



An Investigation into the Impact of In- Service Training Courses on Performance of Experts in Iranian Airports Holding Company (IAHC) from Managers' Attitude

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ABSTRACT: The present study deals with review of the impact of in- service training courses on experts' performance in Iranian Airports Holding Company (IAHC) from their managers' attitude by measurement of 10 elements; namely, quality of work, cooperation, personal learning, growth and development, attitude, initiative and creativity, work quantity, reliability and trustworthiness, adaptation to environment and reduction of accidents and errors, rising occupational commitment (loyalty), and occupational and specialized benefits. Methodology of this study is of applied type in terms of objectives and of quantitative form from data collection facet, and it is of descriptive type from nature aspect and kind of study while statistical population of this study includes 120 participants from director generals, managers and or heads of departmental headquarters and Iranian Airport Holding Company (IAHC). According to Morgan's Table of Sample Space, 92 participants from director generals, managers and or heads of departmental headquarters and airports have been elected as available sample group. To collect data, a Realized 44- Question Inventory has been adopted. In order to analyze data, descriptive statistical methods were utilized (parameters of central tendency and discrepancy like mean and standard deviation as well as frequency and its percentile) and to explore into hypotheses of this study and for generalizing of resultant outcomes from the given sample, inferential statistic techniques were used (Single sample t- test and correlated t- test). And finally, based on results came from this study, in addition to purposing of an effective in- service training model to Iranian Airport Holding Company (IAHC), some other solutions and suggestions have been offered for better implementation of such trainings. The resulting outcomes from this study indicate that in- service training courses affect positively on performance of experts from Iranian Airport Holding Company (IAHC).

Keywords: Training, In-Service Training Course, Performance.

ORIGINAL ARTICLE

INTRODUCTION

Organizations and institutions have emerged based on special requirements of community and changes and developments, which derived from innovations and inventions, have dramatically affected on different organizational dimensions and even life while in parallel with such developments, organizations and institutions have been led from simple forms into types of specialized complexities and thus their objectives, tasks and responsibilities have become more complicated and managing their affairs got more difficult. In such circumstances, organizations are no longer able to do their tasks and activities without possessing the needed human knowledge and skills so during nineteenth and twentieth century, such changes and developments are required presentation of training in organizations, in particular in-service training courses for personnel.

It is obvious that in a society where the organizations seriously rely on their personnel's knowledge and skill, in- service trainings may play very vital and essential role in Human Resources Development (Hansson, 2002; quoted from Kazemi and Hamrahi, 2009). And since about 70% of sources

and capital, which belong to organizations, comprise of Human Resources (Abbasian, 2006: 170) so given that training is the paramount tool thereby one could invest in manpower and convert them into Human Capital as well as because of this fact that in- service training is a kind of training that implemented generally after employment of personnel in organization and it is intended to prepare personnel for better execution of their tasks and improvement of their abilities and skills (Fathi Vajargah, 2010: 6) so most of institutes, organizations and enterprises have already paid their attention to training the restoration of Human Resources and Iranian Airport Holding Company (IAHC) has not been also an exception to this rule.

Due to benefitting from their special status as a gateway for entrance and departure from the country (passengers, goods etc.), Iranian airports may play vital role in economic development and growth within society and in comparison with other sectors, in the course of giving the better and optimal services in this sector, the special attention should be focused on the foremost and most effective aspect of its member

namely "Manpower". Thus, planners from Iranian Airport Holding Company (IAHC) have prepared training programs and provided the possibility for design, implementation and purposing in- service and short- term trainings in the course development of personnel's abilities and performance toward realization of organizational goals so despite of planners' thought and designers for in- service trainings, rather than an instruction for personnel, such trainings have led them to acquire knowledge for doing task properly, improvement in their performance and increase in skills and higher productivity that are in the course of organizational goals and outlooks in the given enterprise. Isn't it so?

