

Team Conflicts as Mediator in the relationship between Team Diversity and Team Performance: Empirical Evidence from Telecommunication Sector of Pakistan

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Abstract

Due to conflicting results, the team diversity and team performance has been referred to as a black box and double-edged sword. This research focuses on investigating the direct relationship between team diversity and team performance and the mediating effects of team conflicts on such relationship in the telecommunication sector of Pakistan. Varied results produced by past researches as well as recent call for mediation / moderation studies on team diversity and team performance relationship offered a lead to work further on this topic. Data was gathered from project team members in the telecommunication sector, being an innovative and project-oriented field. Judgmental (non-probability) sampling was used to select respondents (team members) from various telecommunication companies. The questionnaire was sent through emails / post, and 201 responses were received from team members in 31 different teams with number of members varying between 5 to 11 members in each team. The research found that social diversity has negative whereas knowledge and value diversities have positive impact on team performance. The research also found the mediating effects of relationship conflict, task and process conflicts on the relationship between knowledge diversity and team performance as well as value diversity and team performance. The findings, conclusion and recommendations of this study will prove helpful for the HR / Project Managers while composing teams and predicting conflicts and their effects on teams' performance / outcome.

Keywords: Team Diversity, Age Diversity, Gender Diversity, Culture Diversity, Team Conflicts, Relationship Conflict, Task Conflict, Process Conflict, Team Performance.

Introduction

Team diversity and performance relationship has been referred as “double-edged sword” in the contemporary organizational studies. Stahl, Maznevski and Jonsen (2010) highlighted that these studies have

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presented often diverse and sometimes even contradictory findings. Similarly, Garcia-Prieto (2003) noted the same kind of relationship between team diversity and conflicts. On one side, team diversity has been established by researchers as catalyst for better performance (Mannix & Neale, 2005) and on the other hand some others have suggested possibility of potential conflicts in diverse teams (John & Chatman, 2000). Thus, as also stated by recent researchers, there may exist some mediating and moderating effects of different forms of conflict on Team diversity – Team Performance relationship (Weingart & De Drue, 2003). In addition, the team performance was narrowly measured with a single measure. Weingart and De Drue (2003) in their meta-analysis found that both task conflict and relationship conflict have negative association with employees' job performance. However, the Meta analysis of 116 studies by De Wit, Greer and Jehn (2012) studying the paradox of intragroup conflicts in teams observed that task conflict was found a positive linkage with group performance. Similarly Lee et al. (2015) found that team members relationship conflict negatively affect the workforce ability to rapidly respond and cope flexibility with the unforeseen internal and external changes. Hence, this study takes a comprehensive approach towards understanding the team diversity and team performance relationship by comprehensively investigating the effects of all dimensions of team diversity along with the mediating effects of varied forms of team conflicts particularly the process conflict as well as varied dimensions of team performance.

Research Objectives

1. To investigate direct relationship between team diversity and team performance.
2. To investigate the mediating effects of conflicts on relationship between team diversity and team performance.

Contribution of the Study

The study covers both theoretical and practical implications. There has been dearth of studies on team diversity and team performance, however, there are much contradictory findings. As a result, researchers have referred to team diversity and team performance phenomenon a “double-edged sword” in the contemporary organizational studies (Donkor et al., 2015). Hence, theoretically, the study will clarify the missing / uncertain relationship between team diversity and team performance while taking mediating effects of various types of conflicts in consideration. Practically, the findings, conclusions and recommendations of this study would help the HR / project managers in

teams' formulation, and predicting conflicts and their effects on teams' performance / outcome. We believe that studying the team heterogeneity and performance linkage as well as how team diversity develops various types of team conflicts will better help professionals in forming teams by looking into the composition of team members with appropriate balance of team expertise and diversity.

Literature Review

Team Diversity and Team Performance

A considerable number of studies have been conducted over past few decades to find out the impact of team diversity on team performance. Stahl, Maznevski, Voight and Jonsen (2010) highlighted that these studies have presented often diverse and sometimes even contradictory findings. For instance, Nemeth (1986), and Jackson (1992) concluded that diverse teams outperformed the homogenous groups. In contrast, Willaims and O'Reilly (1998), and Ancona and Caldwell (1992) demonstrated that homogenous teams avoided factors like weak communication links and undue conflicts which affect diverse groups negatively most of the time. Similar findings were also reported by Garrison (2010) and Klein, Knight, Ziegert, Lim and Saltz (2011). However Ostergaard, Timmermans and Kristinsson (2011) found positive effects of team diversity on team performance. In 1998, William and O'Reilly reviewed past forty years research on diversity and reached on the conclusion that the findings pertaining to impact of diversity on performance of team / group were not consistent. Mathieu (2014) highlighted that in spite of existence of numerous theoretical models / frameworks and considerable analytical research, the understanding is still inadequate on impacts of teams' composition on their performance / efficiency and that other moderating and mediating factors should also be studied in this relationship.

