Manchester Metropolitan University

e-space

Manchester Metropolitan University's Research Repository

Please cite the Published Version

Tabassi, Amin Akhavan, Bryde, David James, Abdullah, Aldrin and Argyropoulou, Maria (2017) Conflict Management Style of Team Leaders in Multi-Cultural Work Environment in the Construction Industry. Procedia Computer Science, 121. pp. 41-46. ISSN 1877-0509

DOI: https://doi.org/10.1016/j.procs.2017.11.007

Publisher: Elsevier BV

Version: Published Version

Downloaded from: https://e-space.mmu.ac.uk/627688/

Usage rights: Creative Commons: Attribution-Noncommercial-No Derivative Works 4.0

Additional Information: Open access article, published by Elsevier and copyright The Authors.

Enquiries:
If you have questions about this document, contact openresearch@mmu.ac.uk. Please include the URL of the record in e-space. If you believe that your, or a third party's rights have been compromised through this document please see our Take Down policy (available from https://www.mmu.ac.uk/library/using-the-library/policies-and-guidelines)

Available online at www.sciencedirect.com

ScienceDirect

Procedia Computer Science 121 (2017) 41–46

Procedia Computer Science

www.elsevier.com/locate/procedia

CENTERIS - International Conference on ENTERprise Information Systems / ProjMAN - International Conference on Project MANagement / HCist - International Conference on Health and Social Care Information Systems and Technologies, CENTERIS / ProjMAN / HCist 2017, 8-10 November 2017, Barcelona, Spain

Conflict Management Style of Team Leaders in Multi-Cultural Work Environment in the Construction Industry

Amin Akhavan Tabassi[a,c,*], David James Bryde[b], Aldrin Abdullah[a], Maria Argyropoulou[c]

[a]*School of Housing, Building and Planning, Universiti Saians Malaysia, 11800-Penang, Malaysia*
[b] *Liverpool Business School, Liverpool John Moores University, UK*
[c]*The Management School, University of Liverpool, Liverpool, UK*

Abstract

A project delivery challenge arises in temporary (multi) organizations (TMOs) when the team is multi-cultural in character. One particular element that can influence team effectiveness in such environment is the way conflicts are handled. Recent research implies that different styles of conflict management have different impacts on team effectiveness, some being positive and some negative, and that the impact is often mediated by other factors. Nevertheless the impact of conflict handling style on team performance in TMO multi-cultural environments in East Asia has not widely been considered. As a result, this study investigates how conflict management can contribute to effectiveness in such environments, through the mediation of the level of team coordination, by gathering data from 126 team leaders and supervisors and 378 members nested in different multi-cultural projects in the Malaysian construction industry. The findings suggest that managing conflict cooperatively help to build the ideal positive share to team performance in multi-cultural environments in Malaysian construction industry, while a high degree of team coordination is also existing. The findings also advocate that the avoiding conflict management style may incorporate a positive result when it comes to team overall performance and that the effect of adopting avoidance conflict handling is also mediated by the level of team coordination.

© 2017 The Authors. Published by Elsevier B.V.
Peer-review under responsibility of the scientific committee of the CENTERIS - International Conference on ENTERprise Information Systems / ProjMAN - International Conference on Project MANagement / HCist - International Conference on Health and Social Care Information Systems and Technologies.

Keywords: Conflict management; Team performance; Team coordination; Temporary-multi-organizations; Construction Industry; Malaysia

* Corresponding author.
E-mail address: akhavan.ta@gmail.com

1877-0509 © 2017 The Authors. Published by Elsevier B.V.
Peer-review under responsibility of the scientific committee of the CENTERIS - International Conference on ENTERprise Information Systems / ProjMAN - International Conference on Project MANagement / HCist - International Conference on Health and Social Care Information Systems and Technologies.
10.1016/j.procs.2017.11.007

1. Introduction

Studies on conflict management proposed that conflict is a common feature of group activities and inherent to a wide range of interactions of team members [1,2]. Stress and anxiety to reach an agreement [3], power differences [4], complexity of the task [5], culture and leadership models employed by team leaders [6] all affect the manner in which conflict ought to be handled. The literature likewise signifies that the success of coping with conflict has a strong influence on project performance, mainly in temporary business environments such as the construction industry, which is centered on projects [7].

