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Towards E-government:
Problems of Public Administration in Vietnam

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Towards E-government:
Problems of Public Administration in Vietnam

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DECLARATION

This thesis contains no material that has been accepted for the award of any other degree or diploma in any university or other institution. To the best of my knowledge and belief, the thesis contains no material previously published or written by other persons, except where due reference is made in the text of this thesis.

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TABLE OF CONTENTS

Chapter One

INTRODUCTION

1.1 Introduction 1

1.2 Background of the Study 1

1.2.1 International Context 1

1.2.2 Domestic Context 3

1.3 Research Objectives 5

1.4 Research Questions 6

1.5 Contributions of the Research 8

1.6 Structure of the Thesis 11

Chapter Two

E-GOVERNMENT: A REVIEW OF LITERATURE

2.1 Introduction 14

2.2 Definitions 15

2.3 E-government Types of Interaction 17

2.4 E-government Stage Models 18

2.5 Impacts of E-government 21

2.6 E-government in Relation to Major Elements of the Legal-Rational Bureaucratic Model 23

2.6.1 Effects of the internet on the Bureaucratic Model 23

2.6.2 Contrasts between the Bureaucratic Model and the E-government Model 25

2.7 Fundamentals in E-Government Implementation 27

2.7.1 Approaches to E-government Management 27

2.7.2 Previous Conceptual Frameworks 29

2.7.3 A New Framework of E-government Implementation 31

2.7.4 Measurement of E-government Outcomes 31

2.7.5 State Capacity 33

2.7.6 Infrastructure 39

2.7.7 Domestic Context 42

2.8 Conclusion 43

Chapter Three

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction 45

3.2 Rationale for the Case Study Approach and Qualitative Methods 46

3.2.1 Distinguishing Case Study Approach and Qualitative Methods 46

3.2.2 Why a Case Study Approach 47

3.2.3 Why Qualitative Methods 48

3.2.4 Common Research Methods in Public Administration and E-government 50

3.3 Research Design 50

3.3.1 Principal Methods of Data Collection 50

3.3.2 Instrumentation Procedures for the First Two Research Questions 52

3.3.3 Instrumentation Procedures for the Last Two Research Questions 55

3.4 Quality Assuring the Research Process 72

3.4.1 Validity and Reliability and Research Quality 72

3.4.2 Triangulation 73

3.4.3 Other Indicators of Research Quality 74

3.5 Ethical Process and Considerations 75

3.6 Limitations of the Research Methodology 76

3.7 Conclusions 77

Chapter Four

VIETNAM: SOCIETY AND ECONOMIC DEVELOPMENT

4.1. Introduction 78

4.2. Geography and Natural Resources 79

4.3. Society 80

4.3.1 Population 81

4.3.2 Education 81

4.3.3 Culture 83

4.4. Economy 85

4.4.1 The transition from a Central Planning Economy to a Market-Based Economy 85

4.4.2 Economic Performance 87

4.4.3 Foreign Direct Investment and International Remittance 88

4.4.4 Import - Export Activities 89

4.4.5 Tourism 90

4.5 Process of International Integration 91

4.6. Relations with International Financial Agencies and Donors 92

4.7. Equity – Poverty 94

4.8. Conclusion 95

Chapter Five

CHALLENGES FOR PUBLIC ADMINISTRATION IN VIETNAM AND IMPACT ON E-GOVERNMENT

5.1 Introduction 96

5.2 Party and State Organizing Principles 97

5.3 National Assembly 99

5.3.1 National Assembly Representativeness 102

5.3.2 National Assembly Prerogatives 104

5.3.3 National Assembly Capacity and Independence 106

5.4 Central Government 110

5.4.1 Power Constraints and Issues of Responsibility and Accountability 110

5.4.2 Party Intervention in Government Decision Making 111

5.5 Vietnam Communist Party 115

5.5.1 Stalinist Model 115

5.5.2 Issues of Responsibility, Accountability and Elections 116

5.6 The State President 119

5.6.1 Separation of the Position of State President and Party General Secretary 119

5.6.2 Towards an Empowered Institution of State President 119

5.7 Reforms in Public Administration and Causes of Problems 121

5.7.1 Public Administration Reforms 122

5.7.2 Problems for the Development of the Cadres and Public Servants 124

5.7.3 Root Causes for Slow Public Administration Reform 125

5.8 Conclusions 127

Chapter Six

E-GOVERNMENT IN VIETNAM

6.1 Introduction 128

6.2 Key Drivers of Vietnam E-Government Initiatives 129

6.3 Key E-government Initiatives in Vietnam 134

6.3.1 First major E-government project: Project 112 on Computerization of State Administration 135

6.3.2 After-Project 112 136

6.3.3 E-Services Availability 138

6.4 State Capacity of E-Government 139

6.4.1 Leadership Commitment 139

6.4.2 E-government Funding 140

6.4.3 E-government Strategy 141

6.4.4 Steering Capability 143

6.4.5 Legal Framework of E-government 144

6.5 Infrastructure and Digital Divide 147

6.5.1 Government Perspective 148

6.5.2 Citizen Perspective 149

6.6 Vietnam's E-government in an International Context 151

6.7 Conclusions 153

Chapter Seven

THE CASE OF E-CUSTOMS CLEARANCE

7.1 Introduction 155

7.2 Overview of Customs Management and ICT-driven Initiatives 156

7.2.1 Automated System Customs Data Project 157

7.2.2 E-declaration for the Customs Procedure Project (Khai báo điện tử) 158

7.2.3 E-Customs Clearance Project (Thông Quan Điện Tử) 159

7.3 E-Customs Clearance in HCMC 160

7.3.1 Legal Framework 161

7.3.2 Redesign of Organizational Structure, Procedure and Workflow 162

7.3.3 Coordination in the e-Customs Branch 167
7.4 Performance of the e-Customs Branch 2005-2009 169
7.5 Problems in the e-Customs Clearance System 173
7.5.1 Strategy 173
7.5.2 Inadequate Coordination Mechanism and Fears of a Super e-Customs Branch 175
7.5.3 Infrastructure 176
7.5.4 Domestic Context 179
7.6 Closure of the e-Customs Branch 179
7.7 Conclusions 181

Chapter Eight

E-GOVERNMENT: THE CASE OF HO CHI MINH CITY

8.1 Introduction 183
8.2 Overview of Social Economic Development 184
8.2.1 Social Background 184
8.2.2 Economic Development and Income Distribution 186
8.3 History of E-government Development in HCMC 187
8.3.1 Typical E-government Initiatives in HCMC by 2010 187
8.3.2 Individual Attempts (1996-2000) 188
8.3.3 Building Initial E-Government Initiatives (2001-2004) 189
8.3.4 Fostering E-Government Implementation (2005-2010) 191
8.4 The Online Business Registration System 192
8.4.1 What Was the OBRS? 192
8.4.2 Why Was the OBRS Established and Developed? 193
8.4.3 How Was the OBRS developed? 194
8.4.4 Performance 195
8.4.5 Challenges in the Development of the OBRS in HDPI 197
8.5 Critical Success Factors 203
8.5.1 State Capacity 203
8.5.2 Infrastructure 210
8.5 Conclusions 215

Chapter Nine

E-GOVERNMENT: THE CASE OF DAKLAK PROVINCE

9.1 Introduction 217

9.2 Overview of Socio-Economic Development 218

9.2.1 Social Background 218

9.2.2 Economic Performance and Income Distribution 220

9.3 History of E-government Development 221

9.4 The Online Business Registration System in Daklak Province (DOBRS) 224

9.4.1 The Online Business Registration System as a Component of the Business Portal 224

9.4.2 Why was the DOBRS Established and Developed? 225

9.4.3 Performance of the DOBRS and Challenges 226

9.4.4 Overall Performance of the Business Portal System 229

9.5 Critical Success Factors 230

9.5.1 State Capacity 230

9.5.2 Infrastructure 237

9.6 Conclusions 241

Chapter Ten

DISCUSSION

10.1 Introduction 243

10.2 Discussion of Findings in Relation to Research Question Three 244

10.2.1 Performance 244

10.2.2 State Capacity 247

10.2.3 Infrastructure 266

10.2.4 Domestic Context 271

10.2.5 The important factor of international donor agencies 273

10.2.6 Relationship between Factors 274

10.2.7 Review of analysis 275

10.3 Discussion of Findings in Relation to Research Question Four 276

10.3.1 Overview of Analysis 276

10.3.2 Process and Organization 277

10.3.3 Management 279

10.3.4 Communications 280

10.3.5 Service Delivery 282

10.4 Conclusion 284

Chapter Eleven

CONCLUSIONS

11.1 Introduction 286

11.2 Central Findings for the Research Questions 286

11.2.1 Research Question One: What are the key challenges facing contemporary public administration in Vietnam? 287

11.2.2 Research question Two: Why did Vietnam initiate and develop e-government? 289

11.2.3 Research Question Three: What are the critical factors in e-government implementation in Vietnam? 291

11.2.4 Research Question Four: How are e-government initiatives changing contemporary public administration practice in Vietnam? 296

11.3 Implications of the Thesis 297

11.3.1 Theoretical Implications 297

11.3.2 Practical Implications 300

11.4 Limitations of the Research 306

11.5 Future Research 307

11.6 Conclusion 307

REFERENCES 309

APPENDICES 356

LIST OF TABLES

Tables		Page
Table 2.1	E-government definitions by researchers, international institutions and nations	16
Table 2.2	Stage models of e-government	19
Table 2.3	Good governance goals and how e-government can help	22
Table 2.4	Major dimensions of the bureaucratic model in relation to the e-government model	26
Table 3.1	Characteristics of multiple cases selected	61
Table 3.2	Government agencies for data collection	65
Table 3.3	Strong data versus weak data	73
Table 5.1	Summary of the main features of the 12th National Assembly of Vietnam	103
Table 6.1	Leadership in E-government development in Vietnam	140
Table 6.2	ICT infrastructure in government in 2010	148
Table 6.3	Human capital for E-government in Vietnam in 2010	149
Table 6.4	Vietnam's rankings on global e-government development and e-participation	152
Table 6.5	Vietnam's sub-index rankings of global e-government readiness	153
Table 7.1	Procedures and workflow under the two approaches	165
Table 7.2	Performance of the e-Customs branch in 2005-2009	169
Table 7.3	Productivity among Customs branches in the HCMC Customs Bureau	171
Table 8.1	Typical e-government initiatives in HCMC to 2010	188
Table 8.2	New licenses granted, 2000-2009	196
Table 8.3	Funding for ICT activities in 2005-2010	205
Table 8.4	ICT infrastructure in HCMC compared with other cities and provinces in 2010	211
Table 8.5	ICT usage by HCMC public servants in 2010	212

Table 9.1	Funding for Daklak Province e-government in 2009-2010	233
Table 9.2	ICT infrastructure in Daklak Province and the national average in 2010	238
Table 9.3	Email and computer usage of public servants in Daklak Province	241
Table 10.1	Comparative performance	246
Table 10.2	Comparative analysis of factors affecting state capacity	248
Table 10.3	Comparative analysis of ICT infrastructure	267
Table 10.4	Comparative analysis of human infrastructure	270
Table 10.5	Comparative analysis of factors in domestic context	272
Table 10.6	Changes Produced by e-government initiatives	278
Table 10.7	Information provision in Websites/portals of provinces and cities	283

LIST OF FIGURES

Figures		Page
Figure 2.1	Conceptual framework	32
Figure 3.1	Steps in planning, analysis and presentation of case studies	56
Figure 3.2	Procedure of data analysis	69
Figure 4.1	Map of Vietnam	80
Figure 5.1	Relationships of key institutions of the Party and State apparatus	98
Figure 6.1	Development of internet Users for period 2000-2010	150
Figure 7.1	Organizational structure of Customs management	163
Figure 8.1	Location of Ho Chi Minh City	185
Figure 9.1	Location of Daklak Province	219
Figure 10.1	National e-government management structure	260
Figure 10.2	Changes in process and organization brought by e-initiatives	277
Figure 10.3	Changes in management	280
Figure 10.4	Changes in communications	281
Figure 10.5	Changes in service delivery	282

LIST OF ABBREVIATIONS

ADB	Asian Development Bank
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of South East Asian Nations
ASYCUD	Project Automated System Customs Data
DDIC	Daklak Department of Information and Communications
DDPI	Daklak Department of Planning and Investment
DIAP	Department of ICT Application Promotion (of the Ministry of Information and Communications)
DIC	Department of Information and Communications (Provincial level)
DOBRS	Daklak Online Business Registration System
DPL	Daklak Province
FDI	Foreign Direct Investment
G2B	Government to Business
G2C	Government to Customers
GBC	General Bureau of Customs
GDP	Gross Domestic Product
GSO	General Statistics Office of Vietnam
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit (German international donor agency)
HCB	HCMC Customs Bureau
HCMC	Ho Chi Minh City
HDIC	HCMC Department of Information and Communications
HDPI	HCMC Department of Planning and Investment
ICT	Information Communications Technology
IMF	International Monetary Fund
IT	Information Technology
MIC	Ministry of Information and Communications of Vietnam

NA	National Assembly
OBRS	Online Business Registration System
ODA	Official Development Assistance
ODBA	Online Dialogue between Businesses and Authorities
OECD	Organization for Economic Co-operation and Development
PAR	Public Administration Reform
PM	Prime Minister
UN	United Nations
UNDP	United Nations Development Programme
WB	World Bank
WTO	World Trade Organization

ABSTRACT

This study of e-government in Vietnam goes to the heart of the modernization process in a developing country and transitional economy. Governments around the world have rushed towards e-government, but the majority of e-initiatives have failed in both developing and developed countries. The thesis explores the particular challenges facing contemporary public administration in a single-party state as it tries to implement effective e-government projects. It examines the reasons why Vietnam initiated ambitious e-government projects, critical factors in the e-government implementation process and the changes that e-government initiatives have brought or might bring to public administration in Vietnam.

The study proposes a holistic model of e-government implementation. The model is developed from earlier theoretical and empirical studies on e-government implementation. While e-government has been widely recognized as an important force that has great potential to transform government bureaucracy, increase public accountability, enhance government transparency and reduce corruption, the implementation of e-government projects has proved problematic. Internationally, government leaders have had to rethink how they use information and communications technology (ICT) because the complex nature of e-government implementation has made initial targets unachievable. While the model of e-government implementation developed in the thesis applies in the first instance only to Vietnam, it may help analysis of e-government implementation in other developing countries.

Vietnam began its e-government initiatives during a period of general public administration reform. However its first initiatives failed dramatically. There was a huge waste of state resources and opportunities. Further, despite reforms in public administration, citizens and the business community in Vietnam have continued to be troubled by corruption, cumbersome procedures and ineffectiveness in the state apparatus. In this context, the study of key factors in e-government implementation is critically important.

The study uses a case approach and qualitative methods. Three case studies are presented. The first focuses on a national initiative to improve Customs administration in Ho Chi Minh City, one of the busiest ports for business in Vietnam. However, since it is local governments that interact directly with citizens, two province-level locations, Ho Chi Minh City and Daklak Province, were chosen to conduct two further case studies. Two-stage interviews, archival

studies and the author's interactions with key leaders in both central and local governments supplied a significant amount of the evidence on which the analysis is based.

The research findings are that Vietnam initiated its e-government initiatives mainly because of its ambition of the reformists to reform public administration following the transition to a market-based economy and pressure from processes of international economic integration. A group of four factors proved to be critical in e-government implementation: state capacity, ICT infrastructure and human capital, the specific context of the local governments studied, and international donors and lending agencies. Overall, relationships between party and state in a one-party state and how these affected the exercise of government power constrained capacity to implement e-government. Finally, the thesis argues that changes brought by e-government to current public administration are limited to specific impacts on communications and service delivery in particular government agencies. Redesign of public sector structures, business processes and management principles remains rare.

The thesis makes an important contribution to the sparse international literature on e-government implementation and public administration, especially in developing countries and in transitional economies. It is hoped that the implications from the study are of value to the government of Vietnam, international development agencies and other developing countries.

CHAPTER ONE
INTRODUCTION

1.1 Introduction

Developing and developed countries alike have embraced the ideas of e-government. Vietnam is no exception. There are, however, some distinguishing features of Vietnam which suggest that the need for e-government is greater, but so too are the challenges. E-government generally refers to the use of Information Communications Technology (ICT), especially the internet, to deliver better government information and services, and to facilitate the participation of citizens in government management. It has been argued that e-government can generate several benefits, including: increased public accountability (Ahn & Bretschneider, 2011; Kudo, 2008; Wong & Welch, 2004), enhanced government transparency (Ahn & Bretschneider, 2011; Pina, Torres, & Acerete, 2007; UN, 2008), reduction of corruption (Shim & Eom, 2008; Yong Hyo & Byung-Dae, 2004) and red tape (UN, 2008; Welch & Pandey, 2007), and productivity gain (Andersen et al., 2010; Moon & Norris, 2005; World Bank, 2008).

Governments around the world have increasingly implemented e-government since the early 1990s (Ahn & Bretschneider, 2011; OECD, 2009; UN, 2004), but e-government remains an emerging research area. As an emerging and transitional economy, Vietnam has boosted e-government initiatives since the early 2000s; however, little is known about the genesis and development of e-government implementation in this socialist and single-party state in the South East Asia region.

The objective of this chapter is to contextualize the research in this thesis. The chapter describes the international and national background of the research, presents the research objectives and provides a brief explanation leading to the research questions. It also specifies research justifications, contributions and the structure of the thesis.

1.2 Background of the Study

1.2.1 International Context

E-government has been widely recognized as an important force that has a great impact on transforming government bureaucracy (Ahn & Bretschneider, 2011; Fountain, 2001; Welch

& Pandey, 2007). It can also improve business processes at different tiers of government within public organizations and across organizational boundaries. Its beneficiaries, particularly citizens, businesses and public servants, are able to receive high-quality services (Ho, 2002; OECD, 2003, 2009; UN, 2004, 2008). The potential benefits brought by e-government are, in fact, goals of good public governance (Bhatnagar, 2004). Researchers consider it the e-government paradigm (Ho, 2002). E-government is thought to be able to transform the bureaucratic features in several dimensions such as red tape, transparency, business process, organizing principles, leadership style, management principles, and mode of service delivery (Ahn & Bretschneider, 2011; Fountain, 2001; Ho, 2002; Welch & Pandey, 2007).

Government leaders are, however, rethinking their e-government services because of the complex nature of e-government implementation. There are several problems facing e-government development, such as poor strategy formulation, conflicting expectations, underestimation of hurdles, insufficient specification of expected benefits and how they will be achieved, poor project management, and focus on project management rather than on the preceding important questions (Coursey & Norris, 2008; Gershon, 2008; Heeks, 2003, 2006; OECD, 2009). These hurdles result in low take-up and/or poor performance of e-government services (OECD, 2009; West, 2004). The discouraging results of e-government projects were identified in an earlier study (Heeks, 2003) which showed 85% of e-government projects in transitional and developing countries had failed. In developed countries, e-government fell short of its transforming potential (Sharon, 2008; West, 2004), and there remain gaps between promises and real delivery, lack of satisfaction, low take-up rates, and inefficient usage of resources (Gershon, 2008; OECD, 2009).

Research into factors critical to e-government implementation is therefore important, because this could unleash its great potential and minimize the risks of poor performance. Initial efforts have been made to provide guidelines and conceptual models for the process of e-government implementation by international organizations such as the United Nations, the World Bank and the OECD, and scholars (Chen & Hsieh, 2009; Chen, Chen, Huang, & Ching, 2006; Ghapanchi, Albadvi, & Zarei, 2008). None of these, however, have provided a satisfactory model of e-government implementation that employs a holistic approach which

individual countries, especially developing countries, could tailor and apply to their own implementation.

1.2.2 Domestic Context

With the reform in 1986, known as *Đổi Mới* (renovation), Vietnam started to develop its market economy. The transformation from a command economy to a market-based economy necessitated a restructure of public administration. The complexity of managing a new system required changes in processes and in the organization of government agencies which had previously applied the central-planning system.

During the process of reform, the government increasingly recognized the essential role of information technology (IT); it therefore formulated strategies and promoted IT applications in the public sector. For example, typical legal and policy documents which promoted IT applications in government during the 1990s were the IT Development Plan in 1993 (Vietnam Government, 1993), the National Master Plan on IT to 2000 (Prime Minister of Vietnam, 1995), and the development of a large computer network (the WAN - Wide Area Network) among central government offices, ministries, ministry-level agencies, and all offices of People's Committees at provincial level (Prime Minister of Vietnam, 1997).

Since 2000, e-government has been a part of the national agenda for public administration reform of Vietnam. Many important decisions by the Party and the government have been taken to facilitate the building of a modern government based on IT. The most noticeable is the project on computerization of state administration in the period 2001-2005, known as Project 112. This project is often regarded as the first and most comprehensive e-government project in terms scale and investment funds (Obi & Nguyen, 2010). Project 112 was in fact one of the action programmes of an overarching plan on public administration reform in 2001-2010, (Asian Development Bank (ADB), 2005; Nguyen Linh, 2007). Details are provided in Chapter Six.

However, like many developing countries, e-government initiatives in Vietnam have dramatically failed, entailing huge waste of state resources and opportunities. For example, early ICT-application projects in 1990s produced limited results, while Project 112 was cancelled by the Prime Minister in 2007 (Duc Phat, 2008; Prime Minister of Vietnam, 2008b;

VietnamNet, 2008). Arguing for the cessation of Project 112, the Prime Minister, cited by Minh Anh (2007), said:

> Having worked in government office for years, I did not see Project 112 providing any benefits to the management of the government and the prime minister.

The main reason revealed was that this project did not achieve any major planned targets, despite a large commitment of funds. Its failure meant that a considerable amount of taxpayers' money was wasted, and that opportunities for administrative reform were lost. Although explanations have been provided (Bui Van, 2007; Nguyen, 2007a; Obi & Nguyen, 2010; Quoc Thanh & Khiet Hung, 2007; VietnamNet, 2007b), the reasoning has not been based on a systematic analysis, and has mostly come from opinion-based views of practitioners.

The limited results of early e-government initiatives are, nonetheless, not a surprise when considered in the larger context of public administration reform in Vietnam. In spite of ambitious master programmes for 2001-2010 with several action plans (ADB, 2005; Painter, 2003b; Prime Minister of Vietnam, 2001c), the planned targets are yet to be realized (National Assembly Standing Committee, 2010). There remain several unsolved problems in public administration. In 2007, the former Prime Minister Vo Van Kiet stated, when addressing challenges faced by the domestic business community:

> We have no chance to win in the global competition when our business community in their own playground is troubled by corruption and keeps paying the price of cumbersome procedures and ineffectiveness of the State apparatus. The country needs to work out a right mechanism that could mobilize all resources and could curb the discrepancies leading to corruption; it also needs to build a judicial system that could restore the people's trust (Vo, 2007).

E-government initiatives no doubt faced steep hurdles in a government administration with such problems. The literature on e-government implementation, on the one hand, shows that putting in place a threshold of ICT for e-government is important for e-services (Chen, et al., 2006; Gasco, 2005; Ghapanchi, et al., 2008; UN, 2003). On the other hand, it is far more about politics, humans, institutions and cultural norms than about mere ICT issues in e-government (Ahn & Bretschneider, 2011; Fountain, 2001, 2007; Heeks, 2006; West, 2004).

For these reasons, problems are likely to be more serious for the case of Vietnam as there remain a number of unsolved problems of government administration.

Together, the international and domestic contexts suggest a necessity to shed more light on factors critical to the process of e-government implementation. In particular, a holistic conceptual model is needed that is based on theoretical grounds and empirical evidence.

1.3 Research Objectives

The background to the study indicates a need for an examination of critical factors in e-government implementation in Vietnam, a developing country with a transitional economy. Developing a conceptual model is, therefore, an important means to this end.

In order to realize this objective, it is necessary to understand the nature of the government bureaucracy that e-government initiatives are based on and are to improve. The literature on e-government and government bureaucracy shows that the relationship of e-government and bureaucracy is heavily context-dependent (Fountain, 2001; Homburg, 2008; Jain, 2004; Klamo & Huang, 2006; Welch & Pandey, 2007). Further, recent studies reveal a number of problems facing the model of the public administration system in Vietnam (Fforde, 2009; Harvard Vietnam Program, 2008; Porter, 2008; UNDP Vietnam, 2009; Vu, 2007, 2009). An important objective, therefore, is the exploration of challenges for the public administration model in Vietnam.

In addition, evidence from developing countries is still lacking for the arguments that the e-government paradigm could generate significant changes to various dimensions of the government bureaucratic model (Fountain, 2001; Ho, 2002; Welch & Pandey, 2007). For example, changes in government administration can include: process and organization structure, principles of management and functional actors in government bureaucracy, internal and external communications, and mode and speed of service delivery. It is, therefore, worth inquiring into how e-government initiatives change the practice of public administration in such a context of a developing country and transitional economy as Vietnam.

In summary, this is an exploratory study which has three main objectives:

1. to explore challenges facing the contemporary public administration in Vietnam and identify drivers of the e-government initiatives in the country;
2. to examine the critical factors of e-government implementation in Vietnam, based on a new analytical framework developed from the literature of e-government implementation; and
3. to examine the extent that e-government initiatives are changing the public administration in Vietnam.

1.4 Research Questions

To realize these three objectives, four research questions have been developed, as outlined below.

RESEARCH QUESTION ONE:

What are the key challenges facing the contemporary public administration in Vietnam?

Countries differ greatly in the principles of public governance, and Vietnam has distinctive features in its system. Most bureaucratic models of developing countries which were inherited from the colonial and the Cold War periods differ from those of developed countries (Blondel & Inoguchi, 2006; Chen, et al., 2006; Fritzen, 2007; Gonzalez & Mendoza, 2003; Haque, 2004, 2007; Weatherbee, 2004). Similarly, in many transitional countries, factors such as economic and social development and historical administrative models are even more distinctive. A case in point is Vietnam: its political system is almost unique with a double structure of the Party and the State in which the former is superior to the latter (Gainsborough, 2003b). This configuration has distinctive impacts on administrative reforms in general and on internet and e-government development in particular (Painter, 2003b; Surborg, 2008). Furthermore, as noted earlier, the literature of e-government implementation highlights the critical role of government institutions and government stakeholders (Ahn & Bretschneider, 2011; Fountain, 2001, 2007; Heeks, 2006; West, 2004). Thus the study of e-government development in a country like Vietnam would yield little of value if it proceeded without sufficient investigation of the practice of public administration.

RESEARCH QUESTION TWO:

Why did Vietnam initiate and develop e-government?

The two parts of Vietnam were unified in 1975. After that, the country underwent more than a decade of isolation from the international community. Not until *Đổi Mới* in 1986 did Vietnam start its process of integration into the wider world. Emerging factors which could have effects on e-government policies were foreign investors, international financial agencies and donors (ADB, 2011; Anwar & Nguyen, 2011; GSO, 2011b; State Bank of Vietnam Website, 2011a, 2011b, 2011c). Commitments to regional and international organizations that Vietnam joined also could have played an important role in the reform process (APEC, 2005; ASEAN, 2000; WTO, 1996; WTO Website, 2011b). Another important factor is the complexity of politics in Vietnam, which is characterised by a one-party (Communist) state and an ambitious plan of public administration reform (Prime Minister of Vietnam, 2001c). In particular, there is a common belief that a reformist group within the Party shapes the trajectory of the progress of socio-economic development, including administrative reform (Painter, 2003b; Vuving, 2010). These factors could have an impact on public administrative reforms and e-government initiatives. Given that context, the second research question above is posed.

RESEARCH QUESTION THREE:

What are critical factors in e-government implementation in Vietnam?

