An empirical investigation on the effects of organizational and individual factors creating conflicts on employee performance: A case study of logistics management of national Iranian drilling company

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ABSTRACT

This paper presents a survey on the effects of organizational and individual factors causing conflict on employee performance of national Iranian drilling company's logistics management. It has been of descriptive type and carried out by using the random sampling method. The statistical population included all the employees of logistics management. Invariable t-test was used in this research for data analysis. The results showed that the average factors such as education, age, personal ethics, scarcity of resources, work dependence, organizational structure and organizational culture were significantly higher than the average value (3) and the average factors such as personality, evaluation structure and reward were significantly lower than the average value (3). According to the results of this survey, feeling dependence was number one priority for creating conflict followed by personal ethics, education, resources, organizational culture, age, organizational structure, evaluation and individual personality was the last item.

1. Introduction

Conflict is one of issues in most organizations and conflict management plays essential role on the success of all business units. Conflict management could be desirable or undesirable and when it is undesirable, there is a necessity to take possible action to reduce the consequence or to remove it, completely. Conflict is often influenced by culture and in some countries, such as US culture, people prefer to encounter with some challenges and consider it desirable. On the contrary, in some of the other cultures like Japanese culture, people are encouraged to remove any sort of conflict through collaboration and cooperation (Cyert & March, 1963).
The recognition and management of destructive conflict could improve the employee performance in organizations. In addition, lack of knowledge about the conflict may create continuous crisis and a space full of stress and anxiety among the individuals and reduces the individual and organizational performance. Therefore, it is necessary to recognize and to manage the conflict in order to reach better job satisfaction and improve working life conditions. The proposed study of this paper considers conflict for an Iranian drilling firm and the conflict is more considered to have negative consequences and we need to remove or to reduce it as much as possible. The proposed study of this paper tries to find important factors influencing negative conflict within organization.

Conflict is associated with the feeling of anger, frustration, suffering, fear or anxiety. We usually have a negative perception and image from the conflict, but it is not necessarily negative but it is the ability of conflict management, which influences on its consequences. The important point here is that the conflict is inevitable and is caused because of the difference between the objectives, values and ideas, but it can be managed, minimized and resolved (Davy et al., 2002). Therefore, having the skills and knowledge about the conflict management is essential, even some people believe that having the knowledge about managing the conflict is essential (Alen Island institution, 2002).

Conflict is caused when two or more people confront against each other because of their needs, wills, goals and values are different (Munduate, 1999). In other words, conflict is a process in which a person finds that the other person has a negative effect on what he is seeking for (Woodman, 1982).

2. Factors causing the conflict

2.1. Organizational factors:

- Organizational structure: This is a process, which divides organizes and coordinates the organizational activities.

- Organizational culture: This characteristic separates two organizations from each other.

- The evaluation and rewarding structure of organizations: Feeling of injustice among employees regarding the evaluation and existence the discrimination in paying salary and reward is an important factor, which creates conflict among the employees and managers.

- Scarcity of resources in organization: The amount of money (cash budget), facilities, equipment, human resources and staff in organization are limited and they should be shared among the departments. Each of the organizational groups tries to obtain more resources so and this creates the conflict.

- Work dependence: It appears in field of materials, resources or information.

2.2. Individual factors

- Personal characteristics: The nature of individual is effective in intensification and persistence of conflict.

- Personal ethics: This is the individual commitment for moral values and in general, in terms of personal ethics, the cases such as greed, selfishness, envy, anger, backbiting, pride, etc. lead to intensify the conflict in organization.
3. Organizational performance

In other words, performance means the state or quality of function. Therefore, the organizational performance is a general structure, which refers to how to perform the organizational operations. Performance could be explained as the explanation process of quality effectiveness and the efficiency of past actions. According to the definition, performance is divided into two components: (1) Efficiency, which describes how the organization uses the resources in producing the services or productions, that is, the relationship between the real and desirable combination of inputs for producing the given outputs, and (2) The effectiveness descriptive of the level of keeping to the organizational goal.

The interplay of conflict-associated behavior is clear and the behavior against the conflict has its own consequences. The consequences may be positive and constructive and result in improvement of group and organization performance or conversely preventing from the group performance, in other word is negative and harmful.

