The effect of communications system on organizational conflicts, case study: automobile press parts department

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Abctract

Nowadays, organizations are characterized by direct relation between perception of different aspects and patterns of human relations with staff performance and human resources (HR) management. To confronting environmental threats companies need to identify their internal capacities and capabilities, improve strengths and compensate their weaknesses. Effective and correct transfer of message or communication process, in other words, is one of the main aspects of staff's behavior in organization. The present work investigates roles of organizational communication system on the conflicts (case study: Iran Khodro, press machines parts department). To this end, a questionnaire was designed taking advice from experts and specialists and results were examined using statistics tests and methods. The paper is concluded by presenting recommendations to overcome conflicts and reform organizational communication system in Iran Khodro Press Parts Department.

Keywords: organization, organizational communication, press machine parts, conflict

Introduction and previous research

Modern age is the era of fast and unpredictable changes. Status quo of management in our society hints the disharmony between ever-increasing complexity of organizations and their failure to predict and encounter the changes and complexities. To deal with environmental threats, possible opportunities, improve their strengths and compensate weaknesses, organizations need to spot their internal capacities and abilities. Intact and correct transfer of massage is one of the most important aspects of human behavior in organization. Effective and proper communication is a key factor for success of management. According to experiment task and activities will not complete correctly and efficiently, when an organization fails to establish proper communications. A great deal of each manager's time is spent on conveying ideas and viewpoints. Dealing with communicational disorders comprises an important section of manager's tasks, as communication is a process to attach different elements of organization (Tourish and Hargie, 1998).

Dispute and disagreement between staff probably are rooted in poor communications. There is a general agreement among experts that human being is social creature and this feature demands establishing communications with different aspects of community (Vaara *et al.*, 2012). Due to metal structure, upbringing condition and environmental factors human being has to act within a hierarchy of different communications in form and type.

Ivan (2006) introduced three type of dispute between staff in organizations:
- Conflicts with colleagues at the same level.
- Conflicts with boss, and
- Conflicts with subordinates.

Most of the cases of conflicts happen when the parties have different values and behaviors. Current state of conflicts between staff in Iran Khodro Press Works Deputy and also communication system in the deputy are main issues under consideration in the present study. Main objective is to survey effect of organizational communication system on the conflicts. As the surveys showed, there is a death of

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studies in this field and especially for producers of press machines part. Following is brief review of previous works conducted by academic and executive national bodies on the topic.

Soltani Tirani (2007) acknowledged that transfer of information about tasks, goals, etc. is effective on perception of importance of job and its relation with organization's goal, while coordination between employee's performance and objective of organization depend on information transfer. In fact, knowing about position, jobs, etc., makes one to act like other high rank staff. The study showed the effect of such information on performance and job satisfaction. Farhangi (2005) pointed out significant difference between conflict and organizational information. Gholami (2009) concluded negative and significant relation between open communication channels between peer wards and staff's satisfaction on one hand and positive and significant relation between utilization of informal communication channels and staff's satisfaction. However, no significant relation was found between staff's access to managers and staff's satisfaction. Regarding job information, the study also reported positive and significant relation between staff's satisfaction and effective communication with staff.

Fahim Dovin *et al.* (2006) concluded in their study that there is a negative and significant relation between communicational relation of managers on one hand and strategies for controlling and avoiding conflicts.

Hornung (2002) introduced proper strategies to solve conflicts and argued that conflict can be settled through communications. In their study, Jenson *et al.* (2003) tried to find causes of inter-personal conflicts among children. Sample size of their study was 276 students in elementary school. They concluded that agreement among the children along with development and improvement of performance are results of inter-personal conflicts and formation of compatibility.

In a research titled «communication strategy for managing conflicts among fishers in Colombia» Sithirith *et al.* (2007) found significant relation between the variables mentioned above. In an article, Zornoza (2006), reporting about studies of conflict management behavior in two groups of face to face and virtual communication, concluded that no significant difference was observed in virtual communication group and that conflict in the other group was soothing. Prince (2007) reported about effects of communication of conflicts.

