

Graduate School of Global Information and Telecommunication  
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## Abstract of Doctoral Dissertation

Research on Critical factors of an  
e-Government project

A Case study of the State Administrative  
Management Computerization Project in Vietnam

**電子政府構築における破綻要因の事例研究**  
- ベトナムにおける行政マネジメント情報化プロジ  
ェクトを事例として

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May 2010

## ABSTRACT

### **Research context**

Currently, many governments around the world are continuing to embrace e-Government programs. However, the implementation of e-Government is not always producing the expected results in both the industrialized and developing countries. E-Government implementation requires high investments. Thus, if not succeeded, the cost of failure in e-Government projects can be significant. Failures even come at a higher price for the developing countries since their resources are limited and the wasted capital should be invested in the other profitable projects.

The reality of frequent failure of e-Government projects is a problem that should be taken seriously within development since it causes the wider digital gap between developing countries and developed countries. However, the previous research had an inadequate conceptual clarity of the e-Government failure causes. One problem probably lies in this situation that each research suggested the explanation for one certain case. Thus, the problem of e-Government project failure was still far from resolved. Developing a theoretical framework to identify the critical failure factors is timely necessary and useful.

During last 20 years Vietnam has attempted to implement five e-government projects. However, all of them were a partial or a total failure. In April 2007, the State Administration Computerization project (Project 112), which was considered as the milestone for e-Government program in Vietnam, was halted. The Vietnamese government organizations are entrapped within “failure cycles” which can only improve if they learn from the past. However, so far there has been no academic published endeavor to analyze factors causing failure of the e-Government project in Vietnam.

### **Research objective**

This dissertation, for the first time, applies theories to explain the cause of failure of the e-Government project in Vietnam, recognizing a need to focus on researching causes of failure, and the need to have a framework to understand the failure in order to implement the e-Government project successfully. Therefore, this research, for the first time, develops a new comprehensive analytical framework for identifying critical failure factors of the e-Government project under e-Government citizen centric approach.

### **Adopted model and methods**

The proposed research model is conceptually based on the Failure Model of Sauer (1993), Evaluation Model of DeLone and McLean (2003) and the citizen-centric approach. The proposed model introduces a new component - “environment of e-Government” to reflect the interaction between the e-Government project and the host organization. Two components of initial Sauer’s Model - e-Government applications and end-users- have been dissected into sub-components to capture the critical role of end-users on the outcome of the e-Government projects. The proposed conceptual model is further applied to investigate the failure of the e-Government project in Vietnam.

The constructed case method is selected as the research methodology of this study since it has been considered as the best tool in understanding issues and developing theories of information system management. The qualitative case study method allows the researcher to understand the nature and complexity of the failure event. Moreover, with the rapid pace of change in the information communication technology field, the case-study approach is useful in capturing the knowledge of practitioners and generating the e-Government project management theories from practice. The proposed framework is used as a means of hanging key elements of case study description and then a

field investigation is conducted.

This research intends to explore the critical factors and evaluate the roles of different stakeholders, especially end-users in the failure of the e-Government project. Therefore interview is selected as the main data collection strategy for this study. Interview can assist to have voices of all stakeholders equally and provide insightful explanation of cause-effect relationship. Five groups of stakeholders (i.e. information technology experts, project managers, employees, business and citizens) were interviewed for the current research. The sampling technique used for selecting the cases is purposive sampling, i.e. participants were chosen randomly according to pre-defined criteria (i.e. education, income, place and ICT application level) in order to have a more focused segment of the society from the general public of Vietnam. According to the above list of criteria, selected people are interviewed. Besides, interviews conducted by Vietnamese journalist and published on newspapers are collected for analysis. Methods such as protecting respondent anonymity, analyzing other interviews published on newspapers are also used to reduce common method bias. The secondary data is collected to supplement the information from interviews. These documents play a crucial role in establishing triangulation and maintaining the chain of evidence. The qualitative data analysis techniques such as coding, finding repeated words are used to increase the quality of the research.

