

# Chapter 1

## Gender and Anonymity in Virtual Teams: An Exploratory Study

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### ABSTRACT

*With the advancement of information and communication technology, virtual teams are becoming more popular as geographical constraints in collaboration have become a non-issue. Features of the technology and characteristics of the group influence interaction processes and outcomes. Two elements are the focus of this paper. The first is anonymity, which has been made feasible by technology. The other concerns gender. Gender is an important research target, and its role in groupwork must not be overlooked. Both elements have aroused much interest across multiple research fields. The existing literature shows their potential in influencing team collaboration processes, satisfaction, and performance. In this paper, the authors present a process-based interpretation of virtual team collaboration, incorporating the anonymity of technology and the gender difference of team members. Using a multiple case study approach, the paper identifies a key set of process variables that shape team performance. The study also examines the interdependencies among the processes. Task-related activity that occurred during team discussion was affected by gender anonymity, and this influenced group performance and members' satisfaction toward the collaboration process. Group dynamics, including member awareness, leader emergence, and member's conformity, are salient process variables that affect the virtual team performance as well.*

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## **1 INTRODUCTION**

The distributed work force is becoming more prevalent in many organizations. Increasingly, e-business requires employees to work across office boundaries such as from their homes, outstations, and different countries. Employees often work in temporary groups to fulfill particular organizational tasks. These are known as virtual teams, who due to geographical, organizational or time dispersion, rely heavily on IT such as computer-mediated communications (CMC) to accomplish one or more organizational goals (Powell, Piccoli, & Ives, 2004).

The Internet and other forms of CMC have allowed people to mask their identities. Anonymity, a technology characteristic, has affected how people behave and react. In computer-mediated teams, anonymity has the effect of encouraging participation of all members (Nunamaker et al., 1991). According to the minority influence theory (Nemeth, 1986), the resultant increase of minority participation would lead to more and better ideas generated. Earlier work has shown that anonymous communication is more effective for creative tasks (Tyran et al., 1992). However, whether the effect is consistent for different group compositions remains unknown.

Gender has been considered one of the fundamental personal characteristics that profoundly influence individual perceptions, attitudes, and performance (Christofides, Islam, & Desmarais, 2009; Lind, 1999). Gender differences have been shown to affect collaboration as males and females differ in their collaboration and communication styles. For instance, men tend to be more aggressive and argumentative in communication than women (Herring, 1996). Moreover, in electronic discussions, male participants tend to dominate the conversation and are more agonistic (Guiller & Durndell, 2007; Robertson, Hewitt, & Scardamalia, 2003).

Men and women interact differently with different genders in anonymous and identified

virtual teams (Lind, 1999; Thomson, 2006a). In anonymous virtual teams, men and women may perceive genders differently and may even “fake” their own gender to garner certain results (Postmes, Spears, & Lea, 1998). Thus, in this study, we attempt to examine the joint effects of gender and anonymity in virtual teams, specifically comparing between all-female and all-male teams.

Based on theoretical research including task and relationship orientation and the social identity model of deindividuation (Spears & Lea, 1992), gender and anonymity are conceived to affect outcomes in virtual teams (Lind, 1999). The paper also intends to explore the team dynamics and intervening processes that enable the outcomes of performance and satisfaction to occur. The research question is, how does gender and anonymity affect group processes and subsequent outcomes of performance and satisfaction in virtual teams?

The paper will begin with a review of gender differences with regard to computer-mediated communication. The effect of anonymity in virtual teams and the interplay of gender and anonymity will then be explored followed by a review of group processes. The next section describes the research methodology. The case study method is employed and template coding and causal loop diagramming methods were utilized to analyze the data, both within the case, and across the cases. Based on these analyses, a theoretical framework is presented that maps the interdependencies of gender, anonymity, group processes and outcomes. The last section highlights several managerial and research implications drawn from the research findings and the study's limitations.

## **2 LITERATURE REVIEW**

### **2.1 Gender Effects in CMC**

Gender research has revealed several differences in communication styles between males and females (Barrett & Davidson, 2006). Similarly, communi-

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