Automobile industry is one of main fields industries of recent years, which enjoys good market conditions thanks to extent of domestic market and high import tariffs of car. Despite the fact that Iran's car industry is not young there are many causes to explain why the industry is still immature. The gap between Iran's car industry in Iran and world car industry is a valuable chance for creativity, work and gaining new experiments. Solutions prescribed for world car industry are just guidelines to find the way, and implementation of each techniques demands great deal of effort and results in valuable experiences at each section.

As the largest car company in the Middle East, Iran Khodro has more than tens of thousands employees and determined goals. An important factor to achieve economic and industrial development at national level is to make sure strategies of the company coordinate with national industrial strategies (1404 perspective plan). Products of the company are manufactured in production lines in Press Works, shuttle, painting, engine, assembly and Tondar wards.

The deputy is in charge of manufacturing parts which require pressing jobs in three production workshop. Cutting and pressing workshops of the North Factory, in an area of 8000, were established in 1964 and 1974. Over time and with introduction of new products and increase in production capacity the third workshop, with an area of 18000, was established in the South Factory. Currently the third workshop is running in an area of 26500.

The mission of the department is to manufacture major part of press work products for Samand and Peugeot family of products. Workshops 1 and 2 are home to four G_2 lines and three G_3 lines with manual production process. Workshop 1 includes two G_2 1300 MT robotic lines, manual 1600 MT and 600 MT lines. Moreover, two G_2 1000 MT/ 1300 MT lines and two G_3 600 MT/400 MT lines are located in workshop 2. Coil cut, shear and bending, reprocess work are located in the North Factory. Two blanking lines and 6 press work lines are running in workshop 3. Blanking lines cut the rolls into sheets (blank). First line, made in Korea - Wia Co., with 500 MT pressing capacity carries out washing, cut in width, leveling and stacking the sheets. The second line, made in Germany-Schuler, with similar mechanism as that of Wia line performs pressing, blanking and other operations until production of the end part.

To tackles new challenges raised from required changes to implement strategic plans the deputy in-

troduced the road map of Press Works production deputy known as The Top 93.

Taking into account 1404 Perspective Bill, The Top 93 codifies strategy of automobile industry and reviews plans and approaches of the competitors. Head lines of The Top 93 are performance, stockholders, satisfaction, eminence, growth, learning, and innovation until 1393 (2014). Doubtlessly, realization of the headlines is not possible unless decent organizational communications are established and extra attention is paid to HR. The deputy, as a business unit (BU), defined projects failure detection system, and projects for improvement within its department. The present article is a brief report to shed light to parts of the projects. The departments under study were programming, engineering, production, quality, HU, strategy, systems and methods.

Research Method

As a descriptive study the present work was conducted in form of a survey. Authors tried to determine status quo and ascertain whether organizational relation affects inter-personal conflicts. Staff at different levels of departments in the department comprised the statistic society (153 individuals). Statistic sample was different levels at departments of the deputy, which is the same as statistic society.

Library studies and questionnaire, as data collecting tools, were used for collecting information about theoretical foundation and statics respectively. The questionnaire was the main tool for gleaning information. Scientific and academic resources were also surveyed for collecting information. However, main part of the information about staff's viewpoint and attitudes in the deputy regarding communication system and inter-personal conflicts was collected through utilizing researcher-built questionnaire (32 questions in five sections). The five sections are introduction and asking staff to participate, personal information (demography), organization communication system and its elements, inter-personal conflicts and elements, question No. 32 regarding recommendations and comments.

According to Ivan's classification inter-personal conflicts indices were identified and university professors and professional in the deputy were consulted about organizational communications based on literature review. The results were reflected in the questionnaire.

To make sure about validity of the contents, the questionnaire was codified based in former studies and academic sources on inter-personal conflicts and organizational relations. The questionnaire was provided to a group of experts and professionals in the field for final check and any further modification regarding pertinence between questions and research goals. Furthermore, Cronbach alpha (α = 0.936) was applied to tackle any probable ambiguity in wording, questions, and to measure internal reliability of the research and questionnaire.