Many studies have been carried out regarding the impact of in- service training courses on personnel's performance so we deal with some of them:

Morris (1996) has referred to the results that obtained by Zavodsky (1995) concerning to the review of the relationship among empowerment and in- service trainings. He states that those personnel, who have not attend in enterprise's in- service training courses, became less empowered than those ones that participated in such courses. He implies that enterprises have started moving toward Total Quality Management (TQM) of empowerment and personnel support of such movement. In their studies on review of personnel's occupational training system and its impact on rising efficiency, Wikinson (1997) Cobourg, Bass, Singem and Goodman (1995), and Khatibi et al (2002) imply that seventy percent of managers and 65% of personnel had expressed the occupational trainings has led to increase knowledge to promote their job information and rising of occupational abilities. In his research under title of "Empowerment of personnel by means of Tutor- Pupil Model", Fox (1998) put some open- ended questions at personnel's disposal. After examining answers from personnel in his conclusion, he has interpreted that "All manager acknowledged that it requires adoption of several in- service training courses to improve and develop personnel's skills." By exploration into safety and healthcare trainings based on personnel empowerment approach, Lippin (2001) has stated that "In this study, participants believe in that in- service trainings might create some changes in preservation of personnel's security and health and maintenance of workplace and these factors might improve personnel's ability in doing their tasks." From his viewpoint, two other factors have played role in this achievement: one is manager's support from empowerment of personnel by holding of Occupational Health and Security Trainings and the latter relates to personnel that welcome to such

trainings. In a study, Buckingham and Clifton (2001) refer to the foremost factors of developing the empowerment that include training, mentoring and learning. By implementation of ten strategies to empower personnel and high school teachers, Lampers (2004) found that "Occupational development of school teachers and personnel might lead to improve skills and establish effective relations with each other and rising the creativities."

In a study that is called "Evaluation of the impact of in- service training courses on job performance", Rezaei (2004) has assessed occupational performance in Iranian Insurance Joint Stock Company. The results of this investigation included that holding of in- service training courses for personnel has been almost successful in achieving the goals that were considered by training center in Iranian Insurance Company toward instruction of the needed manpower for the given enterprise and enhancement the level of knowledge, skill and attitude of personnel as well as improvement the employed personnel's performance to some extent. In his study under title of "An exploration into the effect of in- service training of personnel from Fars Cement Joint Stock Company (Iranian Asbestos Plant)", Moody (2004) concluded that in- service training might lead to improvement of efficiency and changing of personnel's attitude and behavior. By examining "Attitudes from managers and sponsors of Isfahan Oil Refinery Company about rising personnel's occupational abilities via in- service trainings" Naderi et al (2006) studied on this subject. Results of this study showed that according to managers' attitude, improvement in personnel's abilities by holding in- service training courses has been only realized in other elements like responsibility, selection of strategy, adaptation, competition and learning while in other components, such increase were lower than average level. In another research, Bagheri et al (2007) dealt with teachers' performance based on evaluation of SIPP Model and concluded that "In- service training might improve productivity (efficiency) in teachers up to 94%."

With respect to what it already mentioned, the present study is mainly aimed at testing the following hypotheses:

- Major Hypothesis: In- service trainings positively affect on performance of experts from Iranian Airports Holding Company (IAHC) (based on their managers' attitude).
- Minor Hypotheses I: In- service trainings positively affect on performance of Air Traffic Control (ATC) experts from Iranian Airports Holding Company (IAHC) ((based on their managers' attitude).

- Minor Hypothesis II: In- service trainings positively affect on performance of Avionics experts from Iranian Airports Holding Company (IAHC) ((based on their managers' attitude).

MATERIALS AND METHODS

With respect to this point that in behavioral sciences, methodology is divided into two criteria i.e. research goal and technique of gathering information; thus, methodology of the present study is of applied type in terms of goals and of quantitative form in terms of data collection; and it is of descriptive type from study aspect and of its nature since we intend to measure its impact on dependent variable without manipulation of the independent variable.

2- The studied population, sample and sampling technique

In this study, population includes all director generals, managers and or heads of departments from Iranian Airports Holding Company (Headquarters and airport units including ATC and Avionics offices) that are totally 120 participants with a common characteristic namely they are directors and superior employing managers where according to Morgan's Table of Sample Space out of them, 92 participants, including director generals or manager and or head of departmental headquarters and airport units, have been elected as sample group for this study.