Mediating Effect of Team Conflict on Relationship between Team Diversity and Team Performance

A very limited work has been found from the existing literature on the subject under discussion. John et al. (1999) focused on workgroups and examined the effects of various types of team diversities i.e. social diversity, informational diversity and value diversity with intervening process i.e., Conflict on work group outcome in terms of their performance and morale of its members. John et al. (1999) found that relationship between informational diversity and group performance was mediated by task conflict. Further, relationship conflict mediates the effects of social and value diversity on the morale of the group. In

addition, the process conflict was found mediating the impact of value diversity on group performance.

Only Dongfeng (2013) made an effort to find out the mediating effects of conflicts on team diversity and team performance relationship. While focusing on creative management teams, Dongfeng (2013) found that task conflict partially acts as a mediator between education, and professional background diversities and team performance. They further found that relationship conflict partially acts as mediating variable between value diversity and team performance.

Certain deficiencies in Dongfeng's work as well as missing links in past research works offer an opportunity to dig out intertwining links pertaining to the effects of various types of conflicts on team diversity and team performance relationship. Hence, this study would extend the Dongfeng (2013) model by including process conflict to it. Further, unlike earlier studies, this research will also study the relationship between various dimensions of team diversity and process conflict.

Theoretical Model and Hypotheses

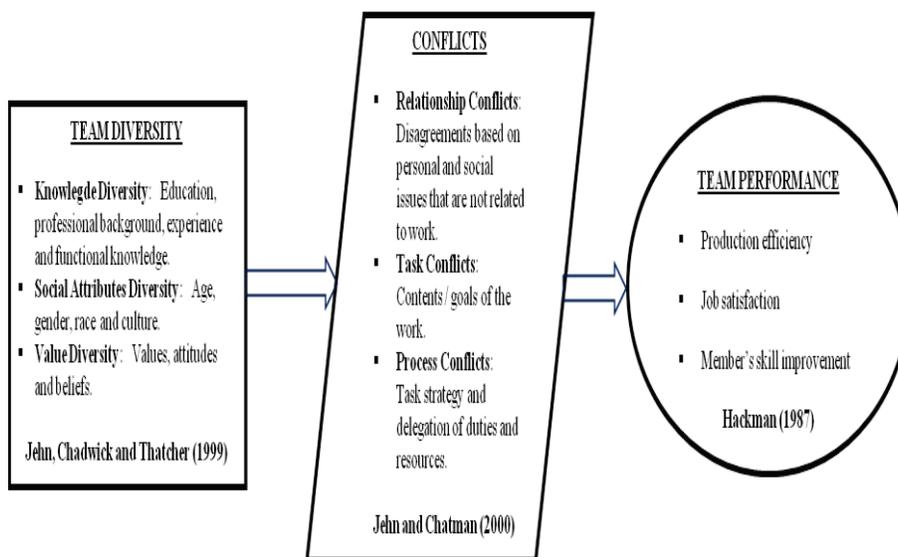


Figure 2.1: Theoretical Model

Hypotheses

Keeping in view the developed theoretical model, the following hypotheses were deduced: -

H1: Social Diversity has positive impact on team performance.

H1a: *Relationship Conflict mediates the correlation between Social diversity and team performance.*

H1b: *Task Conflict mediates the correlation between Social diversity and team performance.*

H1c: *Process Conflict mediates the correlation between Social diversity and team performance.*

H2: Knowledge diversity has negative impact on team performance.

H2a: *Relationship conflict mediates the relationship between Knowledge diversity and team performance.*

H2b: *Task conflict mediates the relationship between knowledge diversity and team performance.*

H2c: *Process Conflict mediates the relationship between knowledge diversity and team performance.*

H3: Value Diversity has positive impact on team performance.

H3a: *Relationship conflict mediates the relationship between value diversity and team performance.*

H3b: *Task Conflict mediates the relationship between value diversity and team performance.*

H3c: *Process conflict mediates the relationship between value diversity and team performance.*

Research Methodology

The targeted population of the study was the project teams operating in the Pakistan's Telecommunication Sector. Responses were tapped through questionnaires using emails, postal service and in person visits to headquarters / setups of various telecommunication companies based in major cities of Pakistan. A non-probability judgmental sampling technique was employed. Team diversity was measured with three dimensions and total thirteen items adopted from John, Chadwick and Thatcher (1999). Conflict was measured with 3 dimensions and total twelve items adopted from John and Chatman (2000). Team performance was measured with three dimensions and total twelve items adopted from Hackman (1987). The collected data was analyzed using Baron and Kenny's (1986) approach.