Following preparation of the questionnaire and ascertaining validity and reliability, along with an introduction regarding objectives and necessity of the research the questionnaire was provided to the departments of the deputy through administrative automation system. Plans for retrieving the filled questionnaires were completed in two month. (137 our 153 questionnaires were collected). Descriptive statistics and deductive statistic methods were utilized for summarizing and classifying the raw data (Binominal, Chi square independence, Spearmen correlation coefficient, Kruskal-Wallis H).

The results and findings

Descriptive analysis on personal information of statistic sample showed that 92 men and 36 women participated in the study. Table 1 lists comprehensive information. Binomial test in deductive analysis showed that organizational communication system in the departments of the deputy is formal and single sided and the staff is deprived of effective public information and chance to communicate. Moreover, the findings rejected presence of communication channels. As represented in table 1, binomial test results hint conflict between staff in the departments under consideration.

Results of Chi square test regarding influence of organizational communication system on inter-personal conflict between staff at different levels of the department showed significant difference between organizational communication and inter-personal conflicts (p = 0.000, x = 1184.935**), authority to communicate and inter-personal conflicts (p = 0.000, x = 249.597**), open communication channel and inter-personal conflicts (p = 0.541, x = 37.433**), formal communication and inter-personal conflicts (p = 0.000, x = 469.351**), informal communication and inter-personal conflicts (p = 0.000, x = 184.518**), single sided communication and inter-personal conflicts (p = 0.000, x = 657.359**), and effective public information and inter-personal conflicts (p = 0.000, x = 314.758**).

Table 1. Binomial test results for identification communication system and inter-person conflicts.

Variable indices / Statistic	No.	Observed rate	Test rate	Significance level
Open communication channels — For	34	0.37		
Against	58	0.63	0.50	0.016
Total	92	1.00		
Effective public information — For	29	0.34		
Against	56	0.66	0.50	0.005
Total	85	1.00		
Formal communication — For	35	0.37		
Against	60	0.63	0.50	0.013
Total	95	1.00		
Informal communication — For	75	0.68		
Against	35	0.32	0.50	0.000
Total	110	1.00		
Authority to communicate — For	40	0.38		
Against	66	0.62	0.50	0.015
Total	106	1.00		
Single sided communication — For	57	0.63		
Against	34	0.37	0.50	0.021
Total	91	1.00		
Conflict with superior — For	67	0.60		
Against	45	0.40	0.50	0.047
Total	112	1.00		
Conflict with subordinate — For	65	0.67		
Against	32	0.33	0.50	0.001
Total	97	1.00		
Conflicts with colleagues — For	57	0.61		
Against	36	0.39	0.50	0.038
Total	93	1.00		
Inter-personal conflict — For	85	0.65		
Against	46	0.35	0.50	0.001
Total	131	1.00		

Spearmen coefficient of correlation was applied to find intensity and direction of relation between variables of the research (Table 2).

Table 2. Spearmen coefficient of correlation for variables of the research.

Variable indices / Statistic	Ave.	Deviation	Min	Max	Spearmen coefficient
Inter-personal conflict	2.6502	0.62971	2	4.33	r = 0.608**
Organizational communications	2.2510	0.22435	1.81	2.89	P = 0.000 N = 136
Inter-personal conflict	2.6502	0.62971	2	4.33	r = −0.005
Authority to communicate	2.3064	0.27617	1.33	3	P = 0.955 N = 137
Inter-personal conflict	2.6502	0.62971	2	4.33	r = 0.519**
Formal relations	2.4854	0.63214	2	4	P = 0.000 N = 137
Inter-personal conflict	2.6502	0.62971	2	4.33	r = −0.243**
Informal relations	1.7245	0.57305	1	4	P = 0.004 N = 137
Inter-personal conflict	2.6502	0.62971	2	4.33	r = 0.805**
Single sided communication	2.5731	0.64721	2	4.33	P = 0.000 N = 137
Inter-personal conflict	2.6502	0.62971	2	4.33	r = −0.181*
Effective public information	2.1332	0.26089	1.75	3	P = 0.035 N = 137

** correlation level is significant at 0.01
* correlation coefficient is significant at 0.05

Table 3. Kurscal Wallis test on inter-personal conflicts and communications based on explicit variables.

