

# Impact of Conflict on Project Performance in Public and Private Sector Organizations of Pakistan

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**Abstract**— Conflicts are inevitable in every project and cover complete sphere of project life cycle activities. Project conflicts may affect the project performance positively or negatively. One of the major reasons of project failure, among many others, is that the project conflicts are not embraced and/or managed effectively. Project managers must be prepared to plan and exercise effective conflict management strategies in order to keep the project on track. Therefore, project conflicts must be identified and analyzed at every stage of the project if a project manager wants to complete the project in time, within budget and according to specifications. However, project conflicts, their impact and related management strategies may be different in different organizational contexts. Public sector organizations (PSOs) may have different conflicts, their impacts and related management strategies than their private counterparts due to the contextual differences between the two sectors. Therefore, a comparative study is needed to investigate the differences between public and private sector organizations on this aspect. This study fulfills this gap by investigating and analyzing the causes of project conflicts, positive and negative impacts of conflicts, impact of conflicts on project performance and related conflict management strategies in one public sector and one private sector IT projectized organizations in Pakistan. This is achieved by taking sample data from both the organizations and applying exploratory data analysis and regression analysis for credible results. The results indicate that although, there are many similarities between the organizations but there are also some fundamental differences between them. The findings of the study can be used by public and private sector project managers to improve their conflict management strategies and related plans which are paramount to project success that ultimately leads towards organizational success.

**Index Terms**— Conflict management, causes of conflicts, impacts of conflicts, IT- based projectized organizations, IT projects

## 1 INTRODUCTION

PROJECT managers spend at least 20% of their time to deal with conflicts [1]. After conducting a literature review of five hundred fifty-six journal articles on conflict management, Ma et al. [2] concluded that the major focus of prior conflict management research is on limited areas like conflicts at workplace, conflict management styles, impact of conflicts on team productivity or performance, role of cultural difference in conflicts and conflict management practices. They argued that intellectual structure of conflict management has not been much highlighted in the prior literature. Nevertheless, in the discipline of project management, conflict management is a new phenomenon and integral part of any project [3]. Conflicts may occur at every stage of the project management life cycle [4]. Englund and Bucero [5] argued that conflict is much avoided part of project management. They believed that there are mainly two schools of thought regarding conflict management in projects. According to first school of thought, conflicts are disadvantageous for projects and according to second school of thought; conflicts are advantageous for better relationships and better performance in projects. They further added that effective managers do not avoid conflicts but they take it as an opportunity for organizational and individuals growth. Matta and Corby [6] believed that it is difficult to identify the conflicts in projects. Appelbaum et al. [7] claimed that conflicts lead to reduced project performance and Zhang

and Huo [8] also revealed that conflicts affect project performance negatively. Both studies argued that high level of conflicts increases the costs and schedules of the project. However, Brahnma et al. [9] advocated that properly managed conflicts result into better quality product, better decision making, more innovation and enhanced performance. Reade and Lee [10] also found that conflicts increase employees' innovation behaviour.

Nevertheless, project conflicts and conflict management practices may be different in different organizational contexts [11]. For example, project management in public sector organizations is different than their private counterparts due to the contextual differences between the two sectors including complex intra and inter-organizational interactions, more bureaucracy and less managerial autonomy, wider accountability, frequent rollout of top management and more legal needs [12]. Therefore, it is hard to apply conflict management practices of the private sector to the public sector and vice versa. However, it is interesting and motivating area of research to compare the causes of project conflicts, positive and negative impacts of project conflicts, impact of conflict on project performance and related conflict management strategies of both the sectors to identify the commonalities and differences between the two sectors. No previous study has been undertaken to fulfil this gap and especially Pakistan remained unex-

plored. This study is the first study of this nature in Pakistan to conduct original enquiry in this line. This study investigates the causes of project conflicts, positive and negative impacts of project conflicts, impact of conflict on project performance and conflict resolution techniques in one of the public sector IT projectized organizations and one of the private sector IT projectized organizations of Pakistan. Moreover, the study compares both the organizations with respect to the causes of project conflicts, positive and negative impacts of project conflicts, impact of conflict on project performance and conflict resolution techniques. This is achieved by taking sample data from both the organizations and applying exploratory data analysis, descriptive statistics and regression analysis for credible results.

## 2 LITERATURE REVIEW

### 2.1 Conflict

Conflict may be defined as a struggle or contest among individuals, teams and organizations with competing needs, beliefs, ideas, values and objectives. Brahnham et al. [9] ascertain that "conflict is an unavoidable component of human activity". Conflict is the result of a difference of perception, opinion or beliefs among people [13]. Usually, conflict occurs when there are incompatible goals, thoughts or emotions among individuals, resulting in opposition and disagreements. Wall and Callister [14] define conflict as "a process in which one party perceives that its interests are being opposed or negatively affected by another party". Abdalla [15] states "conflict is perceived difference between two or more parties resulting in mutual opposition". According to Jit et al. [16], conflict arises from disagreements over the goals to attain or the methods used to accomplish these goals. Project managers often experience conflicts that stem from incompatible requirements from different project stakeholders. Each group generally presents differences in attitude towards a project and these differences generate conflicts [17]. The project manager accomplishes project success through project team by motivating all those involved within time, budget, and quality and to the client's satisfaction. According to Syed and Syed [18], the project manager uses the required skills of leadership, management, stakeholder's relationship and conflict management to achieve project objectives by motivating the team to ameliorate conflict during project life cycle. In conclusion, conflict is part of human reciprocal activity which requires different use of conflict management styles adopted by the project manager to maintain harmony within the organization.

### 2.2 Types of Conflict

Omisore and Abiodun [19] classified conflicts into two major categories: functional; and dysfunctional. Functional conflicts are advantageous conflicts. Functional conflicts lead towards the beneficial situation for the delivery of projects. All positive energies are converged towards the objectives of the projects and goals of the organizations. Such conflicts provide more information and knowledge and builds relationships between the stakeholders. Contribution from the different stakeholders is considered for improving the quality of the project which finally contributes towards the business development of the

organization. Dysfunctional conflicts on the other hand are disadvantageous conflicts. Dysfunctional conflicts act as an obstruction in between the organization and its goals. Such conflicts refrain the individuals, teams and organizations from reaching its desired goals. These conflicts adversely affect the relationships between the stakeholders involved in the projects. This type of conflicts produces tension, diverts energies and lowers the morale of employees.

