

## DISSERTATION INFORMATION

- Title: **Individual effectiveness in virtual team:  
a system approach**
- Major: Business administration – Major code: 62340102
- PhD. candidate: Huynh Thi Minh Chau
- Advisors: Assoc. Prof. PhD. Nguyen Manh Tuan,  
and PhD. Truong Thi Lan Anh
- University: Bach Khoa University - VNU Ho Chi Minh City

### **Abstract**

The general goal of this dissertation is using systems perspective to propose and quantitatively verify a theoretical model that describes how some individual-level factors relating to the behavior of using interaction technology in virtual team influence some criteria used for evaluating the individual effectiveness in virtual team. This model can be used to evaluate and control the individual effectiveness in virtual team through important factors relating to the behavior of using interaction technology in virtual team. Two specific goals are: (1) examine how the behavior of using interaction technology in virtual team affects some criteria used for evaluating the individual effectiveness in virtual team through the behavior of informal learning in virtual team and under moderation effect of the geographic dispersion of virtual team; (2) examine how the interaction technology continuance intention in virtual team, the satisfaction with using interaction technology in virtual team, the habit of using interaction technology in virtual team and the psychological empowerment in virtual team affect the behavior of using interaction technology in virtual team.

The research objects of this dissertation are the manner and the extent to which some individual-level factors relating to the behavior of using interaction technology in virtual

team influence some criteria used for evaluating the individual effectiveness in virtual team. There are 05 theories used for researching: (1) Group dynamics theory; (2) Systems theory; (3) Expectation - confirmation theory; (4) Unified theory of acceptance and use of technology; (5) Theory of informal learning. This dissertation uses post-positivism epistemology as the basis of research approach and use quantitative approach to empirically verify the theory. The research process consists of three stages: (1) Formation of research topic; (2) Preliminary research - including two steps: (i) preliminary qualitative research, (ii) preliminary quantitative research; (3) Main research. The theoretical model consists of 10 factors and 14 research hypotheses. Scales of these factors are inherited from previous studies and adjusted through preliminary research. Research subjects are individuals participating in virtual teams which belong to enterprises. Sample is collected by convenience method and snowball method from virtual teams that belong to enterprises in Vietnam and satisfy selected conditions.

The sample size is 619. Data is processed by SPSS and Amos with Cronbach's Alpha analysis, EFA, CFA, SEM, and MGA. The verified scale is reliable and valid that can be used to measure factors in research model. The verified research model includes 13 relationships that describes how 07 individual-level factors relating to the behavior of using interaction technology in virtual team influence 03 criteria used for evaluating the individual effectiveness in virtual team. Relying on research results, some discussion are made about: (1) criteria used for evaluating the individual effectiveness in virtual team; (2) the effect of the behavior of using interaction technology in virtual team on the individual effectiveness in virtual team through the behavior of informal learning in virtual team and under the moderation effect of the geographic dispersion of virtual team; (3) the effect of results achieving from prior working via interaction technology in virtual team on the behavior of using interaction technology in virtual team; (4) other discussions.

### **Contribution**

Scientifically, this dissertation: (1) contributes to the research field of virtual team effectiveness a theoretical model that has already been quantitatively verified. This model describes how individual-level factors relating to the behavior of using interaction technology in virtual team influence the individual effectiveness in virtual team. As

comparing to previous studies of virtual team effectiveness, this model has 04 new points: (i) Being built by combining two approaches basing on systems perspective including inputs-mediators-outcomes framework approach and socio-technical system approach. Research results confirm the suitability of systems perspective in researching virtual team effectiveness. (ii) Concentrating on factors relating to the behavior of using interaction technology in virtual team that influence the individual effectiveness in virtual team. Research results confirm the importance of focusing on using interaction technology while studying virtual team effectiveness. (iii) Concentrating on individual-level factors relating to virtual team effectiveness. Research results confirm the importance of focusing on individual-level factors while studying virtual team effectiveness. (iv) Exploring one new criterion which can be used for evaluating individual effectiveness in virtual team, that is life satisfaction. Research results confirm the diversity of criteria which can be used for evaluating individual effectiveness in virtual team, and among them, life satisfaction is a significant criterion.

(2) Contributes to the research field of the relationship between job satisfaction and life satisfaction an experimental evidence that supports the bottom-up approach of spillover perspective. Research results confirm that in the context of virtual teams, job satisfaction has positive effect on life satisfaction. (3) Contributes to the research field of information technology continuance an experimental evidence pointing out that the behavior of using interaction technology in virtual team is a continuance behavior. Research results confirm that results achieving from prior working via interaction technology in virtual team influence the behavior of using interaction technology in virtual team.

Practically, this dissertation: (1) Supplies a model that managers can refer to evaluate and control individual effectiveness in virtual team through factors relating to the behavior of using interaction technology in virtual team. Whereby, it reminds that in order to improve individual effectiveness in virtual team, managers should increase the behavior of using interaction technology in virtual team, improve factors affecting on this behavior and increase factors positively moderating the relationship of this behavior and working results. (2) Helps managers better understand the importance of results achieving from prior working via interaction technology in virtual team to current processes in virtual team.

Whereby, it reminds that in order to increase processes in virtual team in the future, managers should improve current results achieving from working via interaction technology in virtual team. (3) Helps managers better understand the importance of technical processes and social processes to individual effectiveness in virtual team. Whereby, it reminds that in order to improve individual effectiveness in virtual teams, managers should simultaneously increase both technical processes and social processes in virtual team. (4) Helps managers better understand the relationship among criteria which can be used for evaluating individual effectiveness in virtual team. Whereby, it reminds that in order to improve the general attitude about life of each virtual team member, managers should simultaneously improve his/her performance and attitudes achieved from virtual teamwork. (5) Helps managers better understand the moderating effect of organization structure (or job design) on working process in virtual team. Whereby, it reminds that in order to improve individual effectiveness in virtual team, managers should pay attention to factors belonging to organization structure (or job design).

Although this dissertation has achieved its research goal, there are some limitations. Therefore, some suggestions for further studies are suggested.

Advisors

PhD. candidate

Assoc.Prof.PhD.Nguyen Manh Tuan   PhD.Truong Thi Lan Anh   Huynh Thi Minh Chau