016) found that employees' empowerment has a positive and significant impact on organizational commitment. The effect of teamwork on organizational commitment is positive and significant. In a study entitled "examining the barriers to transfer of training", Kontoghiorghes (2014) found that the most important barriers to transfer of training included lack of job encouragement and strengthening, disrupting factors in the work environment, such as time pressure, work pressure, inadequate authority, ineffective work procedures, inadequate equipment and facilities, non-supportive organizational culture, trainees' belief in non-applied nature of training courses, trainees' belief in the inadequacy of training content; trainees' dissatisfaction with training changes, lack of receiving encouragement or educator's support, trainees' belief in poor design and inappropriate presentation of training programs, and pressure of colleagues to resist against the changes.

RESULTS

Quantitative data analysis

After collecting data, they were screened using appropriate statistical analysis methods to analyze them in three steps: 1- Descriptive analysis of data, exploratory factor analysis 2- Confirmatory analysis of dimensions and components 3- Presentation of the final research model.

Final model of research

[1] The results of descriptive analysis of the data are based on the demographic characteristics of the participants in terms of gender, education and employment history are as follows:

Table 1- Distribution of respondents in terms of gender

gender	f	%
male	252	8.90
female	25	2.9
total	277	1

Table 2: Distribution of respondents in terms of education level

Education level	f	%
High school	57	56.20
Associate	54	56.19
Bachelor	126	44.45
Master	38	74.13
PhD	2	7.0
total	277	100

Table 3: Distribution of respondents in terms of employment history

n	min	max	mean	SD
277	23.11	3	27	71.3

Table 4: the indices of frequency, center tendency, and distribution of three dimensions of process, structure, and environment

Dimension	n	mode	median	mean	SD
process	277	61.2	78.2	86.2	610.0
Structure	277	99.2	98.2	00.3	651.0
Environment	277	64.2	81.2	82.2	686.0

The results of Table 4 show that the maximum mean is related to the structure dimension (3.00) and the minimum mean is related to environment dimension (2.86). Moreover, the maximum distribution was seen in the environmental dimension (0.686) and the minimum distribution was seen in process dimension (0.610). In addition, the maximum coordination and closeness among the mean, the median and mode are observed in the structure dimension



Inferential analysis of results

Question 1: What are the effectiveness components of employees training in structural, process and contextual dimensions?

Based on the analysis of qualitative data obtained from exploratory interviews and coding of the interviews' text content analysis, the effective components in the training of National Oil Products Distribution Company employees were identified in the three main dimensions of process, structural and environmental. The components of each of these dimensions were constructed based on the conceptual framework of the research and the conceptual code obtained in the qualitative section. Then, to determine the final influential components, 120-item questionnaire were developed based on Likert scale and implemented in research domain. The results showed that the mean of all items used in the questionnaire was above 3, indicating their effectiveness in employees training. Thus, 41 components were identified in process section, 72 components were identified in the structural section, and 16 components were identified in the environmental section.

Question 2: What is the rank of components of employees training in the structural, process and contextual dimensions ?

In order to answer this research question, the identified effective components were ranked by using Friedman's rank test. According to the results, among 41 components identified in process dimension, the components of using experienced and skilled instructors, cooperation of the manager and the supervisor with the employees in the company during participation in course, increased job security in the company ranked first to third, respectively. In the

structural dimension, among 72 components identified, the components of planning to promote employees based on competence principle, the selection of managers based on the meritocracy principle in the company, creation of an opportunity for job promotion for all employees ranked first to third, respectively. In environment dimension, among 16 components identified, the components of the managers' effort to improve the quality rather than quantity of training, strengthening the relationship between the company and the university in providing the instructor and scientific support, and strengthening social skills of employees and managers ranked first to third, respectively.

Question Three: What are the harmful components in the process dimension of employees training in National Oil Products Distribution Company?

Based on the qualitative data analysis, 61 harms related to process dimension were identified. Before performing factor analysis, data adequacy index and Bartlett Test were used in order to confirm the justifiability of data for factor analysis through Kaiser-Meier Test. The fitness level of variance explained (indicating the percentage of questions' variability), which indicates whether the set of designed questions is suitable for factor analysis, was determined.