Afzalur [20] has classified conflicts into two major types: intra-organizational (within organization) and inter-organizational (between two or more organizations). Intra-organizational conflicts may also be classified on the basis of level: individual, groups, etc. On this basis, intra-organizational conflicts may be classified as intra-personal, inter-personal, intra-group and inter-groups conflicts. According to Afzalur [20], intra-personal conflicts are also known as intra-individual conflict. These are conflicts that happen inside the person's conscience. These occur when an organizational member is required to perform certain tasks and roles that do not match the employee's expertise, interests, goals, and values and prompts the concerned party to rebel against the given orders. Afzalur [20] states that inter-personal conflicts are also known as dyadic conflicts refer to the conflicts between two or more organizational members of the same or different hierarchical levels or units. The conflicts between the two entities happen when one party trespasses the interests of the other and efforts to settling such a dispute remain uncooperative. Afzalur [20] also identifies inter-group conflicts as inter-departmental conflicts. It refers to conflicts between two or more units or groups within an organization. Conflicts between headquarter and field staff, labour and leaders or management are examples. However, for the sake of this study, the researcher has adopted three types of conflicts: inter-group, intra-group and inter-personal due to their well-recognition in the literature of project management.

### 2.3 Causes of Conflicts

As identified by Gibson et al. [21], some of the factors that can cause conflict between individuals and groups at workplace include among others the work interdependence when two or more organizational groups depend on one another to complete their tasks, differences in goals, limited resources, reward structures, difference in perceptions, unfair treatment as well as leadership management aspect. Rantakari [22] contended that conflict is related with power in some way and can emerge when goal accomplishment is avoided. It is also argued that that people are aware of the determinants which generate conflicts such as scarcity, obstruction and incompatible interests or goals [23]. However, Pondy [24] have different point of view and described that it is probable that causes for conflicts are not highly correlated with goal and objective achievement in situations of routine behaviour where procedures are well defined and environment is stable. In these circumstances, conflict variables are probably more related to personality, autonomy reasons, functional interdependence and status. Some of the reasons that justify conflict escalation according to Ikeda et al. [25] are: (i) expanding hierarchy of departments; (ii) financial measures as a tool for motivation;

(iii) emphasis on functional specialization; (iv) criticism on each other; and (v) increased consumers' demands. Another reason pointed by Kumar et al. [26] for the occurrence of conflicts is the asymmetric degree of interdependence that affects the level of trust and commitment of the groups. For Rantakari [22], conflict is smaller in highly dependent relationships because, in general, the dependent party conforms itself that it cannot alter the situation and accepts the leader's power. However, Sudhakar [27] conducted a systematic literature review on the causes of conflicts especially in projects and identified 105 causes of project conflicts. From 105 causes of project conflicts, he finalized a list of top 10 causes of project conflicts. These causes include shared/common resources, differences in project goal/objective, cultural difference, values differences, personality issues, differences in technical opinions/approaches, schedules, costs, administrative procedures, different perceptions.

## 2.4 Impact of Conflicts on Project Performance

The impact of conflict and its solution implementation can impact at individual, team, project, business unit and organizational level. The impact on individual is in terms of job satisfaction and individual performance. The impact on team is in terms of innovation and productivity. The impact on project is in terms of project performance with impacting dimensions such as schedules, costs, quality and specifications. The impact on business unit and organizational level is in terms of efficiency, effectiveness, performance, earning and profitability.

Nevertheless, conflicts in the project can have different impacts on project performance depending on how it is managed. Mainly there are two types of impacts: constructive; and destructive. Constructive impacts leads towards positive outcomes and destructive impacts leads towards negative outcomes. A good manager can identify constructive and destructive impacts of conflict on the project performance. When a constructive impact occurs, a good manager encourages that kind of employees' interaction and when a destructive impact occurs, he takes immediate action and eliminates it as soon as possible. The understanding of the constructive and destructive impacts of conflict on the project performance is an important part of the project management. Constructive impacts of conflict increase project performance, organizational reputation, individuals, and organizational culture capacity to respond effectively to the project work and related challenges. Destructive impacts of conflict increase schedule and cost overruns, staff turnover, project sponsorship problems and also reduce team reputation, lower down team morale and reduce cooperation among project stakeholders [28]. Hence, the impact of implementation of solution to the conflict should be assessed on the project performance and also on the organization.

## 2.5 Conflict Resolution Techniques

Occurrence of conflict in the projects is a customary phenomenon. It is vital for the project managers to be able to determine the conflicts during the overall project life cycle and know how to resolve conflicts in an effective and quick manner. A conflict which is resolved in a positive manner may lead to improved personal and professional relationships. Conflict

resolution is an approach in which the disagreement and discrepancies among managers and employees, co-workers and colleagues etc are resolved in a systematic way. Conflict management provides many benefits including resource, time, cost savings and maintaining relationships among various stakeholders for improving the project performance. Gawerc [29] provided five techniques for conflict resolution in projects. These techniques include competing, collaborating, compromising, avoiding and accommodating. Competing technique is usually applied in situations where one party desires to win over the other party and it results into a win-lose situation. This is a power exercising technique where the interests and opinions of one party are completely rejected or ignored. Collaborating technique is usually applied in situations where conflict between two parties is resolved in such a way that it results into a win-win situation for both the parties. This technique uses clear communication and makes availability of utmost declaration. Moreover, Parker [30] advocated that confronting technique is most efficacious as compared to the other techniques because it enables openness and reduces information synthesis from one party to another. Compromising is usually applied in situations where the pending conflict between two parties is resolved through bargaining and it results into unequivocal resolve. Both parties become satisfied. This technique is more suitable when both parties want to win but there is a deadlock. In other words, both parties want to gain something on the cost of lose something.

Avoiding technique is usually applied in situations when there is a heated conflict between parties and it results into a temporary solution because conflict happens again and again. This technique is basically a withdrawal at runtime. Avoiding is more appropriate in situations when others can better resolve the conflict, you want to gain time for win, you cannot win, tasks are more noteworthy than conflict and you want to maintain good reputation. Accommodating is usually applied in situations where parties want a long lasting resolution of the conflict and it results into mutually acceptable solution for both the parties. Its ultimate result is a win-win situation for both the parties. This technique is beneficial for both the parties involved. Accommodating is more appropriate in situations when expedient solutions are required permanently or temporarily or to reach on settlement on complex issues or when other techniques do not work. This also lowered down the stress and tension resulting from the conflict.