Some researchers investigated the stressful job factors among British navigation employees. Many stressful factors in job were found from the general models of job stress, which caused the conflict among the employees and we can refer to some of them such as the lack of control authority, dissatisfaction from the life conditions and the lack of private climate and environment.

Kishita and Shimida (2011) evaluated the effects of accepting commitments and job controls on job performance and mental stress in Japan. The obtained results showed the significant effects of accepted commitments, job controls and job performance.

In this study, the proposed model for investigating the individual and the organizational factors causing conflict and their effects on performance is as follows:

According to Fig. 1, individual personality, personal ethics and education are considered as the individual factors causing the conflict and organizational structure, organizational culture, evaluation structure, scarcity of resources and work dependence are organizational factors, which influence on employee performance.
4. Research methodology

The statistical population in this research included all the employees in logistics management department of national Iranian drilling company, whose population was estimated as being as being 400 people. Therefore, the sample size is calculated as follows,

\[
n = \frac{N \times z_{\alpha/2}^2 \times p \times q}{\varepsilon^2 \times (N-1) + z_{\alpha/2}^2 \times p \times q},
\]

where \( N \) is the population size, \( p = 1 - q \) represents the yes/no categories, \( z_{\alpha/2} \) is CDF of normal distribution and finally \( \varepsilon \) is the error term. Since we have \( p = 0.5, z_{\alpha/2} = 1.96 \) and \( N = 400 \), the number of sample size is calculated as \( n = 196 \). In this study, we distributed 250 questionnaires and collected 210 filled ones, where 12 questionnaires were invalid and they were removed from the study.

5. Tools for data collection

Since, the present research has been of descriptive type, like many other descriptive studies, the research tool for data collection has been questionnaire. For measuring the content validity of questionnaire, or in other words, the evaluation of questionnaire capability for measuring what should be measured, the opinions of supervisors and advisors and also 10 individuals of managers and experts from the sample members were collected and the content validity of questionnaire was determined according to their opinions.

Cronbach’s alpha was used to assess the reliability of the test. The calculation of internal consistency of measurement tool such as the questionnaires is carried out by this test. After assessing the initial reliability with a sample of 30 people, Cronbach's alpha reliability coefficients of the variables in this questionnaire varied between 74, 0-98, 0, also after performing in whole sample, these coefficients varied between 7, 0-89, 0 and it show that this questionnaire is of enough validity and reliability.

6. Data analysis

6.1 Demographic data:

In this survey, 28.8% of the participants were women, 71.2% of them were male and Fig. 2 shows marital status of these participants. According to Fig. 2, 28.4% of men were single, 71.6% were married, 38.6% of women were single and 61.4% of them were married.

![Fig. 2. The percentage of subjects in terms of marriage](image)
It is observed from Fig. 3 that 42.6% of men had diploma, 21.3% associate's degree, 20.6% bachelor's degree, 14.9% master's degree and 0.7% had Ph.D degree and among the women, 26.3% of them had diploma, 21.1% associate's degree, 42.1% bachelor’s degree and 10.5% had master's degree.

In terms of the age, 44% of men were between the ages of 20-35, 34% of them were between the ages of 35-45 and 22% were between the ages of 45-60, and among the women, respectively, 43.9% were between the ages of 25-35, 47.4 between 35-45 and 8.8% were between 45-60.

The questionnaire of this survey consists of 38 items and it was distributed among employees for assessing the effects of individual and organizational factors causing the conflict on employee performance of logistics and supply management department of national Iranian drilling company.