On the other hand, conflict is not only found to be harmful to teamwork activities but also to be incredibly helpful in some team-based work settings [2, 8, 9, 10]. Team members' understanding of how their goals could be influenced by self and peers' actions clearly influences the structure of interactions and the success of conflict management [11]. As mentioned earlier conflict by itself is not always unfavorable. For this reason conflict ought not to be specifically avoided but instead should be thoroughly managed to be able to gain the optimum results [12]. In addition, it has been marked that the way a group of people deals with conflict significantly affects group performance [1, 2, 8, 10]. As a result, the adopted method of conflict management in group environments may influence the way teams are coordinating. However, prior researched in Western contexts propose that in the temporary organization commencing projects the coordination of a team influences the team efficiency along with the overall project performance [13]. Though these relationships have not been widely tested in other cultural contexts, such as East Asia, the objective of our study was to investigate the associations between conflict management strategies, team coordination, and performance of multi-cultural teams that structure temporary organizations to be able to undertake projects. Our knowledge of the mechanisms whereby team leaders exert influence at the team level, by means of conflict management and coordination, is still confined [14]. Consequently, by investigating the conflict management practices, team coordination, and performance of project teams our study has significant theoretical contributions.

2. Conflict-handling Styles

Conflict-handling models have already been determined by means of different techniques that individuals or leaders may apply when interacting with peers or subordinates in contrary social or business relationships [15]. Effectual styles that result in conflict resolution improve work solidity, encourage emotions of self-efficacy between team members, reduce the probability of unfavorable conflicts in long term works, and likewise lead to long term company's economic development [16, 17].

A considerable number of theoretical models of coping with interpersonal conflict have been recommended i.e. [16, 18, 19]. These theorists, however, developed based on the revolutionary work of Blake and Mouton [20], who categorized conflict managing practices into five styles: forcing, withdrawing, smoothing, compromising, and confrontation. The authors even further arranged these five approaches under two wide dimensions, namely: 1) concern for people and 2) concern for task. In 1976, Blake and Mouton's designs for handling conflicts was reevaluated and refined by Thomas (1976, cited in [20]). Thomas also arranged the approaches of dealing with conflict into five styles and he also determined two main dimensions: 1) cooperativeness, within which individual's concerns are higher for peers; and 2) assertiveness, when self-concerns are more significant. Along with these two dimensions, five distinct conflict resolution models were presented, which are named as: cooperative, competitive, accommodating, avoiding and compromising [18]. The aforementioned styles have been depicted in Figure 1 and can be summarized as follows:

- Cooperative (high concern for others and high concern for self. So-called integrating and win-win)
- Competitive (low concern for others and high concern for self. So-called dominating and win-lose)
- Accommodating (high concern for others and low concern for self. So-called obliging and lose-win)
- Avoiding (low concern for others and low concern for self. So-called inaction/ignoring and lose-lose)
- Compromising (mid-range on both concern for others and concern for self. Partially win-partially win)

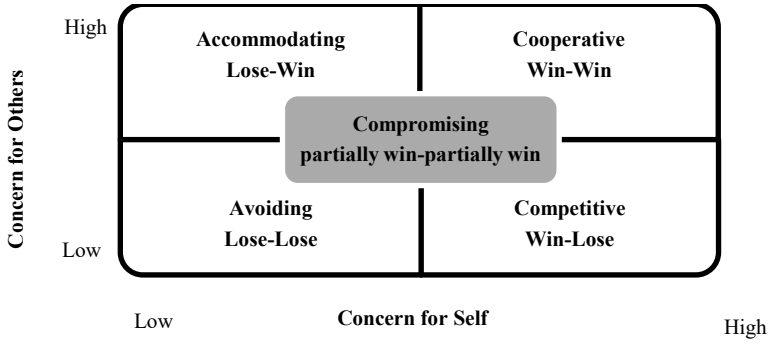

Figure 1- Five conflict-handling styles

3. Conceptual Framework and Hypotheses

The conceptual framework for the research is demonstrated in Figure 2. The research hypotheses centered on three specific relationships: the link between conflict management approaches and team coordination; the link between team coordination and team performance; and the link between conflict management approaches and team performance, mediated by team coordination.