## 3 CONCEPTUAL FRAMEWORK

Musonye [31] classified project conflicts into three categories: leadership related conflicts, organizational structure related conflicts and stakeholders related conflicts. Moreover, Muganza [32] categorized conflicts into six categories: employees' behavior related conflicts, institutional culture related conflicts, leadership management related conflicts, recruitment and placement related conflicts, harassment related conflicts and external influence related conflicts. However, the categories of Musonye [31] are project specific whereas the categories of Muganza [32] are workplace specific conflicts. As the focus of this study is on project conflicts, therefore, this study adopted the three categories of Musonye [31] along with one



category of Musonye [31] i.e. employees' behavior related conflicts to provide a more holistic view of project conflicts. Based on these four categories, a conceptual framework is developed to test and analyze the impact of conflict on projects performance. The conceptual framework is shown in Figure 1. Employees' behavior related conflicts, leadership related conflicts, organizational structure related conflicts and stakeholders related conflicts are the independent variables and project performance is the dependent variable. It is reasonable to believe that there is a significant relationship between the independent variables and dependent variable. The description of each variable is given in detail.

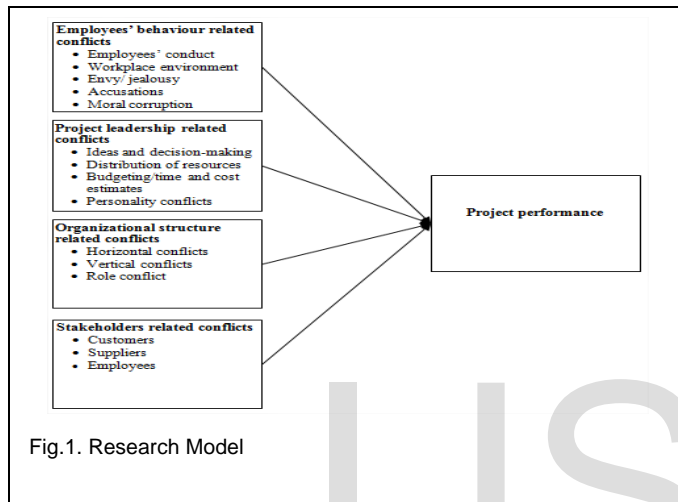


Fig.1. Research Model

### 3.1 Dependent Variable

*Project Performance:* It comprises of two components: process performance and product performance [33]. Process performance is adherence to project cost & schedule and product performance is adherence to project specifications [34]. However, Rai and Al-Hindi [35] described that project performance is composed of process efficiency and effectiveness. Process efficiency is the process performance and process effectiveness is the product performance. Many studies have found that the project performance is impacted by the conflicts in the projects [8]; [28]; [36].

### 3.2 Independent Variables

*Employees' Behavior Related Conflicts:* Most of the conflicts in projects are due to the employees' behavior at workplace. These conflicts may be among employees and employer, among employees and managers and among employees and various stakeholders involved in the projects. Musonye [31] provided different types of employees' behavior related conflicts including employees' conduct, employees' workplace environment, wrongful accusations, envy/jealousy and moral corruption. An employee's conduct appropriate or inappropriate to the professional ethics is one of the sources of conflicts in the project. Stressful work environment can also cause employees to do unprofessionally due to workload. Moreover, workplace environment conducive or un-conducive also contributes to the conflicts in the project. Furthermore, managers exploit institutional gaps due to weak systems to plunder for

personal gains also cause envy and jealousy among the employees which further lead to conflicts in the project. Similarly, accusations wrongful or rightful also create conflicts in the project. Last some employees may also involve in moral corruption due to their action which also causes conflicts in the project. Many studies have revealed that employees' behavior positively or negatively affect project performance [8]; 10; [36]. Therefore, the following hypothesis is formulated:

H1: The degree to which employees' behavior related conflicts are managed in the projects positively affects projects' performance.

*Project Leadership Related Conflicts:* Conflict control is considered to be as one of the most important activities that a project manager needs to exercise in projects. Espinoza [37] found that typically a project manager spends 20% of his/her time to deal with some sort of conflicts. Mir [38] argued that most of the conflicts in projects are due to lack of interpersonal skills especially of project managers. According to Ben and Tu [39], good project managers always anticipate that conflicts will happen and plan accordingly to resolve these conflicts. Therefore, conflict management is a key responsibility of a project manager in order to retain the project on track. Many researchers have investigated the relationship between conflict management styles and projects performance. A study conducted by Klasterin [40] revealed that the high performance managers better response to the conflicting situations than the low performance managers. He further added that the high performance managers are less afraid of conflicts and even show more willingness to approach conflicts rather than to avoid conflicts than the low performance managers. Lecoeuvre [41] described that conflicts play a vital role in terms of inducing change in projects. He further argued that conflicts shape the future instead of failures. Nevertheless, one of the most important causes of conflict is the unclear project objectives [41]. Unclear objectives lead towards conflicts because people with different opinions and experiences work together with different approaches. Therefore, effective interpersonal communications and relationships are needed to avoid and resolve these conflicts. Resolving conflict for team advantage needs trust, respect and practice. Wu et al. [4] argued that usually conflicts are considered to be having negative impact on project performance but it depends on the way how conflicts are managed.

Conflict management is an important interpersonal process that deals with the activities to manage conflicts which escalate during the course of project development. As conflicts are inevitable in every project, the project manager is responsible to manage risk in such a way that it has a positive impact on the project performance. If project manager has done his/her due diligence in the conflict management then conflicts cannot destroy the proper functioning of a project. When conflicts are managed properly, these are positive for the project performance. Without conflicts, project team members would not be able to think big and outside the box. Musonye [31] described that the project leadership related conflicts are comprised of ideas and decision making, distribution of resources, budget-

ing/time and cost estimates and personality conflicts. Thus, it is reasonable to formulate the following hypothesis:

H2: The degree to which project leadership related conflicts are managed in the projects positively affects projects' performance.