There are a number of factors thought to be important in e-government implementation; however, existing studies have yet to provide a systematic analysis of these factors. Major factors discussed in the e-government literature include: leadership (Ahn & Bretschneider, 2011; Imran & Gregor, 2007; OECD, 2003; Samaratunge, Alam, & Teicher, 2008; UN, 2004; World Bank, 2002; Yong, 2007), funding for e-government (Bhatnagar, 2004; Chen & Hsieh, 2009; Chen, et al., 2006; Gasco, 2005; Heeks, 2006; Im & Seo, 2005; UN, 2003), steering capability (Im & Seo, 2005; Karim & Khalid, 2003; Siddiquee, 2008), strategy (Heeks, 2006); the legal environment (Davis, 2005; Gasco, 2005; OECD, 2003; Satya, 2003; World Bank, 2002; Yong, 2007); infrastructure (Chen, et al., 2006; Gasco, 2005; UN, 2003), human capital and the expectations of stakeholders in government agencies (Dunleavy, Margetts, Bastow, & Tinkler, 2008; Heeks, 2006; Kim, 2007; Nguyen & Schauder, 2007; Srivastava & Teo, 2007;

Teicher, Alam, Van Gramberg, & Keddie, 2008; Trimi & Sheng, 2008; UN, 2005b; Weill & Ross, 2004; World Bank, 2002), and the domestic context, including economic and cultural factors (Chen, et al., 2006; Kim, 2007; Nguyen & Schauder, 2007; Siau & Long, 2006; 2004, p. 16). Consequently, the third research question is to investigate the critical factors in e-government implementation in Vietnam.

RESEARCH QUESTION FOUR:

How are e-government initiatives changing contemporary public administration practice in Vietnam?

Important elements of government bureaucracies which are affected by the internet include coordination, functional actors and process flow (Fountain, 2001). These effects can result in better delivery of government services to citizens, in facilitated interactions with business and industry, and in enhanced citizen empowerment (World Bank, 2008). In addition, leadership style, management principles and principles of service delivery are also different in the e-government paradigm (Ho, 2002). However, previous studies (Ahn & Bretschneider, 2011; Andersen, et al., 2010; Norris & Moon, 2005) have mixed findings about the benefits brought about by e-government, and there remains a lack of evidence about the specific changes in government bureaucracies and public services. It is worth inquiring into how e-government changes government bureaucracy in the case of Vietnam, and this is asked in the last research question.

1.5 Contributions of the Research

The research undertaken in this thesis makes five major contributions.

Adding to research in public administration in the South East Asia region

Despite the fact that South East Asia is a dynamic region, less is known about models of public administration in this area (Gonzalez & Mendoza, 2003; Haque, 2004; Weatherbee, 2004). All countries in the region except Thailand were colonized by the West, but the existing literature only provides empirical illustrations and/or simple descriptions of specific salient administrative systems or periodic administrative changes (Haque, 2004, 2007). In reality, administrative systems of these countries have been much changed during the post-colonial period and recently adopted reforms and new models of public management

(Samaratunge, et al., 2008). However, there is little debate on the conceptual and theoretical underpinnings of such systems and reforms (Haque, 2004). Since the first focus of this research is about Vietnam's public administration and its bureaucracy, it contributes to the critical academic discourse on public administration in the region.

Identifying the core issues of public administration and the associated challenges in Vietnam

Much has been written about the economic transformation from a centrally planned system to a market-based economy and the global integration process in Vietnam, but less is known about public governance in Vietnam. Recently there have been concerns about the quality of economic growth, which is arguably due largely to the problems stemming from public administration (Harvard Vietnam Program, 2008; Le, 2010a; Le, 2010b; Nguyen, 2009b; Pham, 2010). Furthermore, issues of government ineffectiveness and challenges for the transition from a poor country to a low-middle-income country in coming years are raised (Fforde, 2009; Harvard Vietnam Program, 2008; Huynh, 2006; Le, 2010b; Phuong Loan, 2010b; Porter, 2008; Vu, 2007, 2009). In public administration reform, although significant progress has been made, the process is viewed as slow, compared to the needs of *Đổi Mới* (UNDP Vietnam, 2009). An examination of public governance in this context is therefore important and timely.

Enhancing the knowledge of e-government with empirical evidence from the context of a developing country

As outlined above, e-government can result in several positive effects; however, e-government development per se is a complex socio-technical process (Heeks, 2006). The complexity of e-government implementation is due also to the actions of political power holders in government organizations (Weill & Ross, 2004). Research into it has so far been insufficient to provide a comprehensive model which combines all important and relevant factors from social and technical aspects. Further, countries differing greatly in political, social and economic background could experience different effects in developing e-government (Chen, et al., 2006). This research examines the case of Vietnam, a developing country with the distinctive characteristics of a single-party state and a transitional economy. The research's findings will add to e-government research, by strengthening

existing knowledge of e-government implementation with empirical evidence from the particular context of an emerging economy and a developing country.

Assisting policy makers and international financial institutions and donors on public administrative reform in Vietnam

In the reform process, international institutions and donors have been playing important roles in providing technical and financial assistance to reform projects over the last ten years (Song Linh, 2011). Comprehensive programmes on administrative reforms and e-government are on-going. In the context that there remain unachieved targets for the 2001-2010 overarching plan on public administration reforms (National Assembly Standing Committee, 2010), the government will launch a new 2011-2020 plan in late 2011 (Nam Anh, 2011). Regarding the focus of e-government, Vietnam issued a new plan to be a leading country in ICT with ambitious e-government targets (Prime Minister of Vietnam, 2010a) in coming years, as will be detailed in Chapter Six. This research has great potential to assist policy makers and international donors in their policy making and professional advice.

Contributing rich and relevant sources of evidence that could only with difficulty be accessed by international researchers

In terms of methodology, the case study and qualitative methods employed in this study supply multiple sources of evidence, providing a good opportunity for data triangulation which enhances the reliability and validity of the research. Researchers have acknowledged the difficulty of gathering data for research in Vietnam, particularly in the area of public governance (Dang & Beresford, 1999; Thayer, 1998). However, in this research, different methods of data collection are used, which include archival studies, interviews and interactions in relevant conference sessions (details provided in Chapter Three). A robust framework is developed to guide the inquiry into the last two research questions. A wide range of data sources is used. Sources include interviews (including during initial field trips and follow-up interviews) with managers of provincial government agencies, IT experts, staff, enterprises, donors' representatives and journalists. Archival sources include judicial documents, media reports, professional and academic journals, and other published and unpublished materials. The study analysed all important relevant legal and policy documents from the Party and government, ICT reports from domestic and international institutions, relevant interviews undertaken by the domestic press with leaders of the state and the

Party, and archival documents and unpublished materials within organizations included in the case studies. These sources of evidence are scattered and published in Vietnamese newspapers and magazines which possibly limits their accessibility to the majority of international researchers.

A great deal of valuable data came from an alternative source of data collection, the special conference sessions. The participants in these sessions were high-ranking officials, comprising the Deputy Prime Minister who is the Head of National Steering Committee on ICT (NSCICT), the Head of National E-government Steering Committee (NESC), and a number of leaders of provinces and cities in charge of e-government activities. Discussions and observations with this special group were possible because the data collection trip was undertaken at the time when a national symposium on e-government took place. The researcher was one of the presenters at the symposium and thus was entitled to participate in presentations and discussions. This was a unique opportunity to obtain valuable data for the research.

1.6 Structure of the Thesis

Chapter One provides an overview of the research. Chapter Two provides a literature review of e-government and develops a conceptual framework for e-government implementation. Since e-government remains an emerging research discipline, the chapter provides background knowledge on the field, including definitions, types of e-government interactions, stages of e-government, and impacts of e-government in public administration. The chapter also presents the effects of the internet on the bureaucratic model, with particular attention to important elements of the government bureaucratic model. Finally, a new conceptual model is built which overcomes the previous model's shortcomings. This model is used to analyse the case of Vietnam.

Chapter Three details the research design and methodology. Realizing the research objectives requires a rigorous research design. This chapter first provides rationales for the selection of the case approach and qualitative methods and shows that they are the most suitable methods for the nature of the research undertaken in this study. Due to the nature of the inquiry, different methods and techniques were employed and a seven-step framework was adapted to guide the whole process of obtaining answers for the last two

research questions. Issues of research quality and research ethics are also presented, including the validity and reliability of data and ethical procedures.

Chapter Four describes background information of the society and economic development in Vietnam. In particular, the chapter presents an overview of factors which are thought to have impacts on the process of e-government implementation. It also provides explanations for the causes and drivers of economic reforms away from a centrally planned economy towards a market-based economy.

Chapter Five explores the essentials of the model of public administration in Vietnam and the process of public administration reform. It first provides organizing principles and relationships of the most important institutions in the political system in Vietnam. The chapter identifies the problems in the policy decision making process and in exercising power in the Party and the State. Finally, it provides an overall analysis of the process of public administration reforms with updated results on the master plan on public administrative reforms for 2001-2010.

Chapter Six sets out the overall process of e-government development in Vietnam. It explores the causes and drivers for e-government development in Vietnam. Development of e-government initiatives is also presented, along with a general analysis of factors critical to e-government implementation predefined in Chapter Three. Finally, the chapter provides a snapshot of e-government in an international context.

Chapters Three to Six provide essential context for the analysis in case studies. These case studies are presented in three Chapters: Seven, Eight and Nine. The main focus of these chapters is to examine those factors important to e-government implementation, including state capacity, infrastructure, and the domestic context. The analysis is facilitated by the general contextual knowledge provided in previous chapters on social-economic development (Chapter Four), on public administration (Chapter Five), and on e-government (Chapter Six).

Chapter Ten analyses the evidence presented in the case studies. It employs a cross-case analysis and uses the major findings of case studies in the discussion. Evidence is tabulated according to factors and cases. The conceptual model developed in Chapter Two is particularly applied to the combined evidence from all five cases. The qualitative data

analysis software, the *NVivo* package (8th version), is intensely used in this process. Accordingly, factors in the three groups of state capacity, infrastructure and the domestic context are examined to see whether they play a role in e-government implementation.

Chapter Eleven summarizes the main findings of all four research questions and concludes the thesis. It highlights the implications of the findings in both theoretical and practical aspects. The chapter also states its limitations, and provides suggestions for future research.

CHAPTER TWO

E-GOVERNMENT: A REVIEW OF LITERATURE

2.1 Introduction

The objectives of this chapter are twofold: first, to review the e-government literature and set out basic knowledge about e-government; second, to propose a conceptual framework for e-government implementation that helps explain recent experience in Vietnam.

Although e-government has been in place for more than a decade (Ahn & Bretschneider, 2011; UN, 2002; Welch & Pandey, 2007) and there has been an increase in research into e-government (Andersen, et al., 2010; Moynihan, 2008), several issues remain neglected. As analysed later in the chapter, e-government can result in several positive effects, particularly those effects that are goals of good public governance. In addition, e-government has profound effects on the government bureaucracy and its actors, which in turn shift public services from a traditional bureaucracy to a new paradigm. There can be a number of changes brought by the new paradigm, including in process and organization structure, management principles and styles, internal and external communications and service delivery.

However, as demonstrated in the chapter, there is no consensus on e-government definitions, and e-government stage models are under attack for weak theoretical grounding and lack of empirical research. Governments around the world embraced e-government but mostly underestimated the complex nature of e-government implementation in which factors such as organizational politics and self-interest of stakeholders can determine the trajectory of e-government implementation, rather than Information Communication Technology alone. As a consequence, the majority of e-initiatives failed in developing countries. There have been efforts to provide a conceptual model that depicts the factors of the e-government implementation process. However, there have been no conceptual frameworks developed that could capture all relevant factors. In this chapter, an innovative analytical framework is proposed which encompasses diverse factors. The three groups of factors identified in this analytical framework include state capacity, infrastructure and the domestic context.

The chapter is organized as follows. It begins with definitions of e-government by different researchers, organizations and countries. This is followed by sections about types of e-government interactions and e-government stages. The impacts of e-government on government bureaucracy are then discussed. The next section outlines the fundamentals in e-government implementation and a new conceptual framework of e-government implementation is developed. The final section summarises the key points discussed in the chapter.

2.2 Definitions

Despite the attention to e-government, there is, however, no consensus on its definition. Researchers, organizations and nations use different definitions. The definitions in Table 2.1, below, are selected from key e-government researchers, research by international institutions, and nations that have performed well in e-government.

Examining the definitions in Table 2.1, there are three noticeable features of these definitions of e-government: tools, purposes, and potential impacts. Some institutions and authors (A1, B2, C1) name specific tools such as the internet or Web-based applications, while others (A3, C2, C3) generally mention existing technology, new technology or IT infrastructure. The commonalities of the purposes are in providing improved government information and services, either by a better delivery (A1, B3) or enhanced access for citizens (C1, C2). The impacts of e-government are presented in different terms, such as 'transform relations with citizens' (B2), promotion of democracy (C2, C3) and transparency (C3).

Despite the different definitions, the common features in the literature on e-government are: first, the use of ICT, especially the internet; second, to deliver government information and services; and third, to facilitate the participation of citizens in government activities. As will be discussed below, there are several potential effects that e-government can offer. However, whether or not these potential effects can be realized depends largely on how well these defining features are practised. In this study, e-government refers to the use of ICT, especially the Internet, to deliver government information and services and facilitate citizens' participation in government decision making.

Table 2.1 E-government definitions by researchers, international institutions and nations

A. RESEARCHERS		
A.1	Darrell M. West	E-government refers to the delivery of government information and services online through the internet or other digital means (2004, p. 16).
A.2	Richard Heeks	E-government refers to the use of information and communication technologies to improve the activities of public sector organizations (2003, p. 2).
A.3	Jane E. Fountain	Electronic government, or e-government, refers to the current potential to build government services and practices using existing technologies and applications (2003, p. 5).
B. INTERNATIONAL INSTITUTIONS		
B.1	OECD	E-government is the use of ICT technology, and particularly the Internet, as a tool to achieve better government (2003).
B.2	World Bank	E-Government refers to the use by government agencies of information technologies (such as Wide Area Networks, the Internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government (2008).
B.3	United Nations	E-government is defined as utilizing the internet and the world-wide-web for delivering government information and services to citizens (UN, 2002).
C. NATIONS		
C.1	United States	The American E-Government Act that was signed into law in 2002 states e-government as 'using Internet-based information technology to enhance citizen access to government information and services, and for other purposes' (Cited in Halachmi, 2004, p. 8).
C.2	New Zealand	E-government is a way for governments to use the new technologies to provide people with more convenient access to government information and services, to improve the quality of the services and to provide greater opportunities to participate in our democratic institutions and processes (New Zealand Government, 2008).
C.3	Republic of Korea	E-government is defined as a form of government to positively respond to citizens' needs for democracy with efficiency and transparency of public administration related to e-transmission and networks of public services based on the IT infrastructure (Kim, 2006).

Countries that implement e-government normally provide their own definitions which broadly signify the purpose of their e-government implementation (Bovaird, 2005; Halachmi, 2004; Kim, 2006; New Zealand Government, 2008). In the case of Vietnam, there has been no official e-government definition. However, it has been defined as the applications of information technology in state agencies with the aims of (1) raising the quality of services and efficiency of transactions between governmental units and other organizations and citizens, and (2) facilitating transparency and public administration reform (Vietnam Government, 2007a). This definition generally covers the common features in international definitions.

2.3 E-government Types of Interaction

This section describes the common classification of interactions in e-government. The three main types of interactions within e-government, which are classified by the United Nations (2004) and authors such as Coursey and Norris (2008) and Siddiquee (2008) are: Government-to-Customer (G2C), Government-to-Business (G2B), Government-to-Government (G2G). However, within the G2G interaction, the relationship of government and its employees (G2E) can be separated. This separation provides the rationale for other authors categorizing four popular relationships in e-government (Klamo & Huang, 2006; Lau, Aboulhoson, Lin, & Atkin, 2008; Siau & Long, 2006). There are certain limits (for example, are citizens simply customers of government?) in yielding insights from these terminologies. However, there have been no alternatives in the literature of e-government types of interactions.

Adapting from previous studies (Coursey & Norris, 2008; Klamo & Huang, 2006; Lau, et al., 2008; Siddiquee, 2008; UN, 2004), the four transactions are presented as follows:

- Government-to-customer (G2C): the objective is to replace face-to-face transactions by developing online transactions which help facilitate citizens' better access to public services and help improve the relationships of citizens and government.
- Government-to-business (G2B): the aim is to promote the relationship between business and government. For instance, government provides better services to business through online transactions in many areas such as customs and tax, or government employs e-procurement to reduce purchasing cost.

- Government-to-government (G2G): the goal is to share data and to operate all transactions through the tool of ICT in different layers of the government at different places.
- Government-to-employee (G2E): the goal is to emphasize redesigning the process of operations of government employees to make government administration more effective and efficient.

As will be analysed in the next section, the level of complexity of these interactions depends on how advanced the reach of e-government is in a particular society. Before examining the complex nature of e-government, it is necessary to explore the literature on e-government stages of development.

2.4 E-government Stage Models

Stage models of e-government are normally based on the level of sophistication of interactions between government and its stakeholders in e-initiatives. There are several stage models proposed by organizations and researchers (Coursey & Norris, 2008; OECD, 2003; UN, 2008; West, 2005; World Bank, 2002; Yong, 2005), but they differ in the number of stages due to unclear boundaries between stages.

In this research six models of this type proposed in the literature on e-government have been identified; of these models, three have the same number of stages. Table 2.2 summarizes these models. The World Bank (2002) provides a 3-stage model, Layne and Lee (2001), West (2005) and the OECD (2003) define three different 4-stage models, the United Nations (2008) defines a 5-stage model, and Westcott nominates a 6-stage model.

The main purpose of these models is to help show the level of development of e-government. Though differing in the number of stages, all these models exhibit two main points. Firstly, the initial stages are the simplest ones. In these early stages, the principal objectives are to publish information at a low level of integration and of technological and organizational complexity. Secondly, the later stages require fully integrated systems where the back-office is designed for processing all needs. A possible implication from these models is that it may provide developing countries with a 'road map' to build their e-government.

Table 2.2 Stage models of e-government

Organizations/ authors	1st Stage	2nd stage	3rd stage	4th stage	5th stage	6th stage
Westcott (2001), quoted in Coursey & Norris (2008)	E-mail and internal network	Enable inter-organizational and public access to information	Two-way communication	Exchange of value	Digital democracy	Joined-up government
Layne & Lee (2001), quoted in Yong (2005)	Catalogue	Transaction	Vertical integration	Horizontal integration		
World Bank (2002)	Publishing	Interacting	Transacting			
OECD (2003)	Information	Interactive information	Transactions	Data sharing		
West (2005)	Bill-board	Partial service-delivery	Portal stage with fully executable and integrated service delivery	Interactive democracy with public outreach and accountability-enhancing features		
United Nations (2008)	Emerging	Enhanced	Interactive	Transactional	Connected	

Sources: Coursey and Norris (2008), OECD (2003), United Nation (2008), West (2005), World Bank (2002), Yong (2005)

However, stage models have been under attack for their weak theoretical grounding and lack of empirical research. Coursey and Norris (2008, p. 523) contend that 'these models are partly descriptive, partly predictive and partly normative'. In addition, stage models do not specify when and how to get to another stage. For example, Scholl (2005) argues that while it helps to distinguish the degree of development of e-government, the first two stages of Layne and Lee's model do not show a temporal continuum where one stage follows the other. Furthermore, countries do not necessarily experience all stages in order; in other words, there could be a possibility that a later e-government player could bypass a certain stage if other conditions are met (Coursey & Norris, 2008). However, a positive outcome from these stage models is that they may be used to evaluate how complex an initiative is and what challenges are faced by governments at each stage (UN, 2008).

In the literature on e-government, the most comprehensive studies on a global scale are provided by the United Nations, Brown University and Waseda University. Of these, UN research is regular and updated (six reports during 2002-2010), when compared to studies by the other two. Further, the model suggested in a study by the UN (2010) makes clearer the boundary between stages. It is, therefore, employed in this study. The five stages (UN, 2008, p. 16) are:

Stage I: EMERGING

> A government's online presence includes a web page and/or an official website; links to ministries or departments of education, health, social welfare, labour and finance may/may not exist. Much of the information is static and there is little interaction with citizens.

Stage II: ENHANCED

> Governments provide more information on public policy and governance. They have created links to archived information that is easily accessible to citizens, as, for instance, documents, forms, reports, laws and regulations, and newsletters.

Stage III: INTERACTIVE

> Governments deliver online services such as downloadable forms for tax payments and applications for license renewals. In addition, the beginnings of an interactive portal or website with services to enhance the convenience of citizens are evident.

Stage IV: TRANSACTIONAL

Governments begin to transform themselves by introducing two-way interactions between 'citizen and government'. It includes options for paying taxes, applying for ID cards, birth certificates, passports and license renewals, as well as other similar G2C interactions, and allows the citizen to access these services online 24/7. All transactions are conducted online.

Stage V: CONNECTED

Governments transform themselves into a connected entity that responds to the needs of citizens by developing an integrated back office infrastructure. This is the most sophisticated level of online e-government initiatives and is characterized by:

1. Horizontal connections (between government agencies)
2. Vertical connections (between central and local government agencies)
3. Infrastructure connections (interoperability issues)
4. Connections between governments and citizens
5. Connections between stakeholders (government, the private sector, academic institutions, NGOs and civil society)

On the whole, e-government activities in the first two stages are growing fast while those of higher stages are not universally available at both national and local levels (Tolbert & Mossberger, 2006). In local government, even in developed countries like the US, empirical evidence shows that the predominant e-government activities are informational, not transactional (Norris & Moon, 2005), and least progress is observed in enhancing democracy (Sharon, 2008). In developing countries, a large proportion of ministries do not have the financial resources to provide advanced e-government services at stages 3 to 5 (UN, 2008).

2.5 Impacts of E-government

E-government can result in several positive effects. Previous studies (Ahn & Bretschneider, 2011; Andersen, et al., 2010; Moon & Norris, 2005; Pina, et al., 2007; Sharon, 2008; Shim & Eom, 2008; UN, 2008; World Bank, 2002; Welch & Pandey, 2007; Yong Hyo & Byung-Dae, 2004) provide two groups of possible effects. Direct impacts are cost effectiveness in public operations and better contacts with citizens. Indirect impacts are greater transparency and accountability in public decisions, reduction in corruption, and the strengthening of democracy. In addition, other authors such as West (2004) point to improvement of service

delivery and responsiveness to citizens, and thus enhancement of belief in government effectiveness. In relating goals of governance, Bhatnagar (2004) presents six dimensions of potential changes brought about by e-government, particularly in the setting of developing countries (see Table 2.3).

Table 2.3 Good governance goals and how e-government can help

Good governance goals	How e-government can help
Increase transparency	Dissemination of government rules and procedures; citizen charters; government performance data to wider audience Disclosure of public assets, government budget; procurement information Making decisions of civil servants available to the public
Cut administrative corruption	Putting procedures online so that transactions can be easily monitored Reducing the gatekeeper role of civil servants through automated procedures that limit discretionary powers Eliminating the need for intermediaries
Improve service delivery	Less time in completing transactions Reduction of costs associated with travel for citizens to interact with government Improving government's ability to deliver service to a larger segment of the population
Improve civil service performance	Increased ability of managers to monitor task completion rates of civil servants Improved efficiency of civil servants by automating tedious work Increased speed and efficiency of inter- and intra-agency workflow and data exchange Eliminating redundancy of staff
Empowerment	Providing communities with limited or no access to government with a new channel to receive government services and information Reducing the brokerage power of intermediaries
Improving government finances	Reducing cost of transactions for government processes Increasing revenue by improving audit functions to better track defaulters and plug leakages by reducing corruption Providing better control of expenditure

Source: Bhatnagar (2004, pp. 37-38)

E-government is, however, not a panacea to all problems of governance, nor are its objectives easy to achieve. In reality, many e-government projects show too much enthusiasm for e-government development but underestimate the challenges, and apply fast-track packages due to the promise of leapfrogging over some long and painful stages in the development process (Imran & Gregor, 2007; UN, 2003). Naive perspectives on e-government still exist, such as 'if we build it, they will come' (Coursey & Norris, 2008, p. 529), meaning that, simply by putting in place e-government services, the results will be positive. However, in recent years, many have been critical of the reality of over-promising and under-delivery of e-initiatives around the world (Gershon, 2008; OECD, 2009).

2.6 E-government in Relation to Major Elements of the Legal-Rational Bureaucratic Model

Although there have been recent studies in e-government that address the relationship between e-government and government bureaucracy (Ahn & Bretschneider, 2011; Fountain, 2007; Homburg, 2008; Madon, 2006; Shim & Eom, 2008; Welch & Pandey, 2007; Welp, Urgell, & Aibar, 2007), two earlier studies by Fountain (2001) and Ho (2002) stand out for their insight into the effects of e-government on the government bureaucratic model. The analysis in the next two subsections is based on these two studies, with particular emphasis on two main themes: (1) the effect of the internet on the bureaucratic model; and (2) contrasts between the bureaucratic model and the e-government model.

2.6.1 Effects of the internet on the Bureaucratic Model

Using a functional approach, Fountain (2001) presents the major effects that the internet can have on government bureaucratic model. She focuses on three important elements of the bureaucratic model: coordination, function and process flow in bureaucracy. First, coordination, the element which is created as a requirement of the division of labour in a bureaucracy, has formal and informal mechanisms, ranging from mutual adjustment and supervision to standardization. In regard to mutual adjustment, ICTs can increase the adjustment between individuals and groups because of improvement in communications and shared data. In relation to standardization, ICT relies heavily on standardization to facilitate coordination because it reduces the variance of inputs, outputs, activities and behaviours. For instance, computer programmes can limit choices and options of users.

Second, the internet has clear impacts on functional actors in bureaucracies. Fountain (2001) classified three functional actors in most complex bureaucratic structures:

1. operator;
2. manager; and,
3. executive.

In the hierarchy, operators are those at the base of traditional pyramidal organizations and directly implement rules and regulations; executives are responsible for setting direction, strategy and relations with the external authority environment, and managers connect the executives with operators and other people. The internet has different impacts on these actors. While executives benefit from instant information thanks to the information system, operators may lose control over their work because it is monitored and automatically reported. In the meantime, executives also lose their power since information is widely shared. Managers, especially middle managers who connect operators with other managers, may disappear because their functions are now almost automatically performed. Briefly, from a functional perspective, Fountain explains that information technology has changed bureaucracy from the shape of vertical compression towards a horizontal one. These observations by Fountain could, however, be applied to those advanced e-government initiatives that have established ICT systems and well-trained staff. Certainly, they do not take place in the initial stages of e-government where the main purposes are to provide information.

Third, the important element of bureaucracy is process flow. Fountain (2001) states that command and control in bureaucracy flows vertically. Decisions from the top of the organization are translated into plans and action objectives by managers and analysts and then distributed to the operating levels. During this process, the control system collects outputs and feeds upwards to the executive levels for planning. The process is described as the downward flow of command and the upward flow of information. Before the internet was widespread, the development of shared databases led to the redesign of business processes which in turn eased decision making. This shift, having been supported by information systems, has radically changed the flow of work, and thus the structure and roles in governments. Fountain's argument in part facilitated others (Vu & Jones, 2006; Yong, 2007) in suggesting that process redesign precedes ICT applications.