3- Measurement tools, reliability and validity of study tools

A 44- question inventory makes up the measurement tool in the current study where it comprises of 5- criterion test (Very high, high, fair, low, very low) in which scores of these scales are 5, 4, 3, 2 and 1 respectively so that 5 denotes the maximum rate and 1 implies the minimum impact in any question. Reliability of questionnaire has been computed and obtained by means of Cronbach's Alpha Coefficient (here is 0.871) and validity of measurement tool was derived by means of Content Validity; in other words, by confirmation from 10 experts in the fields of Air Traffic Control (ATC) and Avionics.

4- Method of gathering information and data and analysis of information

In this study, data collection was done via a questionnaire with ten elements and 44 questions where after selection of statistical population as well as taking permission for administration from authorities of Iranian Airports Holding Company (IAHC), information was collected via Administrative Automation Department (BARID) and Post Office and or through email and for conducting analysis on information rather than using statistical descriptive techniques (Tables and diagrams of frequency, central tendency and discrepancy) and also by means of statistical inferential methods (Single group t- test and t- test for dependent groups) in order to test research hypotheses.

RESULTS

Data analysis on data from this study is purposed in two following parts:

1- Data Description: The results of data description are follows:

- Of total 505 experts in the studied population (69% of ATC expert and 31% from Avionics Experts) and also from total 350 experts in ATC Unit, 2.4% had Associate's Degree (AA) and the rest 97.6% of them had Bachelor's Degree (BA, while the least work background belongs to a group with 2 years' experience and the greatest work experience was 29 years; the mean value was 12,6% for the lowest age (25 years old) and the maximum age belongs to the group with age of 50 and mean value of 35.69%. Similarly, out of 155 experts in Avionics Unit, 97.5% of participants had BA degree and 2.5% of them had MA, PhD degrees while the minimum and maximum values of work experience belong two participants with 2 and 29 years' service record respectively; the lowest age is 24 with mean value of 12.33 years while the highest age is 52 years with mean value of 35.44 years. Generally, the total mean value of work experience is 12.51 years and the total value of age is 35.56 years for both groups.

Table 1. Parameters of managers' attitude toward experts' performance (ATC and Avionics Units)

Attitude	ATC experts	Avionics experts	Total sample
The lowest	2	2	2
The highest	5	5	5
Mean	3.61	3.74	3.67
Standard deviation	0.65	0.53	0.59
Skewness	0.06-	0.62-	-0.31
Kurtosis	0.29	-0.16	0.19

As it indicated in the above table: With respect to values of skewness and kurtosis in managers' attitude toward experts in ATC and Avionic Units and

total group, there is no significant difference among it and normal distribution.

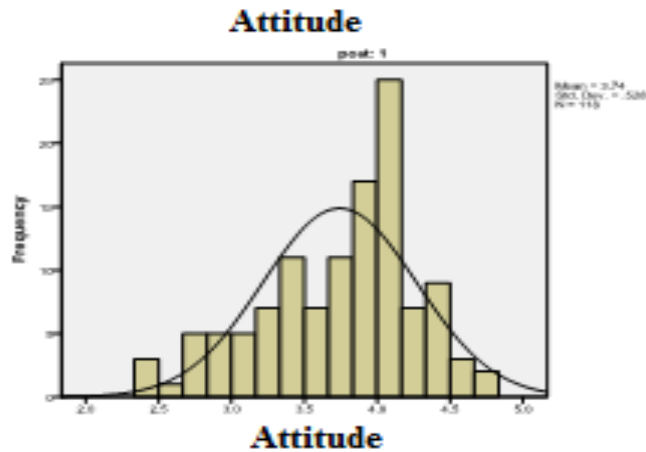


Diagram1. Frequency distribution in variable managers' attitude toward performance of experts in ATC Unit from sample group