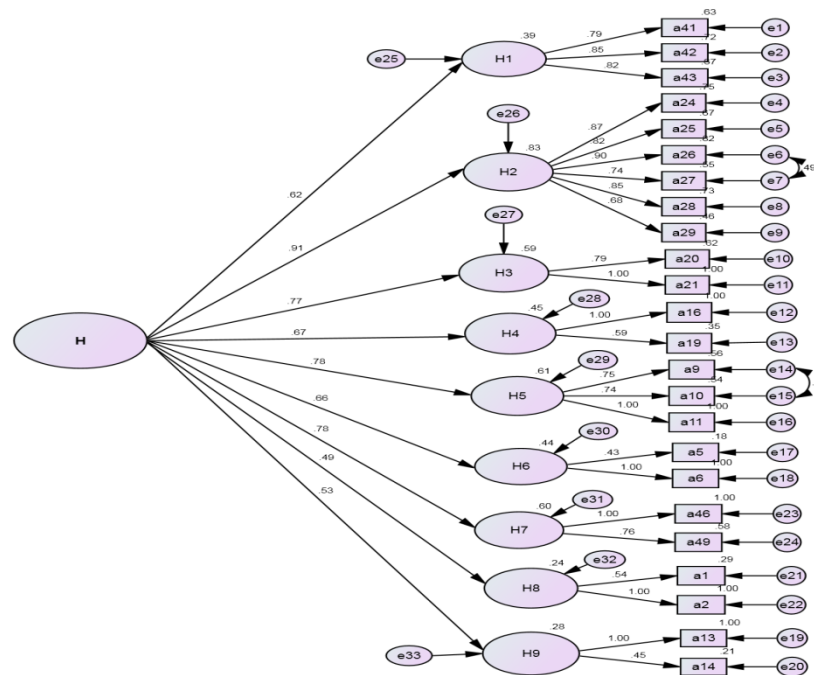
The results indicated that the variance explained in the process dimension was higher than 50% and the data had the required conditions for factor analysis. Then, the factor load of all components was calculated based on exploratory factor analysis. According to the results of factor analysis, among the 61 components extracted from theoretical principles and the qualitative section of research, 30 components with appropriate factor load were identified. Each of these components with high coefficient of determination estimates the significant values of variance.

Factor analysis led to identification of 9 factors of learner's preparedness, job motivation, searching, distrust, job belief, cognitive, organizational indifference, individual characteristics and job attitude. Confirmatory factor analysis showed that these 9 factors had appropriate validity and the factor loads values confirmed it. Among the influencing factors, job motivation showed the highest influence and individual characteristics factor had the lowest influence. In job motivation factor, lack of a sense of competition among others, in the organizational indifference factor, the component of rejecting probable problems by employees and blaming the training, in the factor of job beliefs, the component of lack of attention to the trainer, in the searching factor, the component of lack of employee's dynamism in learning the materials, in the distrust factor, the component of uncertainty in using the results of the survey, in the factor of the cognitive factor, the component of forgetting the trainings, in the factor of learner's preparedness, the component of lack of initial knowledge, in the factor of job attitude, the component of training merely for reporting, in the factor of individual characteristics, the component of being accustomed to the current situations showed the highest effect.

Table 5: Exploratory factor analysis of theoretical principles in the process dimension

Main component	The value of the Kaiser-Meyer test and the Bartlett test	Number of component	Total variance explained
process	714.0kmo= Bartlett test= 1877.238 Df=435 Sig=000	30	84.84

As shown in table (5), the value of Kaiser-Meyer test is higher than 0.7 and the sig value is less than 0.05. This result suggests that the factor analysis is appropriate for the considered data. Table 9 shows the results of factor analysis.