*Organizational Structure Related Conflicts:* Three major types of organizational structures exist: functional, matrix, and projectized organizations [42]. However, a project manager can exercise his/her full authority in the projectized organization followed by the matrix and the functional organization. A project manager conducts project performance appraisal depending on the length, complexity and structure of the organization. Conflicts are also created due to the organizational structure or organization type because of different decision-making and reporting lines in different types of organizations. According to [44], specific types of conflicts are characterized to various stages of project life cycle. The project may suffer or fail if these conflicts are not managed properly. The fact of project management is analogous to the concept of change management. It is not uncommon to raise conflict between project manager and team members, within team member and with the other members of the organization [40]. Marchewka [43] described that the type of organization determines the intensity of conflicts in a project and effect on its performance. Musonye [31] advocated that organizational structure related conflicts consist of horizontal, vertical conflicts and role conflicts. Hence, the following hypothesis is formulated:

H3: The degree to which organizational structure related conflicts are managed in the projects positively affects projects' performance.

*Stakeholders Related Conflicts:* Organizations exercise an elaborate and complex set of rules and regulations to resolve conflicts in and across organizations and other parties interacting to them such as key stakeholders [44]. They further added that conflict contracts are written settlements about potential conflicts between an organization and its suppliers, its customers and its trade unions. However, it is worthy to note that sometimes various stakeholders do not always agree to the rule of law and written provision in the contract due to some ambiguity in the contract. Moreover, no written contract can cover the details of all the circumstances that might rise in the extensive relationship. Meredith et al. [44] concluded that authority, goals and interpersonal conflicts are the three major types of conflicts that may be raised among parties involved in a project. A project manager should understand the political environment of the organization and communicate effectively at all the levels of the organization to manage conflicts properly. Lin and Tsai [45] explained that stakeholder management is a sustained engagement of all stakeholders ranging from sponsor to customer and end user to team member. Musonye [31] concluded that stakeholders related conflicts are encompassed customers, suppliers and employees related conflicts. Therefore, this leads towards the following hypothesis:

H4: The degree to which stakeholders related conflicts are managed in the projects positively affects projects' performance.

## 4 RESEARCH METHODOLOGY

### 4.1 Research Design and Method

The quantitative and descriptive research design is applied in this study. A descriptive research design is suitable in situations when research questions start with what, how, who and when key words [46] which is the case of this study. The comparative study design is also applied implicitly due to the need of comparison between the public and private sector organizations.

Myers [47] defines that a research method is a strategy of the enquiry. Two research methods are commonly used in research studies: case study and survey research. Case study research method can be applied for both qualitative and quantitative data whereas survey research method can be applied only for quantitative data. Case study explores a research topic in detail. Usually, it is difficult to separate project conflict phenomenon from its environment and conflicts and conflict management approaches may be different in different organizations. Therefore, case study method is a suitable research method for this study.

### 4.2 Population and Sample

The study was conducted into two IT projectized organizations i.e. one is public sector organization and the other is private sector organization. The study population consists of all the employees in both the organizations related to IT projects directly or indirectly. It consists of managers, projects employees and technical & support staff. The total employees related to IT projects in the public sector organization are 78 and the total employees related to IT projects in the private sector organization are 90. The sample size was calculated based on guidelines provided by Urbach and Ahlemann [48] who recommends a minimum sample size of 30 for normalization of data. Therefore, due to the case study nature of this study, a minimum sample size of 30 is selected for the public sector organization and 35 for the private organization.

### 4.3 Data Collection Technique

Three methods are mainly used to collect data in research studies: interviews, survey questionnaires and focus groups [49]. However, survey questionnaires are most simple and economical to collect meaningful data [50]. Therefore, survey questionnaires are used to collect data in this study.

### 4.4 Measurements

Wherever possible, adopted questionnaires have been used in this study to get meaningful data. However, some questions have been slightly modified after incorporating suggestions provided by the one expert from each of the organizations. The guiding items of scale for causes of conflicts have been adopted from Sudhakar [27] and measured on five point Likert scale from 1 (Strongly Agree) to 5 (Strongly Disagree). The

scale consists of 10 items. The guiding items for positive & negative impacts of project conflicts have been taken from Muganza [32] and measured on five point Likert scale from 1 (Strongly Agree) to 5 (Strongly Disagree). The scales consist of 17 and 7 items respectively. The guiding items of scale for project conflicts have been borrowed from Musonye [31] and measured on five point Likert scale from 1 (Strongly Agree) to 5 (Strongly Disagree). The scale consists of items 17 items. The items of scale for project performance have been adopted from Henderson and Lee [51] and measured on five point Likert scale from 1 (Strongly Agree) to 5 (Strongly Disagree). The scale consists of 7 items. The items of scale for project conflict resolution techniques have been adopted from Riasi and Asadzadeh [52] and resulted into researcher own administered questionnaire. The scale consists of 5 items.

#### 4.5 Data Analysis Approach

Data have been analyzed using exploratory data analysis and regression analysis. MS Excel has been used for this purpose.

### 5 RESULTS

#### 5.1 Sample Characteristics

A total of seventy four (74) completed questionnaires were returned from the respondents of both organizations. Thirty five (35) questionnaires were received from the public sector organization and thirty nine (39) were received from the private organization. The sample characteristics are shown in Table 1. The sample characteristics show that seven (7) respondents are Project Directors/Mangers in the public sector organization whereas four (4) respondents are Project Directors/Mangers in the private organization. Moreover, twenty (25) respondents are project employees in the public sector organization and thirty (30) respondents are project employees in the private organization. Furthermore, three (3) respondents are from technical & support staff in the public sector organization whereas five (5) respondents are from technical & support staff from the private organization. As for as the experience of the respondents is concerned, the median experience of the respondents is eight (8) years and four (4) years in the same organization and other organizations respectively in case of the public sector organization whereas it is five (5) years and two (2) years in the same organization and other organizations respectively in case of the private organization. In case of the public sector organization, three (3) respondents are diploma holders, five (5) hold bachelor degrees and twenty seven (27) hold master degrees. In case of the private organization, five (5) respondents are diploma holder, twelve (12) hold bachelor degree and twenty two hold master degrees. However, among the respondents of this study, no respondent hold PhD degree in both the organizations. With respect to gender, thirty three (33) are male and two (2) are female form the public sector organization whereas thirty one (31) are male and eight (8) are female from the private organization. As for as age of the respondents is concerned, seven (7) are between 21-30 years, twenty five (25) are between 31-40 years and three (3) are between 1-50 years in case of the public sector organization whereas eighteen (18) are between 21-30 years, fifteen

(15) are between 31-40 years and six (6) are between 41-50 years in case of the private organization. However, there is no respondent below 20 years and above 50 years of age in both the organizations.