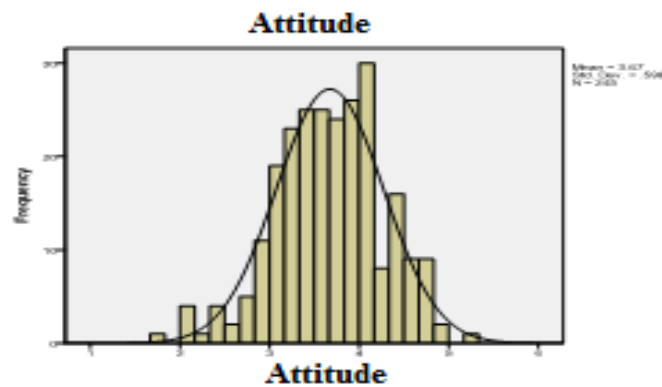


Diagram 2. Frequency distribution in variable managers' attitude toward performance of experts in (ATC and Avionic) Units

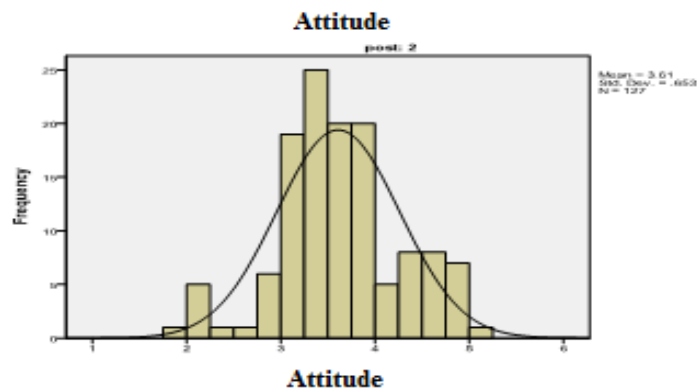


Diagram 3. Frequency distribution in variable managers' attitude toward performance of experts in ATC Unit from sample group

As it observed in above diagrams, frequency distribution in managers' attitude has totally some kurtosis while a negative kurtosis is seen in all three

distributions but value of this kurtosis is not so high and distribution is almost normal.

Table 2. Descriptive parameters of micro- elements of managers' attitude

Element	Lowest	Highest	Mean	Standard Deviation
Quality of work	3978	7940	5959	2801.56
Cooperation	3321	6630	4975.50	2339.82
Personal development	3886	7756	5821	2736.50
Attitude	3300	6585	4942.50	2322.85
Initiative	3160	6305	4732.50	2223.85
Work quantity	3285	6557	4921	2313.65
Trustworthiness	4435	8850	6642.50	3121.88
Adaptation with environment, reduced accidents & errors	4221	4956	4589	2430.17
Occupational commitment	4221	8424	6322.50	2971.97
Personal benefits	3171	6328	4749.50	2232.34

With respect to above table, it could be said that among micro elements, the maximum mean value belongs to personnel's trustworthiness (6642.5) and the lowest value relates to initiative (4732.5) where standard deviation values for these elements are 3121.88 and 2223.85 respectively.

To generalize data to the population from which sample has been extracted, single t-test and

dependent t-test have been utilized as statistical techniques and results of these tests are given in the following tables.

Major Hypothesis: In- service trainings positively affect on performance of experts from Iranian Airports Holding Company (IAHC) (based on their managers' attitude).

Table 3. The results came from conducting single sample t- test to compare mean scores of managers' attitude from IAHC Company toward impact of in- service training courses on experts' performance.

Variable	t- value	Degree of Freedom	Mean differences	Significance level
Managers' attitude	17.59	244	0.67	0.001

T- Statistic, which has been derived at level of 99% confidence, denotes that managers' attitude of IAHC Company is positive toward the impact of in- service training courses on experts' performance.

Minor Hypotheses I: In- service trainings positively affect on performance of Air Traffic Control (ATC) experts from Iranian Airports Holding Company (IAHC) ((based on their managers' attitude).

Table 4. The results came from conducting single sample t- test to compare mean scores of managers' attitude from IAHC Company toward impact of in- service training courses on experts' performance in ATC Unit.