The standard coefficients of the variables and components in the process dimension harms:

H = process H1 = learner's preparedness, H2 = job motivation, H3 = searching, H4 = distrust, H5 = job belief, H6 = cognitive factor, H7 = organizational indifference, H8 = individual characteristics, H9 = job attitude

The results of standard coefficients and the role of each of the harmful factors in the process dimension of employees training suggest that among the factors of process dimension, the motivation factor with standard coefficient of 0.91, and out of 30 components of each of the factors, lack of dynamism human resources has the most impact in learning the materials, the uncertainty about using survey results, forgetting the trainings, rejecting possible problems by employees and blaming the training, and being accustomed to the current conditions with coefficient of 1 had the highest impact. Then, the value of path relationship for each of the harmful dimensions in the process section as well as the critical ratio and the significance level are shown in Table (10) and the results have been ranked based on standard coefficient.

Table 6: Standard coefficients and critical ratio of harms of process section of employees training

factors	Standard coefficients	Critical ratio (C.R)	Significance level	Result	rank
Job motivation (H2)	0.91	7.79	0.000	confirmed	1
Organizational Indifference (H7)	0.78	7.46	0.000	confirmed	2

Job Beliefs (H5)	0.78	5.86	0.000	confirmed	2
Searching (H3)	0.77	6.00	0.000	confirmed	3
distrust (H4)	0.67	6.07	0.000	confirmed	4
Cognitive (H6)	0.66	3.27	0.000	confirmed	5
Learner's preparedness (H1)	0.62	4.58	0.000	confirmed	6
Job Attitude (H9)	0.53	4.55	0.000	confirmed	7
Individual characteristics (H8)	0.49	3.29	0.000	confirmed	8

Question 4: What are the harmful factors in the structural dimension of employees training in National Oil Products Distribution Company?

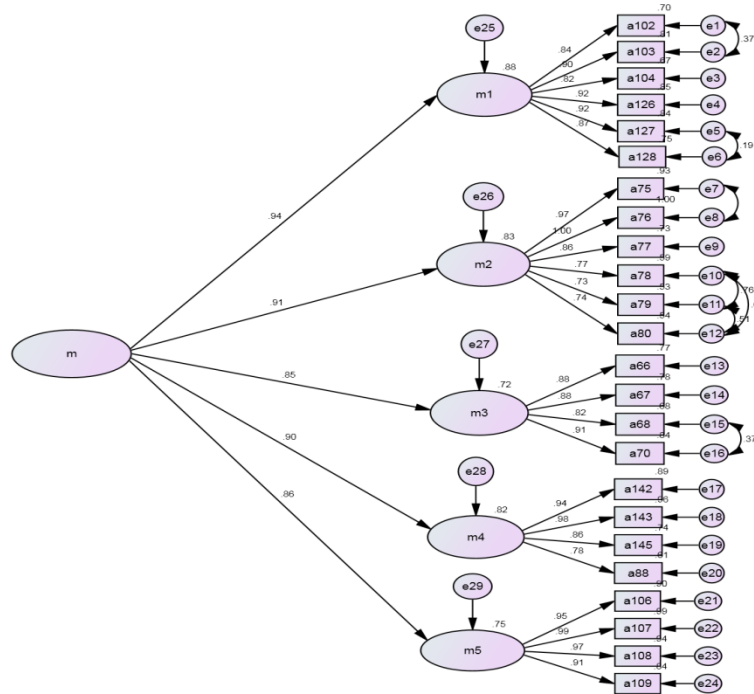
According to the analysis of qualitative data, 84 harms related to structural dimension were identified. Before factor analysis, in order to confirm the justifiability of data for factor analysis, Kaiser-Meyer test, adequacy of data, and Bartlett Test were used. The results revealed that the variance explained in the structural dimension is above 50% and the data have the required conditions for factor analysis. Then, the factor load of all components was calculated based on exploratory factor analysis.

According to the results of factor analysis, out of 84 components extracted from theoretical principles and qualitative section of research, 25 components with proper factor load were identified. Each of these components with high coefficient of determination estimates the significant value of variance. By implementing factor analysis, five factors of educational design, centralized system, and supervision, teaching and organizational factors were identified. Among these factors, the educational design factor had the highest effect and organizational factor showed the lowest effect. In the educational design factor, the components of learners' weaknesses in the implementation of the teachings and the lack of recognition of learners in practice area with an equal ratio, in the centralized materials taught and the goals of the course, is in the teaching factor, the component of the theoretical nature of most of the training, and in the organizational factor, having long-term perspective in training showed the highest effect.