TABLE 1  
SAMPLE CHARACTERISTICS

	Public sector organization		Private sector organization	
	Frequency	Percentage	Frequency	Percentage
<i>Role</i>				
Project Director/Manager	7	20.0%	4	10.26%
Project employee	25	71.43%	30	76.92%
Administrative staff (technical & support)	3	8.57%	5	12.82%
<i>Experience</i>				
Experience within the organization	8		5	
Experience in the other organizations	4		2	
<i>Highest qualification</i>				
Diploma	3		5	
Bachelor degree	5		12	
Master degree	27		22	
PhD degree	0		0	
<i>Gender</i>				
Male	33		33	
Female	2		8	
<i>Age</i>				
Less than 20	0		0	
21-30 years	7		18	
31-40 years	25		15	
41-50 years	3		6	
Above 50	0		0	

#### 5.2 Distribution of the Respondents Who Faced Project Conflict

The distribution of the respondents who faced project conflict is shown in Table 2. The results show that 39.19% respondents (29 out of 74) experienced project conflict whereas 60.61% respondents (45 out of 74) not experienced project conflict. However, the results could not be confused and led towards the assumption that project conflict was not present because conflict is part of every project and even is a practice of our daily lives. However, the percentage of those respondents who experienced project conflict is a significant number (39.19%) which shows that organizational commitment is needed to exercise effective conflict resolution techniques to improve the performance of the projects. Therefore, the study is relevant and important in identifying the causes and impacts of conflict on project performance in this environment.

The results also show that among the respondents, who faced project conflict, 14.86% (11 out of 74) are managers, 20.27% (15 out of 74) are project employees and 4.05% (3 out of 74) is technical & support staff. If we compare both the organizations, we can see that 51.43% respondents (18 out of 35) experienced project conflict in the public sector organization whereas 38.6% (15 out of 39) respondents experienced project conflict in the private organization. It means project managers,



employees and staff in public sector organizations face more project conflicts than their private counterparts. One possible reason might be the fact that decision-making in public sector organizations is more complex and time consuming than private sector organizations. The other reason might be that public sector organizations have numerous stakeholders than private sector organizations. Job security might be another reason in public sector to motivate employees to express their point of view as compared to private sector where people often avoid conflicting situation due to temporary jobs.

TABLE 2  
DISTRIBUTION OF THE RESPONDENTS FACED PROJECT CONFLICT

	Public sector Organization	Private sector organization	Total
Respondents rank	Percentage	Percentage	Percentage
Managers	20.0%	10.26%	14.86%
Project employees	25.71%	15.38%	20.27%
Technical & support staff	5.71%	5.13%	4.05%
Total	51.43%	38.46%	39.19%

### 5.3 Perception of the Respondents on Types of Project Conflicts

There are different types of project conflicts. Those types were assessed taking into account inter-personal, intra-group and Inter-group project conflicts. The results are shown in Figure 2. The results show that 20 respondents perceived Inter-group conflicts, 12 perceived inter-personal conflicts and only 3 perceived intra-group conflicts in the public sector organization. The results also show that 23 respondents perceived inter-personal conflicts, 12 perceived intra-group conflicts and only 4 perceived Inter-group conflicts in the private organization. This shows that Inter-group conflicts are dominant in the public sector organization followed by inter-personal conflicts whereas inter-personal conflicts are dominant in the private sector organization followed by intra-group conflicts. One possible reason might be the fact that in public sector organizations, there are grouping of employees across various groups. People belonging to one area of expertise or academic background express conflict with other groups of different areas of expertise and academic background. However, there is evidence from Figure 2 that they create less conflicts with each other or within group. One possible interpretation might be that people in public sector are somewhat influenced by the politics of the organization. In private organizations, most conflicts are inter-personal. People have less inclination to create conflicts with other groups. It might be due to the fact that people struggle for their personal performance due to competitive environment of the private sector instead of intervening in the role and responsibilities of others.