Variable	t- value	Degree of Freedom	Mean differences	Significance level
Managers' attitude	10.49	126	0.61	0.001

As it shows in the above table, t- Statistic that derived from this test is 10.49. This obtained value is significant at level 99%. Thus, it could be implied that Null Hypothesis is rejected and managers' attitude of IAHC Company is positive toward the impact of in-

service training courses on experts' performance in ATC Unit. - Minor Hypothesis II: In- service trainings positively affect on performance of Avionics experts from Iranian Airports Holding Company (IAHC) ((based on their managers' attitude).

Table 5. The results came from conducting single sample t- test to compare mean scores of managers' attitude from IAHC Company toward impact of in- service training courses on experts' performance in Avionics Unit.

Variable	t- value	Degree of Freedom	Mean differences	Significance level
Managers' attitude	0.74	117	15.28	0.001

As it given in Table 5, t-Statistic that has derived is 15.28 and this value is greater than t- value in this table. Thus it is significant at level 99%. In other words, it may be said at 99% level of confidence that managers' attitude in IAHC Company is positive

toward the impact of in- service training courses on experts' performance in Avionics Unit.

Minor Hypothesis III: There is difference among managers' attitude in IAHC Company toward the impact of in- service training courses on experts' performance in ATC unit and Avionic Unit.

Table 6. The results derived from conducting dependent t- test to compare mean scores of managers' attitude from IAHC Company toward impact of in- service training courses on experts' performance in both ATC and Avionics Units.

Variable	t- value	Degree of Freedom	Mean differences	Significance level
Managers' attitude	1.75	243	0.13	0.08

As it indicated in above table, value of t- Statistic that has been obtained, is greater than 0.05 and this shows that there is no difference among mean scores of managers' attitude in IAHC Company toward the impact of in- service training courses on experts' performance in both ATC and Avionics Units. Namely, it could be implied at 99% level of confidence that there is no difference among managers' attitude in

IAHC Company toward the impact of in- service training courses on experts' performance in both ATC and Avionics Units.

Minor Hypothesis IV: There is difference among managers' attitude in IAHC Company toward the impact of in- service training courses on experts' performance before and after training in micro- elements.

Table 7. Dependent t- test to compare mean value among micro- elements

Element	t value	Significance level
Quality of work	11.35	0.001
Cooperation	10.681	0.0001
Personal development	29.94	0.0001
Attitude	12.23	0.0001
Initiative	8.839	0.003
Work quantity	15.05	0.0001
Trustworthiness	14.27	0.001
Reduction of errors	17.44	0.001
Occupational commitment	10.03	0.001
Personal benefits	21.94	0.0001

As it given in Table 7, t- values, which have been obtained before and after training of experts from their managers' attitude, are significant among all micro- scales and Null Hypothesis could be rejected at 99% level of confidence. In other words, according to managers' attitude, in- service training courses have been effective for personnel.