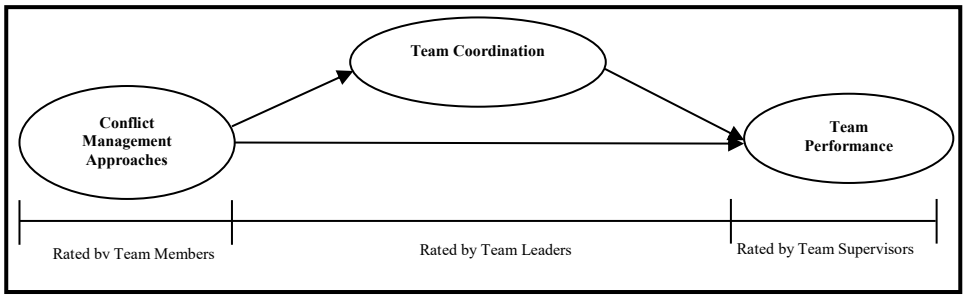

Figure 2- Hypothesised Model

4. Research methodology and data analysis

In terms of data collection, three distinctive survey questionnaires were distributed among the respondents. The measurement of items has been done primarily making use of the Likert Scale of 5 ordinal measures from one (1) to five (5) based on the degree of importance/agreement. The team member set of questions have been set up in two sections and evaluated the respondents' background along with the conflict management style of team leaders. The team leader questionnaire also made up of two sections and inquired for the respondents' background and the characteristics of team coordination. Last but not least, the upper-level administration office questionnaire evaluated the team performance.

An invitation notice was sent to 800 large sized construction firms in Malaysia. After a six-month length of time, 126 teams had arranged to be investigated by the research officers. Seven research officers delivered the three sets of questionnaires to the participants and gathered completed ones for data analysis. So as to minimize probably bias, three members from each team were nominated by random in order to assess the conflict management style of the team leader. Keeping that in mind, the participants included 378 members of 126 construction project teams in Malaysia and their equivalent 126 team leaders, along with 126 supervisors from the upper-level in each organization. The minimum sample size was validated and a reactive Monte Carlo analysis was performed [21]. As a result, the sample size of 126 exceeded the recommended minimum of 54 that regarded as sufficient for model testing [22].

To analyze the data and assess the hierarchical hypothesized model, Smart PLS path modelling (PLS-PM) was applied, with a path-weighting design for inside approximation [23]. Hereafter, nonparametric bootstrapping was applied with 500 replications so as to manage to attain the standard estimate errors [23]. To evaluate the higher order latent variables, the method of repeated indicators was also placed as outlined by [24] and [25].

The degree of explained variance in the hierarchical model was mirrored in its components: cooperative (62.6%), competitive (1.1%), accommodating (-2.5%), avoiding (23.6%), and compromising (4%). Having said that, only the path coefficient from cooperative conflict management style to team coordination was statistically significant at $p < 0.01$. Moreover, the avoiding conflict management style showed a p value less than 0.1, which is partially significant to team coordination. The composite reliability (CR) and average variance extracted (AVE) of all constructs were also evaluated, which are above 0.7 and 0.5, respectively, and exceed the suggested cut-off values [26].

4.1 Assessment of the structural model

In Table 1, the results show a standardized beta value of 0.24 from the avoiding conflict management style to team coordination, 0.63 from cooperative style to team coordination, 0.22 from cooperative style to team performance, and 0.35 from team coordination to team performance.