Table 7: Exploratory factor analysis of theoretical principles in the structural dimension

Main component	The value of the Kaiser-Meyer test and the Bartlett test	Number of component	Total variance explained
Structural	kmo=0726. Bartlett test= 1072.503 Df=496 Sig=000	25	0.73

As shown in table (7), the value of Kaiser-Meyer is higher than 0.7 and the sig value is less than 0.05, indicating that factor analysis is appropriate for the considered data.



$\chi^2=878.002$ $DF=346$ $P=.054$ $RMSEA=.061$ $\chi^2/DF=2.537$

The standard coefficients of variables and components in structural dimension harms

M = Structural harms, M1 = Educational design, M2 = Centralized system, M3 = organizational factor, M4 = supervision, M5 = teaching

The results of standard coefficients and the role of each of the dimensions of employees training harms suggest that among the factors of structural dimension, the educational design dimension with a coefficient of 0.94, and out of 24 components of each dimension, the theoretical nature of training with coefficient of 0.97 had the highest effect and the component of lack of design of training courses in the centralized system factor with a coefficient of 0.28 showed the lowest effect.

Table 8: Standard coefficients and critical ratio of structural dimension harms

factors	Standard coefficients	Critical ratio (C.R)	Significance level	Result	rank
Educational design	0.94	13.65	0.000	confirmed	1
Centralized system	0.91	12.16	0.000	confirmed	2
supervision	0.90	15.36	0.000	confirmed	3
Teaching	0.86	14.62	0.000	confirmed	4
organizational	0.85	12.78	0.000	confirmed	5

Question 4: What are the harmful factors in the contextual dimension of employees training in National Oil Products Distribution Company?

According to the analysis of qualitative data, 22 harms related to contextual dimension were identified. Before factor analysis, in order to confirm the justifiability of data for factor analysis, Kaiser-Meyer test, adequacy of data, and Bartlett Test were used. The results revealed



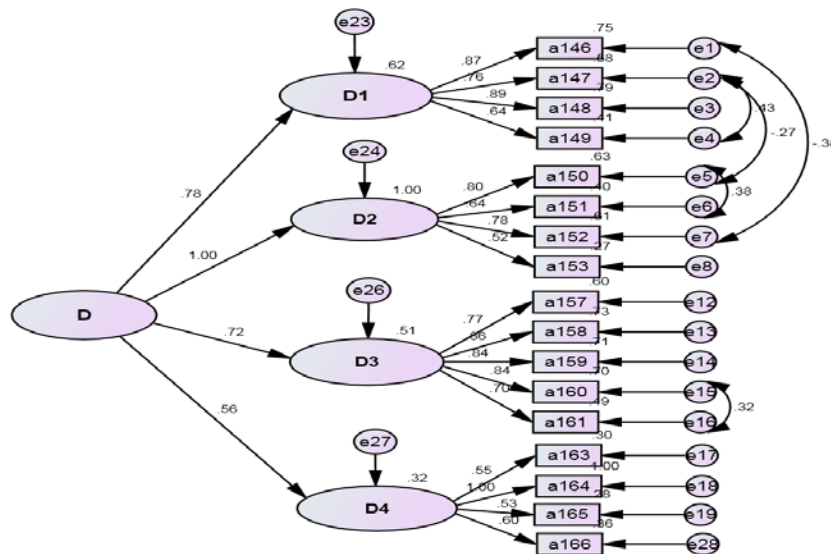
that the variance explained in the contextual dimension is above 50% and the data have the required conditions for factor analysis. Then, the factor load of all components was calculated based on exploratory factor analysis. According to the results of factor analysis, out of 22 components extracted from theoretical principles and qualitative section of research, 17 components with proper factor load were identified. Each of these components with high coefficient of determination estimates the significant value of variance. By implementing factor analysis, four factors of political-social factors, communication with university, social communications, and non-supportive culture were identified.