DISCUSSION

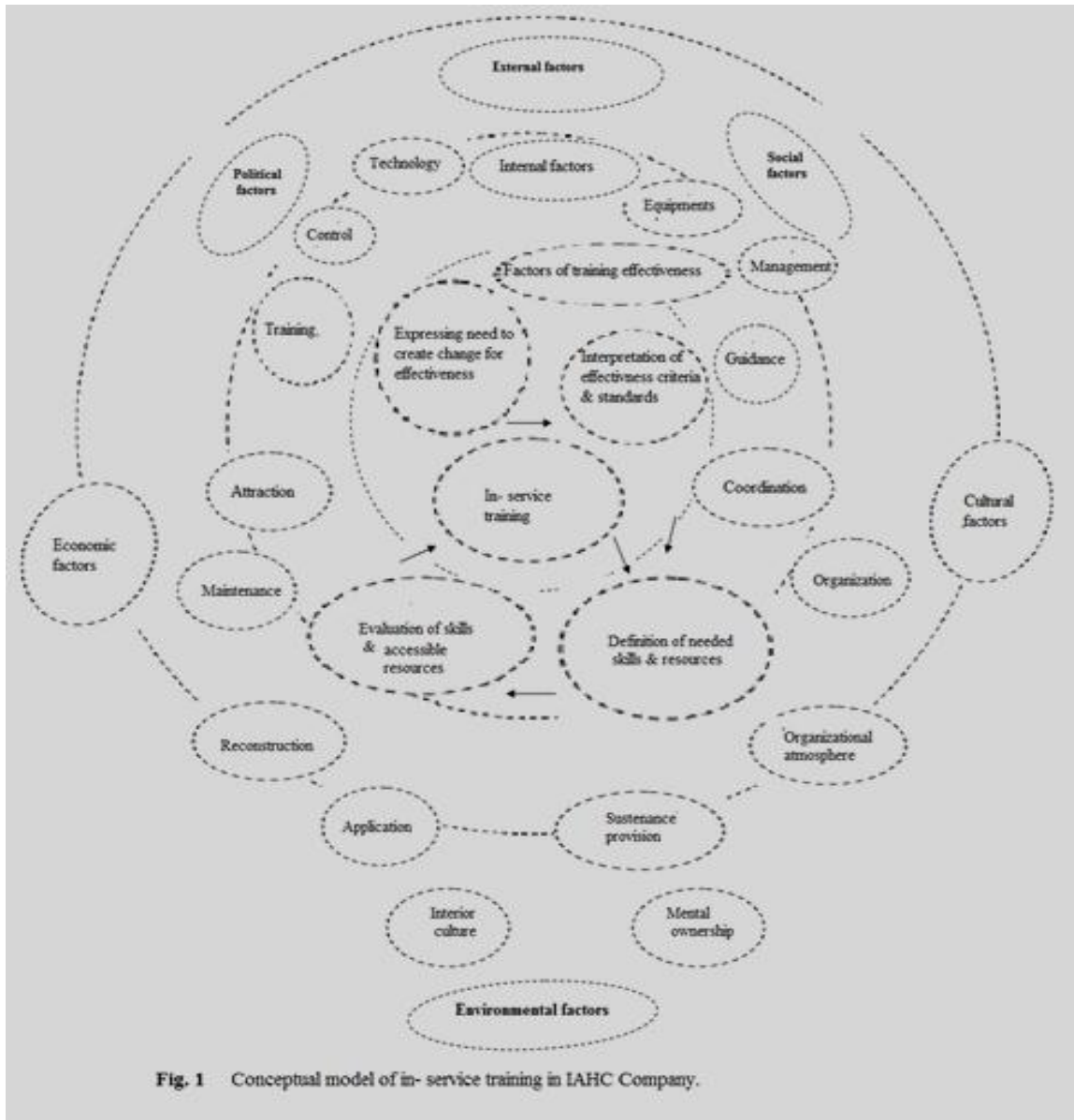
The first finding came from this study suggests that Null Hypothesis, which denotes lack of impact of in- service training courses on experts' performance from IAHC Company, is rejected in general and for experts in ATC and Avionics Units in particular so it could be concluded at 99% level of confidence that there is direct and significant relationship among passing in- service training courses and improvement in experts' performance (both in ATC and Avionic

Units) from IAHC Company. This study is complied with findings came from Morris (1996) and Zavodsky (1995), View and Shirt (1996), Wikinson (1977), Cobourg, Bass, Singem and Goodman (1999), Khatibi et al (2002), Lampers (2004), Rezaei (2004), Moody (2004), Naderi et al (2007), and Bagheri et al (2006).

The second finding which is derived from the present research expresses that results came from dependent t- test for comparison among mean scores of managers' attitude show insignificant difference among the impact of in- service training courses on performance of experts in ATC and Avionics Units and also the result came from dependent t- test to compare the given values before and after holding in- service training courses for personnel from managers' attitude signify that all the aforesaid elements are significant including quality of work, cooperation, personal development attitude, initiative, work quantity, trustworthiness, adaptation to environment

and reduced accidents and errors, occupational commitment and personal benefits so Null Hypothesis is rejected at 99% level of confidence and it is concluded that in- service training courses positively affect on all given elements.