7. The results obtained from the descriptive statistics

After the analysis of demographic characteristics of the respondents to the questionnaire, in next step, the descriptive statistics of data in terms of individual and organizational factors is explained. The results of the test are as follows:
Table 1
Descriptive statistics of data in terms of organizational factors

| variables               | Mean   | Standard deviation | Variance | Lowest score | Highest score | number |
|-------------------------|--------|--------------------|----------|--------------|---------------|--------|
| Dependence              | 3.4356 | 0.46168            | 0.412    | 2            | 5             | 198    |
| Evaluation              | 2.9980 | 0.67169            | 0.451    | 1            | 4.8           | 198    |
| Resources               | 3.1896 | 0.72138            | 0.520    | 2            | 5             | 198    |
| Organizational culture  | 3.1389 | 0.51179            | 0.238    | 1            | 5             | 198    |
| Organizational structure| 2.8113 | 0.74781            | 0.559    | 1            | 5             | 198    |
| Whole organizational factors| 3.1150 | 0.42218 | 0.178     | 1.89         | 4.02          | 198    |

The results of Table 1 show that the mean and the standard deviation for “dependence” are equal to (3.43) and (0.67), respectively. The mean and standard deviation for “evaluation” are (2.99) and (0.67), for “resources” are (3.18) and (0.72), for “organizational culture” are (3.13), (0.58), for “organizational structure” (2.81), (0.74) and finally for the whole organizational factors, the mean and standard deviation are (3.11), (0.42), respectively. In addition, Table 2 shows other descriptive statistics for individual factors.

Table 2
Descriptive statistics of data in terms of individual factors

| variables               | Mean   | Standard deviation | Variance | Lowest score | Highest score | number |
|-------------------------|--------|--------------------|----------|--------------|---------------|--------|
| Personal ethics         | 3.4133 | 0.75992            | 0.577    | 1            | 5             | 198    |
| Age                     | 3.1248 | 0.57513            | 0.331    | 2            | 5             | 198    |
| Education               | 3.2838 | 0.53548            | 0.287    | 1.6          | 5             | 198    |
| Individual personality  | 2.5190 | 0.75671            | 0.573    | 1            | 5             | 198    |
| Whole individual factors| 3.0852 | 0.41949            | 0.176    | 1.9          | 4.67          | 198    |

8. Prioritizing the primary and secondary factors

In this section, Freedman test was used for prioritizing the primary and secondary factors of the research and the results are summarized in Table 3 as follows.

Table 3
Results of Freedman test

| Priorization | Variables               | Ranking mean | Chi-square | Degree of freedom | Significant level |
|--------------|-------------------------|--------------|------------|-------------------|-------------------|
| 1            | Dependence              | 6.52         | 317.762    | 198               | 0.001             |
| 2            | Personal ethics         | 6.19         |            |                   |                   |
| 3            | Education               | 5.98         |            |                   |                   |
| 4            | Resources               | 5.13         |            |                   |                   |
| 5            | Organizational culture  | 5.01         |            |                   |                   |
| 6            | Age                     | 4.99         |            |                   |                   |
| 7            | Organizational structure| 4.57         |            |                   |                   |
| 8            | Evaluation              | 4.02         |            |                   |                   |
| 9            | Individual personality  | 2.6          |            |                   |                   |

The results of above Table 3 that the Chi-square of Freedman test is equal to 317.762, which is significance with meaningful level of (p = 0.001 < 0.01). As a result, it can be said that there was a significant difference between the ranking means and from the point of view of employees. According to the results, feeling dependence is number one priority for creating conflict followed by personal ethics, education, resources, organizational culture, age, organizational structure, evaluation and individual personality is the last item.

9. Discussion

Hypothesis (1): Organizational culture influences on employee performance of logistics and supply management department of national Iranian drilling company.
Hypothesis (2): Organizational structure influences on employee performance of logistics and supply management department of national Iranian drilling company.

Hypothesis (3): Work dependence influences on employee performance of logistics and supply management department of national Iranian drilling company.

Hypothesis (4): The scarcity of resources has an impact on employee performance of logistics and supply management department of national Iranian drilling company.

Hypothesis (5): The evaluation and rewarding structure of organization influences on employee performance of logistics and supply management department of national Iranian drilling company.

Hypothesis (6): The quality of personality is effective on employee performance of logistics and supply management department of national Iranian drilling company.

Hypothesis (7): Personal ethics has influence on employee performance of logistics and supply management department of national Iranian drilling company.

Hypothesis (8): Age is effective factor on employee performance of logistics and supply management department of national Iranian drilling company.

Hypothesis (9): Education influences on employee performance of logistics and supply management department of national Iranian drilling company.