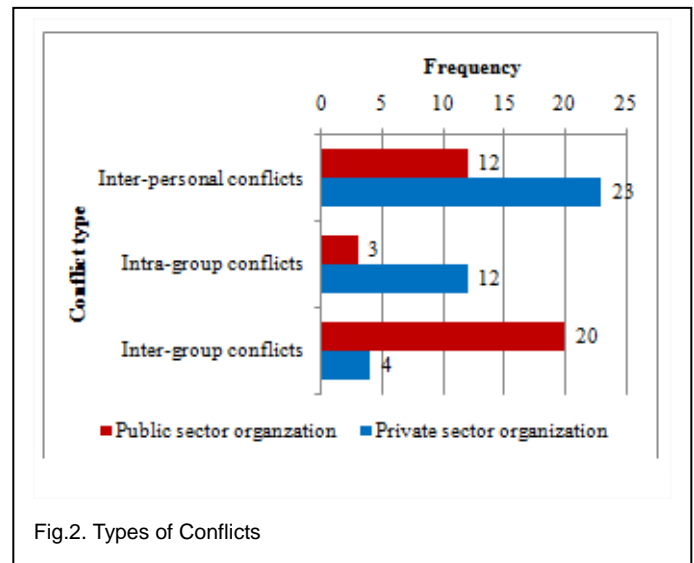


Fig.2. Types of Conflicts

### 5.4 Perception of the Respondents on Causes of Project Conflicts

There are various causes of project conflicts. Those causes were assessed taking into account shared/common resources, differences in project goals/objectives, leadership style, values differences, personality issues, differences in technical opinions/approaches, schedules, costs, administrative procedures, different perceptions. The results are shown in Figure 3. The results show that in case of the public sector organization, 95% causes of conflicts are due to shared/common resources followed by 93% causes due to personality issues, 88% causes due to differences in technical opinions/approaches and 87% causes due to different perceptions. However, 38% causes of conflicts are due to costs. One possible interpretation may be that the projects in public sector organizations experience conflicts mainly due to shared/common resources because public sector organizations usually share common resources in and across projects for optimal use of resources. Personality issues are other major causes of conflicts in the public sector organization due to the authoritarian culture of the public sector. However, there is less issue of conflicts related to costs in public projects because projects costs are approved by Ministry of Planning, Development and Reforms and released by following proper mechanism. In case of the private organization, 96% causes of conflicts are due to schedules and different perceptions followed by 93% causes due to differences in technical opinions/approaches and 90% causes due to differences in project goals/objectives and personality issues. However, 65% causes of conflicts are due to values differences. The possible interpretation may be that the projects in private sector organizations experience conflicts mainly due to schedules and different perceptions because schedules are always tight in the private sector organizations and people are usually innovative & creative and have their own perception which vary from person to person. Due to the competitive nature of the private sector, these organizations attract, develop and retain experienced and highly competent professionals to execute certain tasks. Various people may have various approaches to

execute and perform tasks because rules and procedures are relatively less rigid in these organizations as compared to their public sector counterparts. Therefore, conflicts in such areas may be escalated due to aforesaid reasons. Other important sources of conflicts in the projects of private sector organization are differences in technical opinions/approaches, differences in project goals/objectives and personality issues. These are due to the fact that private sector organizations are more conscious about technical and innovative approaches to perform tasks and more focused on goals and objectives of the projects. Therefore, the escalation of conflicts in these areas are inevitable. If we compare the public sector organization with the private organization, we can conclude that the projects in both the organizations have some common major causes of conflicts. Shared/common resources, differences in project goals/objectives, personality issues, differences in technical opinions/approaches, schedules and different perceptions are major causes of project conflicts in both the organizations. However, the major difference is in costs and administrative procedures.

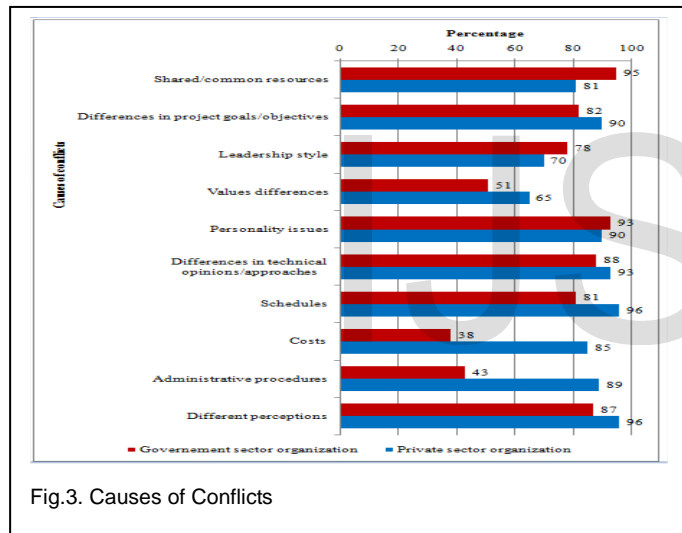


Fig.3. Causes of Conflicts

### 5.4 Perception of the Respondents on Positive and Negative Impact of Project Conflicts

There are mainly two types of impact of project conflicts. This impact was assessed taking into account positive and negative impact of project conflicts. The results are shown in Figure 4 and Figure 5 respectively.

#### Negative Impact of Project Conflicts

The negative impact of project conflicts is shown in Figure 4. The results show that in case of the public sector organization, project conflict exert 92% impact on decrease productivity followed by 90% impact on waste of time leading to miss deadline or affecting the quality of work and 89% impact on waste of time. It means these are three top areas which are negatively affected by the project conflicts in public sector organizations. However, injuries, forceful resignation, strikes and rebellions, dismissal and voluntary resignation are the less affected by the project conflicts in public sector organizations. The results also show that in case of the private organization,

project conflict exert 88% impact on dismissal followed by 83% impact on waste of time and 82% on waste of time leading to miss deadline or affecting the quality of work. It means these are three top areas which are negatively affected by the project conflicts in private organizations. However, strikes and rebellions and injuries are least affected by the project conflicts in private organizations. When we compare the public sector organization with the private sector organization then we can see that the project conflicts have high negative impact in both the organizations in terms of waste of time leading to miss deadline or affecting the quality of work. So, this factor is most important in both the organizations. Other common factors that are least affected in both the organizations are injuries and strikes and rebellions. However, both the organizations mainly vary in terms of dismissal, forceful resignation and voluntary resignation where the public sector organization is less affected as compared to the private organization.

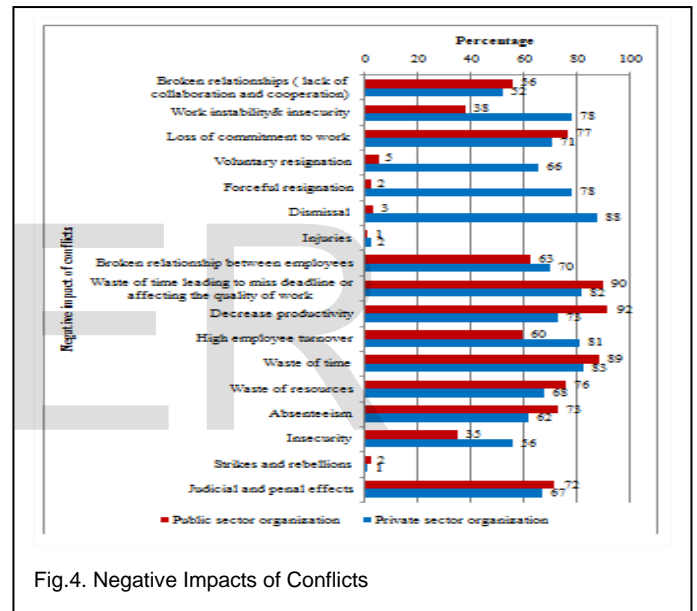


Fig.4. Negative Impacts of Conflicts

#### Positive Impact of Project Conflicts

The positive impact of project conflicts is shown in Figure 5. The results show that in case of the public sector organization, project conflict exert 93% impact on reduce vagueness of tasks followed by 88% impact on improving quality decisions and 86% on improving policies and procedures. It means these are three top areas which are positively affected by the project conflicts in public sector organizations. However, allow adjustment of resources is the least affected by the project conflicts in public sector organizations. The results also show that in case of the private organization, project conflict exert 92% impact on reduce vagueness of tasks followed by 83% impact on improving quality decisions, 81% impact on improving policies and procedures and 80% impact on improve workplace conflict management skills. It means these are four top areas which are positively affected by the project conflicts in private organizations.