2.6.2 Contrasts between the Bureaucratic Model and the E-government Model

Looking into bureaucracy and e-government, Ho (2002) analyses the main focus of the two models, which he names the bureaucratic paradigm and the e-government paradigm. Unlike Fountain, Ho does not look at functional actors; instead, he differentiates the roles of the 'public administrator' in the bureaucratic paradigm and the 'public manager' in the government paradigm. Ho (2002) argues that public administrators, who follow the organizing principles of Weber's model of bureaucracy, focus on functional rationality, hierarchy, departmentalization, internal productive efficiency, and rule-based management. Conversely**,** public managers pay attention to user satisfaction and control, diversification in service delivery and network management. In addition, while the former apply a top-down management and hierarchical communication in bureaucracies, the latter promote teamwork, direct communication and facilitate coordination, but not in order to command. Furthermore, the e-government paradigm emphasizes learning behaviours and innovation which help governments continue to provide better services and fast feedback.

The e-government model can bring changes to four main dimensions, as presented in Table 2.4 below: process and organization structure, management principles and styles, internal and external communications, and service delivery. However, these potential changes are conditional on the nature of e-government initiatives. Those e-initiatives with a low level of sophistication (e.g., such as putting in place a website or some downloadable online forms) normally do not require a restructure in the organization and its business processes. On the other hand, advanced e-initiatives require reform in organizational structure, business processes and the functions of institutional actors. These issues will be analysed in Chapter Seven (the case of e-Customs clearance).

Table 2.4 Major dimensions of the bureaucratic model in relation to the e-government model

Dimensions	Bureaucratic model	E-government model
Process and organization structure *(vertical versus horizontal)*	Functional differentiation, precise division of labour, vertical hierarchy of control	Information sharing based on ICT, Organization structured based on information systems, horizontal structure
Management *(principles and functional actors relationships)*	Management by rules and mandate, standard operating procedures, performance programs	Flexible management, interdepartmental team work with central coordination; rules embedded in applications and systems; an invisible, virtual structure
	Leadership style: command and control Employees are neutral, impersonal, attached to a particular office.	Leadership style: facilitation and coordination, innovative entrepreneurship Employees are cross-functional, empowered; jobs limited not only by expertise but also by the extent and sophistication of computer mediation.
Communications *(internal and external)*	Top-down, hierarchical Centralized, formal, limited channels Long cycles of feedback and adjustment	Multidirectional network with central coordination, direct communication Formal and informal, direct and fast feedback, multiple channels Constant monitoring and updating of feedback; more rapid or real-time adjust possible
Service delivery *(Principle, mode, and speed)*	Documentary mode with written files, interpersonal interaction Slow processing time due to batch processing, delays, lags, multiple handovers between staff Standardization, impartiality, equity	Electronic exchange, no face-to-face interaction Rapid, real-time processing User customization, personalization

Source: Adapted from Fountain (2001) and Ho (2002)

2.7 Fundamentals in E-Government Implementation

As noted earlier, e-government objectives are not easy to achieve. In developing countries, the majority of e-government projects have failed (Heeks, 2006) while governments in developed nations are well advised to rethink their e-government efficiency (Gershon, 2008; OECD, 2009). Researchers increasingly address the problems of falling short in the potential of e-government initiatives to transform public service delivery (West, 2004), and one of principal reasons cited is that

> today, the leading e-governance issues for state and local officials are more complex and more deeply embedded in social and organizational context than ever before (Dawes, 2008, p. 91).

By drawing on the literature of e-government implementation this section analyses the approach to e-government management and critical factors of e-government implementation. As presented in the following subsections, it is less about the physical ICT infrastructure in e-government implementation; beyond this there are a number of other factors, including leadership, strategy, the legal framework, strategy formulation, cultural issues, and citizens' intellectual ability and financial affordability.

2.7.1 Approaches to E-government Management

There are three approaches to e-government management, centralized, decentralized and hybrid, according to Heeks (2006). While decisions in the centralized approach are made at the senior or central level, the decentralized are made by levels lower than the most senior. The hybrid approach is one which compromises between the two extremes, and decisions in this approach are made by both central and lower levels. Heeks (2006) observes that rational logic in selecting a suitable approach may play a minor role; instead, it is organizational politics, with roots in the self-interest of stakeholders that determines the chosen approach. According to Heeks, e-government stakeholders most directly affected by the decision, or who have a stake in the decision, are:

1. politicians;
2. senior public managers;
3. IT professionals; and
4. mainstream staff.

These key players normally have different interests and IT understandings. Heeks (2006) specifies common characteristics of these stakeholders. Politicians and senior public managers, who have limited understanding of IT but need visible results, may be ill-informed, conservative and reluctant to be involved. IT professionals who have expertise in IT but lack of knowledge of public management may have IT-centric perspectives. The mainstream staff may be those who are lacking necessary computer skills, feel threatened by IT, and thus resist the new application, while those who are computer-literate may pursue their own interests and hinder cooperation. These stakeholders, for these reasons, would influence the approach selected. There is hence much political manoeuvring behind the decision.

From whatever approach, e-government implementation is complex and challenging because this process encounters a number of issues within it: technical issues, organizational issues and other social and economic issues. Later studies by Fountain (2003, 2007) assert that it is not technical, but social, organizational and institutional factors of both formal rules (such as laws, regulations, budget processes, and other governmental procedures) and informal practices (such as networks, norms and trust) that are the principal impediments to e-government development. Similarly, with regard to the authorizing environment, Weil and Ross (2004) highlight the greater complexity of political power holders in government organizations compared with those in profit-seeking organizations. They argue, for example, that public managers must get approval within the constraints of legislation and manage their jobs in accordance with the interests of political power holders while the private sector managers can analyse their industry simpler, using a framework such as Porter's or the like (Weill & Ross, 2004). In addition, there is often no market place and little competition for public services. As a result, the approach chosen for service provision in a government organization is more likely to be aligned with the interests of political power holders (Weill & Ross, 2004). In the literature on e-government, there have been attempts to develop models that include important factors for e-government development (Chen & Hsieh, 2009; Chen, et al., 2006; Ghapanchi, et al., 2008). The next subsection discusses three models of e-government implementation in the literature of e-government.

2.7.2 Previous Conceptual Frameworks

Three models of e-government implementation have emerged in the literature. First, Chen, Huang and Ching (2006) propose a conceptual framework for e-government implementation. The authors attempt to demonstrate that e-government strategies in developed countries should not be used in the context of developing countries because of several differences. They provide a picture of contrasting factors in the two contexts. Then, by gathering relevant literature, a framework is proposed which encompasses three groups of factors: infrastructure, culture and society. Overall, the framework raises relevant issues in e-government that those governments attempting e-government implementation should take into account. However, the discussion of the implementation process is disregarded, and there is, too, a lack of several critical factors in that process. Further, several issues raised in the framework are not discussed in a case study nor are they able to be measured. Consequently, the framework largely remains a normative one, and the authors explicitly recommend adopting an empirical approach to further enhance its validity.

Ghapanchi, Albadvi and Zarei (2008) provide another framework for e-government implementation employing the Delphi method. As they put it (2008, p. 77), Delphi is 'a method of structuring a group communication process so that the process is effective in allowing a group of individuals as a whole to deal with a complex problem'. The authors suggest a five-component framework:

1. hardware
2. software
3. live-ware
4. policy
5. organization.

These components are derived from the 24 participants who have published on e-government in an international journal. On average, each of these components has six factors that are thought to have an impact on the process of e-government implementation. Although several relevant factors are proposed, such as technology availability, human factors and the legal environment, this framework is technology-centric and gives little consideration to roles of leadership and managing. In addition, the informants from this study were principally academics who were not key stakeholders (Heeks, 2006); it is

therefore difficult to gain insight into the process of e-government implementation. More importantly, the model was not analysed against any single case to see how it worked.

The third model available in the literature of e-government implementation is developed by Chen and Hsieh (2009), adapted from the conceptual components from Fountain's (2001) technology enactment framework. This model posits an approach to understanding e-government performance through three groups of factors:

1. institutions and policies
2. organizational forces
3. technology

A novel feature of the framework is the measurement that relies on two defining features: seamless government and online citizen participation. Existing e-government studies have done little to separate ICT capacity from both sides of e-government: the citizen and the government. Chen and Hsieh (2009), on the other hand, take into account both sides when they measure the performance of e-government. This feature facilitates the evaluation of performance for both single and overall e-government initiatives of a country. Nonetheless, since it is using institutional and behavioural lenses (Fountain, 2001, 2003), this framework fails to consider other important factors such as availability of funds and cultural factors; it also underplays the leading role of organizational forces. Further, this framework measures advanced initiatives, such as integrated services, which could be more feasible in developed countries than in third-world counterparts.

Analysis of the above frameworks reveals the diverse and complex nature of e-government implementation; however, there has not been a conceptual framework that could appropriately capture all relevant factors and that could mediate technology-centric and institution-centric perspectives. To fill this gap, this study proposes a framework that can encompass diverse factors, and that is viewed from different perspectives. It is built up from the previous theoretical and empirical studies, including factors identified in the three cited frameworks. In terms of methodology, based on lessons from previous studies, this study incorporates diverse types of informants and performance measurement supported by cases studies.

2.7.3 A New Framework of E-government Implementation

Based on previous studies, an innovative analytical framework is proposed in this research. This is presented in figure 2.1 below. Briefly, there are three groups of important factors:

1. state capacity
2. infrastructure
3. domestic context.

The first group includes five factors: leadership, availability of funds, steering capability, the legal environment and strategy. The second group covers both ICT infrastructure and human infrastructure from both sides: citizens and government. The last group of factors encompasses economic and cultural factors. E-government outcomes include two main factors: seamless government and citizen participation. These two concepts can be measured by the most appropriate proxies available, as presented in the next subsection.

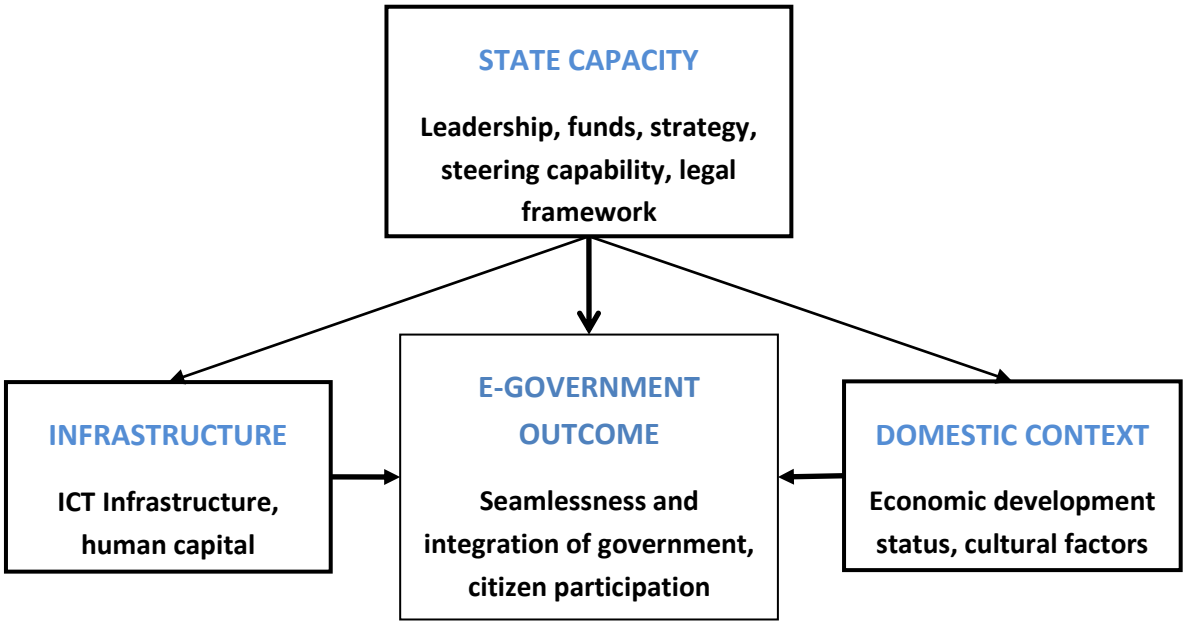
Details of the rationales for the selection of these factors and the measurement of e-government outcomes are presented below. However, in brief, the new conceptual model introduces a balanced set of relevant factors from different perspectives: institutions, ICT, and the domestic context. Furthermore, in this model the performance of e-government is measured from both sides of e-government: citizen and government. Details of the factors in this framework are provided in the following subsections.

2.7.4 Measurement of E-government Outcomes

Much of the literature on e-government focuses on aspects of e-government development or implementation, while the measurement of the performance of e-government remains a neglected area. An evaluation of an e-initiative performance, however, needs certain variables that could be used as a proxy for e-government outcomes. Reports from international institutions or agencies such as the UN, the OECD and the World Bank, and the models by Ghapanchi et al. (2008) and Chen et al. (2006), do not mention detailed criteria for evaluation, although the main themes of their discussion are about e-government implementation. A study by Bhatia, Bhatnagar, & Tominaga (2009), suggests a series of performance measures on the cost-and-benefits of existing e-projects. This approach however can only measure tangiable and current benefits and does not take into account ICT infrastructure while e-projects often take time for the benefits to emerge and requires

sound ICT infrastructure. Against this backdrop, proposed indicators of e-government performance developed by Chen and Hsieh (2009) are relevant. The defining features of Chen's framework include: seamlessness and integration of government and online citizen participation

Figure 2.1 Conceptual framework



Accordingly, the first feature includes the maturity of infrastructure, the level of integration, and the existence of transformational mindset and strategies. By infrastructure, the authors refer to both common standards and government-specific networks, whereas the level of integration shows the extent of seamless government. The transformational mindset and strategy reflect how far citizen-centric approaches are being practised to reach targeted objectives. For the measures of citizen participation, availability, access and use are employed as proxies. The 'use' indicator is utilized on the ground that when 'citizen participation mechanisms are online, citizens may not actually be using them. Therefore it is important to gauge the population of online users who are actually using government Web sites' (Chen & Hsieh, 2009, p. 152). This study adapts this measurement to the cases. Further discussion of the adaptation process is provided in section 10.2.1.

2.7.5 State Capacity

Generally, state capacity refers to government internal structures and process (Fountain, 2007). Specifically, state capacity refers to a condition of capability for taking reform measures decisively, which is typified by institutional, technical, administrative and political capacity (Sarker, 2006). These specific capacities help the government to implement reforms successfully. For example, political capacity relates to mediating conflicts and enhancing responsiveness to citizens' demands, institutional capacity to upholding the authority of government, implementing laws and holding public officials accountable, and technical capacity to recruiting qualified people who can make effective policies (Sarker, 2006). In regard to essential elements of e-government implementation, factors of leadership, funds commitment for e-government implementation, the legal environment, a steering body and the strategy reflect these capacities. Fountain (2007, p. 17) states:

> While the importance of an online presence is critical, e-government is much more than the existence of a website. E-government programs must have strong management and leadership and clear strategies in place in order to be effective.

Although she discussed the important factors, Fountain (2007) did not analyse them in detail. These factors and others are classified in the group 'state capacity' in this study and are discussed in the following sections.

- **Leadership**

Many researchers and international organizations acknowledge the critical role of leadership in implementing e-government. In spite of differences in wording, concepts such as political will (Imran & Gregor, 2007; O'Neill, 1999), political leadership (UN, 2002; Samaratunge, et al., 2008; UN, 2004; World Bank, 2002; Yong, 2007), or leadership and commitment (OECD, 2003), are used by researchers to refer to roles and commitments of politicians, elected officials and administrators and to the process of administrative reform in general and to implementing e-government specifically. Studies by the UN (2002, 2004) conclude that the level of overall government commitment, among other factors, shapes the outcome of e-government. In the same way, in its handbook of e-government for developing countries, the World Bank (2002) places leadership as the second most important element of successful e-government transformation. Likewise, Yong (2007), researching e-government

in Asia, puts leadership or support from top government officials as a key factor for the success and sustainability of e-government development. A study by Imran and Gregor (2007) regarding countries that have achieved significant progress in e-government implementation shows that political willingness can help a country leapfrog to higher mature stages of service delivery.

Human resistance to change, conflict of interest and resource scarcity are common reasons cited for the necessity of strong leadership commitment. A natural reaction to change is resistance (Caiden, 1991; McClure, 2001; Wilenski, 1986). Implementing e-government involves redesigning and transforming structure (World Bank, 2002; Yong, 2007); in addition, it transforms the way in which the government, business and the public at large interact with one another (UN, 2003). It is therefore a reform. The nature of reform is, according to Caiden (1991), different from change on the ground of scope, radicalism and impact. Strong leadership therefore should be in place in this reform process.

Regarding interest conflicts and resource scarcity, Heeks (2006) and Fountain (2001) share some common ground. Heeks emphasizes the interests of key players in e-government and he concludes that e-government is far more about people and politics than it is about technology and rationality. His principal reasons are that it is the interdependent process where players have different objectives and values and that it requires important and scarce resources to be involved, such as people, money, and equipment. Similarly, Fountain (2001) contends that budget scarcity and group conflict are, among others, factors that impede the ability to change. Similarly, Chen and Thurmainer (2008, p. 543) state that 'developing and financing e-government cannot occur without heeding political considerations'. With these challenging hurdles, firm leadership commitments are necessary to sustain implementation, especially when benefits take time to emerge (OECD, 2003).

As analysed in section 2.6.1, the nature of e-government implementation is a reform, which redesigns business process and transforms the structure of government organizations (Ho, 2002; World Bank, 2002; Yong, 2007). To meet the challenge of transformation, public leaders must possess transformational leadership qualities (Kee, Newcomer, & Davis, 2007) rather than the capacity to manage and direct an organisation in a relatively stable environment. Particularly, in an emerging area such as e-government, leaders' intellectual stimulation and inspirational motivation (Bass & Bass, 2008) are important as the e-

government implementation is complicated (Dawes, 2008; Heeks, 2003, 2006) and relates to the application of new and complex technology. The intellectual stimulation and inspirational motivation are two of four most important factors of transformation leadership.

Transformational leadership

Empirical studies on e-government tend to exclude leadership factors (2007; Siau & Long, 2006; Srivastava & Teo, 2007), and one of the reasons for that exclusion is that many measurement instruments take a simplistic view and focus on measuring what is easy to measure (Isaac, 2007). By contrast, transformational leadership (Bass, 1985; Bass & Bass, 2008; Fisher, 2005; Trottier, Van Wart, & Wang, 2008) has been widely discussed in the literature on leadership. Fisher (2005) contends that transformational leaders are those who are able to stimulate creativity, enhance mission awareness, enable colleagues to unleash their potential and abilities, and motivate others. Four factors that describe the behaviours and attitudes of transformational leadership (Bass, 1985; Bass & Bass, 2008; Fisher, 2005; Trottier, et al., 2008), or the Four I's (Fisher, 2005, p. 40), include:

- Idealized influence
- Intellectual stimulation
- Individual consideration
- Inspirational motivation.

Idealized influence, previously known as charismatic leadership (see, e.g., Bass & Bass, 2008, p.620), refers to the ability to generate enthusiasm and unite people by self-confidence and emotional appeal (Fisher, 2005). Intellectual stimulation is the ability to stimulate followers to view the world from new perspectives, question the traditional assumptions, beliefs and paradigm (Bass & Bass, 2008; Trottier, et al., 2008). For the last two factors, individual consideration refers to the ability to understand team members and treat them with respect and concern; inspirational motivation is to help build confidence for team members and lead them toward action (Fisher, 2005). The four factors of transformational leadership are all critical to overcoming challenges such as transforming the nature of e-government implementation, human resistance to change, and conflicts of interest and resource paucity, and to sustain the process of e-government implementation.

- **Funds**

Funds for e-government can be another critical issue in implementing e-government. Deploying e-government requires a significant and immediate outlay of financial resources which is used to cover many costs such as Research and Development, infrastructure, training and recruiting (Smith, 2009; UN, 2003). The correlation between financial resources and e-government is demonstrated in developed and developing countries in South America (Gasco, 2005). Ironically, in the context of developing countries, more funds may be required due to their initial backward condition compared to the relatively advanced infrastructure in developed countries (Bhatnagar, 2004; Chen, et al., 2006). Within a country, in many cases, the budget from internal sources (i.e., from within an organization) is limited, while that from external sources (i.e., from central government or a federal state) is uncontrollable and hard to secure (Heeks, 2006). Therefore e-government services are significantly advanced if more sources of funds can be found apart from the state budget (Chen & Thurmaier, 2008). In reality, countries that lead e-government globally normally commit large and stable funding for e-government, ensuring its e-government sustainability. For example, the South Korea government established a stable e-government fund, known as the Promotion Fund. This fund was set aside from the annual budget to ensure sustainable and consistent funding (Im & Seo, 2005).

- **E-government Strategy**

Without a good strategy, the future of e-government initiatives is likely to be uncertain. Heeks (2006, p. 42) defines this as follows:

> E-government strategy is a plan for e-government systems and their supporting infrastructure which maximizes the ability of management to achieve organizational objectives.

He argues that planning an e-government strategy involves asking three questions:

- *Why develop e-government strategy?*
- *What is it?*
- *When is it?*

The answer to the first question may be because of the fad factor or copying the initiatives of other organizations, or due to the growing contribution of e-government to the process

of public administration reform. The second question might be viewed as the most important and the hardest one to answer correctly. This question is essential because, according to Heeks (2006), it makes clear the answers for three other sub-questions:

- *Where are we now?*
- *Where do we want to get to?*
- *How do we get there?*

There are several issues to be considered especially in the last sub-question. For example, what are the critical factors to be considered in the implementation process (i.e., as identified in the framework, including leadership support, steering committees, ICT skills and knowledge, the legal environment, infrastructure (ICT and human), the digital-divide issue, the domestic context and cultural factors); what approach is suitable (i.e., centralized, decentralized or hybrid, as discussed in section 2.7.1); how large a project should be (Gasco, 2005), and whether projects for a 'big-bang' or incremental change should be implemented (Bhatnagar, 2004; Teicher, et al., 2008), and how public-private partnerships can be organized (OECD, 2003; World Bank, 2002; Yong, 2007).

Finally, the answer to the last question, *'when is it'*, reveals where the priority of e-government implementation is among national goals. Practitioner literature on e-government implementation shows that in the most successful countries, e-government has been at the top of their agenda (Im & Seo, 2005; Karim & Khalid, 2003; Kim, 2006; Shin, 2006; Siddiquee, 2008).

- **Steering Capability**

Steering committees are seen as necessary and important for implementation of e-government projects, particularly in relation to coordination among government agencies. In the case of central governments or federal states, a range of subordinate committees or groups is established, working under a steering committee. These sub-committees and groups can be advisory groups, research groups or implementation groups (Heeks, 2006); they can also be responsible for technical solutions, procedural alignment, strategy formation, funding and training, as in the cases of Malaysia and South Korea (Im & Seo, 2005; Karim & Khalid, 2003; Siddiquee, 2008).

Steering committees need to have the involvement of influential leaders so as to coordinate the implementation process because the tasks of e-government are normally cross-agency and resource-consuming. Coordination between state agencies in providing an advanced e-government service is common; however, public servants, apart from natural human resistance, have other incentives for not cooperating. For example, one motivation is the power they enjoy as being a 'stand-alone unit' (Jain, 2004). This results from the organizing principles of Weber's model of bureaucracy, such as division of labour or task specification, where bureaucrats have authority over information and procedure in their department. They would rather hoard information than collaborate, reasoning, for example, that this is 'my data' or 'our data' (Jain, 2004). Furthermore, resources for e-government are not manageable within one government department (Bhatnagar, 2004). Therefore, the participation of a leader is critical in enhancing the mandate of steering bodies. This in turn ensures the coordination and provides resolutions of problems that inevitably emerge. In South Korea, one of the most successful e-governments (UN, 2010), the President put the Information Promotion Committee (in charge of e-government) under the Presidential Commission on Government Innovation, and as this is critical factor of the success of South Korea (Im & Seo, 2005).

- **Legal Framework**

Failure in getting e-government law and regulations put in place can cause problems for the process of e-government development. Even in the very early stage of e-government implementation, it is difficult for an e-government project to develop without a legal framework such as laws and regulations on procurement, contracting out or project appraisal (OECD, 2003). Further, in the absence of a legal framework, it is difficult for managers to ensure interoperability, to maximize implementation efficiency, and to avoid duplication (OECD, 2003). In the later stages, data security and the legality of electronic transactions or storage and archiving require substantial legal support; in particular, in the transactional stage, there is a requirement for considerable changes in a country's legal framework and government workforce (Davis, 2005; Gasco, 2005; World Bank, 2002). As an empirical study by Satya (2003) shows, the legal framework is significantly associated with the use of government online service in 29 countries. This study groups countries into three categories: heavy usage (with more than 40% of the population using the Internet); light

usage (lower than 20% of the population using the Internet) and the rest are middle usage. Correlations are high between the level of development of the legal framework and online usage of government for countries overall and for the light-usage group. The findings (Satya, 2003), though, may not represent all countries because of its sample limitation; they address the important roles of legal framework and effective regulatory bodies in maximising internet usage

2.7.6 Infrastructure

Unlike a normal service, an e-government service requires consumers to have certain specific knowledge and skills about ICT. An e-initiative transaction cannot be executed if clients are unable to use specific ICT tools. It therefore requires the availability of not only physical infrastructure but also human infrastructure in the form of particular knowledge and skills for a successful e-government transaction. Therefore, by infrastructure, this study implies both ICT infrastructure and human-capital infrastructure. The former is now discussed.

- **ICT infrastructure**

As defined in section 2.2, e-government refers to the use of ICT, especially the internet, to deliver government information and services and facilitate citizens' participation in government decision making. It suggests by its very nature that e-government development is a technology-dependent process. It is discussed in the literature that people, not technology, count in e-government development (Heeks, 2006). This statement is to emphasize the critical role of the people factor in e-government implementation. However, without the minimal threshold of ICT infrastructure, e-government is impossible (UN, 2003). In other words, ensuring the basic level of ICT infrastructure is a necessary condition (Chen, et al., 2006).

ICT infrastructure for e-government can mean several things, ranging from popular tools to complex systems and from wired to wireless technologies. The popular tools for e-government users require access to computers and the internet, despite the fact that mobile technologies gradually help overcome the infrastructure challenges. In countries with low internet penetration but high mobile phone internet connection, online services specialized for mobile access (m-government) may be a better option than traditional fixed networks

(Ghyasi & Kushchu, 2004). In reality, developing countries like India are making efforts to utilize the potential benefits brought by mobile access to government services (m-GovWorld, 2011). However, it is argued that while mobile devices such as mobiles phones are convenient and can be cost-effective, they are not suitable, at the moment, for the transmission of complex and voluminous information (Egovernment for Development Website, 2011; Trimi & Sheng, 2008). M-government is, therefore, an extension or a complement to e-government, not a replacement (Egovernment for Development Website, 2011; Trimi & Sheng, 2008), at least in the foreseeable future.

Infrastructure also includes several other means, such as specialized hardware and software systems (Ghapanchi, et al., 2008); however, basic and important tools that could allow users to use available e-government services are computer and broadband Internet. Broadband internet is popularly connected via the telephone line, mobile phones or cable TV. For measuring ICT by these basic tools, many if not all studies on e-government emphasize the significant roles of the availability of ICT. For example, looking to some developed countries and South American countries, Gasco (2005) shows a correlation of ICT penetration and a degree of e-government development. Previous studies (Gasco, 2005; World Bank, 2002) also reveal that all countries implementing e-government must have managed to develop a basic infrastructure to take advantage of new technologies and communication tools. In other words, ICT infrastructure is therefore a prerequisite for e-government implementation.

- **Human Infrastructure**

A study by the UN (2005b, p. v) on the world public sector concludes that 'people are the lifeblood of the public service and the main source of its vitality and strength'. Similarly, human capital is widely discussed in the literature on e-government; it is seen to be a determinant of e-government success. Human infrastructure can be examined from two sides: government and citizens.