Third result came from this study denotes that after conducting theoretical studies and the needed investigations and deeply interviews with experts in IAHC Company, the most optimal model is designed and purposed for execution of in- service training in IAHC Company as follows:



As it indicated in the above model, many factors may affect on in- service training within IAHC Company like external , internal and educational factors. Thus, to design and implement in- service trainings effectively in IAHC Company, rather than considering the above- said factors, it is required seeking for organizational effectiveness via training of manpower and in this course it should benefitted from a group of certain standards and criteria. The aforesaid standard is achieved by means of an advising committee including experts and specialists

in the field of air transportation industry and with definition of standards based on agreement and through conducting accurate studies of work measurement and field work in order to obtain these standards and at the same time comparative studies and contrast with successful organizations and institutions. After determining the effectiveness standards and defining their criterion, it necessitates identifying the needed skills in personnel and taking measures to realize effectiveness and the needed sources and design and implementing the needed

training plans in addition to evaluation of personnel's status quo in terms of possessing the skills.

With respect to the following restraint factors, it requires behaving cautiously toward generalization of results came from the present research:

1- In this study, data are derived from administration of questionnaire and declaration of comments from managing directors, managers and or heads of departmental headquarters and airport offices in ATC and Avionics Units from IAHC Company concerning to subordinate experts; therefore, due to their great deal of business, it is possible for them to commit carelessness in evaluation, exertion of personal view and taste, directors and managers' pretension to be satisfied with experts' performance etc. and this caused to enter a type of unilateral error in results of this study. To eliminate this fault, it is suggested to evaluate personnel both by superior officials and subordinate employees and also other personnel at the same level in order to be able to generalize study result easily.

2- There is no doubt that many variables like (Social class, educational degree, income level and social welfare etc.) may affect on performance. But difficulty in quantization of these variables has led to study the impact of independent variable on dependent variable in the current research. In such conditions where a small percent of variance of dependent variable has been interpreted by independent variable, it should be acknowledged that role of other important factors shall not be ignored in this regard.

Research suggestions and execution solutions

- Personnel's in- service training courses should be assessed in specialized and applied form and by assignment of various tasks and review of their effects and consequences.

- Statics of training activities and personnel's annual restoration should be prepared periodically with framework of clear and convertible criteria and units so that to make it possible for managers, personnel, researchers, experts and decision- makers to access easily to the provided statistics. These results may include evaluation criteria to give them feedback and making administrative efforts particularly in management of Human Resources.

- It is suggested to identify and measure the results came from training and restoration of personnel by systematic evaluations regarding learners, plans and corporative performance and purpose annual reports.

- It should be tried to establish an internet website with scientific, training and developmental contents for Iranian Airports Holding Company (IAHC)

in which it is possible to list research articles and results of experts' studies in the field of airline transport, educational projects, and provide news from in- service training of corporative personnel etc.

- It is suggested to carry out comparative study annually on execution of in- service trainings in other public or private organizations and departments and by benefitting from their comments, innovations and practical experiences relating to personnel's in- service training in order to promote learning level in personnel of IAHC Company.

- In IAHC Company, in- service training courses should be held based on scientific need analyses not by polling and they should be administered by taking scientific new approaches and real requirement of corporative personnel by holding workshops and via scientific, skillful and professional exchange within classrooms and workshops and by focus on applied trainings such as research, case studies, interpretation of personnel's practical experiences and participants, who attend in- service training course.

- One of the other most influential solutions to make in- service training courses more effective in IAHC Company is making these courses theoretical-practical. In- service training course that is effective and efficient should also be "problem- focused" and presented proportional to personnel's occupational requirements.

- Collection, classification and formulation of participants' comments within in- service training courses and using valuable experiences of employees, especially retired personnel in IAHC Company and direction of titles and content of courses toward research- orientation may serve as one of effective strategies of in- service training in IAHC Company.

- With respect to the conducted studies and results of the present research and by considering all related aspects, designed model in Clause III in conclusion of this study is suggested for execution of in- service trainings in IAHC Company.

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