Table 1- Total Effects

	Beta Value	**t-value**	**P-value**	**Standard Error**
Accommodate -> Performance	-0.0088	0.2583	0.796	0.0339
Accommodate -> Team Coordination	-0.0251	0.2809	0.779	0.0894
Avoid -> Performance	0.302	2.3387	0.019	0.0352
Avoid -> Team Coordination	0.236	3.4346	0.0006	0.0687
Competitive Conflict -> Performance	0.0036	0.1091	0.913	0.0334
Competitive Conflict -> Team Coordination	0.0104	0.1201	0.904	0.0869
Compromise -> Performance	0.0138	0.3772	0.706	0.0367
Compromise -> Team Coordination	0.0396	0.4207	0.674	0.0942
Cooperative Conflict -> Performance	0.107	4.1009	*******	0.053
Cooperative Conflict -> Team Coordination	0.6262	10.8735	*******	0.0573
Team Coordination -> Performance	0.3492	4.4469	*******	0.0785

Thereby, it can be came to the conclusion that team coordination is positively linked to team performance in temporary multi-cultural organization and for the alternative the cooperative conflict management style within the TMOs that undertaking projects is positively related to team coordination. The results also showed that the avoiding conflict management style favorably related to team coordination, being significant at the 0.1 level. So it can be interpreted that avoiding conflict management approach within the TMOs is positively related to effective team coordination. However, the other conflict management styles showed not statistically significant relationships in the model.

4.2 Mediating Effects

The mediating influence of team coordination on the relationship between the conflict management styles and team performance were also assessed. Three conditions for mediation analysis were set up as follows:

i. Two independent variables (avoiding and cooperative conflict management styles) had a major influence on the mediator (team coordination)
ii. The mediator (team coordination) had a significant effect on the dependent variable (team performance)
iii. Two independent variables (avoiding and cooperative styles of handling conflict) had a significant impact on the dependent variable in the absence of the effect of the mediator.

To evaluate the mediating influence, the indirect impact of a×b must be significant. The z statistics test [27] were also need to called, which were significant at $p<0.05$. If the z values surpass 1.96 ($p<0.05$), then it can be resulted to an indirect influence from the conflict management style (in this particular case avoiding and cooperative styles of handling conflict), by means of team coordination, on team performance. The z values are computed below:

$$z = \frac{a \times b}{\sqrt{b^2 \times s_a^2 + a^2 \times s_b^2 + s_a^2 \times s_b^2}} \tag{1}$$

$$z_a = \frac{0.626 \times 0.35}{\sqrt{(0.35^2 \times 0.0573)^2 + (0.626^2 \times 0.0785)^2 + (0.0573^2 \times 0.0785)^2}} = 4.113$$

$$z_b = \frac{0.236 \times 0.35}{\sqrt{(0.35^2 \times 0.0687)^2 + (0.236^2 \times 0.0785)^2 + (0.0687^2 \times 0.0785)^2}} = 2.68$$

According to the results, there was a substantial influence from the cooperative conflict management style on team coordination (0.626, p<0.01), as well as from team coordination on team performance (0.35, p<0.01). The z value is greater than 1.96 (p<0.05), therefore, the result agrees with the mediating role of team coordination, which is indicated on an indirect effect on team performance.

There was also a positive relationship and effect from the avoiding conflict management style on team coordination (0.236, p<0.01) as well as from team coordination on team performance (0.35, p<0.01). The z value also exceeded 1.96 (p<0.05).

To estimate the scale of the indirect effect in the model, the Variance Accounted For (VAF) value was also needed to be determined, which grades the percentage of the indirect effect to the total effect. The VAF value for the first model indicates that nearly 67% of the total effect of the cooperative conflict management style on team performance is defined by an indirect effect by means of team coordination.

$$VAF_a = \frac{a \times b}{a \times b + c} = \frac{0.626 \times 0.35}{0.626 \times 0.35 + 0.107} = 0.671 \quad (2)$$

However, the VAF value for the second model signifies on 21.5% of the total effect of the avoiding conflict management style on team performance by the indirect effect.

$$VAF_b = \frac{a \times b}{a \times b + c} = \frac{0.236 \times 0.35}{0.236 \times 0.35 + 0.302} = 0.215$$