From the government side, also known as supply side or provider side (Nguyen & Schauder, 2007; Trimi & Sheng, 2008), the people factor has been viewed as the most critical element in the provision of e-government. This is because new skills, knowledge and attitude are required for individuals who are involved in the process of e-government development. Regarding skills of staff, Dunleavy el al. (2008) define four types of staff who are expected to

have specific skills: IT specialists, advanced users, basic users and top level users. The first group of staff, IT specialists, are those who are charged with developing, operating and maintaining IT systems. The second group is the competent users of complicated software and tools. The third group is the basic users who are mostly white-collar workers. These people are capable users of popular tools such as word processing, spreadsheet packages and the internet. The other group is those at the highest organizational level who have skills to explore new opportunities brought by IT to the organization.

Knowledge of e-government plays an important role, because people tend to support e-government reform as long as they have a basic understanding about IT, organization systems and processes, and why the new system is organized in a particular way (Heeks, 2006). Finally regarding attitudes, e-government stakeholders, including politicians, public senior managers, IT professionals and mainstream staff (Dunleavy, et al., 2008; Heeks, 2006) are at the root of organizational politics; differences in the objectives and values of these players which lead to different attitudes will cause trouble in e-government management (Heeks, 2006). Hence skills, knowledge and attitude are essential matters of importance for e-government implementation.

From the citizen side, or the demand side of e-government (Nguyen & Schauder, 2007), citizens' literacy and computer-literacy are essential if people are to participate in e-government (Teicher, et al., 2008). Human capital, which is measured by the education index in studies of the UN (UN, 2008, 2010), is composed of the adult literacy rate and the combined primary, secondary and tertiary gross enrolment ratio.

The role of human capital has been demonstrated in many comprehensive studies, including empirical studies. Apart from several studies by the UN, critical roles played by human capital in the success of e-government have also long been pointed out by the World Bank (World Bank, 2002). In addition, two recent empirical studies find that human capital is a crucial factor of e-government development. A study by Srivastava and Teo (2007) shows that countries with highly educated and well-trained citizens have a major advantage in both using and being involved in implementation, resulting in higher performance. A study by Kim (2007) also reveals the direct relationship between education and e-government performance. These findings once again acknowledge the important role of this factor for the process of e-government development.

- **The Issue of the Digital Divide**

The digital divide is defined as the segmentation of those citizens with online access (and the cognitive ability and general inclination to use it) and those without (UN, 2008, p. 72). It is a problem linked to unequal infrastructure, both ICT and human. This problem may occur among demographically, economically, socially diverse groups of the population within a country or across the world (Gasco, 2005; Trimi & Sheng, 2008). In detail, the problem may exist as a result of differences in gender, race, age, generation, geographic location, education level, income level and occupation (Im & Seo, 2005; Yu & Wang, 2004). The OECD early on warned about the digital divide (2003, p. 14): 'there are significant differences in access to ICT and the Internet', but it remains a serious issue regionally and internationally (Gasco, 2005; Internet World Stats, 2011).

There are three profound effects of the digital divide. First, this phenomenon excludes those who do not have access ('the have-nots') from the benefits of e-government that others ('the haves') take (OECD, 2003). It has been shown that the lowest level of access to e-government services goes to the most disadvantaged group, yet these people are those who have high levels of interaction with government (OECD, 2003); they therefore miss out on many of the advantages provided through e-government services. Second, the digital issue is likely to impede the progress of development of e-government, since the divide makes part of the population information-poor (Gasco, 2005), compared with those who do have access (the information-rich). The third associated problem is that it could increase disparities in society because the 'have-nots' are often disadvantaged in income, education, age, ethnicity, or because they may be living in less favoured areas or have disabilities (UN, 2005a).

2.7.7 Domestic Context

Social and economic development differs from one region or country to another, and so do particular cultural values. Literature on e-government development does mention the effects of the level of income and cultural factors. These factors are in fact a part of the domestic context; they form the last group of factors in the conceptual model.

- **Level of economic development**

The level of economic development is an overriding factor that affects the take-up rate of e-government initiatives. Apart from other factors, to use an e-government service citizens may have to invest in computers with an internet connection or buy internet services, which are not cheap in many developing countries. Therefore the development status of a country contributes a great deal to the process of e-government implementation. Empirical studies demonstrate the significant role of income level to the performance of e-government. A cross-national study by Kim (2007), using secondary data from 163 countries, suggests economic wealth, among other factors, is significant to e-government performance. Siau and Long (2006) use social development lenses and employ data from 173 countries to reach similar conclusions. Conventionally, this factor is measured by the income level of citizens through GDP per capita, although this criterion does not reflect the disparity between the rich and the poor. Within a country, especially where economic wealth in provinces or states is unequal, it is likely that poor locations will experience difficulties in advancing their e-government initiatives.

- **Cultural factors**

Cultural elements are also cited as factors affecting e-government development. By reviewing other works, Chen et al. (2006) indicate three cultural factors that should be considered in implementing e-government: national culture, organizational culture and social norms. West (2004, p. 16), looking at the government side, states that 'Cultural norms and patterns of individual behaviour affect the manner in which technology is used by citizens and policy makers'. This is why practitioners in developing countries often put change management in their e-government plans (Karim & Khalid, 2003; m-GovWorld, 2011). Further, when it is a social norm, personal relationships with officials are more important than transparent documents or procedures (CIEM & ACI, 2010). Cultural factors are therefore a barrier to e-government implementation.

2.8 Conclusion

Although there is no consensus on definitions of e-government by researchers and organizations, a general definition is about the use of ICT, especially the Internet, to deliver

government information and services and to facilitate the participation of citizens in government activities.

The levels of sophistication of e-government initiatives are normally used as the grounds for stage models of e-government implementation. The possible utility of stage models is that they can be used to evaluate the complexity of an initiative. However, stage models are under attack for their weak theoretical grounding. Thus there have been, to date, six different models of this type developed.

There are several promising e-government impacts on government bureaucracy – for example, in the redesign of process and organization, management style, communications and service delivery. However, empirical evidence is needed to enhance credibility of this. Encouraged by e-government's potential benefits, countries rush towards e-government, but the hard fact is that most e-government initiatives have failed to achieve their planned targets in both developing and developed countries. The e-government literature is constrained by a lack of a holistic model of e-government implementation. Previous models tended to be influenced by either ICT or institutional perspectives.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter describes the research process for the study conducted in this thesis. Particular methods and techniques used in answering the research questions are presented with reference to the literature on research methodology and the nature of the research objectives. The objectives of the chapter are threefold: first, to provide the rationale for the case-study approach and qualitative methods; second, to explain the process of data collection and analysis; and, third, to describe the adoption of measures for enhancing validity, reliability and the ethical process.

As demonstrated in the following sections, a case-study approach and qualitative methods best suit the exploratory nature of the research undertaken in this thesis. The three methods of data collections were used in this research, including: archival studies, interviews, and interactions in conference sessions. Apart from two-stage interviews and interactions in the 2009 National Symposium on E-government in Vietnam, a number of relevant sources of data were utilised, including political and judicial documents, professional and academic journals, media reports and published and unpublished documents from a wide range of domestic and international organizations. The instrumentation procedures were designed, including a rigorous seven-step framework, to guide the process of data collection and analysis. A computer package, *NVivo* (the 8th version), was used to facilitate data analysis. Data triangulation was undertaken to enhance the accuracy of the data and hence the validity of the research. The research followed the ethical processes required by Monash University and formal procedures required by government agencies in Vietnam where the fieldwork was conducted.

The chapter starts with justifications for the case-study approach and qualitative methods. This is followed by the research design, which presents the instrumentation procedures for the research questions. It continues with issues of validity, reliability and research quality. The next section comprises ethical considerations. The limitations of the research methodology are also discussed.

3.2 Rationale for the Case Study Approach and Qualitative Methods

In the literature on research methodology, there are common views that the research or research question *per se* determines the most suitable methodological approach. Corbin and Strauss (2008) contend that the research should dictate the methods. Likewise, in an argument for methodological approaches in public administration, Bailey (1992) acknowledges that suitable methods for a given project depend on the question and situation being studied. Flick (1999, pp. 634-635) states that 'it is the problem under study that is the point of reference for choosing a method, not the method that is the point of reference for choosing (and evaluating) the problem'. It is, therefore, important that the research questions were necessarily and carefully reviewed for reasons of methodological selection. Initial observation of the research questions shows that there are two 'What'-type questions, one 'Why'-type question and one 'How'-type question. They are all open-ended questions that comprise an exploratory empirical study. To answer these questions, several relationships of factors defined in the conceptual model are explored. In searching for these relationships, researchers need to interact with the field, its people and process. Further, the main data used are verbal (oral) or texts. With these characteristics, the case approach and qualitative methods are the most suitable choices. The following subsections provide a further rationale for selection of the case approach and qualitative methods employed in this research.

3.2.1 Distinguishing Case Study Approach and Qualitative Methods

It is important to distinguish at the beginning the case-study approach and qualitative methods. Case study is not a method; it is an approach (Yin, 2009). Although case studies tend to be qualitative, it is incorrect to think that any qualitative study is a case study (Yin, 1993, 2009). Definitions of the case approach and qualitative methods are very different. According to George and Bennett (2005, p. 5), the case approach is the 'detailed examination of an aspect of a historical episode to develop or test historical explanations that may be generalizable to other events'. Qualitative methods are about open-ended explorations of people's words, thoughts, actions and intentions as a means of obtaining information (Colton & Covert, 2007; Judd, Smith, & Kidder, 1991). These definitions show that, while qualitative methods are more about the means of obtaining information, case studies are an approach that may use several qualitative and/or quantitative methods.

3.2.2 Why a Case Study Approach

At its heart, this research seeks to examine complex relationships in e-government implementation in which not only technical issues but institutions and settings are all involved. As analysed below, both the literature on research methodology and the nature of the research show that the case study approach is the most appropriate.

A case study has a great potential in research that examines complex relationships between human and institutional interactions and changing settings. Social science normally deals with processes and people that are different and continually changing. In such conditions, the use of a quantitative approach alone might encounter problems such as simple data and anomaly elimination (Bailey, 1992). A case study is, therefore, the most suitable approach for these research contexts. In particular, if the research attempts to answer how or why questions in a complex environment, a case study is the preferred strategy. Other researchers contend that a case study can allow process and contextual analysis to be examined in-depth, in order to develop a better understanding of a phenomenon (Tharenou, Donohue, & Cooper, 2007). O'Sullivan and Rassel (1999, p. 38) affirm that 'case studies are the preferred research strategy if one wants to learn the details about how something happened and why it may have happened'. When research relates to people and institutions, case studies are well suited to explore the relationship of individual behaviour and collective institutions, and the interaction of agency and structure (Fischler, 2000). George and Bennett (2005, p. 5) identify four major advantages of case approach:

1. the potential to reach high conceptual validity;
2. strong process to derive hypotheses;
3. capacity of exploring causal mechanisms; and,
4. ability to assess causal relations.

These arguments suggest that a case study is the most suitable approach for realizing the objectives of this study. This study looks into public administration and e-government, the areas that mostly relate to processes, institutions and people. Further, one of the research objectives is to examine the validity of conceptual framework of e-government implementation in the case of Vietnam. A case approach therefore facilitates the exploration of the causal mechanisms and achieves high conceptual validity.

According to Yin (2009, p. 18), a case study is an empirical inquiry with the following characteristics:

- it investigates a contemporary phenomenon in depth and within its real-life context
- the boundaries between the phenomenon and the context are not clearly evident
- there is a technically distinctive situation in which there will be many more variables of interest than data points
- it relies on multiple sources of evidence, with data needing to converge through triangulation
- it benefits from the prior development of theoretical propositions to guide the data collection and analysis.

Analysing these defining features against the research questions, it is clear that a case approach is suitable for this research. Firstly, all research questions in this study deal with contemporary public administration in the context of Vietnam. It is an in-depth investigation of that administration. Secondly, e-government is a new field of study facing challenges yet it lacks a guiding model and a disciplinary boundary. Thirdly, since e-government implementation is a social-technical process where not only technical issues but also organizational capacity and politics are important (Dunleavy, et al., 2008; Fountain, 2001; Heeks, 2006; Lau, et al., 2008), a number of variables in e-government implementation are examined. In addition, multiple sources of evidence are employed to strengthen the arguments. Finally, though the purpose of this research is not to test an established theory, most of the concepts used in these research questions are derived from previous studies that guide the data collection and analysis.

In summary, a review of case-approach literature and the analysis of defining features *vis-à-vis* the research questions indicate that a case study is the most appropriate approach for the research in the thesis.

3.2.3 Why Qualitative Methods

As noted in 3.2.1, a case study approach can use several methods, but qualitative methods prove to be the most suitable for all research questions in social science-based study.

Looking further into the literature on qualitative methods, several essential features confirm the appropriate choice of methods for this study. First, for example, Marshall and Rossman (2006) recognize the advantages of qualitative methodology on research that:

1. explore in depth complexities and process, and
2. explore where and why policy and local knowledge and practice are at odds.

In addition, Corbin and Strauss (2008, p. 12) argue that qualitative research allows researchers to look into the inner experience of participants, to determine how meanings are formed through and in a particular context, and to explore rather than test variables. Similarly, Lee (1999) argues that qualitative methods are the best strategy when the identification of new theoretical propositions or managerial actions is deemed necessary, but the researcher does not have a detailed understanding of the phenomena.

Furthermore, Flick (1999, p. 7) highlights that 'qualitative research aims at understanding the phenomenon or event under study from the inside'. Similarly, Marshall and Rossman (2006) emphasize the advantages of qualitative methods in research that study processes in depth. When it comes to type of questions, Pratt observes that

> Qualitative research is great for addressing 'how' questions—rather than 'how many'; for understanding the world from the perspective of those studied (i.e., informants); and for examining and articulating processes (2009, p. 856).

These key characteristics of qualitative methods match the nature of the research undertaken in this thesis. Specifically, the first objective is to explore challenges facing contemporary public administration in Vietnam and drivers of the e-government initiatives there. Qualitative methods are, therefore, appropriate as they have advantages, as recognized by Marshall and Rossman (2006). Additionally, the second research objective is to examine the critical factors of e-government implementation in Vietnam, based on a new analytical framework developed from the literature of e-government implementation. This is the domain and also the best strategy for qualitative research (Corbin & Strauss, 2008; Lee, 1999). The third objective of the research is to examine changes that occur in the practice of public administration through e-government implementation. This is an in-depth inquiry into a process, for which research methodologists and scholars such as Marshall and Rossman (2006), Flick (1999) and Pratt (2009) suggest the utilization of qualitative methods.

3.2.4 Common Research Methods in Public Administration and E-government

O'Sullivan and Rassel (1999) show that studies on government institutions and process tend to use verbal data, but verbal data or texts in their essence are difficult or impossible to convert into numbers for quantitative methods. Consequently, there is more research on public administration that uses the qualitative methods. Similarly, McNabb (2002) states that, even though no single research method has absolutely dominated in the published public administration literature, a majority of these studies have employed qualitative methods. In the same vein, a study by Lan and Anders (2000) shows that case method plays an important role in research into public administration. In the area of ICT use in developing countries, few studies utilize quantitative methods; instead, in-depth case studies are common (Walsham & Sahay, 2006). In other words, a case approach and qualitative methods are the popular tools for research design in studies on public administration and e-government.

In summary, the exploratory nature of the research undertaken in this thesis indicates that a case-study approach and qualitative methods are most appropriate.

3.3 Research Design

This section provides the detailed instrumentation procedures for the research. Three principal instruments for data collection are used in this study: archival studies, interviews, and interactions at conference sessions. Depending on the nature of the research questions, a particular instrument may be used more intensely than the others.

3.3.1 Principal Methods of Data Collection

The study does not exclusively use the three methods of data gathering discussed below; however, they are the dominant methods.

Archival studies

McNabb states that:

> Archival studies involve the study by historical records and documents in order to establish an understanding of the circumstances that characterized an event or period (2002, p. 94).

The author contends that archives are increasingly recognized as rich sources for research in the social sciences. In addition, the use of multiple sources helps enhance the validity and reliability of findings (see section 3.4) through data triangulation. Archival data are the collected records of a society, community, or organization which come from a wide variety of sources (Marshall & Rossman, 2006; McNabb, 2002), including:

- private letters or collections
- political and judicial documents
- the congressional record
- actuarial records
- quasi-governmental agencies
- the mass media
- professional and academic journals
- company and organization records
- personal histories
- published and unpublished documents.

The advantage of this wide range is that it covers both historical and current data. This study investigates issues that need longitudinal analysis and issues that encounter sensitive topics. For example, some political issues remain 'off limits' for public discussion in Vietnam; therefore, a single technique or source of data is unlikely to provide sufficient data, but relevant multiple sources of data can assist. In reality, exceptional interviews by the press with outspoken key figures of the Party and the State considerably supplement relevant evidence.

Interviews

The interview is one of the most widely used methods in qualitative research (Bryman, 2001). There are different types of interviews, such as structured interviews, totally unstructured interviews and semi-interviews. A structured interview is often used in quantitative research while an unstructured interview is widely reserved for qualitative investigation. Despite the fact that qualitative interviews rarely start from the intention to test a specific hypothesis, it is necessary to begin with a list of questions that the researcher is seeking to answer (David & Sutton, 2004). This study is exploratory in nature; therefore

structured interviews are not employed. Since the conceptual framework was built before data collection, interviews were not totally unstructured but rather semi-structured.

A semi-structured interview is the method of data collection where the researcher has a list of questions on specific topics to be covered, often referred as an interview guide. The questions are open-ended so that the interviewee has flexibility in how to reply. Questions that are unscheduled can be asked if the interviewer picks up on issues in the interviewee's replies. The interview is thus conducted in a way that is similar to a friendly conversation (Bryman, 2001; David & Sutton, 2004; Tharenou, et al., 2007).

The interactions at conference will be described in detail in the following subsection which explains how these methods of data collection were applied in this research.

3.3.2 Instrumentation Procedures for the First Two Research Questions

This section describes the detailed sources of data and the process for obtaining answers to the first two research questions. As noted earlier, the research conducted in this thesis is an exploratory study, and the main methods of data collection are archival studies, interviews and interactions in relevant conference sessions. The issues under investigation for the first two research questions particularly require historical and contemporary data. Therefore archival studies with multiple sources of data are mainly used for these two questions.

Research Question One asks: What are the key challenges facing the contemporary public administration in Vietnam?

Both primary and secondary data from the three following sources are used:

1. political and judicial documents;
2. the mass communication media; and,
3. professional and academic journals.

The first source provides a wide range of documents, including constitutions, other legal and policy documents such as laws on Organizing Government and the National Assembly, Party statutes, Government decisions and reports. Data from these documents provide a legal ground on which the analysis is based. Virtually all these documents can be retrieved from online databases or websites of the National Assembly, central government portal, and other government agencies such as the Ministry of Informaiton and Communications;

Ministry of Finance, and Ministry of Science and Technology. For those documents that were issued in the 1990s, databases from private law consultancy companies such as Incom Company (LuatVietnam) were used.

For the second source, the mass communication media provide a rich source of relevant views from key figures of the State and the Party. Although the media has remained strictly under the State's control (Surborg, 2008), outspoken voices from retired reformist forces in the Party and the State have been at times heard. This is due in large part to the personal influence of these retired elites of the Party and the State. The majority of the data regarding issues of public governance was obtained from exceptional interviews (undertaken and published by the domestic press) with Le Kha Phieu, Vo Van Kiet and Nguyen Van An, who respectively were the former Party General Secretary, the Prime Minister and the President of the National Assembly. Those interviews' transcripts are therefore rich in contents since these party veterans were sufficiently influential to discuss 'sensitive' topics that could not be aired in the media by the present generation of Party and State officials. Particular newspapers such as *VietnamNet, Tien Phong, Tuoi Tre, Sai Gon Tiep Thi, Phap Luat and Thanh Pho* were key news sources. Among them, *VietnamNet* stands out for its frankness and diverse views on political issues (Bland, 2011). In addition, other experiences or views on issues from incumbent occupants of these senior positions and delegates of the National Assembly were also used to illustrate points when necessary. Of particular relevance, for example, are writings by the Prime Minister, or statements of deputies of the National Assembly during Question Time, and other interviews with National Assembly deputies conducted by the domestic press.

The third source includes studies by domestic and international observers, and other reports prepared by local and foreign experts, which provide insight into the socio-economic development of Vietnam. These include, for example, the 2009 study on public administration reform by UNDP Vietnam, the 2010 study on the Vietnam Competitive Report by the Asia Competitive Institute and the Central Institute for Economic Management of Vietnam, and the 2008 study on the policy framework by the Harvard Vietnam Programme, or the report on public administration reform for 2001-2010 by the Standing Committee of the National Assembly.

Similar data sources to those presented above were also used for **Research Question Two**, which asks: Why did Vietnam initiate and develop e-government? Despite the similarity, different types of documents were obtained for specific research issues. Moreover, an additional source that was used for this research question was published and unpublished documents, particularly from the General Statistics Office of Vietnam, reports of international organizations, and conferences. Typical documents include:

1. Political and judicial documents: relevant policy and legal documents on ICT and e-government activities including Party Directives and resolutions, Laws, Government Decrees and Resolutions, prime ministerial Decisions, and Circulars of Ministries. (Explanations for types of policy instruments will be provided in section 6.4.5).

2. Two particular types of media that provide relevant facts and insight interviews are: (1) online newspapers and (2) ICT newspapers and magazines. As will be presented in Chapter Six, rapid internet growth brought several changes to Vietnam. In 2007, Vietnam marked its 10^{th} anniversary of internet connection. On this occasion, a plethora of articles and reports were published, including interviews with high-ranking government officials who had significantly contributed to the decision to open the country to the internet. What unfolded were interesting discussions and advocacy between Party leaders and senior officials of the government. All these stories were told behind closed doors at the time, especially in the context where the Party was afraid of losing control if internet connection was widely permitted. These sources provided a rich set of evidence for argument in this research question. In addition, specialized newspapers and magazines such as *ICTNews* and *PCWorld* supplied useful facts on ICT and e-government activities.

3. The third source, professional and academic journals, contributed considerable official data on ICT statistics both nationwide and international. Typical materials included the Vietnam ICT index and several reports on ICT applications in government agencies by the Ministry of Information and Communications (MIC). The Vietnam ICT Index began to be published annually in 2005 by the Vietnam Informatics Association and the Office of the National Steering Committee on ICT. These reports have been the most comprehensive studies that reviewed ICT activities across provinces/cities and ministries. Its rankings were based on three

detailed sub-indices: ICT infrastructure, human infrastructure and applications. Reports from MIC include: the Annual Report on ICT applications, the ICT White Book, and the Annual Report on ranking of websites and e-government initiatives (since 2008). To position Vietnam in an international context, several reports by international organizations such as the UN, the International Telecommunications Union, the World Bank and the OECD were used. In addition, other studies by international consultancy organizations were also employed to obtain relevant data.

4. Published and unpublished documents are the fourth principal source of data for this question. As will be discussed in Chapter Six, international economic integration plays an important role in e-government implementation. Data are, therefore, needed from the major organizations that Vietnam joined, including ASEAN, APEC and the WTO. This was undertaken by exploring websites of these organizations for charters and other relevant rules and commitments on e-government initiatives. Another useful source of data was from conference papers and discussions on e-government in Vietnam (see details in Step 4 of the following section). A particularly important source of data was the General Statistics Office of Vietnam. A wide range of official statistics and publications from this central government agency are published in its website.

Most of these sources are accessible online. For the first source, documents can be retrieved from websites and databases of government agencies or private law companies. As discussed in Chapter Ten, this is the most significant change wrought by e-government implementation.

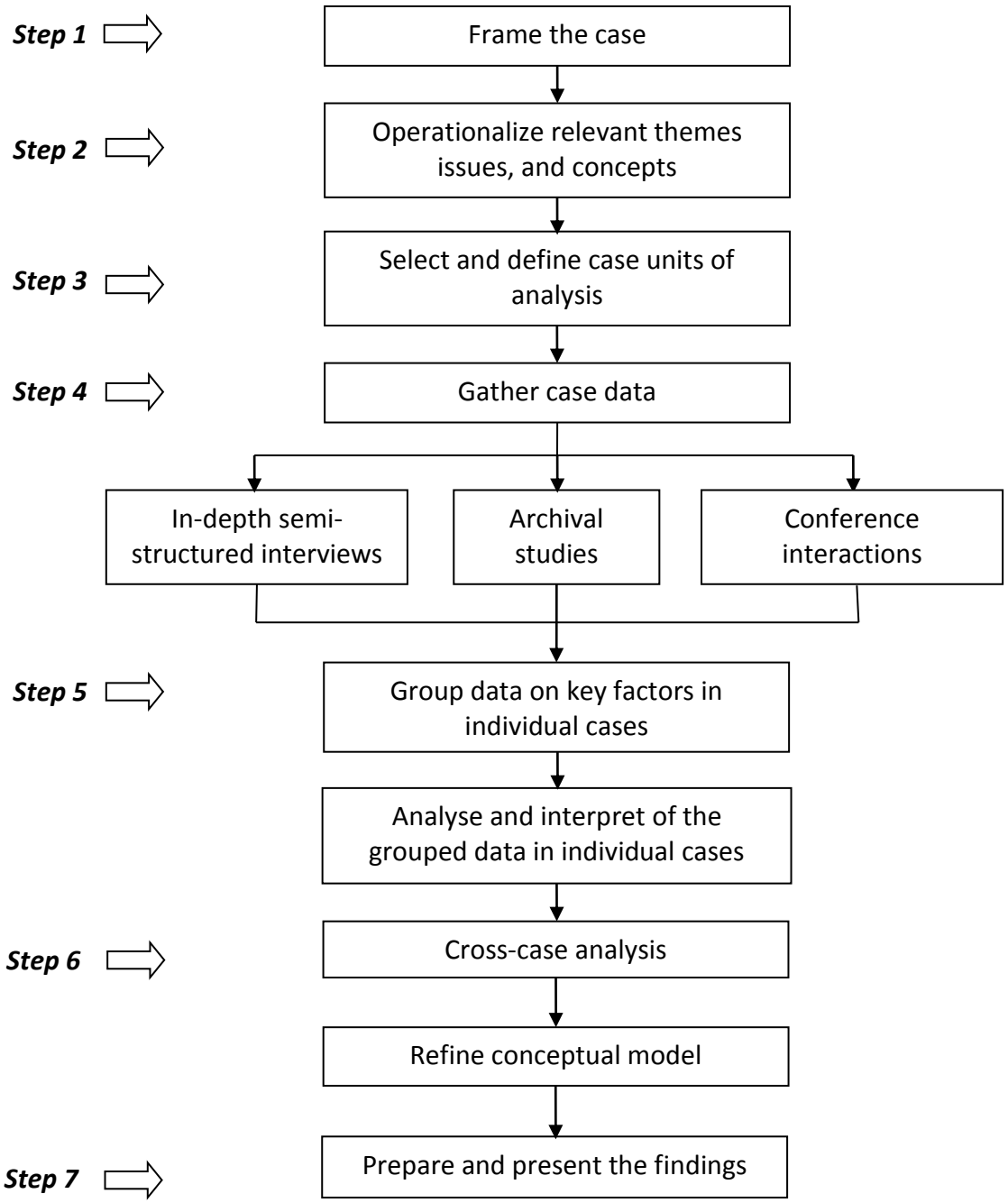
Some specific documents, such as reports prepared for meetings of the National Steering Committee on ICT, were not publicly available. They were obtained from informants. In addition, the participation of the author in the National E-Government Symposium (Phan, 2009) during the field trip was also a useful way to gather relevant data (discussed in step 4 of the following section).