10. Univariable t-test

Table 4 show the results of the univariable t-test as follows,

| Row | Assessed hypotheses                  | Univariable t | Mean  | Degree of freedom | Meaningful level | Sequence of priorities |
|-----|--------------------------------------|---------------|-------|-------------------|-----------------|-----------------------|
| 1   | Organizational culture               | 3.35          | 3.13  | 197               | 0.001           | 5                     |
| 2   | Organizational structure             | 3.83          | 3.11  | 197               | 0.001           | 7                     |
| 3   | Work dependence                      | 9.553         | 3.43  | 197               | 0.001           | 1                     |
| 4   | Scarcity of resources                | 3.69          | 3.2   | 197               | 0.001           | 4                     |
| 5   | Evaluation and rewarding structure    | 0.042         | 2.99  | 197               | 0.966           | 8                     |
| 6   | Personality                          | -8.94         | 2.51  | 197               | 0.001           | 9                     |
| 7   | Personal ethics                      | 7.65          | 3.41  | 197               | 0.001           | 2                     |
| 8   | Age                                  | 3.053         | 3.12  | 197               | 0.003           | 6                     |
| 9   | Education                            | 7.45          | 3.21  | 197               | 0.001           | 3                     |

- In general, for organizational culture, the observed univariable t (3.35) with meaningful level of (p = 0.001 < 0.01) is significant and as a result, the hypothesis of the research is not rejected. Regarding that the average of organizational culture (3.13) is significantly higher than the considered average value of 3, it can be noted that from the point of view of employees that the organizational culture could influence on employee performance of logistics and supply management department of national Iranian drilling company and the results of this hypothesis in this statistical sample are consistent with the results of Lefevre et al. (2002)

- For organizational structure variable, the observed univariable t (3.11) with meaningful level of (p = 0.001 < 0.01), is significant and the hypothesis of the research is not rejected. Regarding that the average of organizational structure equal to 3.11 is significantly higher than the considered average value of 3, it can be said that from the perspective of employees,
organizational structure is effective on employee performance of logistics and supply management department of national Iranian drilling company. So, the results of the hypothesis are consistent with the results of Conflict (1976).

- For work dependence variable, the observed univariable t (9.553) with meaningful level of (p = 0.001 < 0.01) is significant, as a result the hypothesis is not rejected. By considering that the average of work dependence (3.43) is significantly higher than the considered average value of 3, we can say that from the perspective of employee, work dependence could influence on employee performance of logistics and supply management department of national Iranian drilling company. Therefore, the results of the hypothesis are consistent with the results of Thomas (1992).

- For variable of evaluation and rewarding structure of organization, the univariable t (%42) with meaningful level of p = 0.966 > 0.05 is not significant. As a result, regarding that there was no any significant difference between the average of evaluation and rewarding structure of organization (2.99) and the average value of 3, so, this hypothesis is not supported and the variable has no influence on employee performance of logistics management department of this company but it had a middle effect. Therefore the results of the hypothesis are not consistent with the results of Lefevre et al. (2002).

- For personality variable, the observed univariable t (-8.94) with meaningful level of (p = 0.001 < 0.01) is significant but regarding that the average of personality (2.51) is significantly lower than the considered average value (3), it can be noted that from the point of view of employees, kind of personality did not influence on employee performance, so the results of this hypothesis are not consistent with the results of Bercovitch and Rubin (1992).

- For personal ethics, the univariable t (7.65) with meaningful level of (p = 0.001 < 0.01) is significant. As a result, the hypothesis of this research is not rejected. Regarding that the personal ethics (3.41) is significantly higher than the considered average value (3), so we can say that from the perspective of employees, personal ethics is effective on employee performance. The results are consistent with the results of Carpenter and Kennedy (1988).

- For age variable, the observed univariable t (3.05) with meaningful level of (p = 0.001 < 0.01) is significant, so the hypothesis is not rejected. Regarding that the average age of individuals (3.12) is significantly higher than the average value of 3, it can be noted that the age of individuals influence on employee performance, so, the results of this hypothesis are consistent with the results of Alper et al. (2000).