When we compare the public sector organization with the private sector organization then we can see that the project



conflicts have high positive impact in both the organizations in terms of reduce vagueness of tasks, improving quality decisions and improving policies and procedures. So, these factors are the most important in both the organizations. However, both the organizations mainly vary in terms allow adjustment of resources where the public sector organization is less affected as compared to the private organization.

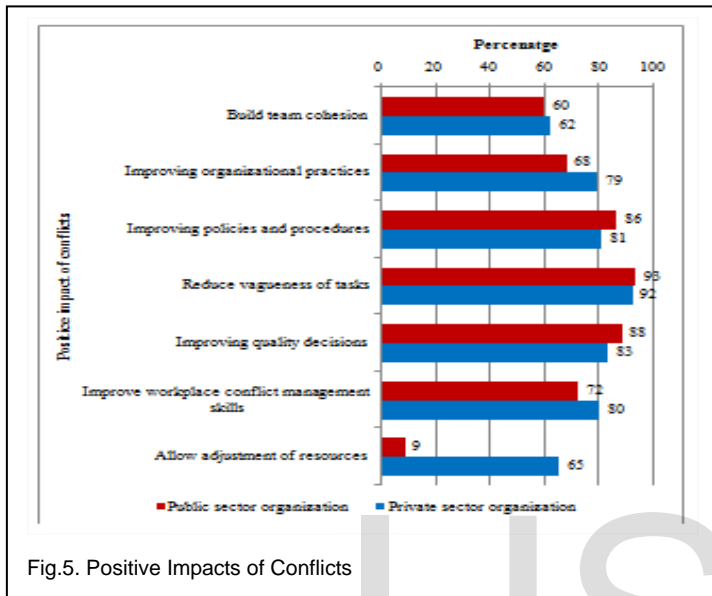


Fig.5. Positive Impacts of Conflicts

### 5.5 Impact of Conflict on Project Performance

There are various categories of conflicts that impact project performance. These categories were assessed taking into account employees' behaviour related conflicts, project leadership related conflicts, organizational structure related conflicts and stakeholders related conflicts. A simple linear regression was performed using MS Excel to see the relationship between employees' behaviour related conflicts, project leadership related conflicts, organizational structure related conflicts, stakeholders related conflicts and project performance. The results of regression analysis are shown in Table 3 for the public sector organization and Table 4 for the private organization.

#### *Impact of Conflict on Project Performance in the Public Sector Organization*

Table 3 shows that the value of adjusted  $R^2$  is 0.869. It means that 86.9% variation in project performance can be explained by employees' behaviour related conflicts, project leadership

related conflicts, organizational structure related conflicts and stakeholders related conflicts at a confidence level of 95%. The results also show that keeping employees' behaviour related conflicts, project leadership related conflicts, organizational structure related conflicts and stakeholders related conflicts constant, the initial value of project performance is -0.335. It shows that project performance is initially negative. However, a unit increase in managing employees' behaviour related conflicts, project performance increases by a factor of 0.280. Similarly, a unit increase in managing project leadership related conflicts, performance increases by a factor of 0.535 and a unit increase in managing stakeholders' related conflicts, project performance increases by a factor of 0.354. The results also show that managing organizational structure related conflicts have no significant impact on project performance.

In conclusion, project performance is highly impacted by managing project leadership related conflicts followed by stakeholders' related conflicts and employees' behaviour related conflicts. It shows that project leadership is the most important factor in the public sector organization. The organizational structure may have multiplied or interaction effect on project performance with other factors such as employees' behaviour, project leadership and stakeholders.

#### *Impact of Conflict on Project Performance in the Private Sector Organization*

Table 4 shows that the value of adjusted  $R^2$  is 0.863. It means that 86.3% variation in project performance can be explained by employees' behaviour related conflicts, project leadership related conflicts, organizational structure related conflicts and stakeholders related conflicts at a confidence level of 95%. The results also show that keeping employees' behaviour related conflicts, project leadership related conflicts, organizational structure related conflicts and stakeholders related conflicts constant, the initial value of project performance is -0.421. It shows that project performance is initially negative. However, a unit increase in managing employees' behaviour related conflicts, project performance increases by a factor of 0.320. Similarly, a unit increase in managing project leadership related conflicts, performance increases by a factor of 0.456 and a unit increase in managing stakeholder related conflicts, project performance increases by a factor of 0.400. The results also show that managing organizational structure related conflicts have no significant impact on project performance.

In conclusion, project performance is highly impacted by managing project leadership related conflicts followed by stakeholder related conflicts and employees' behaviour related conflicts. It shows that project leadership is also the most

TABLE 3  
REGRESSION ANALYSIS OF THE PRIVATE SECTOR ORGANIZATION DATA

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.932
R Square	0.869
Adjusted R Square	0.852
Standard Error	0.166
Observations	35

ANOVA

	Df	SS	MS	F	Significance F
Regression	4.000	5.464	1.366	49.851	0.000
Residual	30.000	0.822	0.027		
Total	34.000	6.286			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-0.335	0.246	-1.361	0.184	-0.839	0.168	-0.839	0.168
Employees' Behavior	0.280	0.081	3.469	0.002	0.115	0.445	0.115	0.445
Project Leadership	0.535	0.104	5.142	0.000	0.323	0.747	0.323	0.747
Organizational Structure	-0.051	0.067	-0.753	0.457	-0.188	0.087	-0.188	0.087
Stakeholders	0.354	0.084	4.189	0.000	0.181	0.526	0.181	0.526

TABLE 4  
REGRESSION ANALYSIS OF THE PRIVATE SECTOR ORGANIZATION DATA

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.929
R Square	0.863
Adjusted R Square	0.846
Standard Error	0.169
Observations	39

ANOVA

	Df	SS	MS	F	Significance F
Regression	4.000	6.105	1.526	53.384	0.000
Residual	34.000	0.972	0.029		
Total	38.000	7.077			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-0.421	0.247	-1.701	0.098	-0.924	0.082	-0.924	0.082
Employees' Behavior	0.320	0.079	4.032	0.000	0.159	0.481	0.159	0.481
Project Leadership	0.456	0.100	4.561	0.000	0.253	0.659	0.253	0.659
Organizational Structure	-0.027	0.065	-0.413	0.682	-0.158	0.105	-0.158	0.105
Stakeholders	0.400	0.083	4.829	0.000	0.232	0.569	0.232	0.569

important factor in the private organization. The organizational structure may have multiplied or interaction effect on project performance with other factors such employees' behaviour, project leadership and stakeholders.