3.3.3 Instrumentation Procedures for the Last Two Research Questions

Interviews and discussions at the National E-Government Symposium were intensively used for data collection, apart from use of archival studies in the final two research questions,

which ask: What are the critical factors in e-government implementation in Vietnam? How are e-government initiatives changing contemporary public administration practice in Vietnam? As they involve several methods and sources of data, a robust framework was developed to guide the inquiry, using an adapted version of McNabb's flowchart (2002) for case-study research, which is presented in figure 3.1 below.

Figure 3.1 Steps in planning, analysis and presentation of case studies



Source: Adapted from McNabb (2002, p. 292)

Although the flowchart was generally used, in some specific cases relevant sub-models in certain steps were used to enhance the robustness of the research design.

Step 1: Frame the Case

The case of Vietnam is selected because it has distinctive features of a developing country and a transitional economy under a state led by a single party, and the researcher has been in good position to gain access to multiple sources of data in Vietnam (as explained later in this section). As stated in section 1.2.2, in the transition from a centrally planned economy to a market economy, it was imperative to restructure public organization and services. As reflected in several legal and policy documents (Party Central Executive, 2000; Prime Minister of Vietnam, 2001a, 2001b, 2008b, 2009a, 2010a), e-government was perceived as a means to enhance the process of public administration reform. Hence comprehensive e-government initiatives were implemented, especially from 2000, but earlier e-government projects failed dramatically (Bui Van, 2007; Prime Minister of Vietnam, 2001b; Quoc Thanh & Khiet Hung, 2007). Against the backdrop that little has been done in researching e-government implementation in Vietnam and in developing counties more generally, the findings from the case study of Vietnam contribute significantly to e-government research with empirical evidence from a particular context of an emerging economy and a developing country, and practitioners in the Vietnam, including policy makers and international donor agencies.

As discussed in step 3 on the *unit of analysis and case selection*, the main clients of e-government services are citizens, and local governments at different levels are those who directly interact with citizens; the central government, on the other hand, has less such interaction. Further, an e-initiative at the local level can be provided either by a central government agency or a local government agency. Therefore, two provincial/city governments were selected for the purposes of the research, as presented in detail in step 3.

Step 2: Operationalize Key Constructs

This is an important step because it relates to the process of defining or conceptualizing variables or concepts that guides the research (McNabb, 2002). A study of relevant literature

therefore underlies this process. Corbin and Strauss (2008, p. 37) point out several important roles of literature research:

- a source for making comparisons;
- enhancing sensitivity;
- providing a cache of descriptive data with very little interpretation;
- stimulating questions during the analysis;
- providing questions for initial observations and interviews;
- suggesting areas for theoretical sampling: where (what place, time, paper) a researcher might go to investigate certain relevant concepts; and
- confirming the findings, and the reverse – where findings can be used to illustrate where the literature is incorrect, simplistic, or only partially explains a phenomenon.

The conceptual model built in this research is based on the analysis of several different theory propositions and empirical studies. This process begins with the definitions of e-government and then types of e-government transactions and stages. It then investigates general e-government roles in development and how e-government can help public governance by contrasting major features in the e-government model and the bureaucratic model. Finally, the most important issues in e-government implementation are analysed, resulting in the conceptual framework. This conceptual model underlying the research is presented in Chapter Three.

Step 3: Unit of Analysis and Selection of Cases

This step justifies the selection of cases which was based on appropriateness and diversity. However, before analysing these two criteria, it is necessary to understand the unit of analysis in this research.

Since there are various definitions of 'case', determining the unit of analysis is a problem facing many researchers who use a case-study approach in their research (Yin, 2009). The unit of analysis and case selection should be, therefore, clearly delineated. Marshall and Rossman (2006) state that it is impossible for investigators to study all relevant circumstances, events or people intensely and in depth, except in a study that has a narrow

scope and scale. Others also suggest that what case is to be selected is the first consideration (Corbin & Strauss, 2008).

In this study, the unit of analysis is local level government. This is because local governments at different levels are normally the institutions that interact directly with citizens. The concept of ***overall e-initiatives*** in this study refers to the whole set of e-government projects which are managed by provincial/city government authorities. Since Vietnam is still in the earlier stage of e-government development, the providers of e-services are generally limited to those government agencies at provincial/city level, rather than at other lower levels such as district or commune level.

It is noteworthy that a single e-government initiative in Vietnam can be managed by local government authorities or central authorities. This means a particular e-initiative geographically implemented in local governments can be managed by a central agency. For example, the e-Customs clearance project was an initiative designed and controlled by a central agency, the General Bureau of Customs (GBC), but it is implemented in Ho Chi Minh City (HCMC). On the other hand, the Online Business Registration System (OBRS) was designed and managed by a city department, the HCMC Department of Planning and Investment (HDPI). Therefore, apart from ***overall e-initiatives*** (as defined in the preceding paragraph), the study also examines certain typical ***single e-initiatives*** which are managed by either a local government department or a central government agency. Details of the selection of these initiatives are provided in Table 3.1, below.

An associated issue with the case approach is the number of cases. Statistical theory does not provide a ready answer to this question; rather, it depends conceptually on how rich and how complex the case is (Miles & Huberman, 1994). In any event, multiple-case designs are often more favourable than a single-case design. Even if the study is two-case research, the chances of having a good case study will be greater than if it is a single-case design (Yin, 2009). In other words, multiple-case sampling enhances confidence in the findings, improves the likelihood of the accurate and reliable theory, and also forces investigators to go beyond initial impressions (Eisenhardt, 1989; Miles & Huberman, 1994).

Rationale for Selection of Cases

The literature on case approaches shows that the selection of cases is an important aspect, and therefore it cannot be done arbitrarily (Eisenhardt, 1989). Case selection should not be

simply because particular cases are interesting, important, or they are easily researched or use readily available data; rather, selection should be an integral part of a good research strategy to achieve well-defined objectives of the study. Hence the primary criterion for case selection should be relevant to the research objectives of the study (George & Bennett, 2005). This requires that the population be clearly defined, so the limits for generalizing the findings can be identified (Eisenhardt, 1989; George & Bennett, 2005). In relation to the case of Vietnam, there are 63 provinces and cities. Ho Chi Minh City and Daklak Province were selected as two local governments for examining ***overall e-initiatives***. In these two local governments, three other ***single e-initiatives*** were chosen for study. The choices were made on two important grounds: appropriateness and diversity.

HCMC has long embarked on e-government with a range of e-government activities. In particular, HCMC has e-initiatives managed by both levels, central and city authorities. It therefore could provide informative experience on which relevant evidence for the purposes of the study could be obtained. For example, the e-Customs clearance initiative (controlled a central agency) and OBRS (managed by a city department) stand out for their complexity and longstanding establishment as well as impressive performance (details are provided in chapters Seven and Eight). Similarly, Daklak Province also has had its diverse e-government portfolio implemented. Of particular interest is the Business Portal, an advanced service put in place in 2008 with international donor technical and financial assistance. The Business Portal has been a platform through which several component initiatives operate, including the online business registration system (section 9.4). In addition, this province was one of the selected places for pilot projects designed by the central government. The process of implementation of these initiatives makes it a suitable case for study. The table 3.1 below briefly presents all the cases with these features.

The second and important reason for the selection of these locations is because of their socio-economic development status and e-government development. Although these cases are not directly representative of diverse populations, examining cases in two provincial governments with different conditions is more likely to strengthen the precision, validity and stability of the findings (George & Bennett, 2005; Miles & Huberman, 1994).

Table 3.1: Characteristics of multiple cases selected

Cases	Managed by Local Government	Managed by Central Government agency
Overall e-initiatives	- HCMC - Daklak Province	(NA)
Single e-initiatives	- Online Business Registration System in HCMC - Business Portal in Daklak Province	- E-Customs clearance in HCMC

Within Vietnam, while Ho Chi Minh City is one of the most developed locations, Daklak Province remains underdeveloped (see section 7.2 and 8.2 for details). The disparity of the two cases is also demonstrated in the central e-government pilot projects. One of the purposes of the pilot projects was to observe experiences in locations with different levels of socio-economic development (Prime Minister of Vietnam, 2008b) and HCMC and Daklak Province were among the selected locations (Prime Minister of Vietnam, 2008b). In addition, the inequality of the two locations can be seen in the latest 2008 report of the ICT Index of Vietnam, where all the highest local administrative units were ranked according to their e-readiness. According to this report, HCMC was ranked 3rd while Daklak Province was ranked 31st position out of 63 cities and provinces (Vietnam Informatics Association, 2008).

Step 4: Data Collection for Cases

As discussed in section 3.3.1, the three main methods of data collection are archival studies, interviews and the conference discussions. However, before discussing how these methods are to be undertaken it is important to locate the right places for data collection.

In the cases of OBRS and the Business Portal (single e-initiatives managed by local government), data were collected at the government agencies that provided these initiatives – the Department of Planning and Investment (DPI) of Daklak Province and HCMC. For two *overall e-initiatives* of Daklak Province and HCMC, as defined in Table 3.1, the fundamental body in both provincial governments providing all relevant data was the Department of Information and Communications (DIC).

For the last case, e-Customs clearance (single e-initiative managed by central government agency), the office of the e-Customs branch in HCMC was the most appropriate place for data collection. However, this branch reports to the HCMC Customs Bureau (HCB), and the HCB in turn reports to the General Bureau of Customs (see Figure 7.1 for structure). Although in principle HCB is managed by a central agency, it is, however, in part influenced by the HCMC People's Committee. This is one of the comples figures of local government structure in Vietnam.

The complex structure of functional departments in HCMC necessitates an overall analysis of the structure of local governments. The analysis will enhance the understanding of the functional department which plays a critical role in e-government development in provincial/city governments. Since all local governments are organized under the Law on Organizing the People's Council and the People's Committee (Vietnam National Assembly, 2003), the structures are basically similar for all local governments. The following descriptions take HCMC as an illustrative case.

Machinery of HCMC Government

As will be discussed in section 5.2, there are three administrative levels in local governments: (1) the provincial/city; (2) urban and rural districts; and (3) urban wards, rural townships and communes. To suit the purposes of this study, the provincial/city level was examined.

At the provincial/city level, the authority structure consists of the People's Council and the People's Committee. The People's Council is directly elected by HCMC residents for a five-year term. The council is led by a standing committee, comprising a president, a vice president and one committee member (HCMC CityWeb, 2010c). The Law on Organizing the People's Council and the People's Committee provides that the operation of the People's Council is overseen and instructed by the Standing Committee of the National Assembly and the central government (Vietnam National Assembly, 2003). Among the main tasks of the People's Council are of overseeing the performance of the People's Committee, and making decisions on budgets and other programs for local socio-economic development.

As regulated, after election, the People's Council elects the People's Committee, its executive body. This committee currently comprises 12 members, led by a president and

four vice presidents (HCMC CityWeb, 2010a). In general, the People's Committee is in charge of organizing the implementation of the Constitution, the law and other regulations of central government, and resolutions from the People's Council. By law, this is the body that manages almost every aspect of everyday life in HCMC. Under the People's Committee, there are 17 departments and 3 bureaux that are functionally specialised. In addition, 20 other assisting agencies, including an office of the People's Committee and other committees (HCMC CityWeb, 2010b).

A functional department is either vertically or horizontally organized. In certain areas, owing to the need for a consistency in nationwide administration, the structure is vertically organized. For example, HCB (HCMC Customs Bureau) is under the management of GBC (General Bureau of Customs), the central body managing the customs areas. HCB reports to the Ministry of Finance. By contrast, in other areas, such as in ICT, the structure of the bodies in charge is horizontal, meaning that departments of this type are directly managed by the city People's Committee. Since the extent of the involvement of the city government in the two types of departments is different, there are significant differences in roles and organizing principles in the two types of departments. These distinctions have an impact on the implementation of e-government in the city, especially in respect of leadership and coordination. The difference is seen in HDIC and HCB, which are described below.

HCMC Department of Information and Communications

The Department of Information and Communications of HCMC (HDIC) was established in June 2008 (HCMC People's Committee, 2008a). It was formed by a merger of two other former city departments: the Department of Post and Telecommunications and the Department of Culture and Information.

In terms of organizational structure and personnel, HDIC is under management of the HCMC People's Committee. Accordingly, the leaders of HDIC are appointed by the city People's Committee, and their salaries are paid from the city's budget. However, in regard to technical and professional issues, HDIC is supervised and directed by a functional ministry in the central government, the Ministry of Information and Communications. For example, HDIC has to follow national plans on ICT where these relate to HCMC, as proposed by the Ministry of Information and Communications.

Managing e-government activities is one of several functions of HDIC. Like other departments of its type, the roles of HDIC are to assist the city People's Committee to administer issues in assigned areas. The department covers a list of roles in ICT and communications, which include the press, publishing, the postal service and delivery, publications, the media, broadcasting, radio frequencies, telecommunications and the internet, information technology, electronics, radio and television, ICT infrastructure, computer networks, and e-government planning.

HDIC has extended its e-government managing roles based on its former functionally specialized body. Prior to the establishment of HDIC, the Department of Post and Telecommunications, established in 2004, was partly in charge of e-government activities in HCMC. Since its establishment, HDIC has developed the master e-government plan for the city, and facilitated the process of application deployment, standardization of data and procedures, and coordination with other functional departments (see further in section 8.5.1). In addition, it appraises and endorses ICT projects, and provides training (HDIC, 2006b). The roles of HDIC are also firmly regulated by Decision 61/2008/QĐ-UBND. According to this Decision, HDIC is entitled to allocate the budget, which is approved by the People's Committee, to ICT projects in all other departments and agencies in HCMC. HDIC is accountable to the city authority for the use of this budget.

HCMC Customs Bureau

Unlike HDIC, Customs Bureau of HCMC (HCB) is vertically organized and directly managed by a central government authority (GBC). The establishment of the HCB dates back to 1975 when the Southern Customs Bureau was established. The current HCB operates according to Decision 15/2003/QĐ-BTC of the Ministry of Finance, which was amended by Decision 02/2006/QĐ-BTC, in November 2006.

Two important features of the vertical relationship are reflected by appointment and reporting mechanisms. Firstly, appointments to the leadership of HCB are made by the Ministry of Finance, the body that GCB reports to, rather than by HCMC authorities. For example, in the recent appointment of the director of HCB, Ms Nguyen Thi Thu Huong was promoted to the HCB chief position on 1 October 2010 by a Decision of the Ministry of Finance (Bee, 2010). Secondly, in terms of operation, all major everyday transactions are periodically reported upward to GBC (Ministry of Finance, 2003b). Further, HCB must submit

to GBC all strategies and plans of operational transactions conducted in HCMC (Ministry of Finance, 2006).

Despite the vertical structure, HCB relies upon HCMC authorities to provide assistance and coordination. This relationship is important since the business of customs is closely related to other departments such as the Taxation Office and the Treasury. The important roles of the city authorities are evident, particularly in coordinating the expansion of premises and other ICT infrastructure required by the modernization programmes of the customs administration.

In brief, the organizations from which data were collected data are presented in Table 3.2.

Table 3.2 Government agencies for data collection

Cases	Government Agencies in HCMC and Daklak Province
HCMC	Department of Information and Communications of HCMC (HDIC)
- OBRS in HCMC	Department of Investment and Planning of HCMC (HDPI)
Daklak Province	Department of Information and Communications of Daklak Province (DDIC)
- Business Portal (in Daklak Province)	Department of Investment and Planning of Daklak (DDPI)
E-customs	E-customs Branch in HCMC

How the data were collected

Permission for data collection in government agencies in Vietnam normally requires relationships. The initial and important step was to survey the possibility of getting permission to do research in these public agencies. The first preliminary data-survey trip was undertaken in mid-2008 for this purpose. After that the researcher followed the procedure required by the Standing Committee on Ethics in Research Involving Humans (SCERH) of Monash University, also known as Monash University Human Research Ethics Committee (MUHREC) since 2011. In particular, an important document approved by SCERH was the

research explanatory statement. This document was presented to HCMC Open University, the institution where the researcher previously worked. The Open University issued official letters of recommendation to five government agencies (listed in Table 3.2, above). After that, the combined sets of documents were presented to the offices of government agencies for permission for data collection.

The two methods of data collection in these government agencies are archival studies and interviews.

Archival studies

Two main sources of data were sought: (1) political and judicial documents; and (2) organization records. Regarding the first source, all relevant legal documents and policies were collected. The principal materials include strategies, funding plans and management decisions such as staffing structure and ICT project management. While some documents could be found on organization websites, several could only be obtained by staff in these agencies. This source provides useful statistics for analysis such as figures on performance and staff size.

Interviews

Sampling technique

Samples in qualitative research are often theoretically guided. Miles and Huberman (1994) contend that qualitative sampling must be theoretically driven and the choices of informants driven by a conceptual question, not by a concern for representativeness. In the literature review, this study identifies four key players who influence e-government development (Heeks, 2006). These stakeholders are:

1. politicians;
2. public senior managers;
3. IT professionals; and
4. mainstream staff.

A challenge for the study in the context of Vietnam is that it is difficult to obtain permission for interviews with political leaders, particularly in relation to public policies. As a result, direct interviews were unable to be conducted with this particular type of participant.

However, their views could be achieved by the Question and Answer sessions of the conference, which is detailed in the next subsection.

At some stages of the process of data collection one of two directions emerges:

1. particular evidence for certain points became saturated such as the staff views on ICT roles in public administration, and
2. further inquiry into other informants was needed as the interviewees recommended that other informants could provide more relevant information.

While the first direction is called 'theoretical saturation', an important concept in this type of sampling, the second is associated with the fact that the sample size of the theoretical sampling technique is determined progressively (Blaikie, 2009). For example, similar feedback from staff in the case of Daklak Province enabled the researcher to skip some of the planned interviews with this particular group of participants. However, rich sources of evidence could be obtained from other informants such as the coordinator from a donor office that sponsored an e-initiative in Daklak Province and from a journalist who has long probed issues of e-government. Data collected from these participants were important for triangulating with those from other sources.

Interview Process

Interviews used in this study were semi-structured and in-depth, conducted during the field trip from March to July in 2009. During data collection, the researcher conducted interviews using a list of prepared open-ended questions (see the Appendix A). Respondents normally asked for these to be sent in advance; they then arranged a meeting time and venue. Interviews were conducted with planned objectives but flexibly. For instance, questions were not necessarily repeated in interviews with other IT experts, but the intended objectives were achieved at the end of the interview(s). They were thus all in-depth interviews. Before conducting interviews, the researcher had studied the background of relevant issues and developed trusting relationships with interview participants; this enabled interviews to take place in what Marshall and Rossman (2006, p. 101) describe as 'a conversation with a purpose'. In these conversations, capacity to ask relevant questions and the skills of effective listening were practised. In many cases, due to participants' limited time or issues that needed additional investigation time, interviews were adjourned and

resumed when interviewees were available. In limited cases, respondents chose to reply by email.

In late 2010 and mid-2011, follow-up interviews were also undertaken to address missed information and to obtain updated information. These interviews took place as the data analysis was completed and the discussions were on-going. In addition, informants supplied materials not collected on the field trip via emails, such as in the cases of e-Customs clearance, Business Portal and Online Business Registration System in HCMC (time of interviewing is provided in Appendix B).

Conference Interactions

In this study, a great deal of valuable data came from this method. The national e-government symposium in Vietnam was conducted on 16-17 July 2009. The central theme of the symposium was: *Building E-Government at Local Governments* (Phan, 2009). This was a two-day conference, organized by the Ministry of Information and Communications and the International Data Group (IDG), an international corporation. Because of the unique theme of the 2009 symposium (focus on e-government at local government levels), a number of local and provincial leaders attended the conference (MIC, 2009; Phan, 2009).

The participants were high-ranking officials from both central and local government, including the Deputy Prime Minister, the Head of National E-government Steering Committee, and a number of leaders of provincial/city Department of Information and Communications. There were four separate sessions (see the Appendix C), each with a Questions and Answers at the end. The researcher was one of the presenters at the symposium (in section 4), and was thus entitled to participate in presentations and discussions. This was a special opportunity to ask relevant questions and to observe discussions on issues relevant to the study. The list of presenters whose presentations and/or discussion were partly quoted in the study is presented in the Appendix D.

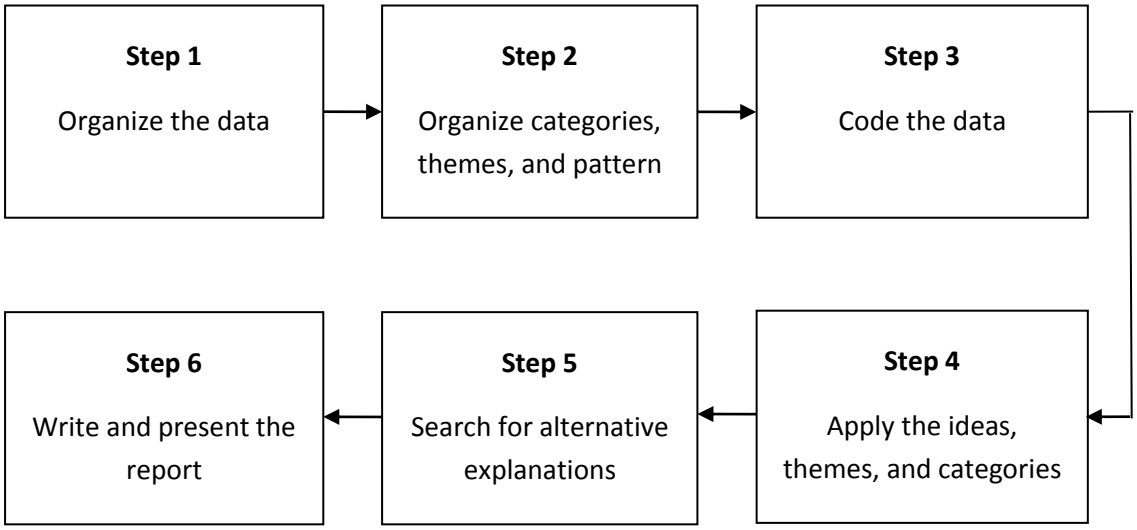
In summary, 18 interviewees participated in direct interviews and 12 direct observations were conducted during the field trip from March to August 2009. All the observations were recorded. For reasons of research ethics (see details in step 7 which discusses case identity), all the interviewees were kept anonymous.

Step 5: Data Analysis in Individual Cases

Yin (2009) contends that this is the most difficult phase when conducting case studies, because analysis depends on the style of empirical thinking of researchers, the sufficiency of evidence, and careful consideration of alternative interpretations. He also asserts that computer-based tools become extremely useful only if an investigator has a strategy and technique. With a good strategy, evidence is treated fairly, convincing analytic conclusions are produced, and alternative arguments are ruled out.

The detailed procedure of data analysis by McNabb (2002) was used to guide data analysis in each individual case. It is in fact subdivided into five smaller steps, as presented in Figure 3.2. The *NVivo* package (the 8th version) was used in the first three steps of this procedure.

Figure 3.2 Procedure of data analysis



Source: McNabb (2002, p. 297)

Following this structure, data were first put into *NVivo*. All data, mostly in text, but some in audio format were imported into the source files of *NVvivo* where a folder system is purposely created that corresponds to case studies. Next, the framework developed in Chapter Two was created in *NVivo* which showed key constructs and concepts (see the Appendix E). This was placed in the *Tree Node* of *NVivo*. This framework could add emerging factors. Once the framework was established, coding the data (Step 3 in Figure 3.2) commenced. This coding process began by searching for relevant data in source files and then forwarding the code selections to relevant themes in the tree nodes. These techniques

help not only avoid overlooking relevant evidence, but also readily categorize factors and differentiate case data. After the coding process was completed, result files on themes for each case were exported to produce evidence for each category and theme, as presented in Step 4. The next step (5) was searching for alternative explanations, if any, after which drafting the findings for each case (Step 6) began.

Step 6: Cross-case Analysis

This step is in accordance with the overall framework, as presented in Figure 3.1. Research methodologists, such as Miles and Huberman (1994), suggest that a variable-oriented approach based on cross-case analysis helps heighten understanding and explanation and enhances the possibility of generalizability. This approach was used in this step. Accordingly, all the case studies were combined in this step. The process of grouping and tabulating evidence was facilitated by the grouped data in each individual case in previous steps. *NVivo* software played an important role in this process because it helped ensure all relevant data were included in the cross case analysis. Specifically, this computer package could combine all grouped coded data from cases. Based on these aggregated grouped data and previous analyses of cases, the summarized tables were created.

Step 7: Prepare and Present the Findings

This step takes into account four major points:

1. targeting the audience;
2. an illustrative structures of the cases' composition;
3. the cases' identities; and,
4. the validating procedure.

The preferences of various types of audience could differ, for example, academics *versus* policy makers. Targeting the audience thus helps prevent errors arising from disregarding the knowledge and interests of the audience (Yin, 2009). This dissertation has major practical applications; it therefore has two types of audience (Yin, 2009):

1. the thesis examiners, who are academics, and
2. policy makers, practitioners and government leaders.

Yin (2009) also makes clear that for the former, rigorous methodology and theoretical issues are important, and for the latter real-life situations and implications for action are preferred. A focus on the preferences of the audience was maintained throughout the research.

The second notable feature of the report and findings is how they are structured. The main objectives of the thesis are to examine critical factors of e-government implementation in Vietnam. Given the study's exploratory nature, a modification to the approach that is designed to test well-established theories is needed. As a result, the four typical steps, adapted from Paltridge and Starfield (2007), generally guide the sequencing of analysis in this thesis, including:

1. overview of the significant findings of the study;
2. reference to previous studies – comparison, confirmation or contradiction;
3. examination and/or explanations of findings that fail to support or only partly support the conceptual framework presented in the study; and,
4. implications of the study for the pre-defined conceptual model.

Case identity is another issue that should be taken into account in writing up case reports. There are two levels in regard to issues of anonymity: the entire case(s), and the participants within a case (Yin, 2009). In the context of Vietnam, it is possible for the cases to be explicit. However, all participants required anonymity, except the participants who publicly presented at the symposium. Therefore interviewees' names were de-identified by a number. This practice complies with moral standards for research (McNabb, 2002) which will be discussed in section 3.5.

The fourth important issue in this last step was the validating procedure. Accordingly, review of the draft of the case study was required before moving to the final version of the findings. Beyond normal reviewing, for example by peers, this process also engaged participants. By doing this, as Yin (2009) argues, any mistakes in data collection will be rectified, and any disagreements in evaluations or conclusions can be resolved by investigating additional evidence. This discipline was implemented strictly in this research. For example, the preliminary findings from case studies were checked with the interviewees before the author presented them at the national e-government symposium in 2009 (Nguyen, Teicher, & Smith, 2009).

3.4 Quality Assuring the Research Process

There are various views on validity and reliability in research that employs qualitative methods and a case approach (Babbie, 2010; David & Sutton, 2004; Thomas, 2011; Yin, 2009). This section clarifies the meaning of validity and reliability in this research, then describes how they were applied to enhance the quality of the research.

3.4.1 Validity and Reliability and Research Quality

David and Sutton (2004, p. 171) define *reliability* as the degree to which the indicator or test is a consistent measure over time, or, simply, will the respondent give the same response if asked to give an answer at a different time. *Validity* is the degree to which a measuring instrument actually measures and describes the concept it was designed to analyse. David and Sutton (2004) argue issues of reliability and validity stem from the use of indicators and tests. Others research methodologists (Smith & Deemer, 2000; Thomas, 2011) contend that the meaning of reliability and validity is less clear in a case approach. They reason that these concepts have been imported from a specific research field, psychometrics, and there is no probability sample in a case study (Babbie, 2010; David & Sutton, 2004; Thomas, 2011; Yin, 2009).