Among these factors, the communication with university factor had the highest effect and non-supportive culture factor showed the lowest effect. In the communication with university factor, the components of lack of university in the areas required by company, in the political-economic factor, the components of financial bottlenecks to make private sector involved, in the social communications factor, the component of inability of officials in establishing communication with others and in the non-supportive culture factor, component of lack of learning culture showed the highest effect.

Table 9: Exploratory factor analysis of theoretical principles in the contextual dimension

Main component	The value of the Kaiser-Meyer test and the Bartlett test	Number of component	Total variance explained
Contextual	kmo=0.768 Bartlett test= 59.938 df=231 Sig=000	22	69.05

As shown in table (9), the value of Kaiser-Meyer is higher than 0.768 and the sig value is less than 0.05, indicating that factor analysis is appropriate for the considered data.



$\chi^2=121.049$ $DF=143$ $P=.054$ $RMSEA=.068$ $\chi^2/DF=.846$

D = context or environment D1 = economic -political D2 = communication with university
D3 = social communication D4 = non-supportive culture

The results of standard coefficients of determination of the role of each of the dimensions of employees training harms suggest that among the four dimensions of the contextual or environmental dimension, the dimension of communication with the university with the standard coefficient 1 and out of 19 components of each dimension, the component of personal orientations on social communication with a coefficient of 0.89 in social communication dimension showed the highest effect, and the component of the lack of university in the areas required by the company in the region in dimension of communication with university with the coefficient of 0.55 showed the lowest effect.

Then, the value of the relationship path of each dimension of the harmful dimensions in the context section as well as critical ratio has been presented in Table (16) and ranked based on standard coefficient.

Table 10- The standard coefficients and critical ratio of harms in context dimension

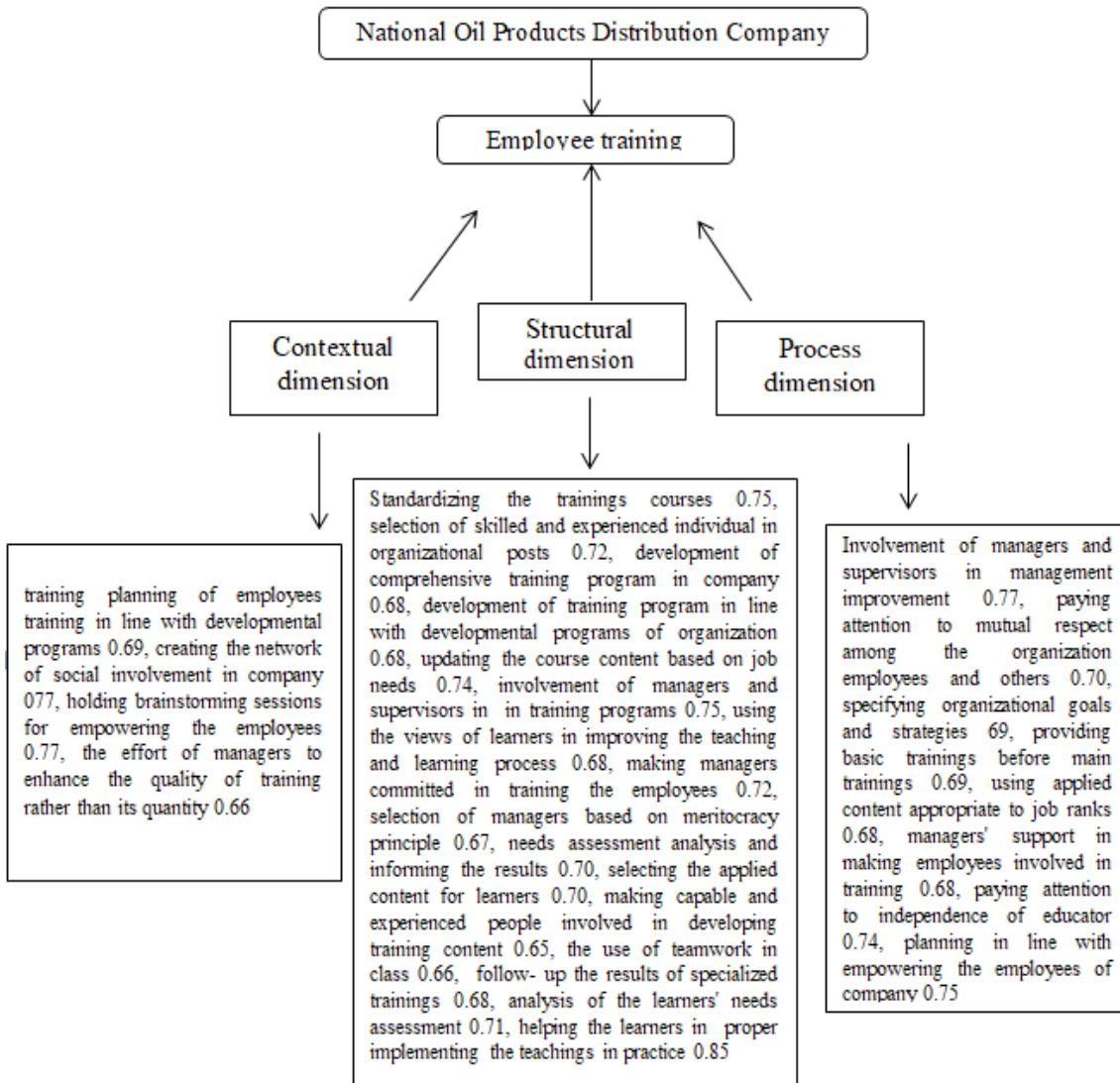
factors	Standard coefficients	Critical ratio (C.R)	Significance level	Result	rank
Communication with university	1	7.51	0.000	confirmed	1
Political-economic	0.78	6.20	0.000	confirmed	2
Social communications	0.72	5.23	0.000	confirmed	3
Non-supportive culture	0.56	3.60	0.000	confirmed	4