5. Discussion

Leaders' conflict handling styles were presented as hierarchical constructs in that two dimensions that relevant to supportive and staying away from conflict styles showed significant positive effect on team coordination. This finding provides theoretical support for Ayoko [28], Tjosvold [10] and Chen et al. [29], which recognized the above conflict management styles as strategies which in turn lead to improved team performance. Even though it contradicts the results of Chen and Tjosvold [30], in terms of the impact of the avoiding conflict management style to team performance. In that they observed avoiding conflict management style as negatively related to team performance. To put it differently, the cooperative and avoiding conflict handling styles are related to boosted team performance in TMOs in the industry. Even though a number of preceding studies identified a significant unfavorable association between the accommodating conflict management style and team performance [31, 32] our research identified no such statistically considerable connection. On top of that, the other conflict management styles, competitive and compromising, had no significant relationship with either team coordination or team performance. In addition, the study has dived around the exclusive role of the conflict management, team coordination and team performance in a nomological network; a measure that has not to date been exhibited in prior research. The current study also shows that the cooperative and avoiding conflict management styles have substantial impact on team coordination (R^2=0.408), by which has an effect on team performance (R^2=0.205). In this interdependence, 67% and 21.5% of the impact of the cooperative and avoiding conflict management styles by project team leaders, respectively, on team performance is mediated by the team coordination. This finding proposes that the team coordination has a vital mediating role in the relationship between the conflict management style chosen by team leaders and the results of team performance. Moreover, cooperative and avoiding conflict handling concepts have a direct influence on team performance, together with team coordination, and that the two constructs demonstrate 20.5% of the variance in team performance.

6. Limitations and future research directions

The present study has particular limitations that provides guidance for future research. The study was completed around TMOs in the construction industry in Malaysia, therefore, further investigation will be required to check whether the results are Capable of being generalized to other multi-cultural project environments in other East Asia

countries as well as in other industries. Concurrently, potent variables that might support the predictive power of the model should be further dived around.

Acknowledgements

The authors would like to acknowledge Universiti Sains Malaysia for providing the RUI Grant No. 1001/PPBGN/816283 as financial support to conduct the research.