Variable indices	Statistic	Frequency	Percentage	Ave. rank	Test statistic
Age	15-30	13	9.5	62.96	H = 0.270
	30-40	27	19.7	64.48	Sig = 0.965
	40-50	63	46	63.52	Df = 3
	50-80	25	18.2	67.78	N = 128
Inter-personal conflicts					
Age	15-30	13	9.5	78.38	H = 1.95
	30-40	27	19.7	61.98	Sig = 0.583
	40-50	63	46	64.40	Df = 3
	50-80	25	18.2	60.76	N = 128
Organizational communication					
Experience	0-5	17	12.4	53.85	H = 4.022
	5-10	12	8.8	59	Sig = 0.546
	10-15	20	14.6	60.15	Df = 5
	15-20	21	15.3	65.48	N = 128
	20-25	33	24.1	66.35	
	25-30	25	18.2	74.60	
Inter-personal conflicts					
Experience	0-5	17	12.4	52.21	H = 4.776
	5-10	12	8.8	72.71	Sig = 0.444
	10-15	20	14.6	56.98	Df = 5
	15-20	21	15.3	61.36	N = 128
	20-25	33	24.1	69.94	
	25-30	25	18.2	70.4	
Organizational communication					
Education	High-school	64	46.71	66.23	H = 3.283
	Associate degree	28	20.44	63.96	Sig = 0.350
	Bachelor degree	27	19.71	55.81	Df = 3
	Masters' degree	9	6.57	79.89	N = 128
	Ph. D	0	0	0	
Inter-personal conflicts					
Education	High-school	64	46.71	66.28	H = 0.683
	Associate degree	28	20.44	61.32	Sig = 0.877
	Bachelor degree	27	19.71	61.8	Df = 3
	Masters' degree	9	6.57	69.83	N = 128
	Ph. D	0	0	0	
Organizational communications					
Employment	Permanent	103	75.2	65.49	H = 0.545
	Temporary	22	16.1	59.36	Sig = 0.762
	Contractual	3	2.2	68.33	Df = 2
					N = 128
Inter-personal conflicts					
Employment	Permanent	103	75.2	63.91	H = 0.38
	Temporary	22	16.1	68.3	Sig = 0.827
	Contractual	3	2.2	57	Df = 2
					N = 128
Organizational conflicts					

Table 3 lists the results of Kurscal Wallis test regarding difference between inter-personal conflict and communication based on explicit variables (age, experiment, degree, and type of employment). U (Man Vitni) test was utilized to survey difference of inter-personal conflict and communication based on gender, and its results hinted significant difference between organizational communication system and gender (Sig = 0.198, U = 1417). Lack of significant relation between inter-personal conflicts of staff at different levels in the departments of the deputy was repeated for the variable of gender (Sig = 0.08, u = 1325.5).

Conclusions

Among fundamental and hidden factors, which support fulfillment of task and realization of goals in sport, administrative, industrial, service, educational organizations, are healthy and friendly relations and organization solidarity. Human is the main cause of extension of cooperation and healthy relation on one hand or lack of cooperation and conflict in organization on the other hand.

Conflict in organization and conflict management has concerned many managers and officials in many organizations. One reason is that inconvenient conflict inside organization wastes energy and talents of employees. Instead of directing production factor and HR toward optimum and rational combination for meeting organizational goals, it deteriorates human and physical capitals. To have all physical, mental and intellectual power of the staff employed toward realization of goals, organization needs to overcome obstacles ahead. Inter-personal conflicts are one of them followed by group and organizational conflicts. Taking into account role and weight of inter-personal conflicts on organizational performance, effect of organization communication on conflicts in Iran Khodro Press Works Department was surveyed in this study.