## **Findings**

The incompetence of the Project Organization is found as the first diagnosis for the failure of Project 112: the executive board of Project 112 did not apply the use-centric orientation approach when they implemented the project. A simple structure of implementing organization handling a multi-dimension project caused the quality problem in e-Government applications. Then, the low quality of e-Government applications resulted in the low level of intention to use, actual usage and user satisfaction.

As a result, the end-users, together with the media pressured on the State and finally, Prime Minister terminated the project even though it was designed to carry out until 2010. Besides, the unreformed public administration system, weakness in the supervision and evaluation mechanism and unskilled human resources were also found to have the negative influences on the e-Government project in Vietnam. Therefore, strengthening the project organization structure, transforming the traditional bureaucracy, training human resource, and establishing an independent evaluation organization are recommended in order to avoid the failure for the next e-Government initiatives.

In short, e-Government termination failure results from the lack of support of end-users and the negative influence of environmental constraints imposed by the host organization on e-Government

## **Relevance and contribution of the study**

The major findings of this study assist researchers and authorities to:

- establish an analytical framework for e-Government projects;
- understand “why and how” e-Government projects are abandoned;
- find the country specific failure factors;
- provide recommendations for effective implementation of e-Government projects in developing countries.

## **Dissertation structure**

The first chapter focuses on reviewing e-Government concepts, benefits, stakeholders and discussing background of the research area. It draws an overview picture of e-Government in Vietnam and

describes Project 112 for the readers. This discussion leads to the specific research problem and research questions to deal with in this research. Lastly, the original contribution of this study was pointed.

Chapter Two summarizes the three previous theoretical studies. It starts with the definition of failure and following by the use of three exchange relationship model to explain the failure. Next, the difficulties in evaluating projects are pointed and lastly, the role of e-Government citizen-centric approach in the modern ICT is introduced.

Chapter Three outlines how the Sauer's Exchange Relations model can act as a theoretical lens for this study. I also analyze its shortcomings which can be corrected by using measuring concepts from the model of Delone and McLean and the citizen centric approach. Then, a theoretical frame will be formulated.

Chapter Four explains what research methodology is used, how empirical data is collected and analyzed. My research uses a constructed-case study methodology, which is an iterative refinement research process. The sampling technique used for selecting the sample of this research is purposive with the pre-defined criteria of the place, education and income.

Chapter Five starts with demographic characteristics of sample. Then, the analysis of the empirical data collected from interviews is presented in relation to the conceptual framework, moving from the first component: e-Government applications to the second component: End-Users and the last element in the exchange model: Project Organization.

In Chapter Six, findings from previous chapters are discussed in order to identify the critical failure factors of the e-Government project in Vietnam. After that, lessons from the failure experience of Project 112 are abstracted for Vietnam and other countries before starting their new e-Government programs.

In Chapter Seven, the analysis of a second country (i.e. Japan, an e-government success model) is developed in order to get a wider perception of this research's usefulness. The Japanese government has recently undertaken significant efforts in promoting the development of the information society, with e-Government playing the role of the catalyst for ICT spread. The critical factors, which were also found in Vietnam, will be addressed in this chapter to understand how Japanese government implements e-Government initiatives effectively.

Finally, in Chapter Eight the author summarizes to what extent the research questions are solved. The implications of the study's findings for both theory and practice are also highlighted. The chapter ends with the research limitation and suggestions for future research on international benchmarking of the proposed research model and the influence of social-cultural factors on the e-Government project implementation.