Although there remains controversy in the application of concepts of validity and reliability in research-based cases, measures to enhance research of this type have some common ground – data quality and rigorous research design. Marshall and Rossman (2006) show that the two important criteria for sound research are research design and relevant data. In particular for a case-study approach, Yin (2009) not only notes the critical role of research design but also lists important characteristics of data, such as having sufficient evidence and consideration of alternative perspectives. In other words, research quality is significantly influenced by quality of data and research design.

This research employed the techniques and tactics provided by research methodologies (Yin, 2009; Miles and Huberman, 1994), which can enhance the research design and relevant data collection in social science. Regarding the research design for a case approach, tactics employed included using multiple sources of evidence, having key informants review the draft of the case study findings, and using replication logic in multiple-case studies (Yin, 2009). For obtaining relevant data, Miles and Huberman (1994, p. 268) emphasize the

features (see Table 3.3, below) of the data collection process that may result in strong or weak data.

Table 3.3 Strong data versus weak data

Stronger data	Weaker data
Collected later, or after repeated contact	Collected early, during entry
Seen or reported firsthand	Heard secondhand
Observed behaviour, activities	Reports or statements
Field-worker is trusted	Field-worker is not trusted
Collected in informal setting	Collected in official and informal setting
Respondent is alone with the field-worker	Respondent is in the presence of others, in a group setting

Source: Miles and Huberman (1994, p. 268)

Apart from the general features of the data collection process in Table 3.3, triangulation, as defined in the next section, has been widely used as a means to obtain the most relevant data.

3.4.2 Triangulation

Triangulation generally is about the attempt to get a 'true' fix on a situation by combining different ways of looking at it or different findings (Silverman, 2005). Data triangulation specifically is 'the act of bringing more than one source of data to bear on a single point' (Marshall & Rossman, 2006, p. 202). Because theory-building researchers conventionally employ multiple data collection methods (Eisenhardt, 1989), data triangulation is often used to validate evidence.

Data sources in this study come from interviews, archival sources and conference interactions. Where possible, the data collection process for this study followed the suggestions for stronger data in Table 3.3. In particular, triangulation was regularly exercised in selecting data used for the analysis. For example, views from enterprises' representatives were used to verify the accuracy of data supplied by government officials. Data from press

sources and some reports were cross-checked with other sources. For instance, some 'outliers' from the reports of the Vietnam ICT Index were checked with individual government agencies that supplied the data.

3.4.3 Other Indicators of Research Quality

In addition to these two important criteria, research design and data, Hammersley (2005, pp. 3-4) suggests other indicators of research quality, which are adapted by Thomas (2011, pp. 66-67) to a case approach:

1. The clarity of writing:
    - Consistency in use of terms
    - Are definitions provided where necessary?
    - Are sentences well-constructed?
2. The problem or question being addressed:
    - Is this clearly outlined?
    - Is sufficient rationale provided for its significance?
3. The method used:

    To what degree, and in what respects, was each of the methods chosen (in regard to selection of cases for study, data collection, and data analysis) likely to be effective?
4. The account of the research process and of the researcher:
    - Is there sufficient, but not too much, information about the research process?
    - Is there sufficient, but not too much, information about the researcher?
5. The formulation of the conclusions:
    - Are the main claims made clear?
    - Are the relations between subordinate and superordinate claims (including evidence) made sufficiently explicit?
    - Is the nature of each claim (as description, explanation, theory, evaluation, or prescription) indicated?

These five indicators and sub-questions are considerations for high quality research, which have been maintained throughout the thesis.

3.5 Ethical Process and Considerations

MacNabb (2002) defines research ethics as the exercise of moral standards in planning, conducting and reporting the results of research studies. He also cites four practical ethical principles that influence the morality of research in public administration:

1. truthfulness;
2. thoroughness;
3. objectivity; and
4. relevance.

Briefly, the truthfulness principle means that it is unethical for the investigator to deliberately lie or deceive. The thoroughness principle keeps the researcher following rigorous steps in the research design. The objectivity principle requires the researcher to sustain objectivity throughout the study. In this study, objectivity was maintained by 'letting the data speak' rather than attempting to fit the data into a pre-determined explanation or view. And the relevance principle is to keep the research relevant; otherwise, it is a waste of time and effort for respondents.

In line with the ethical procedures of Monash University, the SCERH, researchers must meet all the criteria set by the committee. Major requirements include: voluntary participants, fully informing participants of the research objectives, and strict conditions of data storage. In the context of Vietnam, it is difficult to ask informants to sign consent form or to be allowed to use a recording device. Taking notes was therefore used in interviews. However, as noted in Step 4, in the Explanatory Statement of the research and a certified copy of the Vietnamese translation (see the Appendix F) must be presented to organizations for interview permission. This statement was also presented to other individual interviewees to get their permission. Either before or after all interviews were conducted, government agencies issued decisions/documents to allow/confirm the investigation of the researcher within their agencies. Except the Customs Bureau of HCMC which issued an internal decision to allow the researcher to conduct research in the e-Customs branch, other government agencies provided an official letter which confirmed the research participation in their departments (see Appendix H).

Regarding ethics in disseminating results, McNabb (2002) raises three issues for researchers:

1. protecting participants' privacy;
2. ensuring the anonymity of participants; and,
3. respecting the confidentiality of individuals involved in the study.

In particular, the researcher must ensure that participants' privacy is not invaded, results attributed to any single participant should not be made known, and list of sample members' names must be kept by the researcher. This research followed all of these ethical requirements

3.6 Limitations of the Research Methodology

Qualitative methods and a case-study approach have proven to be the most suitable forms of empirical inquiry in this research. However, they are not without limitations. This part presents the problems of generalizability, among others, and strategies which have been applied throughout this research to overcome such challenges, either partially or entirely.

One of the greatest concerns about qualitative methods and a case-study approach is generalizability. Bailey (1992) states that social science research is rarely replicated because of changes in context, time, political, social and economic conditions. At least in probabilistic terms, transferability or generalizability of qualitative research to other settings may be problematic (Marshall & Rossman, 2006). Other possible disadvantages of these approaches are problems with case selection. George and Bennett (2005) point out that case bias is potentially a severe problem in case study research. Another problem is data. Although data triangulation was employed, not all evidence could be checked by alternative sources. Therefore those arguments that are exclusively reliant on a single source may be misleading. While these risks have been minimised to the best of the researcher's ability, they cannot be completely discounted.

Through awareness of these potential methodological limitations, the research design was carefully formulated, and the researcher's skills were carefully refined. Firstly, in order to tackle the problems of biased selection, two cases whose economic and social settings are significantly different were chosen, instead of a single case. This choice helped eliminate the problem of a single extreme case. In addition, as Yin (2009, p. 15) states, 'case-studies are generalizable to theoretical propositions and not to populations or universes'; theoretical and even practical propositions from these two cases can be transferred to other provinces

if they are at the same level of economic and social development in Vietnam. However, since the nature of the research in the thesis was exploratory, it was not intended to be generalizable.

Secondly, the investigator always retained modest scepticism about the quality of evidence; data triangulation was therefore undertaken whenever possible in this research. In terms of research skills, it was quite obvious from the outset that this research could not use quantitative methods. Therefore the investigator has been well-prepared with necessary skills in qualitative methods, including interviewing skills and the qualitative data analysis software, the *NVivo* package.

3.7 Conclusions

The chapter provided the research methodology used in this study. The basis for the selection of methodology was the nature of the research objectives and the area of research. Accordingly, a case approach and qualitative methods were chosen in the study.

The three particular methods of data collection principally employed in this thesis were archival studies, interviews and conference interactions. Synthesized from the literature on methodology, the method of archival studies was defined in a broad sense that includes a wide range of sources. This was the main method for answering the first two research questions. In the last two research questions, all three methods were employed. Two different documentation procedures for first two and last two questions were presented. In these procedures, the process was detailed at to what sources of data were collected, how they were undertaken and analysed. In particular, a seven-step framework was used to guide the whole process for the last two research questions.

Other pertinent issues of research methodologies were also addressed in the chapter, including issues of research quality, ethical process and considerations. The selection of data sources and triangulation were followed throughout the study. The standard procedures of Monash University and other common research ethics frameworks were applied in the study. Finally, the limitations of the study's research approach and methods were raised, along with strategies to overcome them.

CHAPTER FOUR

VIETNAM: SOCIETY AND ECONOMIC DEVELOPMENT

4.1. Introduction

Understanding the process of e-government development and the nature of public administration requires background knowledge about the society and economy. This chapter's objective is to provide the basis for the later analysis of e-government and public administration in Vietnam. To this end, the chapter describes socio-economic factors that have direct or indirect impacts on the development of e-government. Detailed analysis of the process of economic development is, therefore, beyond the scope of this chapter.

As presented in the chapter, failure of the command economy and a crisis of resources threatened the existence of the regime. Market-based reform was initiated in the Party Congress VI (1986) which brought changes to a series of economic policies. Since then Vietnam has increasingly become a trading nation after years of pursuing an export-oriented economy. However, its main exports are still primary and agricultural products based on a relatively large reserve of natural resource and cheap labour. Since natural resources are not unlimited and value added to labour-intensive and primary products is not high, the accumulation of capital for development has had to rely on foreign sources. International financial institutions and donors and international investors have supplied a considerable amount of capital in the country. Furthermore, the accession to ASEAN, APEC and the WTO have had profound impacts on policy making in Vietnam, particular in the reform of public administration. As further analysis in Chapter Six shows, the factors of foreign investors, international institutions and the economic integration process play an important role in promoting e-government activities.

In addition, as subsequent sections describe, Vietnam is a populous country where young people dominate the population; this provides a great opportunity for acquiring new skills and knowledge for e-government development. However, there remain several economic and cultural factors, such as relations-based practice and an acceptance of corruption, that still exist in Vietnamese society. This can constrain the development of e-government.

The chapter begins with information about the country's geography and natural resources. This is followed by a description of population, education and culture. Subsequent sections

focus on economic development, stressing factors that contribute to the development of ICT and e-government. The process of regional and international integration and relations with international financial institutions and donors are then briefly discussed. The issue of equity is then presented, which provides background information on the digital divide analysed later in the thesis. The final section provides a summary of the main themes presented in the chapter.

4.2. Geography and Natural Resources

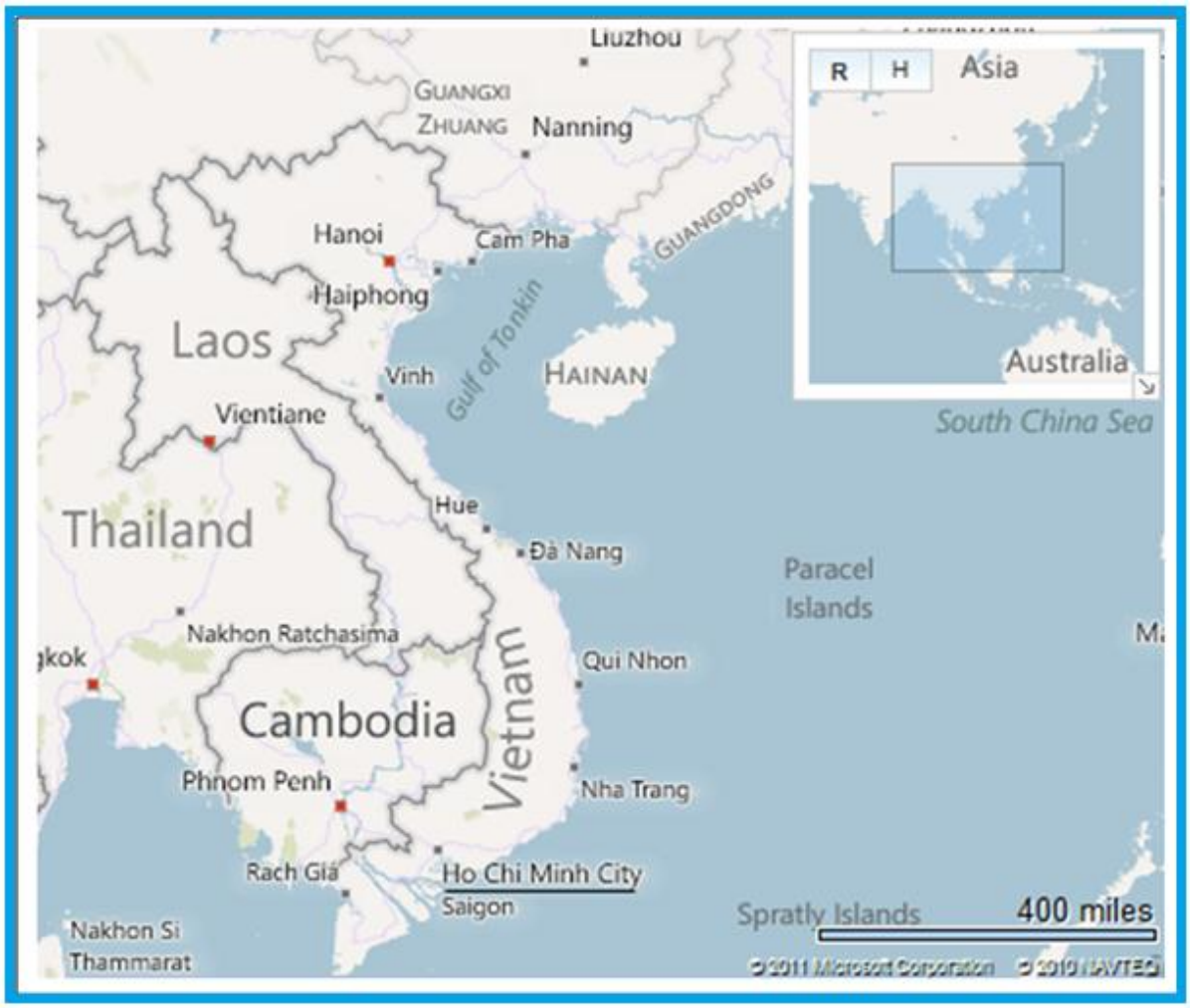
Located in Southeast Asia, Vietnam is bordered by China to the north, Laos and Cambodia to the west and the Pacific Ocean to the east and south (see figure 4.1). The mainland territory has an area of 331,211 square kilometres. Vietnam's map is long but narrow with a coastline of 3,260 km and an inland border of 4,510 km.

Vietnam possesses a strategically geographical position in the region, at the junction of the Indian Ocean and the Pacific Ocean. As a country in the centre of Southeast Asia, Vietnam has close proximity to several regional countries. These features create favourable conditions for the process of economic development, especially in the activities of international transportation, trading and tourism.

Vietnam's climate is tropical and monsoonal. The weather conditions are suitable for the cultivation of rice and other agricultural crops such as coffee. Vietnam is among the world's leading exporters of rice, pepper and coffee, second only to Thailand for rice export (Folkmanis & Nguyen, 2010) and the world's largest producer of Robusta coffee (Bloomberg News, 2011). The majority of rice production is from the two largest production areas, the Mekong Delta in the south and the Red River Delta in the north. The largest area for coffee plantation is in the Central Highlands.

Vietnam has a relatively large reserve of diverse types of natural resources. Typical reserves include oil, gas, coal and bauxite. Of particular importance is crude oil. This commodity has long topped the list of the country's export commodities until an oil refinery in Vietnam came into operation in early 2009. In 2008 oil export revenue reached US$10.5 billion (11.6% of GDP), the largest export commodity (GSO, 2009; World Bank, 2011). Financial resources from oil export are an important share of the government state budget.

Figure 4.1 Map of Vietnam



Source: The National Geographic Society (2011)

There have been debates (CIEM & ACI, 2010; Harvard Vietnam Program, 2008) about the efficiency of the exploitation of the country's natural endowment. Discussions on these are beyond the focus on this research. However, it is acknowledged that natural reserves contribute greatly to economic development. In the early stage of the nation-building process after country unification in 1975, and particularly since *Đổi Mới* in 1986, those primary products that simply exploit natural resources have been essential sources for capital accumulation for developing infrastructure, including ICT infrastructure.

4.3. Society

Three particular areas that this section considers are population, education and culture. This description helps provide useful contextual information for the analysis of the relevant factors in the conceptual model developed in Chapter Three.

4.3.1 Population

In 2009, Vietnam had a population of 86.02 million people (GSO, 2010), and was the 13th most populous country in the world. A large population residing in a relatively small area results in high density of 260 people per square kilometre (in 2009). The population allocation is unequal between regions and provinces. Official statistics (GSO, 2010) show that the density in the region of the Red River Delta was about 10 times higher than in the Central Highlands. At a provincial level, the disparity is even larger in developed cities compared with poor provinces. For example, the density in HCMC was 3,419 people per square kilometre while that of Daklak Province was 132.

Vietnam currently has a 'golden structure' of population because the rate of dependence is low, with 90% of the population being below or within the working age by the end of 2009 (CIEM & ACI, 2010). There are 54 ethnic groups in the country, of which the *Kinh* is the largest group, accounting for 87.17% (Price Waterhouse Coopers, 2008). The Kinh people speak Vietnamese, the official language. English has increasingly become the second most popular language. In 2009, females and males were relatively equal at 50.5% and 49.5% of the population respectively. Rural residents predominate, with 70.4% of the population living in rural areas (GSO, 2010).

The young population provides a great opportunity for acquiring new skills and knowledge such as ICT, an important element of e-government implementation, especially since the literacy rate for adults is 90.3% (UN, 2010). However, the unequal population distribution in urban and rural areas poses a challenge in developing infrastructure for e-government, especially for those who are minority groups or who live in remote areas. These issues will be further explored in the case study chapters.

4.3.2 Education

The young population also gives rise to a high demand for schooling, which potentially improves the overall skills and knowledge of ICT. In 2009, there were 14.9 million students in primary and secondary schools, 1.79 million students in universities and colleges, and about 700,000 students in professional secondary schools (GSO, 2010). Schooling at all levels is increasingly teaching the ICT-relevant subjects. This is partly as a result of the two government plans (Prime Minister of Vietnam, 2005b, 2009b) for developing ICT human

resources (this point will be analysed further in section 6.4.4). In these documents, the government shows its commitment to gathering resources so that pupils and students are able to acquire specific ICT knowledge and skills.

The demand for tertiary education from high schools leavers is high, but opportunities available in tertiary education institutions are limited, despite a significant increase in the number of tertiary education institutions in recent years. Although there were no official statistics on the exact number of candidates, it was reported that there were more than 1.8 million applicants for the 2010 entrance exams for colleges and universities (Hong Hanh, 2010), but only 514,500 places were available (VoV News, 2010), despite the fact that there were 413 universities and colleges by 2010, an increase of 91 schools within five years (GSO, 2011b). In 2008, statistics for university students per 1000 residents in Vietnam were much lower than in Thailand, for example, at 14 versus 32 (Nguyen, 2010f). The low penetration of tertiary education leaves a large number of students being unable to acquire important ICT skills that could later lead them to become well-trained e-citizens in an e-government.

Tertiary educational institutions tend to be located in developed cities; therefore students studying in local and regional universities and colleges are substantially fewer, making it difficult for provincial governments to attract qualified staff. For example, while the 2009 number of students in Vietnam was 1.8 million, fewer than 16,000 studied in Daklak Province (GSO, 2010). In regard to computer-related teaching, 98.7% of high schools nationwide provide basic units on computers for their pupils. For lower levels, the figures are much lower, with 59.9% for secondary (grade 6 to grade 9) schools and 26.3% for primary schools (Vietnam Informatics Association, 2010).

Tertiary education and research institutes are criticised for poor performance. The most serious problems, according to most critics (Harvard Vietnam Program, 2008; The Economist, 2010; Vallely & Wilkinson, 2008), are obsolete methods in teaching, lack of qualified teaching and management staff, and the absence of autonomy in education. One of the main reasons is that the education system in Vietnam, especially at tertiary level, is subject to heavy intervention by the Communist Party. This affects the appointment of key staff and decisions related to curriculum within the universities (Harvard Vietnam Program, 2008; The Economist, 2010; Vallely & Wilkinson, 2008). As a result, graduates are often a poor match to the requirements of the jobs market. For example, Intel Corporation

undertook a standardized test of 2,000 Vietnamese students, and about 5% passed, but of these fewer than half had sufficient English proficiency to be employed (Vallely & Wilkinson, 2008). Research output such as publications in international peer-reviewed journals is significantly low. In 2009, for example, scholars in Vietnam had 959 articles published internationally, compared with 4,257 for Thailand (Nguyen, 2010g). Similarly, in 2006, the Vietnamese Academy of Science and Technology published 41 articles while the faculty of Fudan University in Shanghai produced 2,286 articles during the same period (Harvard Vietnam Program, 2008). Against this backdrop, contributions from competent think-tanks for policy analysis from the tertiary education institutions, including for e-government development, are limited.

4.3.3 Culture

The values of liberal democracy have not had much opportunity to grow in the history of Vietnam due to the domination of feudalism, colonial regimes and the communist system. A long history of feudalism, a colonized state, and the application of the communist system constrained the development of awareness of democracy; instead, what is deep-rooted in the mindset of the citizens and government officials alike is the convention of charismatic and traditional authorities. According to Weber (1947), charismatic authority is based on devotion to outstanding individuals or gifted leaders who have special qualities, and whose followers believe in their charisma. Functioning like a hero or a prophet, a leader of this kind gains the respect and loyalty of followers. As for traditional authority, it exists simply because of tradition or convention. Obedience of this type is owed to those leaders whose power was traditionally granted or inherited, such as monarchical figures or tribal chiefs.

Although feudalism formally collapsed when the first-ever republic was established on 2 September 1945, a colonial regime had coexisted with it for more than a century. In 1858 the French began their invasion in Vietnam. The period 1858-1945 is considered the colonial period (Pháp Thuộc). Between 1945 and 1954, the country fought against the French who were trying to re-impose their colonial regime after French forces had replaced the occupying Japanese, who had driven out the French in the Pacific War, in 1945. Soon after the defeat of the French at Dien Bien Phu, the civil war with foreign intervention broke out between the northern government (supported by the Soviet Union and China) and the southern government (backed by the Americans). The country was united in 1975, after the

northern government won the war. After unification, a central planning system was imposed nationwide until replaced by the overarching reform known as *Đổi Mới* in 1986.

A set of cultural values has been firmly rooted throughout Vietnam's history; however, for the purpose of this study, the following cultural norms are examined: the obedience tendency of the citizens, relations-based practices, and obviously perceptible corruption of the people. The importance of these factors is that they form a barrier to the process of e-government implementation.

The obedience characteristic is likely to be a legacy of feudalism and the Stalinist model. In any dynasty in the past in Vietnam, orders from kings and mandarins were final and must be followed by the people. In the same vein, the Party organizing principles in the communist system currently applied in Vietnam, which are based on the Stalinist model of the Soviet Union (Bottomore, Harris, & Miliband, 1991), concentrate much power in the Politburo (Riedel & Turley, 1999), the body that decides issues of national importance. All subordinates in the Party hierarchy must abide by any decisions made by this body. The National Assembly is arguably dependent on the Party (see section 5.3.3). Nguyen Van An, a former member of the Politburo who held several important positions in the Party and the State, recently said that people have had a feeling that the Party is acting like collective kings (Nguyen, 2010e). This has influential impacts on government policy making (analysed in Chapter Five) and leadership of e-government implementation (discussed in Chapter Ten). Further, for years of living under a command economy before *Đổi Mới*, people's economic destinies were determined by government and they were not independent economic agents. This factor could have a profound effect on people's reliance on government. This is why, as observed by local and international researchers (CIEM & ACI, 2010, p. 66), 'citizens are used to "obeying" administrative orders of the government at various levels'.

Relations or family-based practice and acceptance of corruption have increasingly become a norm in the country through daily familiarity. There is little doubt that nepotism was a reality in feudalism, and it remains a problem in the thinking of modern Vietnamese society. Today, a common Vietnamese motto when dealing with government services says 'nhất thân nhì thế', which means literally 'of paramount importance is a good relationship'. Another saying that is also popular in Vietnamese society is 'Một người làm quan cả họ được nhờ' which means '[if] a person is a mandarin, all his or her relatives benefit'. As a result,

appointments to senior management based on connections rather than on professional qualifications are common in companies and public agencies. This further explains a recent study's findings (CIEM & ACI, 2010) that show the reality that at work reliance on relationships and relations-based promotion are common in Vietnam. Another intrinsic value which has negative effects is reflected in a motto 'Đồng tiền đi trước, đồng tiền khôn'. This expression means that 'the money that goes first is the wise one'. In this saying, the act of giving 'money' is a bribe; however, the common perception of this is a 'wise' move.

As presented in Chapter Three, e-government implementation has the potential to shift government agencies and public servants toward a more transparent and democratic path. So, do the intrinsic cultural values just discussed affect the development of e-government in Vietnam? An answer to this question will emerge in part from the case studies in Chapters Seven, Eight and Nine. However, a conclusion in a recent report by the National Assembly (National Assembly Standing Committee) is relevant here, since it shows that there remain problems in the process of public administration reform, which are inherited from past working cultures:

> Public administration reforms (including e-government initiatives) confront considerable challenges by the legacy of the central-planning mechanism, typically the 'begging and giving' (xin–cho) practice. This reform process faces hurdles also because of the effect on individual benefits of several state agencies, cadres and public servants (2010: p. 17).

4.4. Economy

This section provides the context of *Đổi Mới*, economic reform in Vietnam and the overall economic performance and relevant economic-related forces that have effects on ICT and e-government development.

4.4.1 The transition from a Central Planning Economy to a Market-Based Economy

In the early 1980s, the country and the Party faced several difficulties that threatened the existence of the regime. Reform was imperative at that time. Two prominent studies by Dang (2008) and Riedel and Turley (1999) have identified the causes and problems leading

to reform in 1986. Based on these studies and other historical facts, selected principal reasons for the reform, known as *Đổi Mới,* are now briefly discussed.

The first and foremost catalyst for change was the failure of the command economy. After the victory at Dien Bien Phu in 1954, the Northern Government of Vietnam started its nation building process, and the command economy was put in place. This economic model in fact showed problematic signs during the time it applied in the North because, as Riedel and Turley argue,

> the model was inappropriate, not only because of the North's material shortcomings, but because the state was weak, relative to the model's requirements (1999, p. 13).

However, war conditions were viewed as a reasonable excuse the leaders used to explain any failures that the model experienced. In addition, the General Secretary at the time, Le Duan, could find no better option for the country after reunification; he viewed, as quoted in Dang (2008), the 'collective model' as one of the three greatest human inventions. After the war, however, despite experience with four years of implementation (1976-1979) on a nationwide scale, there were serious problems, such as a shortage of materials for industry and a lack of food for citizens. It was clear that the model was not working (Dang, 2008).

Second, the urge for reform also came from a shortage of resources that was exacerbated by the wars in 1978-1979 with the Pol Pot regime (Cambodia) in the Southwest and with China in the northern border area. Relations between Vietnam and China deteriorated in the context of the Sino-Soviet split, because Vietnam was closer to the Soviet Union. As a result, Chinese subsidies were ended in 1977. Further, the Pol Pot regime, backed by the Beijing government, continued to harass and kill thousands of Vietnamese citizens in the Southwest border regions (Dang, 2008), and Vietnam decided to eliminate the Pol Pot regime by a massive military campaign which began in late December 1978. Not long after the eradication of the Pol Pot regime, in February 1979 China invaded Vietnam in the northern border areas, under the guise of 'teaching Vietnam a lesson' (Kissinger, 2011). This was a short but bloody war with great loss on both sides. All in all, large-scale mobilization for these new wars exhausted Vietnam's economy. Further, serious natural disasters added to greater difficulties in the same period. In late 1978 and in 1979, there were two serious floods which devastated provinces in the Melkong Delta, the main region supplying rice for

the country. Thousands of families were left homeless and crops had to be delayed (Dang, 2008).