As the results showed, majority of the respondents (63%) expressed that they have no way for communication with different departments of the deputy. Binomial test results showed that staff's viewpoints were significant at 0.05 in this regard — communication channels are closed. Sixty-six percent of the respondents disagreed with efficiency of public information system in the department of the deputy. According to binomial test, the disagreement was significant at 0.01 — lack of effective public

information system in the deputy. Regarding formal communication, 68% of the respondents confirmed such communication in departments of the deputy. Moreover, 62% of the respondents confirmed they have authority to communication between different department in the deputy (p = 0.05). Finally, 63% of the respondents confirmed that the communications are single-sided it department of the deputy (p = 0.05).

The Staff's viewpoints were calculated at three micro-scales (conflicts with superior, subordinate and colleagues) and it was ascertained whether the conflicts existed or not.

Results showed that majority of staff confirmed conflicts with superior (60%), subordinates (61%) and colleagues (65%). Binomial test results confirmed that these majorities are significant and inter-personal conflict in department of the deputy was also acknowledged.

Results of Chi Square test confirmed significant difference between inter-personal conflicts and communication system in the departments. Thus, inter-personal conflicts among the staff in the department are influenced by communication system in the deputy. Considering positive and significant correlation between the two variables, improvement communication condition from the status quo (formal and single-sided) helps reducing conflicts between the staffs in the deputy.

The results are consistent with Farhangi (2005), Campbell *et al.* (2006). Sithirith *et al.* (2007), Harold *et al.* (2009), Vaara *et al.* (2012), and Prince (2007). Findings showed significant difference between authority of staffs and inter-personal conflicts in the study group, which is consistent with Gholami (2009). No significant difference was found between open communication channel and inter-personal conflict (Chi Square test) at 0.05. Base in the results, therefore, there is no relation between inter-personal conflicts and open communication channels. This result is inconsistent with Hawkins (2006) who argued that communication and sustainable communication channels are the key to avoid conflicts.

In conclusion, avoiding conflict demands facilitation of communication and removal of any obstacle in this regard. In some cases, long distance between the sender and receiver of message raises challenges ahead of communication. To deliver a message to receiver intact, it is essential to devise a proper channel. The meaning perceived from a mes-

sage is another effective factor on conflicts. Based on theoretical foundation and other works, learning conflict settlement methods, optimum and decent access to information, receiving positive feedbacks and mutual communication by the parties to a conflict are of great important to avoid conflict. One of main factors of inter-personal conflict is organizational communication system. Taking into account the results regarding effects of communication system on inter-personal conflict among the staff in the case study and importance of proper and effective communication in settlement of inter-personal conflicts, there is an undeniable need to plan for development of new communication system as soon as possible.

Recommendations and guidelines

To implement better communication channels and gradual improvement in organizational communication system in Iran Khodro Press Works Department and based on the results followings are some recommendations.

Improvement of horizontal communication and establishment communication channels between the departments help faster work process in the organization and elimination of ambiguities and misunderstandings. To improve work process and performance and following communication-centered assign leadership, directors should grant required authorities and improve communications between departments.

Adhering communication-centered leadership is one of the best solutions for reducing formality of communications. In doing so, directors may provide the chance for face to face interaction with staff and using verbal communication. Clear is that formal and informal communication as supplementary and an optimum mixture of both is essential for achieving highest level of efficacy.

One of the important issues of organizational communication is public information. To improve public information status in the deputy directors need apply fast and reliable information transfer channels for providing required information, whether technical or organizational, to the staff. Recommendations in this regard are:
- Classification of information in various levels of the organization.
- Determine part of organizational information need to be known by the staff.
- Determine communication channel. (Poster, flyer, news report, internal press, etc.).
- Internal press helps informing staff about by-laws, regulation and new codes.
- Optimum and effective utilization of comments. Although different departments collect comments and recommendations from staff, the system has a long way to go before being considered efficient. Implementation of optimum recommendation system gives the staff a chance to share their point view and problems with the organization. This will prevent many vicious processes of concealed issues into inter-personal conflicts through taking measures to solve the issue in time.

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