Question 6: What is the desired model for training employees of the National Oil Products Distribution Company?

In order to design an acceptable model and to determine whether markers measure the underlying theoretical structure well, a confirmatory factor analysis was performed on all components. According to the results of the confirmatory factor analysis, the direct and indirect relationships identified between the components and each of the harmful dimensions in employees training was confirmed. The harmful components in employees training and their role in causing harm in process, structural and contextual dimensions have been shown in the final model of research. In addition, the components of the managers' company in the period of improvement of management, paying attention to interaction and mutual respect, planning for empowerment of employees in the structural dimension, analysis of learners' evaluations, selection of managers based on meritocracy and managers involvement in educational programs, and in contextual dimension, holding sessions with employees, and training and enhancing social skills have the highest effect. In confirmatory factor analysis, 28 items with proper factor load were included into confirmatory factor analysis as main and secondary factors using AMOS software.

To evaluate and determine the desired model, Chi-square, normalized fit index, comparative fit index, The Root Mean Square Error of Approximation, relative fit index, incremental fit index, Tucker-Lewis fit index were used. In general, the results of confirmatory factor analysis and fit indices showed that the considered model had appropriate fit. In this model, all direct paths between the research variables were evaluated. The results indicate that the direct effects of the variables in the desired model of employees training in the National Oil Products Distribution Company were confirmed and had the highest effect in employees training.





The final model of research shows the role of the factor and process, structural and contextual or environmental dimensions in employees training. The contribution of each of the dimensions and components of employees training with highest effect on the training of employee of National Oil Products Distribution Company has been shown. In the process dimension, managers' involvement in management improvement with a coefficient of 0.77, planning for empowering the employees with a coefficient of 0.74 and paying attention to the independence of educator with a coefficient of 0.74, respectively, had the highest effect among components of this section.