In addition, reform was also triggered by a change at the highest level of Party Leadership when Truong Chinh replaced Le Duan, who had died, as the Party General Secretary in 1986. The deteriorating situation led the new Party leader to focus more attention on the command economy by investigating regularly at the grass-roots level, rather than merely relying on reports (Dang, 2008). Truong Chinh understood the seriousness of problems caused by collective production and central planning, and he then advocated a campaign of 'looking into the truth and telling the truth' in a political report prepared for Party Congress VI in 1986 and at the Congress itself (Dang, 2008).

It is worth noting that one of the key features of the reform was that it was economic not political. The adapted version of Stalinist model of the political system remained in place, which created several challenges. Chapter Five discusses in detail the political system, the challenges facing public administration in Vietnam, and how they affect the trajectory of public administration reform.

4.4.2 Economic Performance

The market-based reform initiated at the 6th Party Congress (1986) brought changes to a series of economic policies. Most noticeable was land distribution to individual households, also known as de-collectivisation. In addition, the liberalisation of prices and trade was boosted in tandem with the promotion of a multi-component economy (rather than an economy comprising state-owned enterprises alone in the previous period) and foreign direct investment (Dang, 2008; Riedel & Turley, 1999).

A particularly important policy was the expectation that the creation of a private sector would unleash great economic potential for the country. State-owned enterprises, the only type of companies that existed before *Đổi Mới*, were gradually privatized, although state-owned enterprises remain a major feature of the economy (Fforde, 2007; Painter, 2003a). By 2009, there were 205,732 enterprises in operation, in which non-state (including foreign-owned) enterprises accounted for 98.4% of the total (General Statistics Office, 2009a). The great expansion of the private sector created a new class who are wealthier and better educated, enhancing the take-up of e-government services.

These reforms in turn produced significant achievements, despite several challenges. There is little doubt about improvement in the living standards over the last two decades in Vietnam, enabling it to become one of the fastest growing economies in the world. Impressively, Vietnam achieved an annual GDP growth rate of 8.4% between 1990 and 1997 and 7.5% between 2000 and 2006. Despite the recent international economic downturn, Vietnam experienced a growth rate of 8.5% in 2007 (Price Waterhouse Coopers, 2008) and 6.14% in 2008-2010 (GSO, 2011b). In terms of real GDP per capita, Vietnam also made significant strides in developing as a lower middle-income country in 2008 when its income per capita surpassed $US 1000 (CIEM & ACI, 2010). Better-off citizens are important for the development of e-government as costs for ICT are normally more expensive in developing countries (Bhatnagar, 2004; International Telecommunication Union, 2009).

In spite of its achievements, the challenges for the future of Vietnam are huge. Development has relied on export of raw materials and cheap-labour industries have been warned that this is not sustainable, while the overall efficiency of the economy and the public administration remain low (CIEM & ACI, 2010; Harvard Vietnam Program, 2008; UNDP Vietnam, 2009). Prime Minister Nguyen Tan Dung recently emphasized that the country remains poor and that it needs financial support from international lending agencies (Song Linh, 2011). In addition, socio-economic inequality remains high in Vietnam, which causes considerable problems for implementing e-government initiatives.

4.4.3 Foreign Direct Investment and International Remittance

Foreign Direct Investment (FDI) has been one of the important sources for Vietnam's sustained exports and economic growth. Aware of the important role of FDI, the government has been making efforts to attract foreign investors. The first FDI law was promulgated in 1987, providing a legal background for foreign enterprises. A new FDI law was promulgated in 1996, after two revisions of the 1987 version. Further changes were made in 2000 before a new version known as the Investment Law was issued in 2005. The principal objectives of these frequent changes were to create better conditions, such as, investment procedures that include a registration process. By the end of 2010, there were 13,351 projects granted in Vietnam, with a total registered capital of $US213.2 billion (GSO, 2006, 2011b). Despite the recent shift in FDI towards those industries that limit 'spill-over' effects (CIEM & ACI, 2010), this source of capital has been demonstrated to play an

important role in rapid export and economic growth (Anwar & Nguyen, 2010, 2011; Nguyen & Xing, 2008). Positive impacts of spill-overs are, for example, the formation of inter-firm linkages providing benefits for domestic firms (Anwar & Nguyen, 2011) and sector change that attracts more labour from the agricultural sector (CIEM & ACI, 2010).

The increasing roles of FDI enterprises put pressure on reforms, including the reforming of public administrative procedures. Of total imports (Economist Intelligence Unit, 2011), 40% come from FDI enterprises. The FDI community normally express their grievances to government authorities, and grievances which relate to the need for simpler and more efficient customs procedures dominate (Thuy Hai, 2008). This has been a factor contributing to the reform process of the Customs offices (see section 6.2).

Apart from FDI, international remittance is another important source of capital for the economy. After the fall of the Southern government of Vietnam in 1975, millions of people left the country, creating an exodus of refugees, known as 'boat people' (Symons, 2008). Today, there are about 3,000,000 people of Vietnamese origin living overseas. In addition, about 66,000 work overseas (Vu, 2010c). These people have been annually sending back billions of dollars in remittances. In 2010, more than $US8 billion was remitted to Vietnam from those overseas (Le Chi, 2010), accounting for 8% of GDP.

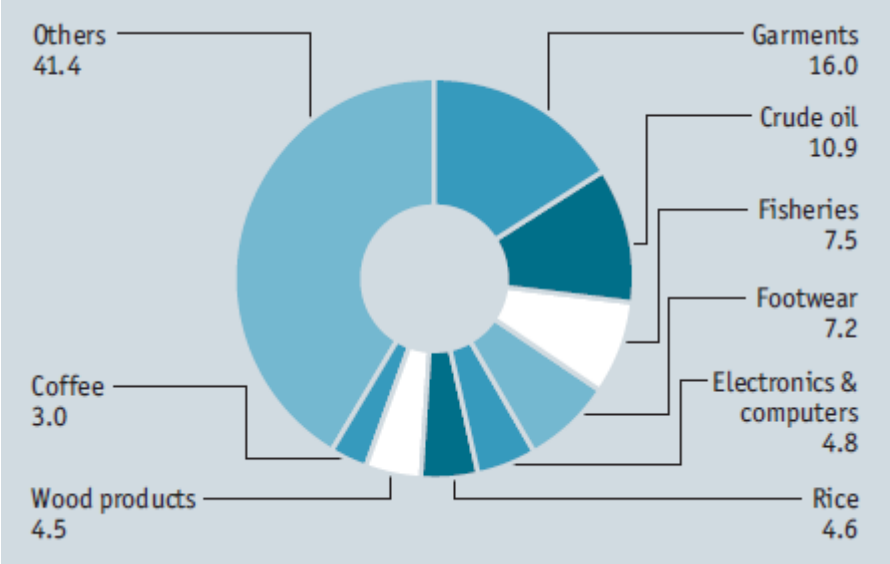
4.4.4 Import - Export Activities

Vietnam has increasingly become a trading nation after years of pursuing an export-oriented economy. The country has boosted its export activities since the early 1990s. In 2010, combined imports and exports were equivalent to about 153% of GDP (GSO, 2011a; Vietcombank, 2011). Traditional export commodities of Vietnam have been crude oil, textiles and garments, footwear, seafood and agricultural products such as rice and coffee. 2009 figures for the main export commodities are provided in Chart 4.1 below.

According to statistics from the General Office of Statistics (GSO, 2006, 2010, 2011a, 2011b), annual export growth rate was 21.2% for 1986-2005 and 17.35% for 2006-2010. In absolute terms, export turnover increased from $US0.8 billion in 1986 to $US71.6 billion in 2010. Similarly, the growth rate in imports is also high, higher than export annual rates in the last ten years. Overall the annual growth rate was 18.4% for the last ten years (2001-2010). The 2010 import value was $US84 billion, compared to $US2.2 billion in 1986. The rapid

expansion of foreign trade has created significant work for the national customs office. Several ICT–driven innovations have therefore been introduced into Customs offices in Vietnam. The case of e-Customs clearance in Chapter Seven will provide insight into these issues.

Chart 4.1 The 2009 Main Exports of Vietnam (percentage of total)



Source: Economist Intelligence Unit - EIU (2011, p. 22)

4.4.5 Tourism

Vietnam is increasingly known as a new and attractive destination for international tourists. It is considered a safe country and has significant tourist attractions such as impressive mountain ranges, a long and attractive coastline, and a famous cuisine (Mitton, 2008). World heritage sites such as Ha Long Bay or the old-world charm of Hoi An town are increasingly enticing foreign visitors. In addition, spill-over benefits from more developed tourist regions such as Thailand may also bring more visitors to Vietnam (Fineman, 2008). As a result, there has been a surge in visits by foreign tourists: there were 13.8 million visits during 2001-2005, and this reached 20.8 million for period 2006-2010 (General Bureau of Tourism Website, 2011; GSO, 2006, 2011a, 2011b). In 2009 tourism exports amounted to $US3.05 million and accounted for 3.1% of GDP (CIEM & ACI, 2010; World Bank, 2011).

Growing tourism has placed some emphasis on overall administrative reforms. To attract tourists, the government has been making efforts to build tourism as a spearhead industry; this is reflected in the 2001-2010 strategy ratified by the Prime Minister (Prime Minister of

Vietnam, 2002b). One of measures cited in the strategy was reform of legal procedures in tourism management. Convenience for international tourists was emphasized. For example, the customs services at airports were reformed which has resulted in simplified procedures, reduced paperwork and ease of visa entry. Further, other service industries, including the ICT industry, were encouraged to develop to meet common demands of tourists.

4.5 Process of International Integration

Vietnam's international integration progressed considerably after *Đổi Mới*, making Vietnam an active international player. The Party issued an important resolution in 1988, Politburo Resolution 13, to adopt a diversified (*đa dạng*) and multi-directional (*đa phương*) strategy. This strategy was emphasized at the 7th Party Congress in 1991 in the declaration that 'Vietnam would like to be friends with all countries in the international community for the sake of peace, independence and development' (Dosch, 2006; Phan, 2006). In addition, several efforts were made to build trust among the international community – for example, troop withdrawal from Cambodia in 1989 (following the war to remove the Pol Pot regime in late 1978) and signing the Paris Accord in 1991 (US Department of State, 2011). Also in 1991, Vietnam re-established diplomatic ties with China, which had been suspended since the 1979 war. In 1993, US President Clinton approved an aid package to extend two humanitarian projects in Vietnam, and in the following year, his administration ordered an end to the US trade embargo on Vietnam (Manyn, 2005). Normalized relations of the two countries formally began when both opened their embassies in early August 1995.

Since 1995, Vietnam has joined several important regional and international organizations and became an active member. Relations with Southeast Asian countries have significantly improved since Vietnam withdrew its army from Cambodia. In July 1995 Vietnam formally became a member of the Association of South East Asian Nations - ASEAN (Phan, 2006). Since then, it has increasingly become an important member of this organization (Dosch, 2006). Its influence on ASEAN has significantly expanded (US Department of State, 2011). Recently, in 2010, Vietnam chaired the ASEAN Summit and Regional Forum (Torode, 2010). After admission to ASEAN, Vietnam joined APEC (Asia Pacific Economic Cooperation) in November 1998 (APEC Website, 2011). Vietnam hosted the 2006 APEC and organized the APEC CEO summit on this occasion. Accession to the WTO (World Trade Organization) was the most noticeable event in the integration process of Vietnam. After 12 years of

preparations and negotiations, Vietnam began participation in the WTO in January 2007 (WTO Website, 2011a). This accession 'marked a full integration of Vietnam into the Western-led international system, closing a protracted process that began twenty years ago' (Vuving, 2008, p. 375). In addition, in December 2009, Vietnam completed a two-year term as a non-permanent member of the United Nations Security Council (US Department of State, 2011).

The integration process plays an important role in the process of e-government development. ASEAN, APEC and the WTO are organizations that have a profound impact on policy making in Vietnam. The overall common objectives of these organizations are to promote trade liberalisation, economic integration, transparency, technical cooperation and capacity building. As a member, Vietnam has to follow principles and regulations set by these organizations, and it receives technical assistance programmes in return. For example, there have been e-initiatives such as the e-ASEAN framework, which involves transparent procedures by the WTO for placing information and procedures on websites. Further details on these regulations will be provided in section 6.2.

4.6. Relations with International Financial Agencies and Donors

The development of Vietnam has also relied considerably on financial and technical support from international financial agencies and donors. Capital was an essential factor in the process of national rebuilding after the crisis caused by the implementation of central planning. Apart from the FDI source, sizable loans and grants in terms of Official Development Assistance (ODA) have been injected into the country by multi-lateral donors such as the Asian Development Bank (ADB) and the World Bank, and bilateral donors such as Japan, France, Australia, Germany and South Korea (Van Khanh & Hong Son, 2010; World Bank, 2010). Vietnam is now one of the world's largest aid recipients. There have been studies examining the effectiveness and impact of this important assistance on Vietnam's socio-economic development (CIEM & ACI, 2010; Harvard Vietnam Program, 2008; McCarty, Julian, & Banerjee, 2009). This section will not discuss the effectiveness of foreign aid but instead provides contextual information on this capital source and its effects, especially for a number of e-government initiatives that have been assisted by international financial agencies and donors.

Since the early 1990s, ODA inflows from bilateral and multilateral donors have significantly increased. Although the gap between pledged and disbursed capital is still large, a sizeable amount has been poured into the country in both grants and loans. By the end of 2008, there was a total inflow of $US22.065 billion, accounting for 52% of the total committed amount (McCarty, et al., 2009). ODA's pledges for 2010 and 2011 were respectively $US8 billion and $US7.9 billion (Van Khanh & Hong Son, 2010; World Bank, 2010). For example, of the $US7.9 billion committed for 2011, 58% is from multilateral donors and 22.3% from Japan (Van Khanh & Hong Son, 2010). Apart from these donors, the International Monetary Fund has also played a role in financial loans to Vietnam since 1976 (State Bank of Vietnam Website, 2011b).

Common targets in projects funded by multinational donors have been in rural development, infrastructure and capacity building, technical assistance and knowledge transfers. ADB takes a leading role in providing financial assistance. By March 2011, 99 loans amounting to $US8.00 billion and 269 grant projects for $US327.5 million had been funded by ADB since its resumption in Vietnam in October 1993, making Vietnam its third largest recipient (ADB, 2011; State Bank of Vietnam Website, 2011a). The World Bank, by February 2010, had funded 93 projects totalling $US6.7 billion (State Bank of Vietnam Website, 2011c). Projects funded by international donors are normally determined after consultation with leading international experts. A number of the projects have been implemented by international contractors. It is acknowledged that substantial contributions have been made by these projects to sectors such as agriculture, irrigation, energy, rural development, transportation, education and human development, and public administration reform (State Bank of Vietnam Website, 2011a, 2011c).

In the case of capacity building, noteworthy technical assistance projects include the 2001-2010 master plan for public administration reform from ADB, and modernization of the customs administration and e-government funded by the World Bank. On a smaller scale than ADB and the World Bank, the IMF and UNDP have assisted Vietnam in loans and technical projects. Since 1976, the IMF has provided loans to Vietnam, totalling more than $US1.5 billion. It regularly provides technical assistance in the form of training in monetary policies, banking and reforming state-owned enterprises (State Bank of Vietnam Website, 2011b). Several projects have been funded by UNDP; of particular importance is the study

on public administration reform (UNDP Vietnam, 2009). As a condition for receiving such funds, the Vietnamese government must follow up on its commitments to these multilateral organizations, including reforming its public administration.

Funds from donors have been a major alternative source of capital investment for economic development, despite criticism of the inefficiency of ODA usage (CIEM & ACI, 2010; Harvard Vietnam Program, 2008). There are shortcomings in ODA projects – for example in regard to the efficiency and policy recommendations from international donors such as the corruption scandal of a large ODA infrastructure project in HCMC (Vu Mai, 2009), the possible negative effects, known as the 'poster-boy' syndrome (see further in Harvard Vietnam Program, 2008), and unofficial ODA-related benefits (CIEM & ACI, 2010). However, ODA is still an important source of capital for the development process, accounting to 11% of total capital investment (Thuy Chung, 2011a).

4.7. Equity – Poverty

Vietnam has reduced poverty significantly in the last two decades but inequalities remain. There has been a decline in poor households from 58.1% in 1993 to 10.6% in 2010 (CIEM & ACI, 2010; GSO, 2011a). This achievement makes Vietnam an early achiever of the Millennium Development Goals. Despite economic achievements, however, it is evident that inequalities have widened and that quality of life remains low for much of the population. For example, income disparity is increasing while the human development index remains behind several comparable Asian countries, placed 113th in 2010 (CIEM & ACI, 2010). In particular, the poverty rate in Vietnam is subject to government standardisation, and inequalities remain serious between provinces, regions and ethnic groups. According to the new 'poorness' threshold, effective in 2011 (Prime Minister of Vietnam, 2010b), people with an income lower than 4.8 million and 6.0 million Dong/person/year (about $US240 and $US300/person/year) for rural and urban areas respectively are considered poor. The old threshold that applied in 2005-2010 was approximately half the new one. Following the new threshold, a recent national census showed an increase in poor households at 15.25% (instead 10.6% in 2010 under the old threshold), and those close to the poor threshold account for 8.58% (MNgoc, 2011). Poor households in rural areas account for 90% of poor people; the poverty rate remains over 50% of the population in certain areas of the Northern mountainous areas, the central coast and in the Central Highlands where most of

the minority ethnic groups reside (MNgoc, 2011). In certain isolated cases, famine still exists on a wide scale (Van Hung, 2011).

4.8. Conclusion

This chapter has provided contextual information on socio-economic development in Vietnam. The focus has, however, been limited to those areas that have an impact on the development of ICT or e-government development.

In summary, Vietnam is a populous country, ranking 13th in the world, but it currently possesses a potential population structure with a low depending rate. The country is endowed with relatively good reserves of natural resources, which contributes considerably to economic development, although the process of exploitation of these natural resources has come under criticism (CIEM & ACI, 2010). A young population has given rise to a high demand for education, but it in turn offers great potential for a generation of e-citizens. This potential is, however, unlikely to be unleashed in a near future as the education system shows significant problematic signs. Culturally, awareness of democratic values is not strongly embedded in the country because it has a long history of feudalism and colonization which has more recently been overlaid with the communist model.

Vietnam achieved significant economic performance after *Đổi Mới*, which officially began in 1986. The reform process was the result of the failure of the command economy and the centralized planning system, and of exhaustion of resources due to wars. The market-based economy provided momentum to boost the economy. Significant results have been achieved in poverty reduction and hunger eradication. International trading and tourism have been rapidly developing.

After *Đổi Mới*, Vietnam has increasingly integrated into the world. As a result, Vietnam has joined several regional and international organizations. International investors, lenders and donors have been working in Vietnam. Commitments to international organizations have promoted public administration reforms. Similarly, the efforts to attract international capital inflows have facilitated the development of ICT and e-government initiatives.

CHAPTER FIVE

CHALLENGES FOR PUBLIC ADMINISTRATION IN VIETNAM AND IMPACT ON E-GOVERNMENT

5.1 Introduction

The objectives of this chapter are twofold: first, to enhance understanding about the organizing principles of the political system in Vietnam; second, to investigate the relationship between key institutions of the political system and their capacity to implement reform initiatives. The chapter has a key role in the thesis since it investigates the platform upon which e-government initiatives are built. Specific investigation focuses on the four most important institutions in the political system of Vietnam: the National Assembly, the Central Government, the Vietnam Communist Party and the State President. Major public administration reform initiatives and their outcomes are also discussed in this chapter.

As analysed later in this chapter, one of the objectives of the master programme of public administration reform of 2001-2010 was to build a force of capable cadres and public servants who would play an important role in the process of national-building and development. However, after ten years of implementation, a National Assembly Standing Committee concluded (National Assembly Standing Committee, 2010) that the capacities of those in public service remain limited and that inappropriate and corrupt behaviour towards citizens are not isolated occurrences. This chapter argues that there are three key challenges facing Vietnam's public administration: a lack of independence for the National Assembly, opaque accountability among Party and State leaders, and significant constraints on government and state leaders in performing their tasks. These problems make it difficult for the National Assembly (and its counterparts in local government, the People's Council) to investigate and expose all the real causes of mismanagement at the level of both central and local governments. Even if problems are found, opaque organizing principles in turn complicate the identification of those responsible, and then holding them to account for the failure of reform initiatives. In addition, the chapter presents a range of factors contributing to the problems encountered in public administration reform: the limited capacity of public servants arising from low salary levels and patronage and nepotism.

The chapter begins with the organizing principles of the Party and the State. This is followed by four sections on the most important institutions, the National Assembly, the Central Government, the Vietnam Communist Party and the State President. The chapter then discusses reforms in public administration and continuing problems.

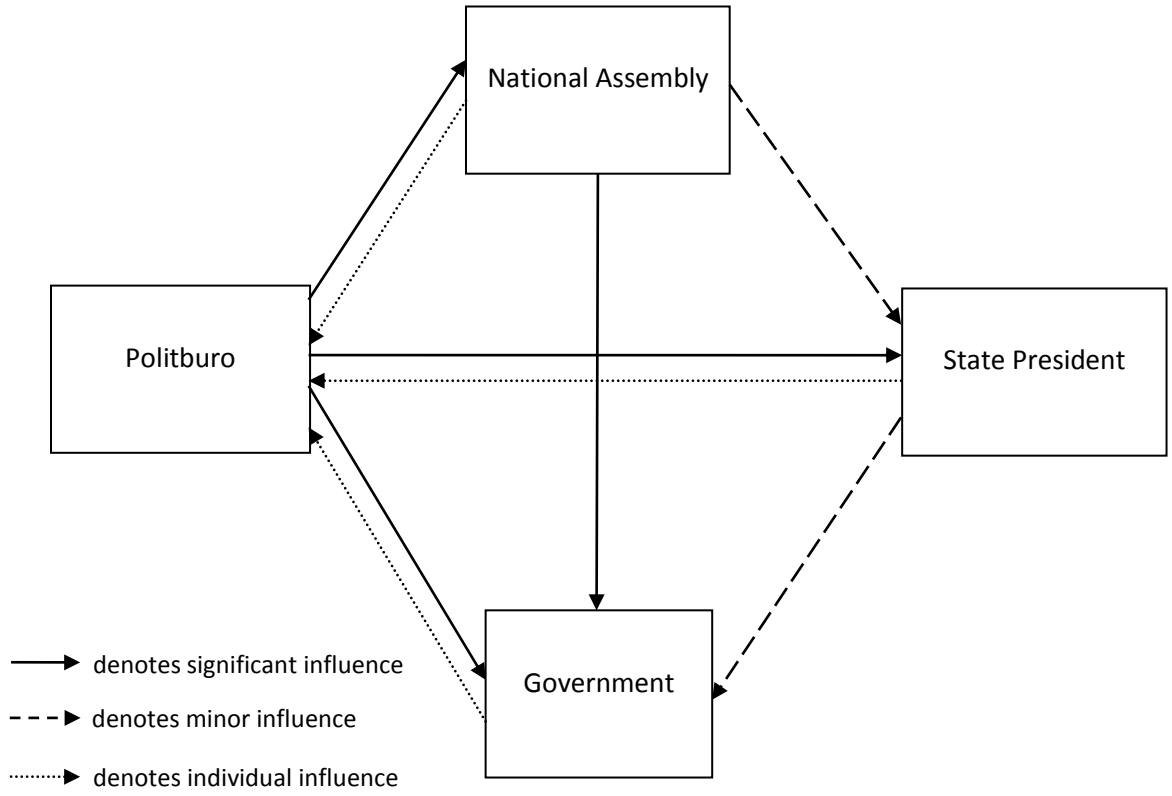
5.2 Party and State Organizing Principles

Over 30 years after the first Republic of Vietnam was declared (in 1945), a united Vietnam, the Socialist Republic of Vietnam, was established on 2 July, 1976. Vietnam has remained a single-party State operating under the leadership of the Vietnam Communist Party (VCP). As a unitary system, the central State includes the National Assembly, the President of Vietnam, the Central Government, the People's Courts and People's Prosecutors.

In theory, as Gillespie (2006) observes, there is little difference in the structure and the formation of the State between Vietnam and western liberal State institutions. The distinction, however, is on how real power is exercised in making decisions within this configuration. As argued in later sections, since the leaders of the State are influenced by the collective Party leadership, the relationships that exist between these institutions are not always straightforward. The diagram in Figure 5.1 below has been developed, based on the 1992 Constitution, laws on Government Organization (Vietnam National Assembly, 2001a) and National Assembly Organization (Vietnam National Assembly, 2001b), and the exercise of political power since *Đổi Mới* (discussed in detail in subsequent sections). It presents the relationships with differential degrees of influence among the four most influential political institutions in Vietnam.

Further analysis of each of the institutions and their interrelationships is discussed the following sections. Briefly, the diagram sketches the main relationships between the most important institutions in Vietnam's political system. The National Assembly has increasing influence on government, but it is not truly independent of the Party and its potential capability has not yet been realised. The Central Government is under pressure from the increased influence of the National Assembly and from the Politburo. The State Presidency is largely ritual. The Politburo has the most influence, but this can be affected by the individual influence of leading figures within the other institutions.

Figure 5.1 Relationships of key institutions of the Party and State apparatus



Politically, the most important event is the National Party Congress, which is organized every five years. At the Congress, a political report is scrutinized. This is the key policy document considered at a Party Congress. It reviews the country's political and economic performance over the preceding five years and sets out objectives for the next five years (Gainsborough, 2007). In addition, the Congress elects the Central Committee, and this body in turn elects the Party Executive Body (the Politburo), the Party Secretariats and the Party General Secretary. In practical terms it is the Politburo which is the key institution of the Vietnamese State.

According to the latest Constitution (Vietnam National Assembly, 1992), amended in 2001, the National Assembly is the highest organ of State power. It is the legislative body and has the power to promulgate and amend the Constitution and Laws. It meets twice a year. The executive body of the National Assembly is the Standing Committee.

The State President acts on behalf of the country in domestic and foreign affairs, which are specified in Chapter Five of the Constitution (Vietnam National Assembly, 1992). This position is elected by the National Assembly and is accountable to it. He or she has the right of proclaiming laws and ordinances which have been passed by the National Assembly. The

State President is constitutionally entitled to appoint and dismiss the Prime Minister and other elected positions, subject to National Assembly approval.

The Central Government is the State's highest executive body, led by the Prime Minister. By law (Vietnam National Assembly, 2001a), the Prime Minister has the right to appoint his deputies and ministers with the endorsement of the National Assembly. The Prime Minister is responsible and accountable for the government's operation and performance to the National Assembly, the National Assembly Standing Committee and the President of the State.

At sub-national levels, there are three tiers of governments, with three important organs at each level. The three tiers include:

1. cities and provinces;
2. urban districts, provincial cities, and rural districts; and,
3. urban wards, rural townships and communes.