### List of academic achievements

Category	Achievements
Refereed Articles in Academic Journals	<p>1○ Nguyen Thi Thanh Hai and Toshio Obi, E-Government Implementation Failure: Insights of Prism Framework -The case of Public Administrative Management Computerization Project in Vietnam-, International Academy of CIO Japan, Vol.4, 2010, pp.5-19</p> <p>2○ 佐藤公俊, Nguyen Thi Thanh Hai, 土肥誠, Doan Tien Duc ベトナムのIT産業 - 政策と問題点 社会理論学会No.10, Nov, 2009</p> <p>3○ Nguyen Thi Thanh Hai, Strengthening ICT Leadership In Developing Countries, The Electronic Journal of Information Systems in Developing Countries (EJISDC), Vol. 34, (4) 2008, pp. 1-13  <a href="http://www.ejisdc.org/ojs2/index.php/ejisdc/issue/view/94">http://www.ejisdc.org/ojs2/index.php/ejisdc/issue/view/94</a></p>
Refereed Academic Book Chapter	<p>4○ Nguyen Thi Thanh Hai and Toshio Obi, “Government Transformation: The First Step to Integrate E-Business into E-Government”, Chapter 1 in “Integrated E-Business Models for Government Solutions: Citizen-Centric Service Oriented Methodologies and Processes” pp.1-16, Editors Susheel Chhabra, Lal Bahadur Shastri and Muneesh Kumar, IGI Publishing, USA, January, 2009, ISBN: 978-1-60566-240-4</p>
Refereed Articles in Academic Conferences	<p>5○ Nguyen Thi Thanh Hai, Cultural Barriers in Preventing E-Government Implementation in Asia: Evidence from Japan and Vietnam, Proceedings of the 4<sup>th</sup> International Conference on e-Government, RMIT University, Melbourne, Australia, 23-24 October, 2008, pp.319-327.</p> <p>6○ Nguyen Thi Thanh Hai, Tuyen Thanh Nguyen and Toshio Obi,</p>

		ICT Development and the Role of e-Government Vietnam at the gate of WTO, Journal of Comparative Studies in E-Government Policy, 2006 Annual Conference of Taiwan Academy for Information Society, 15 October ,2006, pp.53-74
Journals		<p><b>7.</b> Toshio Obi and Nguyen Thi Thanh Hai, E-Government Project Implementation: Insight from Interviews in Vietnam, Journal of Asia-Pacific Studies (Waseda University) No. 14, March 2010, pp.1-19 (forthcoming)</p> <p><b>8.</b> Nguyen Thi Thanh Hai, Foundation for the success of e-government project Vietnam Case Study, International Academy of CIO Japan, Vol.2, 2008, pp. 85-92,</p>
Presentations at International Conferences		<p><b>9.</b> Nguyen Thi Thanh Hai, The Value Chain Model and ICT projects in developing countries, the 6<sup>th</sup> International Conference on ICT and Higher Education: ICT and Knowledge Management, Siam University, Bangkok, Thailand, 3 – 4 December, 2008, pp.66-77</p> <p><b>10.</b> Nguyen Thi Thanh Hai, Cultural Effects on Modernization: Public Administration Computerization in Vietnam, Remaking the Vietnamese State: Implications for Vietnam &amp; Beyond, City University of Hong Kong, Hong Kong, 21 -22 August 2008</p> <p><b>11.</b> Nguyen Thi Thanh Hai, Cultural Effects on Modernization of Public Administration in Vietnam, “6<sup>th</sup> EUROVIET” conference, the University of Hamburg, Hamburg, Germany, 6 -8, June, 2008</p> <p><b>12.</b> Nguyen Thi Thanh Hai and Toshio Obi, How to maximize the GCIO’s Contribution to E-Government Programs in Developing Countries, Proceedings International Conference on Chief Information Officer (ICCIO), e-Indonesia initiatives</p>

	<p>2007, Jakarta, 25– 26 April, 2007</p> <p><b>13.</b> Nguyen Tuyen Thanh and Nguyen Thi Thanh Hai, Grounding e-Government in Vietnam: Bringing more government services to citizens, The 4<sup>th</sup> Vietnam E-Government Symposium, IDG, Hanoi, Vietnam, 13-14, December, 2006</p>
<p>Presentations at Domestic Conferences</p>	<p><b>14.</b> Nguyen Thi Thanh Hai, ICT Development: Vietnam at the Gate of WTO, Proceedings the 3<sup>rd</sup> Vietnamese-Japanese Students' Scientific Exchange Meeting, Kobe University, Kobe, Japan, 4 – 5 November, 2006</p>