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Matthew P. Earnhardt
Embry-Riddle Aeronautical University, earnharm@erau.edu

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Identifying the Key Factors in the Effectiveness and Failure of Virtual Teams

by Matthew P. Earnhardt

Virtual teams, "individuals collaborating in geographically dispersed work teams who may reside in different time zones and countries" (Horwitz, Bravington, & Silvis, 2006, p. 472), are continuing to increase in frequency in today's global economy. These teams have become a vital option for organizations that need to work in multiple locales at once and draw on vast global expertise. In fact, virtual teams and e-collaboration is considered an alternative to previously traditional formats, because of the cost savings and lack of space limitations associated with operating via virtual means (Kock & Nosek, 2005).

As a result of technological advances, companies are compelled to seek out innovative ways to adopt and incorporate virtual teams (Karayaz, 2006). With the advance in virtual teams, researchers have explored several facets of the virtual team environment. It is within this framework that the exploration of virtual teams and the contributing factors to the virtual team environment will be discussed. As companies seek to increase the use of virtual teams, a need exists to explore the definition and context of these teams, and the enabling factors to the success and failure of virtual teams by building on previous research.

Definition and Context of Virtual Teams

As previously mentioned, a virtual team is individuals collaborating in geographically dispersed means. There are numerous definitions of virtual teams prevalent in the research. Lin, Standing and Lui (2008) define virtual teams as, "an interdependent group working on a project across time and space relying on information and communication technologies" (p. 1031). This is similar to Horwitz, Bravington and Silvis' (2006) definition previously mentioned. Some argue, as Bouas and Arrow (1996) do, that virtual teams refer to a team that meets exclusively through electronic

means, while others (Jarvenpaa & Leidner, 1999; Maznevski & Chudoba, 2000) say that face-to-face interaction is acceptable as long as most of the time the teams use communication technology.

Despite numerous definitions of virtual teams, they share several core features including:

- A group of two or more people working interdependently across boundaries, but geographically separated
- The use of information technologies prevail among communication forms
- They share responsibility in team outcomes
- They come together for a finite amount of time (Wells, 2006)

Additionally, as mentioned by Horwitz, Bravington and Silvis (2006), "it is possible to conceive of teams that are formed quickly, when required, and that can be readily disbanded" (p. 473). Therefore, virtual teams are convenient to an organization that needs to quickly form a group to work on a project. Virtual teams can be from the same organization but geographically dispersed; or from multiple organizations and geographically dispersed; and are therefore adaptable to a myriad of situations (Wells, 2006). Therefore, they can span across distance, time and organizational boundaries to accomplish a goal. When referring to the global marketplace, Horwitz, Bravington and Silvis (2006) say that, "a virtual team is an easily adaptable entity into which processes and people with new skills can be deployed as required. This flexibility can prove irresistible though not unproblematic to organizations" (pp. 473-474).

Virtual teams offer several advantages and disadvantages to organizations that require exploration. An advantage to a virtual team is that virtual teams enable organizations to achieve faster marketing times through working 24 hours a day on a project. Teams located around the world have the advantage of spending 24 hours a day on a project, therefore increasing speed of execution and productivity on a project. The 24 hour model and different global teams allows for shared leadership, which according to Lerner (2008), "supports more effective change management" (p. 25). Additionally, organizations can realize significant cost savings by using technology to communicate, as opposed to the cost of a global team to work in an environment face-to-face. The disadvantages to virtual teams, however, are cultural nuances of operating globally; role ambiguity; and the difficulty in the interpretation of decisions via virtual means.

As stated by Horwitz, Bravington and Silvis (2006), "a critical view of this type of team includes social dynamic risks associated with building and sustaining team and organizational commitment and team relationship difficulties" (p. 474). As we understand the definition of context of virtual teams, it is essential to turn to the successful enabling factors of virtual teams.

Enabling Factors in the Success of Virtual Teams

Several studies (Horwitz, Bravington, & Silvis, 2006; Karayaz, 2006; Lerner, 2008; Lin, Standing, and Lui, 2008; Hertel, Kondradt, & Voss, 2006) have explored the enabling factors in the success of virtual teams. Although research has varied in scope and design, some key factors have been identified as success factors of virtual teams. These include clarifying objectives, technology and team forming. Each factor requires further exploration to synthesize the understanding of the enabling factors that contribute to team effectiveness.

Clarifying Objectives

In exploration of virtual team effectiveness, clarifying objectives was the main contributing factor to team success. "Clarifying objectives, roles and responsibilities was the main contributing factor and relates closely to management responsibilities in team forming, alignment and communication" (Horwitz, Bravington, & Silvis, 2006, p. 489). A major part of clarifying objectives is the role of communication among the group. Karayaz (2006) found that communication played a part in the effectiveness and success of a team, therefore contributing to clarifying objectives and maintaining task focus. Communication is therefore essential to reduce obstacles when working as a virtual team. As team members communicate objectives, they are able to ensure that the work accomplished aligns with other members and overall team objectives. As stated by Karazay (2006), "teams must know their purpose" (p. 32). Differing from face-to-face communication, Hertel, Kondradt and Voss (2006) found that traditional face-to-face communication skills were not important in virtual teams. Therefore, communication is essential in clarifying objectives, however, how those goals are communicated may not be as important as in face-to-face settings. As virtual teams seek to clarify goals and objectives, it is important to understand the method of communication that will be most effective for the team (Hertel, Kondradt, & Voss, 2006).