When we compare both the public and private sector organizations, we can conclude that there is no fundamental difference between both the organizations in terms of impact of conflict on project performance. Managing employees' behaviour related conflicts, project leadership related conflicts and stakeholders related conflicts all impact project performance positively in both types of organizations. It shows that although, causes of project conflicts may be different in different organizational context but the impact on project performance remains universe in both the organizations. However, managing organizational structure related conflicts alone have no impact on project performance in both the organizations. It does not mean that it should be ignored at all. It may have interaction effect on project performance when interacted with employees' behavior related conflicts, project leadership conflicts and stakeholders related conflicts.

### 5.6 Project Conflict Resolution Techniques

There are various conflict resolution techniques. These techniques were assessed taking into account competing, collaborating, compromising, avoiding and accommodating. The results are shown in Figure 6. The results show that most of the project conflicts were resolved through accommodating (17 out of 47) followed by competing (12 out of 47) and compromising (7 out of 47) in both the organizations. However, fewer conflicts were resolved through avoiding (5 out of 47) and collaborating (6 out of 47). This shows that accommodating techniques is mostly applied to resolve project conflict whereas collaborating technique is less applied in project environment. However, the priority of these techniques depends on the organizational context, procedures to deal with project conflicts, personal like and dislike (leadership style) and other contingencies.

The results also show that in case of the public sector organization, most conflicts were resolved through accommodating (7 out of 18) followed by competing (5 out of 18), compromising (3 out of 18), avoiding (2 out of 18) and collaborating (1 out of 18). Similarly, in case of the private organization, most conflicts were resolved through compromising (10 out of 29) followed by competing (7 out of 29), collaborating (5 out of 29), compromising (4 out of 29) and avoiding (3 out of 29). This shows that the project conflict resolution techniques in public sector organizations are slightly different to that of the private sector organizations especially in terms of collaborating. In private organizations, the collaborating conflict resolution technique is more used than the public sector organizations. This might be due to the fact that public sector organizations have a rigid hierarchy and defined procedures to deal with project conflicts than private organizations. Private sector organizations need collaborator sometimes due to lack of expertise and desired influence on the parties. However, there is no significant difference in both the organizations to resolve project conflicts.

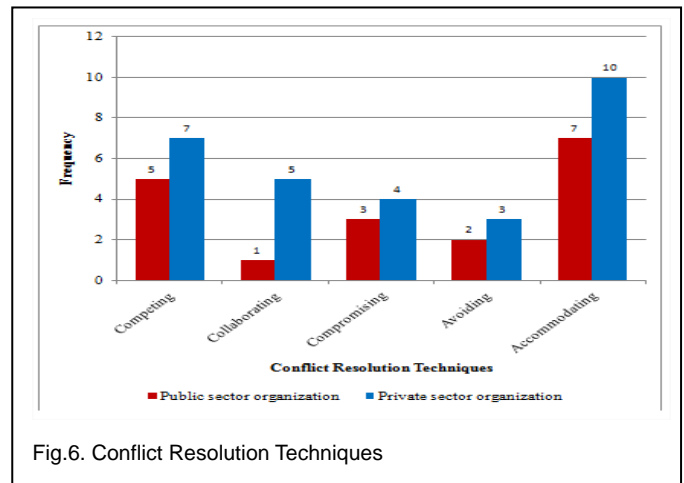


Fig.6. Conflict Resolution Techniques

## 6 CONCLUSION

This study investigated the causes and impacts of project conflicts in one public and one private sector IT projectized organizations of Pakistan and assessed the impact of conflicts on project performance. The study then compared both the organizations with respect to project conflicts and revealed some interesting findings. The findings indicated that although, there are many similarities between both the organizations but there are also some fundamental differences between these organizations. The study concludes based on the findings that although project conflicts exist in both the organizations, but their relative importance is different in different organizational contexts. Moreover, the causes and positive & negative impacts of conflicts are varying in both the organizations. Furthermore, the impact of the conflicts on project performance in both the organizations is also different. Even the conflicts resolution techniques in both the organizations are different. This shows that conflict management is a contextual phenomenon that may vary from industry to industry or even from organization to organization. It depends on employees' behaviour, leadership style, organizational structure and stakeholder etc. In this way, the study sheds light on the importance of conflict management practices while undertaking projects and concludes that conflicts management affects the project performance to a great extent. It is in line with the previous research that one of the major reasons of project failure is that conflicts are not managed properly. Therefore, it is paramount to identify, address and manage project conflicts to improve project performance which ultimately leads towards organizational performance.

The study also provides some recommendations. Since the employees' behaviour, leadership style, organizational structure and stakeholder related conflicts affect project performance, therefore, special measures must be taken to motivate/train employees, improve working conditions, exercise participative leadership style, improve negotiation and interaction between project managers and functional departments and improve communication between project managers and all the parties involved in the projects directly or indirectly. Since the study was undertaken in two organizations only i.e.



one public and other private, that's why, the findings of the study may not be generalized to other public and private sector organizations. Moreover, the organizations were IT projectized organizations. For this reason, the findings may not be generalized to other types of projects and organizations. Future researchers may include other types of projects and organizations which would allow for broader generalisation of the findings. Future researchers should extend the concept of project conflicts to specific outcomes of project performance. They should investigate the impact of project conflicts on project cost, schedule and quality and should identify specific conflicts and conflict management practices to deal with these outcomes in both public and private organizations.

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