Results

Hypotheses Testing: Regression Analysis

To determine mediating effects of various types of conflicts on team diversity and team performance relationship, Baron and Kenny's four step approach was adopted. The tables show the summary of results in terms of beta values with p-values in parentheses.

Mediation of Relationship Conflict, Task conflict and process conflict on relationship between Social Diversity and Team Performance

Table 4.12 covers hypothesis one stating the mediating effect of relationship conflict, task conflict and process conflict on the relationship between value diversity and team performance. The Beta coefficient as

Table 4.12: Summary of Regression Analysis – Mediation of Relationship, Task and Process Conflicts on relationship between Social Diversity and Team Performance

		Direct Regression		Meanwhile Regression
		Relationship Conflict	Team Performance	Team Performance
Comb-I (H1a)	Social Diversity-Relationship Conflict	.907 (.000)	-.786 (.007)	-.908 (.144)
			-.689 (.027)	.134 (.814)
		Task Conflict	Team Performance	Team Performance
Comb-II (H1b)	Social Diversity-Task Conflict	-.611 (.014)	-.786 (.007)	-.887 (.512)
			.377 (.002)	.165 (.223)
		Process Conflict	Team Performance	Team Performance
Comb-III (H1c)	Social Diversity-Process Conflict	.843 (.021)	-.786 (.007)	-.647 (.421)
			-.711 (.000)	-.165 (.375)

well as p-values of first 3 steps (direct regression) in this combination remained significant; whereas, the effect of relationship conflict (mediator) on team performance became insignificant (beta coefficient = 0.134 & p-value = 0.814) in meanwhile regression. This implies that relationship conflict does not mediate the relationship between social diversity and team performance; hence, H1a is not supported. H1b proposed a mediating effect of task conflict on social diversity and team performance relationship. The Beta coefficient as well as p-values of first 3 steps (direct regression) in this combination remained significant; whereas, the effect of task conflict (mediator) on team performance

became insignificant (beta coefficient = 0.165 & p-value = 0.223) in meanwhile regression. This implies that task conflict does not mediate the relationship between social diversity and team performance; hence, H1b is not supported. Similarly, testing H1d, the Beta coefficient as well as p-values of first 3 steps (direct regression) in this combination remained significant; whereas, the effect of process conflict (mediator) on team performance became insignificant (beta coefficient = -0.165 & p-value = 0.375) in meanwhile regression. Hence, the process conflict was found having no mediating effect on the relationship between social diversity and team performance.

Mediation of Relationship Conflict, Task conflict and process conflict on relationship between Knowledge Diversity and Team Performance

Table 4.13 covers hypothesis two stating the mediating effect of relationship conflict, task conflict and process conflict on the relationship between knowledge diversity and team performance. As can be observed from table 4.12 (combination IV), the Beta coefficient as well as p-values of first 3 steps (direct regression) in this combination remained significant; whereas, the effect of both relationship conflict (mediator) and knowledge diversity (predictor) on team performance remained significant (beta coefficients = -0.511 / 0.421 & p-values = 0.009 / 0.012, respectively). Hence, it implies that relationship conflict partially mediates the relationship between knowledge diversity and team performance; thus, H2a is supported.

Regarding H2b, the Beta coefficient as well as p-values of first 3 steps (direct regression) in this combination (combination V) remained significant; whereas, the effect of both task conflict (mediator) and knowledge diversity (predictor) on team performance remained significant (beta coefficients = 0.409 / 0.463 & p-values = 0.005 / 0.000, respectively). Hence, it implies that task conflict partially mediates the relationship between knowledge diversity and team performance and thus H2b is supported. For H2c, the Beta coefficient as well as p-values of first 3 steps (direct regression) in this combination (combination VI) remained significant; whereas, the effect of process conflict (mediator) on team performance remained significant (beta coefficient = -0.605 & p-value 0.003) and the effect of knowledge diversity (predictor) on team performance became insignificant (beta coefficient = 0.054 & p-value 0.087). This implies that process conflict fully mediates the relationship between knowledge diversity and team performance and hence, H2c is supported.