References

1. Jehn, K. and C. Bendersky, Intragroup conflict in organizations: a contingency perspective on the conflict-outcome relationship. Research in Organizational Behavior, 2003. **24**: p. 187–242.
2. Jehn, K. and E. Mannix, The dynamic nature of conflict: a longitudinal study of intragroup conflict and group performance. Academy of Management Journal, 2001. **44**(2): p. 238–51.
3. Baron, R.A., Attributions and organizational conflict: The mediating role of apparent sincerity. Organizational Behavior and Human Decision Processes, 1988. **69**: p. 272-279.
4. Zartman, I. and S. Touval, International mediation: Conflict resolution and power politics. Journal of Social Issues, 1985. **41**: p. 27-45.
5. Lawrence, P.R. and J.W. Lorsch, Organization and environment: Managing Differentiation and Integration 1986, Boston, Mass: Harvard Business School Press.
6. Kozan, M.K., Cultural influences on styles of handling interpersonal conflicts: Comparisons among Jordanian, Turkish, and U. S. managers. Human Relations, 1989. **42**: p. 787-799.
7. Lundin, R.A. and A. Soderholm, A theory of the temporary organization. Scandinavian Journal of Management, 1995. **11**: p. 437-455.
8. De Dreu, C.K.W. and M.J. Gelfand, The Psychology of Conflict and Conflict Management in Organizations 2008, New York: Lawrence Erlbaum Associates.
9. Li, H. and J. Li, Top management team conflict and entrepreneurial strategy making in China. Asia Pacific Journal of Management, 2009. **26**(2): p. 263-283.
10. Tjosvold, D., The conflict-positive organization: it depends upon us. Journal of Organizational Behavior, 2008. **29**: p. 19-28.
11. Deutsch, M., Sixty years of conflict. International Journal of Conflict Management, 1990. **1**(3): p. 237–63.
12. Leung, M.-y., J. Yu, and Q. Liang, Analysis of the Relationships between Value Management Techniques, Conflict Management, and Workshop Satisfaction of Construction Participants. Journal of Management in Engineering, 2014. **30**(3): p. 1-11.
13. Mitropoulos, P.T. and G. Cupido, The role of production and teamwork practices in construction safety: A cognitive model and an empirical case study. Journal of Safety Research, 2009. **40**: p. 265–275.
14. Sun, W., A. Xu, and Y. Shang, Transformational leadership, team climate, and team performance within the NPD team: Evidence from China. Asia Pacific Journal of Management, 2014. **31**(1): p. 127-147.
15. Yang, L.-R., J.-H. Chen, and X.-L. Wang, Assessing the effect of requirement definition and management on performance outcomes: Role of interpersonal conflict, product advantage and project type. International Journal of Project Management, 2015. **33**(1): p. 67-80.
16. Rubin, J.Z., D.G. Pruitt, and S.H. Kim, Social conflict: Escalation, stalemate, and settlement. 1994, New York, NY: McGraw-Hill.
17. Cheung, C.C. and K.B. Chuah, Conflict management styles in Hong Kong industries. International Journal of Project Management, 1999. **17**(6): p. 393-399.
18. Rahim, M.A. and N.R. Magner, Confirmatory Factor Analysis of the Styles of Handling Interpersonal Conflict: First-Order Factor Model and Its Invariance Across Groups. Journal of Applied Psychology, 1995. **80**(1): p. 122-132.
19. Kleinman, G., D. Palmon, and P. Lee, The effects of personal and group level factors on the outcomes of simulated auditor and client teams. Group Decision and Negotiation, 2003. **12**(1): p. 57-84.
20. Blake, R.R. and J.S. Mouton, The managerial grid. 1964, Houston TX: Gulf.
21. Chin, W.W., Issues and opinion on structural equation modelling. MIS Quarterly, 1998. **22**(1): p. vii–xvi.
22. Green, S.B., How many subjects does it take to do a regression analysis? Multivariate Behavioral Research, 1991. **26**(3): p. 499-510.
23. Chin, W.W., How to write up and report PLS analyses, in Handbook of partial least squares: Concepts, methods and application, V.E. Vinzi, et al., Editors. 2010, Springer: New York. p. 645–689.
24. Wold, H., Partial least squares, in Encyclopedia of statistical sciences, S. Kotz and N.L. Johnson, Editors. 1985, Wiley: NewYork.
25. Efron, B. and R.J. Tibshirani, An introduction to the bootstrap (monographs on statistics and applied probability, #57). 1993, New York: Chapman & Hall.
26. Hair, J.F., et al., A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). 2014, Thousand Oaks, California: Sage.
27. Sobel, M., Asymptotic confidence intervals for indirect effects on structural equation models, in Sociological methodology, S. Leinhardt, Editor. 1982, Jossey-Bass: NewYork. p. 290–312.
28. Ayoko, O.B., Workplace conflict and willingness to cooperate The importance of apology and forgiveness. International Journal of Conflict Management, 2016. **27**(2): p. 172-198.
29. Chen, A.S., Y.-h. Hou, and I.-h. Wu, Handling conflict at work – the impact of active and agreeable conflict styles. International Journal of Conflict Management, 2016. **27**(1): p. 50-61.
30. Chen, G. and D. Tjosvold, Conflict Management and Team Effectiveness in China: The Mediating Role of Justice. Asia Pacific Journal of Management, 2002. **19**(4): p. 557-572.
31. Kuhn, T. and M.S. Poole, Do conflict management styles affect group decision making? Evidence from a longitudinal field study. Human Communication Research, 2000. **26**(4): p. 558-590.
32. Liu, J., P. Fu, and S. Liu, Conflicts in top management teams and team/firm outcomes The moderating effects of conflict-handling approaches. International Journal of Conflict Management, 2009. **20**(3): p. 228-250.