In the structural dimension, the component of the managers' involvement in training programs with a coefficient of 0.75, making managers and supervisors involved in training programs with a coefficient of 0.75, updating the content of the course based on the job needs with a coefficient of 0.74, respectively, had the highest effect among components examined. In the context dimension, the components of creating social involvement network in company with a

coefficient of 0.77, holding brainstorming sessions for empowerment of employees with a coefficient of 0.77, and training planning for employees training in line with development plans of country with a coefficient of 0.69, respectively, had the highest effect among the components of this section in employees training. Accordingly, the contribution of each dimension influencing employees training generally belongs to the structural dimension with coefficient of (1), process dimension with coefficient of (1) and contextual or environmental dimension with coefficient of (0.89).

Table 11: Fit indices of the research final model

index	Acceptable value	The value found in research	Desirability
Chi-square(χ^2)	-	039.465	Confirmation of model
P-Value	~	000.0	Confirmation of model
DF (degree of freedom)	$df \geq 0$	330	Confirmation of model
χ^2/df	$\chi^2/df < 3$	409.1	Confirmation of model
RMSEA	$RMSEA < 0/1$	076.0	Confirmation of model
NFI	$NFI > 0/9$	944.0	Confirmation of model
RFI	$RFI > 0/9$	0.907	Confirmation of model
TLI	$TLI > 0/9$	0.923	Confirmation of model
CFI	$CFI > 0/9$	901.0	Confirmation of model
IFI	$IFI > 0/9$	904.0	Confirmation of model

As shown in the table, the value of the chi-square statistic in the model is 456.039 and degree of freedom is 330. The result of their ratio is 1.409 which is at an acceptable level. The RMSEA index is also 0.076 which is less than 0.1 and acceptable. In addition, the value of model fit indices such as NFI, RFI, TLI, CFI, IFI are all higher than 0.9 and acceptable. Thus, the results suggest that research model is appropriate and the relationships between the variables were established based on the theoretical framework of qualitative research and has necessary fit and it is generally confirmed.

CONCLUSION

Given the need to identify the weaknesses in employees training and considering the fact that the only way to identify the harms and weaknesses in the process of employees training is to evaluate it, this research used three-branch model as one of the comprehensive and most commonly used pathology methods, to evaluate the pathology of employees training in National Oil Products Distribution Company in the three process, structural and contextual dimensions. In all dimensions, several harms were observed in the employees training process. These harms, in spite of improvements in human resource, especially in the process of design,



planning and implementation of training, warn the authorities that lack of attention to models in the process of educational design and planning and lack of attention to executive tasks and details of the training implementation process can impose many harms to the training process. Results suggest that there are serious and significant harms in process dimension of employees training. Examining the process dimension revealed 9 categories, including learner preparedness, job motivation, searching, distrust, job belief, cognitive factor, organizational indifference, individual characteristics, and job attitude. Each of these categories alone includes several influential components. In this dimension, the category of job motivation played significant role in causing harm to the employees training process. Based on review of literature of research, these harms are also commonly seen in other organizations and companies, so managers and officials should pay special attention to this issue. In addition to process dimension, resulting from the behavior of employees, structural and environmental dimensions also have no desired status in employees training and some harms are seen in these two dimensions. In the structural dimension, the results of the studies suggest the significance of harms in this section.

The harms were identified in five categories of educational design, centralized system, supervision, teaching, and organizational factor. In this dimension, from viewpoint of the participants, the category of educational design played a more important role in employees training harms. In the contextual or environmental dimension, as process and structural dimensions, the employees training conditions were not desirable and the results showed significant harms in this sector. The frequency of environmental dimension harms were less than that of other two dimensions and based in the results, the harms of this dimension are placed in four important categories, including political-economic, communication with university, social communications and non-supportive culture. In this dimension, the category of communication with university and its components compared to other categories and components showed more harms in the employees training process. The presence of a university related to area of oil company might played an important role in empowering and promoting the employees and lead to growth and development of the oil products distribution company. In addition to identifying the harms imposed on employees training process, effective components were also identified in this study and the obtained results were confirmed in the final model of research. In the process dimension, the components of managers' involvement in improvement of management, paying attention to interaction and mutual respect, planning to empower the employees showed the highest effect. In the structural dimension, analysis of learners' needs assessment, selection of managers based on meritocracy and involvement of managers in training programs showed the highest effect. In the contextual dimension, brainstorming sessions with employees, training and improving the social skills showed the highest effect.

