Impact of computer-mediated communication on virtual teams' performance: an empirical study

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In a complex project environment, project teams face multi-dimensional communication problems that can ultimately lead to project breakdown. Team Performance varies in Face-to-Face (FTF) environment versus groups working remotely in a computer mediated communication (CMC) environment. Abner review of the Input_Process_Output model suggested by James E. Driskell, Paul H. Radtke and Eduardo Salas in "Virtual Tearns: Effects of Technological Mediation on Team Performance (2003)" has been done to develop the basis of this research. This model theoretically analyzes the effects of technological mediation on team processes, such as, cohesiveness, status and authority relations, counternormative behavior and communication. An empirical study described in this paper has been undertaken to test the "cohesiveness" of diverse project teams in a multi-national organization. This study uses both quantitative and qualitative techniques for data gathering and analysis. These techniques include interviews, questionnaires for data collection and graphical data representation for analyzing the collected data. Computer mediated technology may impact team performance because of difference in cohesiveness among teams and this difference may be moderated by factors, such as, the type of communication environment, the type of task and the temporal context of the team. Based on the reviewed model, sets of hypotheses are devised and tested. This research reports on a study that compared Team cohesiveness among virtual teams using CMC and non-CMC communication mediums. The findings suggest that CMC can help virtual teams increase team cohesiveness among their members. making CMC an effective medium for increasing productivity and team performance.

Key words: Computer – Mediated Communication (CMC), Project environment, Virtual teams, Technological mediation, Team performance