

# Chapter 16

## An Empirical Study of Building Social Relationships within Virtual Teams

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### ABSTRACT

*Although virtual teams have been widely utilized nowadays, social relationships are considered highly problematic within virtual teams. This study addresses social dimensions to provide suggestions for managers to improve the performance and satisfaction of virtual teams. We build a model derived from a comprehensive literature review and conduct an experiment to validate it through Structural Equation Modeling. The results reveal: (1) communication has a direct positive impact on relationship building, but indirect positive effects on performance and satisfaction; (2) relationship building impacts directly with strong and positive impacts on cohesion and trust, but indirectly with strong impacts on performance and satisfaction ; (3) cohesion has a direct, strong and positive impact on performance but a strong indirect impact on satisfaction; (4) trust has a positive direct impact on performance but an indirect positive impact on satisfaction; (5) performance has a strong and positive impact on satisfaction. In addition, this study confirms that relationship building is a vital mediator in the social relationship model. Managerial implications and future research directions are identified.*

### INTRODUCTION

The Internet has changed the way people and organizations work and communicate. Increas-

ingly, teams have to work across a geographically dispersed environment promoting the use of virtual teams. However, the use of virtual teams has not always met with success and typically it has been found that their performance is lower when compared with traditional face-to-face teams. Is-

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sues addressed in virtual team research are broad and cover areas such as task, technology and team composition. However, Driskell and Radtke (2003) suggest that past research on virtual teams has paid too much attention to the development of advanced technological environments instead of to the social and psychological dimensions of team building. With complex and different interactive styles of human behaviors communicating over the Internet, there is a need to explore the social dimensions of virtual teams in greater depth.

From a review of past studies, it can be seen that social relationships are considered highly problematic within virtual teams. (Nandhakumar & Baskerville, 2006; Zolin et al., 2004; Newell et al., 2007; Mesch, 2009). Computer-mediated Communication (CMC) technologies limit the extent of contributions and reinforcement of social relationships between virtual team members. For example, it is difficult to transfer the necessary information and knowledge between workers located in a geographically dispersed environment (Newell et al., 2007), information provided via CMC is felt to be less reliable, inadequate and difficult to interpret (Zolin et al., 2004). This hinders the sharing of knowledge between workers preventing them from completing their part of the tasks and inhibits the development of social relationships creating obstacles against building relationships and trust within the virtual team (Nandhakumar & Baskerville, 2006). In addition, cohesion among virtual team members is generally found to be weak since members find it easier to contribute nothing and let others carry their workload, resulting in feelings of anger, frustration and dissatisfaction with lower productivity overall (Anderson & Shane, 2002). In summary, research has shown that it is hard to develop feelings of intimacy and build social relationships through CMC without regular FTF (Face-to-Face) meetings leading to poorer levels of performance and satisfaction within virtual teams inevitably.

For some time, researchers have been aware of the importance of social relationships in virtual teams and have developed theories to address this issue. Hyperpersonal Communication Theory (Walther, 1996) and Social Information Processing perspective (Walther & Burgoon, 1992) assert that virtual teams, which are deficient in face-to-face meetings, are able to adapt themselves to this environment and achieve high levels of performance if sufficient time is allowed. The SIDE (Social Identity and Deindividuation) model developed by Lea and Spears (1991) provides a more comprehensive model by focusing on Social Identity (SI) theory and a re-conceptualization of de-individuation. This model suggests that the reduction of social cues in a virtual environment does not equate to the reduction of social context. Although there are less social cues, CMC can still support the formation of an impression of partners. It can convey social information, aid in regulating behavior and provide a social context for communication and relationship building. In other words, while communicating through CMC may bring many problems particularly in the area of building social relationships, the problems are not insurmountable and are worthy of further study.

Thus, the intent of this study is to build a model to explore social relationships and their effects on the effectiveness of virtual teams. We conceptualize virtual teams as interdependent groups working on a temporary project across time and boundaries dependent solely on CMC. Effectiveness in this study relates to the perceived performance and satisfaction of virtual team members. The model is formed from a comprehensive literature review and is then validated through a survey of virtual team participants.

## **LITERATURE REVIEW**

A great deal of factors have been explored with respect to their impact on the performance and satisfaction of virtual teams. These factors can be

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