References

Abiley, Kh (2010). Human Resources Management (with an emphasis on modern approaches). Tehran, Management Organization Publications



- Daneshfard, K, and Rashidi, Z (2013). Validation of employees in-service training centers of District 10 of Islamic Azad University. *Quarterly Journal of Educational Management Research*, Issue 4, pp. 27-54
- Dermol, V. & Tomaz, (2014), "The Influence of Training Transfer Factors on Organizational Learning and Performance" *Personal Review*, Vol 42, Iss 3, pp 324- 348.
- Ezzati, M, Yuzbashi, A, and Shateri, K (2017). Assessing the existing status of training courses and providing a qualitative model for promoting the effectiveness of training courses. *Quarterly Journal of Human Resource Education and Development*, Volume 4, Issue 12, 127-148
- Farhadi, M and Khorasani, A (2016). Pathology of in-service training courses from the point of view of faculty members based on c3 model. *Quarterly Journal of Behavioral Sciences*, Volume 8, Issue 29, 185-200
- Fathi V Ajargah, K (2009). Planning for employee in-service training. Tehran: Publication.
- Handy, L.W. (2008). The importance of the work environment variables on the transfer of training. Ph.D. Thesis, Department of Education, North Carolina State University.
- Harrison MI. Diagnosing organizations: Methods, Model, and Process. *Applied Social Research Methods series*;v 8. 3rd ed.California: SAGE publication,Inc; 2005:1-192.
- Hosseini, MS et al. (2015). Pathology of in-service training based on OEM model. *Journal of Cultural Management Organization*, Volume 13, Issue 4, 120-122.
- Jalal HaniSha. Examining the Effects of Employee Empowerment, Teamwork, and Employees training on Organizational Commitment, Volume 229, 19 August 2016, Pages 298–306.
- Kanokporn Chaiprasit, Peerapong Pukkeeree, (2016) "Influences of workplace environment factors on employees' training transfer", *Industrial and Commercial Training*, Vol. 49 Issue: 6, pp.303-314.
- Khorasani, A, et al. (2015). Investigating the factors affecting the transfer of training in in-Service training of non-faculty members of Tehran University. *Quarterly Journal of Human Resource Training and Development*, Volume 2, Issue 5.
- Kontoghiorghes, C. (2014). A Systemic Perspective of Training Transfer. In: Kathe, S: *Transfer of Learning in Organizations*. Springer International Publishing, 65- 79.
- Manzini, A (2006). Management of organizational transformation and organizational harms, translated by Ali Atafar. Esfahan: Arkan-e Danesh Publications
- Murkani, Sh et al. (2015). Pathology of human resource training activities based on the three-branch model. *Human Resources Training & Development Quarterly*. Volume 2, Issue 7.



Najfizadeh, MM, and Zahedi, SM (2016). Pathology of employees performance management system in Qazvin University of Medical Sciences using the three-branch model, *Journal of Management Development and Transformation*, Issue 25, 58-59

Nouri, F, and Peydaei, MM (2010), *Pathology of employees training in organizations*. Tehran: Simay-e Danesh Publications

Rahmani, H et al. (2017). Human resources pathology of Imam Khomeini Hospital Complex human resources based on three-branch model. *Quarterly Journal of Hospital*, Volume 16, Issue 4, 35-41

Soltani, MR et al. (2018). Pathology of organizational trainings in one of the military centers of the armed forces using the "FPSS" model. *Journal of Management and Organizational Culture*, University of Tehran, Volume 16, Issue 2.

Sunyoung Park, Hye-Seung (Theresa) Kang, Eun-Jee Kim, (2018) "The role of supervisor support on employees' training and job performance: an empirical study", *European Journal of Training and Development*, Vol. 42 Issue: 1/2, pp.57-74.

Valcke, M. (2011). ICT Teacher Training: Evaluation of The Curriculum and Training Approach Flanders, *Journal of Teaching and Teacher Education*, Vol.23, pp 795-808.