- For education, the univariable t (7.45) with meaningful level of (p = 0.001 < 0.01) is significant. Therefore, the hypothesis is not rejected, and by considering that the average of education (3.12) is significantly higher than the average value of (3), it can be noted that from the perspective of employees, education influence on employee performance. Therefore, the results of this hypothesis are consistent with the results of Borisoff and Victor (1989).

11. The comparison of this research with previous researches

Despite, all the pervious researches had less focus on the relationship between the individual and organizational factors causing the conflict as a whole, the present research tried to fill this gap by assessing both factors and their effects on performance in totality.
12. Conclusion

There are different perspectives about the conflicts. Traditionally, it was supposed that the conflict is bad, because it has a negative meaning and it represents refractoriness, rebellion, destruction and irrationality. This perspective was coordinated to attitudes of 1930s and 1940s that was prevalent about the group. In perspective of human relationships, it was argued that the conflict among various groups and organizations is natural and the conflict had a natural origin and was inevitable, so, the mentioned perspective was suggested that it should be accepted.

At present, the theory of conflict rotates around an axis, which is called interaction. Although, the conflict should be accepted from the human relations perspective, but in interaction perspective, it is confirmed because coordinated and worry-free group are ready to return to their human nature, be come loose and lazy and don’t react against the changes and innovations.

The conflict can be constructive or destructive for a group when it is too little or so much (destructive conflict), the performance become worse. The optimum level of conflict is amount that can prevent the stagnation, lassitude and escape from responsibility and cause to innovate, so it is suggested that:

- Since, the inferential similarity of individuals about the organization has a better effect on their performance, for doing this important work, it is necessary to introduce the organization and describe its mission and its goal for every individual as better as possible.

- We have to try to prevent from the sudden changes in organization like turnover of manpower and for doing this important work, we should first recognize all their needs and it should be performed arbitrarily and according to their interests as much as possible.

- In order to prevent from any destructive conflict due to ambiguity in duties, the determination of duties and scope of authorities and responsibilities must be cleared.

- The employee rating or evaluation should be according to a series of real-based indices to prevent from the frustration and sense of injustice among the employees.

- Moreover, the managers should pay especial attention to the rating of individual and organizational factors causing conflict to better manage conflict in their own scope.

References

Alper, S., Tjosvold, D., & Law, K. S. (2000). Conflict management, efficacy, and performance in organizational teams. Personnel Psychology, 53(3), 625-642.

Bercovitch, J. E., & Rubin, J. Z. (1992). Mediation in international relations: Multiple approaches to conflict management. St. Martin'S Press, Inc.

Borisoff, D., & Victor, D. A. (1989). Conflict management: A communication skills approach. Englewood Cliffs, NJ: Prentice Hall.

Carpenter, S. L., & Kennedy, W. J. D. (1988). Managing public disputes: A practical guide to handling conflict and reaching agreements (p. 5). San Francisco, CA: Jossey-Bass.

Conflict, C. I. O. (1976). Conflict Management. MD Dunnette Handbook of Industrial and Organizational Psychology, 889-935.

Cyert, R. M., & March, J. (1963). A behavioral theory of the firm. University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship.
Davy, S., Jennings, B., & Strassner, J. (2006). Conflict prevention via model-driven policy refinement. In Large Scale Management of Distributed Systems (pp. 209-220). Springer Berlin Heidelberg.

Kishita, N., & Shimada, H. (2011). Effects of acceptance-based coping on task performance and subjective stress. Journal of behavior therapy and experimental psychiatry, 42(1), 6-12.

Lefevre, E., Colot, O., & Vannoorenberghe, P. (2002). Belief function combination and conflict management. Information fusion, 3(2), 149-162.

Munduate, L., Ganaza, J., Peiró, J. M., & Euwema, M. (1999). Patterns of styles in conflict management and effectiveness. International Journal of Conflict Management, 10(1), 5-24.

Robbins, S. P., & Langton, N. (2007). Organizational behaviour: Concepts, controversies, applications. prentice Hall.

Thomas, K. W. (1992). Conflict and conflict management: Reflections and update. Journal of Organizational Behavior, 13(3), 265-274.

Woodman, M. (1982). Addiction to perfection. Toronto: Inner City Books.