Table 4.13: *Summary of Regression Analysis – Mediation of Relationship, Task and Process Conflicts on relationship between Knowledge diversity and Team Performance*

		Direct Regression	Meanwhile Regression	
		Relationship Conflict	Team Performance	Team Performance
Comb-IV (H2a)	Knowledge diversity-	- .899 (.011)	.539 (.005)	.421 (.012)
	Relationship Conflict		-.689 (.027)	-.511 (.009)
		Task Conflict	Team Performance	Team Performance
Comb-V (H2b)	Knowledge diversity-	.364 (.000)	.539 (.005)	.463 (.000)
	Task Conflict		.377 (.002)	.409 (.005)
		Process Conflict	Team Performance	Team Performance
Comb-VI (H2c)	Knowledge diversity-	-.920 (.008)	.539 (.005)	.054 (.087)
	Process Conflict		-.711 (.000)	-.605 (.003)

Mediation of Relationship Conflict, Task conflict and process conflict on relationship between Value Diversity and Team Performance

Table 4.14 shows hypothesis three which state that relationship conflict, task, and process conflicts mediates the relationship between value diversity and team performance. As can be seen from combination (VII), the Beta coefficient as well as p-values of first 3 steps (direct regression) in this combination remained significant; whereas, the effect of relationship conflict (mediator) on team performance remained significant (beta coefficient = -0.701 & p-value 0.019) and effect of value diversity (predictor) on team performance became insignificant (beta coefficient = 0.039 & p-value 0.188). This shows the mediating effect of relationship conflict on the relationship between value diversity and team performance; hence H3a is supported.

Table 4.14: Summary of Regression Analysis – Mediation of Relationship, Task and Process Conflicts on relationship between Value Diversity and Team Performance

		Direct Regression		Meanwhile Regression
		Relationship Conflict	Team Performance	Team Performance
Comb- VII (H3a)	Value Diversity-	.384 (.010)	.280 (.007)	.039 (.188)
	Relationship Conflict		-.689 (.027)	-.701 (.019)
Comb- VIII (H3b)	Value Diversity-	Task Conflict	Team Performance	Team Performance
	Task Conflict	-.653 (.001)	.280 (.007)	.568 (.008)
Comb- IX (H3c)	Value Diversity-	Process Conflict	Team Performance	Team Performance
	Process Conflict	-.279 (.033)	.280 (.007)	-.128 (.081)
			-.711 (.000)	-.746 (.000)

Regarding H3b, it was hypothesized that task conflict will mediate the value diversity and team performance. As can be observed in combination (VIII), the Beta coefficient as well as p-values of first 3 steps (direct regression) in this combination remained significant; whereas, the effect of both task conflict (mediator) and value diversity (predictor) on team performance remained significant (beta coefficients = 0.748 / 0.568 & p-values = 0.000 / 0.008, respectively). This implies that task conflict partially mediates the relationship between value diversity and team performance; hence, H3b is also supported. H3c proposed the mediation effect of process conflict on the relationship between value diversity and team performance. The Beta coefficient as well as p-values of first 3 steps (direct regression) in combination (IX) remained significant; whereas, the effect of Relationship Conflict (mediator) on team performance remained significant (beta coefficient = -0.746 & p-value 0.000) and effect of value diversity (predictor) on team performance became insignificant (beta coefficient = -0.128 & p-value 0.081). Hence H3c is supported.

Table 4.15 below summarizes the overall results.

Relationship between	Mediation by		
	Relationship Conflict	Task Conflict	Process Conflict
Social Diversity and Team Performance	Nil	Nil	Nil
Knowledge diversity and Team Performance	Partial	Partial	Full
Value Diversity and Team Performance	Full	Partial	Full

Conclusion and Discussion

Results of research suggest that social diversity impacts the team performance negatively. This conforms to the findings of Garrison (2010). At the same time, this finding contradicts the conclusions made by Nemeth (1986) and Jackson (1992) who compared diverse and homogenous groups and found socially diverse teams better in performance. This study also found that the impact of knowledge diversity amongst the team members on team performance is positive. The result conformed to findings of Gunderson and Sutcliffe (2002), John et al. (1999) and Ostergaard et al. (2011). The study also concluded that value diversity has a positive (though fairly significant) effect on team performance, which was contradictory to finding of Klein et al. (2011) who proffered that value diversity stifles the effectiveness of a team. It can be concluded that the impacts of social and value diversities on team performance may vary, as we vary the elements of these dimensions, the environment from where the sample is picked, the way we record the performance / output of the teams.

As far as the mediating effects of various types of conflicts on correlation of team diversity and team performance are concerned, no mediation effect of any conflict was found. It conformed to the results of Dongfeng (2013).

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