Technology

Technology plays a role in the success of virtual teams as well. Whereas Lin, Standing and Lui (2008) found that technology was important to the success of virtual teams, the type of technology (whether video, audio or written) did not significantly contribute to the success of the team. Therefore, technology provides a means to communicate and enhances the ability of the team to complete the project, although the type of technology did not contribute to team success. This found congruence with Horwitz, Bravington and Silvis' (2006) research that found that respondents did not feel that they achieved more or less by working virtually. In fact, Horwitz, Bravington and Silvis (2006) found that only in European countries did respondents correlate technology with team success, as all others felt that the team could be successful in face-to-face interaction as well. However, technology is essential to virtual team communication and important to contributing to the success of a virtual team (Lerner, 2008).

Team Forming

Team forming plays a significant role in the success of a virtual team, as team members can be formed from virtually anywhere. Therefore, management needs to take significant care in the formation of teams. As stated by Lerner (2008), "leaders of distributed teams should have a heightened sense of awareness of subgroup formations and their faultliness" (p. 45). The formation of teams is critical to ensuring the objectives for the project are met and the chemistry of the team is proper for the given goals. Karayaz (2006) defines three criteria necessary in team formation including productive output, ability to work together and team member satisfaction.

These three criteria assist in the formation of the group and ensure productivity and the achievement of team goals. The correct formation of the team ensures the correct mix as, "when work is performed at geographically dispersed locations, diversity can lead to cultural clashes and misunderstandings" (Horwitz, Bravington, & Silvis, 2006, p. 477).

Enabling Factors in the Failure of Virtual Teams

As several factors contribute to successful teams, several items can serve as a hindrance to the team environment as well. As stated by Horwitz, Bravington and Silvis (2006), "most salient problems are associated with a thin spread of application domain knowledge, fluctuating and

conflicting requirements and communication and coordination breakdowns" (p. 477). These problems often are due to unclear objectives, improper team formation and technology (Horwitz, Bravington, & Silvis, 2006).

The strengths previously mentioned can serve as a hindrance to the team environment and contribute to team failure. As objectives, team formation and technology are critical to team success, the improper coordination of the success factors could lead to failure. For instance, technology is an asset when employed correctly, although it can be a hindrance to teams as well. As stated by Lerner (2008), "virtual teams fail because collaboration technology cannot overcome all the challenges distance creates" (p. 147). In other words, technological flaws such as improper training on technology, missed documents and reduced supervision contribute to team failure. If team members do not clearly understand how the interaction is to be employed, then they are unable to effectively contribute to the team (Lerner, 2008).

Additionally, motivation and cohesion cannot be stressed the same way via virtual means as in face-to-face interaction. Technology can contribute to problems if teams are not empowered to make decisions. "If the members of a virtual organization or a virtual team are not empowered to make decisions, the technology that enables their collaboration will add little value, and the competitive advantage associated with rapid responses to demands in the market place will be lost" (Horwitz, Bravington, & Silvis, 2006, p. 477). Trust issues can also be magnified in virtual teams, as lack of personal face-to-face dialogue makes it difficult for personal relationships to be fostered (Lerner, 2008).

Improper team formation can be detrimental to team success, as the incorrect mix of individuals can hinder the virtual team's production on a given project. Hertel, Kondradt and Voss (2006) identified several critical success factors to team success including self-management skills, interpersonal trust and intercultural skills.

These skills are critical to the success of a virtual team and should be considered by management in the team formation phase. A team comprised of workers with poor self-management skills may not have the motivation to remain within deadlines or complete the given task (Hertel, Kondradt, & Voss, 2006). Hertel, Kondradt and Voss (2006) found that improper team formation based on the aforementioned critical success factors was detrimental to team development and success.

Therefore, in order to avoid failure within the virtual team environment, it is critical for teams to consider team formation an important step in team development.

Conclusion

The virtual team environment is finding increased importance in organizations as faster means of collaboration, reduced costs and adaptability are key to meeting many organizational goals. Although the exact definition of virtual teams varies, several criteria are universally accepted to having a role in virtual teams including: (a) a group of two or more people working interdependently across boundaries, but geographically separated; (b) the use of information technologies prevail among communication forms; (c) people share responsibility in team outcomes; and (d) they come together for a finite amount of time (Wells, 2006).

Virtual teams have several advantages including, speed of execution, reduced cost and adaptability. Disadvantages to the virtual team environment include, cultural nuances of operating globally, role ambiguity and the difficulty in the interpretation of decisions via virtual means.

Several studies (Horwitz, Bravington, & Silvis, 2006; Karayaz, 2006; Lerner, 2008; Lin, Standing, and Lui, 2008; Hertel, Kondradt, & Voss, 2006) have explored the enabling factors to successful and unsuccessful virtual teams. Though studies have varied in scope and design, all have found the following attributes contribute to a successful team including: (a) clarifying objectives; (b) technology; and (c) team forming. Additionally, problems with unsuccessful virtual teams often stem from distance and technological problems including: (a) team discontent; (b) improper training; (c) team empowerment problems; or (d) trust issues.

Although virtual teams may not be ideal for every project, the advantages and factors that contribute to team effectiveness make them a viable option for organizations that seek to reduce costs and increase speed with product development.

About the Author

Matthew Earnhardt is working toward a Ph.D. in Organizational Leadership at Regent University's School of Global Leadership & Entrepreneurship. He is currently a signals analyst for Lockheed Martin Corporation in the Mission Services Division. Additionally, he serves as adjunct faculty and the business simulation coordinator for the Community College of Aurora in Colorado.

Email: mattear@regent.edu

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