There are three bodies at each tier: the People's Committee, the People's Councils and the Party Committee. The first organ is the executive body, and the second is the representative body. Among the main tasks of the People's Council are overseeing the People's Committee's performance and making decisions on budgets and other programs for local socio-economic development. This structure corresponds to the National Assembly and the Central Government. The People's Council is elected by local people through nominations from the Vietnam Fatherland Front, an umbrella organization of all mass organizations, such as the Youth Association in Vietnam. The People's Council then elects executives for the People's Committee, including the president, vice-presidents and its members. The third organ, the Party Committee, exists at all three levels of sub-national government. The interactions of this body with the People's Committee and People's Council are similar to those of the Politburo with the Government and the National Assembly at the central level. Accordingly, this is the most powerful body, and there is extensive overlap of positions among Party Committees and the other organs.

5.3 National Assembly

Since the inception of *Đổi Mới,* the National Assembly has become increasingly vocal and assertive. This puts growing pressure on the central government. However, the National

Assembly's constitutional potential and roles are yet to be fully realised. The growing prominence of the National Assembly is seen in increased scrutiny excercised by deputies and competition in some elections, frank discussions and questions in Question Time, greater transparency, more oversight of government performance and legislative proposals, and longer sitting periods. One early challenge to the status quo occurred in 1997 when a government nomination for the post of State bank governor was refused by the National Assembly (Koh, 2010). In 1988, for the first time the election for the Head of government (known as the Chairman of the Council of Ministers) was conducted on a competitive basis, because some deputies demanded to have more than one candidate (Dang, 2008; Porter, 1990). This was unusual, because there used to be only one candidate for an elected position proposed by the internal processes of the Party. Thus elections, in reality, have typically been more a vote of confidence. Indeed, there have now even been cases where the candidate nominated by Party leaders or the government leader has failed to win support from deputies (Koh, 2010; Nguyen, 2009c).

The growing role of the National Assembly on public discussions and policy-making is associated with an increased workload, necessitating more frequent and longer meetings than in the past. It now meets for about four weeks each session, and two sessions are held per year (Dang & Beresford, 1999; Nguyen, 2009a). Greater transparency is also evident. Almost all sessions are broadcast live. Popular deputies who speak frankly have been named and praised by the domestic press, which is generally subject to Party control (Boykoff, 2010; Le, 2009, 2010e; Nguyen, 2009a; Solomon, 2007). Although active and critical delegates remain the minority in the National Assembly, there is increasing evidence that Question Times are holding central government ministers accountable (Malesky & Schuler, 2010). During Question Time, government leaders, including the Prime Minister, are requested to respond to Deputies' questions on the spot. In many cases, government ministers struggle and appear uncomfortable with the questions (Doan Trang, 2009; Solomon, 2007). These developments make it clear that the National Assembly has become more vocal and influential than in the past, when it was traditionally viewed as little more than a 'rubber stamp' for the decisions of the Party (Economist Intelligence Unit, 2007; Porter, 1990; Solomon, 2007; Thayer, 1993).

Despite these developments, both international scholars and domestic elites, such as academics, retired Party leaders and National Assembly deputies contend that the quality of the National Assembly and the process of its election need to be further improved (Dang & Beresford, 1999; Economist Intelligence Unit, 2007; Gillespie, 2006; Porter, 1990; Solomon, 2007; Thayer, 1993). On the one hand, they acknowledge significant reforms of the National Assembly since *Đổi Mới*. On the other hand, they argue, for example, that it is still a far cry for the National Assembly of Vietnam to be judged competent and independent. Dang and Beresford (1999, p. 92) state that the 'National Assembly is very much led by the Communist Party as far as political life is concerned'. This is supported by a range of scholars and commentators. Gillespie (2006, p. 108) contends that 'citizens have little say over who stands for elections in the National Assembly'. Nguyen (2009c) argues: 'By its nature, a National Assembly's election could be considered a Party's election'. Duong Trung Quoc (Le Dung & Dang Duong, 2010) asserts that:

> Ninety-two percent of deputies of the National Assembly are Party members, so they have to stand on both statuses of Party member and National Assembly deputy. These statuses are not always identical, and the final choice is often based on the first.

The defining features and functions of the National Assembly are set out in the Constitution. Article 83 of the latest Constitution defines the National Assembly as follows:

- the National Assembly is the highest representative body of the people, the highest State authority in the Socialist Republic of Vietnam.
- the National Assembly is the only body vested with constitutional and legislative powers.
- the National Assembly decides on fundamental domestic and foreign policies, on national socio-economic, defence and security tasks and on the main principles governing the organisation and functioning of the State apparatus and the social relations and activities of citizens.
- the National Assembly exercises the right of supreme supervision of all State activities.

Put simply, according to the Constitution, the National Assembly should be organized in the manner that maintains one key feature (representativeness), and three important prerogatives: making laws and constitutions, deciding matters of national importance and overseeing State activities.

5.3.1 National Assembly Representativeness

To ensure representativeness, a parliament is required to reflect two important features: *popular will* and *social diversity* (Beetham, 2006; Linz, 2008; Strøm, 2000). An unrepresentative parliament, whether through deficiencies in electoral procedure or the electoral system, will adversely affect the perceived legitimacy of the legislature and will be less able to reflect public opinion on issues of national importance (Beetham, 2006). In addition, 'A parliament which is significantly unrepresentative will leave some social groups and communities feeling disadvantaged in the political process or even excluded altogether' (Beetham, (2006, p. 13). As discussed in Chapter Four, there is diversity in social backgrounds in Vietnam, it is difficult to strike a balance in ethnicity, gender, language, religion and other political characteristics in the membership of the National Assembly. Table 5.1, below, provides more detail on the current National Assembly structure.

To improve the capacity of the National Assembly, additional seats have been reserved for professionals, who are less dependent on the central authorities for career advancement. In 2007, deputy representatives from state-owned enterprises have been reduced to less than 2% from 13% in 2002. This is offset by more professors from universities, lawyers and businessmen being elected to the National Assembly (Malesky & Schuler, 2010). In addition, independent candidates are now encouraged to run for election; for example, in the Law of Election of National Assembly Deputies, issued in 1997 and amended in 2001 (Vietnam National Assembly, 2001c). However, only one out of 236 initial candidates finally succeeded (Malesky & Schuler, 2009; Vietnam National Assembly, 2007). By law, the central Election Council and provincial Election Committees are in charge of organizing elections, but the Vietnam Fatherland Front is the principal body that coordinates this process. This body is an umbrella organisation for all legal mass organisations in Vietnam, and its branches exist at every administrative level. Before the final list of candidates is reached, three rounds of negotiations are conducted. Each is chaired by the Vietnam Fatherland Front with participants from its member organizations. As provided in the Law of Law of Election of

National Assembly Deputies, these negotiations are intended to ensure the full participation of all citizens and organisations, and to work out the preferred composition of the Assembly. The third round of negotiations finalises the lists of candidates and sends them to the Election Council and Election Committees. The whole process appears designed to achieve a representative and diverse membership.

Table 5.1 Summary of the main features of the 12th National Assembly of Vietnam

Deputies nominated by central-level authorities	153
Deputies nominated by local-level authorities	340
Age of the youngest deputy	24
Age of the oldest deputy	80
Number of deputies with university degree and above	473 (96%)
Female	127 (26%)
Deputies first elected to the 12th National Assembly	345 (69%)
Ethnic deputies	87 (18%)
Party-member deputies	450 (91%)
Non-member deputies	42 (9%)
Independent deputy	1 (0.2%)
Total number of deputies	493

Sources: Vietnam National Assembly (2007, 2010a)

However, on the whole, the current mechanism does not genuinely reflect popular will for the following reasons. First, since the Vietnam Fatherland Front itself is an organisation led by the Party (Dang & Beresford, 1999; Economist Intelligence Unit, 2007; Thayer, 1998) and by definition it lacks independence. Further, almost all the presidents of the Vietnam Fatherland Front, since its establishment in 1977, have held high-ranking positions and have been members of the Party Central Committee. Second, the non-state, socio-economic organisations entitled to nominate candidates are influenced by a Party-controlled system. Jeong (1997, p. 152) contends that this system 'enables the party to effectively control and

manage the emerging interest groups'. Additionally, there is much discretion to mould the final list of candidates. For example, individual leaders of these mass organisations (such as the Youth Association and Women's Association), rather than candidates themselves, determine who will run for election. This problem was confirmed by former Prime Minister Vo Van Kiet, when interviewed by *Tuoi Tre Newspaper* (2007); asked whether there were cases of candidate nominations being decided by leaders of organisations, he replied, 'Yes, there are', and he added, 'the organisations that do not want to get into trouble normally limit the democracy in the name of leadership'. In some cases, candidates have been asked to withdraw, as occurred with Dang Hung Vo, an outspoken former Deputy Minister (Tuoi Tre Newspaper, 2007).

Finally, an unfair advantage is sometimes given to some candidates, especially those nominated by the central authorities (Malesky & Schuler, 2010). To ensure victory, these candidates are deliberately allocated to stand in electorates where they compete with significantly weaker candidates (Linh, Trung, Nhung and Nhat, 2010; Malesky & Schuler, 2009). This privilege has an important impact, since empirical evidence shows that central nominees and other candidates in safe seats are less critical in Question Time than locally nominated candidates and those emerging from closely contested elections (Malesky & Schuler, 2010). In short, while the term 'representative' is defined in a way that suggests democratic representation, there is no guarantee that this actually occurs.

5.3.2 National Assembly Prerogatives

With regard to the National Assembly's right to decide issues of national importance as provided in the Constitution, there is no doubt about the growing role of the National Assembly in exercising this prerogative; this is particularly evident in the work of the 7th Session of the 12th National Assembly in May-June 2010. The most striking event was perhaps its rejection of the 'bullet train project, which had been proposed by the government. Despite great controversy over this US$56 billion project, many had believed it would in the end go ahead. This belief was well grounded, for although widespread public protests occurred in the past against projects such as vast bauxite mining in the Central Highlands and widening Hanoi City (Anh Phuong, 2010; Thayer, 2009), these projects were eventually either approved by the National Assembly or split into smaller projects in order to escape National Assembly oversight (Le, 2010; Le, 2009a; Nghia Nhan, 2010). Surprisingly,

however, in the case of the high-speed train, the Bill was defeated, with only 40% of the members supporting the proposal (Nguyen, 2010c). Whether the Politburo wanted to extract itself from the unpopular project by allowing the proposal to be defeated in the National Assembly or whether this outcome reflects lingering divisions within the Party are moot points, but it is notable that, in one way or another, the public can have an impact on the legislative process.

In terms of State supervision, deputies are free to ask questions related to State management. Ministers are called to account in terms of State supervision, and deputies are increasingly assertive and are free to ask questions related to State management, provided they avoid specified subjects (Solomon, 2007) such as democracy (Malesky & Schuler, 2010). Ministers are regularly questioned on their areas of specific responsibility. For instance, in the recent session in June 2010, a senior Deputy challenged the Minister of Agriculture and Rural Development about the exact number of strategic forest land sold. Another Deputy called for a vote of 'no confidence' in the Minister due to his mismanagement of the issue (Thanh, 2010). Notably in the final session of the 12th term of the National Assembly in October-November 2010, one of the most high-profile deputies called for the establishment of an independent panel within the National Assembly to investigate an economic scandal involving a State-Owned Enterprise, Vinashin, which was said to have added approximately US$5 billion to the public debt. In the meantime, this delegate asked for the suspension of all Ministers involved during the investigation. Particularly notable was that for the first time in Vietnam, a delegate proposed a vote of 'no confidence' in the Prime Minister and other Ministers linked to the issue. His suggestions were publicly bolstered by other deputies (Hookway & Barta, 2010; Vietnam National Assembly, 2010b). Ten days after the suggestion, the National Assembly Standing Committee formally rejected the call on the grounds that the Party and State were considering the issue and that the scandal was under investigation (Le, 2010e).

Another indicator of the National Assembly's growing role is the increased volume of legislation and the duration of sittings. For example, in the 7th Session, 16 drafts of various Laws were considered, along with many other important agenda items, such as reports on socio-economic performance, the State budget and the bullet train project (Le, 2010d). This

long agenda took 31 days, compared with a single week in the past (Dang and Beresford, 1999).

However, the increased activism of the National Assembly does not translate automatically into increased capacity. Problematic issues include deputies' representative capacity, their accountability to voters, and their inclination or ability to demonstrate independence.

5.3.3 National Assembly Capacity and Independence

It is difficult for any country when the highest representative body is constituted in a way which hinders its formal role. In Vietnam, the deputies' representative capacity presents some problems. First, the heavy emphasis placed on 'social diversity' restricts the choice of capable candidates who may reflect the popular will. In essence, social inclusion sometimes comes at the cost of not electing the best qualified or most capable people (Pham, 2005; Tuoi Tre Newspaper, 2007). Second, deputies are overloaded by holding dual roles. Despite the growing complexity of the role exercised by National Assembly members, approximately 72% of deputies are unable to attend to their representative duties on a full-time basis (Vietnam National Assembly, 2007). Consequently, as Nguyen Phu Trong, the President of the 12th National Assembly, commented,

> During the 11th National Assembly, in many meetings of the Ethnic Council and other committees, less than two third of the members showed up (quoted in Van Anh, 2007).

Further, a recent study by Malesky and Schuler (2010) demonstrates that full-time National Assembly delegates are more critical and active than their part-time counterparts.

Third, payments and other benefits are insufficient to attract the most talented candidates. As the former Prime Minister, Vo Van Kiet (Pham, 2005), explained:

> We have tried to increase the salary of full-time deputies; however, this solution still did not work. The main reason is that, in our system, salary and income are very much different. To tell the truth, for a manager working in the executive body (of the State apparatus), his or her income is several times higher than salary, while a voter-elected position is in no position to get paid that much. As a

> rule, higher benefits (offered by other occupations) attract more talented people, making it difficult for the National Assembly to compete.

There are problems too, with the superficial accountability and responsibility of deputies to the electorate. Voters are selected to attend meetings with deputies, but these are not regularly organized. Twice a year, deputies meet voters at their electorates; however, in most cases only few dozen people attend (Nguyen, 2010b). Due to space constraints, a limited number of people are invited. For convenience for the organizer, some voters, especially those who are already retired from work, are repeatedly invited to attend meetings. This leads to the paradox of 'full-time voters' (*cử tri chuyên trách*) meeting with part-time deputies (Hien Luong, 2010; Le Nhung, 2010b). In some cases, voters must pass three rounds of security to enter the meeting room (Le Nhung, 2010b). These obstacles add up to an exclusion of ordinary voters from participation. Furthermore, there is still a lack of sanctions for those deputies failing to perform their tasks. It is estimated that more than 66% of the deputies are 'nodding' delegates (Malesky & Schuler, 2010). One scholar, quoted in Thanh Hoa (2007), stated in a seminar organized by the National Assembly office that:

> [we] should stay away from the current status whereby deputies who are not fulfilling their jobs do not receive any sanctions. They are just staying idle to be re-elected or to withdraw when the National Assembly's term ends.

It can be argued that an independent National Assembly is essential in a single-party State, especially to curb the abuse of power and corruption that many see endemic in Vietnam. According to accountability theories, elections help expose venal and corrupt local level officials (Geddes, 2006). However, in a one-party state, the independent election of the National Assembly would be a necessary but not sufficient condition for holding officials to account. In a multi-party system, a party may dominate the lower house and government members may put their party preference first, but an abuse of executive power may result in defeat in the following elections. However, in Vietnam, the leadership of the Communist Party is assured by the Constitution. Unless the National Assembly is independent, party-member government officials are unlikely to be seriously challenged. That is the reason why the legendary leader, President Ho Chi Minh (Thayer, 2009), emphasized that 'our Party is the one-ruling party; therefore, each Party member must completely understand the revolutionary ethics and integrity' (National Politics Publish House, 1995, p. 503). Ho Chi

Minh's message is arguably interpreted as a warning of 'power corruption' (*sự tha hóa của quyền lực*) in the country (Tuong Lai, 2010). When power is corrupted, dictatorship and corruption will flourish. A former Party General Secretary, interviewed by Da Trang (2005), described corruption in the relationship between power and money as follows:

> A person with power allies himself with a person with money, so power breeds money. The person with money relies on the person with power to make more money, and till a certain level money could dominate the person with power.

Vietnam suffers from entrenched corruption, especially in State-Owned Enterprises (Kolko, 2001; Le, 2010c), Transparency International (2010) ranks Vietnam as 116th in its global perception of corruption index. The resolution of the 3rd Party Central Committee Plenum in 2007 (Vietnam Communist Party Online Newspaper, 2007) acknowledges corruption as a threat to the Party and the regime:

> The fight against corruption and waste remains ineffective. Corruption and waste are serious and occurring in many industries, many levels, and many areas at large scale, resulting in severe consequences. This practice affects people's trust, and thus that is one of the most dangerous threats to the Party and the regime.

Recently, the incumbent Prime Minister publicly acknowledged that corruption has not been curbed (Nguyen, 2010d). Others believe that the impact of the government's attempts to combat corruption is very limited and that the situation is getting worse (Fforde, 2009; Le, 2010a). In this context, an independent National Assembly becomes very important.

However, in practice, it is evident that the National Assembly lacks necessary independence. The first sign is the numerical dominance of Party deputies in the National Assembly, which potentially limits diversity of views and the scope for critical scrutiny by the National Assembly. Despite calls for an increase in non-Party deputies and independent candidates, in the current 12th National Assembly 91.3% of deputies are Party members, compared with 89.75% Party representation in the 11th National Assembly (Vietnam National Assembly, 2010a). These figures led a famous National Assembly member, Duong Trung Quoc, to conclude that the National Assembly is not 'professional' (*không chuyên nghiệp*) (Doan, 2009; Le Dung & Dang Duong, 2010). Several Party and State leaders such as former Party

General Secretary Le Kha Phieu and Prime Minister Vo Van Kiet both urged wider opportunities for non-Party candidates (Thu Nguyet, 2007; Tuoi Tre Newspaper, 2007).

The second sign of of a lack of independence is that the National Assembly President is always a member of the Politburo. Regulated by law (Vietnam National Assembly, 2001b), the National Assembly President plays important roles in the National Assembly, such as chairing the National Assembly Standing Committee, a powerful body that decides important issues when the National Assembly is not in session. However, being a member, he is not allowed to distance himself from the management of the Party's organisations and rules (Gillespie, 2006), particularly the principle of collective leadership. This means all important issues must be collectively decided. Against this backdrop, if there were to be a conflict between the interests of the National Assembly and that of the Party, it would be difficult for the National Assembly President to dissent from the Party position. Hence the presidency is structurally incapable of providing a check against abuses of power by the government of the day being linked to it by the Party.

The third sign is that the National Assembly lacks autonomy in performing its function of making and amending the Constitution. A former Minister of justice, interviewed by *TuanVietnam* (2010a), argues that

> The National Assembly is under the leadership of the Party; for example, in order to amend the Constitution, it needs the decision from the Party Congress. Once the Party decided, it becomes the National Assembly's decision.

The fourth sign is the problem that many deputies simultaneously work in government executive bodies. The percentage of deputies who worked in central government and provincial bureaucracies was 44% and 45% respectively in 1992 and 2007 (Malesky & Schuler, 2010). When a person acts as a functionary and a supervisor, conflicts of interests inevitably arise. In 1994, former Prime Minister Vo Van Kiet criticised this practice as being 'both player and referee.' He called for an end to government ministers running for positions as National Assembly deputies (Dang & Beresford, 1999). More recently, the former Party General Secretary, Le Kha Phieu (Thu Nguyet, 2007), also urged a reduction in deputies holding dual roles. It is a structural weakness in the Vietnamese Constitution that civil servants may also be members of the National Assembly, as it erodes the perception, if not the actuality, of independence in the execution of their duties.

In conclusion, there is no doubt that the National Assembly is gaining considerable ground in making government leaders more responsible and accountable for their administration. Nonetheless, considering the role of the National Assembly as defined in the Constitution, there is much to be done in order to ensure its proclaimed roles are being performed well. Vo Van Kiet's conclusion, as quoted in Pham (2005), could hold true in the current context that 'both motivation for representation and representative capacity of deputies in the National Assembly are facing problems.'

5.4 Central Government

In terms of structure, the authority of the Government is devolved to functional ministries and ministry-level agencies that manage allocated areas. The 12th Central Government, which was approved by the National Assembly in August 2007, consisted of five deputies to the Prime Minister and 22 Ministers. The working term for the government is five years, which coincides with the term of the National Assembly.

5.4.1 Power Constraints and Issues of Responsibility and Accountability

While the National Assembly increasingly calls upon the government to be responsible and accountable, the right of the Prime Minister to form the government members is greatly restrained by law and Party intervention. Legislation provides that the Prime Minister is elected or dismissed by the National Assembly at the State President's request. According to Article 4 of the law of Government organisation, the Prime Minister is the Head of the Central Government and is accountable to the National Assembly. In theory, the Prime Minister has the right to appoint and dismiss his Deputy Prime Ministers and ministers, subject to the National Assembly's approval (Vietnam National Assembly, 2001a). In reality, as will be discussed further in the next section, he alone does not have the right to select government members because the Central Party makes the selection before the list is sent to the National Assembly to be voted upon (Khiet Hung & Le, 2007; Xuan Trung, 2005).

As in the case of the Prime Minister, Ministers have insufficient powers to appoint their assistants. This gives rise to a rejection of individual responsibility. Ministers are responsible for their portfolios and are accountable to the Prime Minister. However, they do not have the direct right to choose their deputies. Further, there are cases where leaders are 'afraid' (sợ) of their deputies (Khiet Hung & Le, 2007), because the deputies are nominated and

supported by more powerful individuals, or a Party body like the Party Commission for Organisation and Personnel, or Party Secretariat (Tien Phong Online Newspaper, 2008). As Mai Ai Truc (Xuan Trung, 2005), a former Minister for Natural Resources and Environment, concluded when he was under pressure at Question Time in the National Assembly, 'responsibilities are unlimited but power is limited.' A former Prime Minister, Phan Van Khai (Xuan Trung, 2005), contended that it is impossible to hold ministers responsible for problems in their ministry because they themselves do not have the right to appoint their deputies. He further emphasised, in an interview by Xuan Trung (2005), that:

> Appointments by a minister to a head of a general bureau or a general director (in his ministry) are subject to the Prime Minister and Party Secretariats.

Evidently the effects of the law and the intervention of the Party produce a serious mismatch between the powers and responsibilities of government members. Consequently, it was not surprising that it has only been possible to identify too few cases in which Ministers were forced to resign on account of mismanagement (Hai & Quang, 2006).

5.4.2 Party Intervention in Government Decision Making

The mismatch between responsibility and power in the position of the Prime Minister, especially in respect of key government appointments, has been criticised by senior Party and State leaders. Party intervention makes the Prime Minister's right under law to establish a government a facade which undermines the performance of the Prime Minister and the government. Vo Van Kiet, in an interview with Minh Duc (2007), the former Prime Minister states:

> Nobody should limit the PM's right to form the cabinet. It is the Prime Minister who seeks suitable people for his government. He is the person who has a grasp on his cabinet cadres...

In the same way, in an answer to Khiet Hung and Le (2007), Nguyen Van An, who had held several senior positions in the Party and State, including Head of the Commission for Organisation and Personnel of the Central Party and President of the 11th National Assembly, has suggested a reform in high-ranking personnel planning. He stated:

> Instead of being done all by the Central Party of Commission for Organisation and Personnel and the Politburo, the proposal of government members should be prepared by the Prime Minister, and that of National Assembly key members should be done by the National Assembly President... In principle, it is the manager who appoints his staff. Similarly to the case of a coach of a football team, he should be the person who decides the team.

Not only are the appointments of ministers and other key government staff outside the control of the Prime Minister, so are dismissals and discipline. One of the Party's key rules is that individuals must follow the organisation. Accordingly, disciplining or dismissing ministerial and provincial leaders' appointees in the government is subject to Party approval. The Prime Minister thus cannot discipline a minister, even if the latter is proven incompetent. This problem is outlined in a Party report, stating that the process of disciplining ministers is complicated and time-consuming, because it has to go through several steps (Central Party Committee, 2006). The problem is made clearer in an answer provided by the Prime Minister to a Deputy in a recent session. When asked why the Prime Minister did not fully use his lawful prerogatives to dismiss provincial government leaders who were found to be incompetent and whether the Prime Minister faced any difficulties in so doing, the Prime Minister replied (quoted in Khiet Hung, 2009):

> Disciplining in any particular case should be in accordance with the procedures regulated in law and Party's regulations. In doing so, government and the Prime Minister have been trying to do the best in their power... in the recent three years, I have not disciplined any cadres....

Beyond these constraints on the Prime Minister, the choice of candidates for government members is narrow, limited to members of the Party Central Committee. As discussed above, in theory, anyone who is nominated to be a government member must be approved by the National Assembly. However, only those in the 160-member Central Committee are eligible to be government member candidates. As high-ranking officials of the Party, they are selected by the Party, not the citizens. Apart from the government led by Ho Chi Minh (Nghia Nhan, 2008), with one exception discussed below, it has not been possible to identify a minister in recent governments who was not a member of this committee. A non-member of this committee was appointed in June 2010 as the Minister of Education and Training (T.

Van, 2010); but this was an interim choice toward the end of the current government's term. In any case, the Minister is a Party member. Furthermore, it is an unwritten rule that in order to become a Party Central Committee member, one must have led a ministry, a province or a city. And to be eligible to become a Politburo member, a candidate must have been a member of the Central Committee for a minimum of two terms, equivalent to 10 years (Thu Ha & Lan Anh, 2009). This implicit rule ensures that, on average, office holders are rarely young. The average age of Politburo members in 2008 was 59.9 years (Koh, 2008). Similarly, the average age of government ministers in 2010 was 59 years, much higher than their counterparts in Australia and the United States (Nguyen, 2010f). In a nation with a population of 84.11 million at the 2006 election (General Statistics Office, 2006), this limitation excludes a great number of promising young candidates, and does not reflect the pool of talent available in the country.

For this reason, the Party has drawn criticism even from within. In an interview with Da Trang and Dang (2006), former Party General Secretary Le Kha Phieu, for example, states:

> The Central Committee should appoint its cadres on the grounds of job requirements. Candidates are not necessarily members of the Central Committee, even a non-Party member [could be eligible], to be appointed to the position of government minister. It is important that we need to make transparent all the job requirements and the recruitment procedure. In so doing, the longstanding 'illness of partyzation' (the Party does everything, and thus there are no opportunities for others) could be treated.

As a consequence of such criticisms, it seems that a little more space for independent candidates for ministerial positions has been provided. For example, a report to the 10th Party Congress suggested that it is no longer necessary for a minister to be a member of the Central Committee (Minh Duc, 2007). Also, in 2008 the Ministry of Education and Training announced that it was looking for a new Deputy Minister (Ngoc Lan, 2008), giving opportunities to independent candidates. However, the former Prime Minister Vo Van Kiet, in an interview with Minh Duc (2007), while acknowledging progress in government personnel planning as proposed in the 10th Party Congress, contended that it was still insufficient:

> In the 10th Party Congress, there was a suggestion which was viewed as new: a Minister's position may be held by a non-member of the Central Committee... However, in my view, that (i.e., the new suggestion) is not enough. Greater widening of opportunities for non-Party candidates should be done...

However, there is no difference to the status quo. The evidence shows that virtually all current central government members were drawn from Central Committee members (Vietnam Government Portal, 2010). Further, independent candidates are sceptical about such neutrality, when a Party-member candidate was finally nominated by the Ministry of Education in the case of recruitment of a new Deputy Minister of Education (Nguyen, 2008; Ngoc Lan, 2008).

Apart from the composition of the ministry, policy decision-making and implementation in the government are not autonomous. The general motto is that the 'Party leads, State manages.' However, mechanisms to make that arrangement work are lacking (Gillespie, 2006). Despite the growing separation of Party and State in the 1990s (Painter, 2003b), Party and State figures during the 2000s have called for further separation. Early resistance to the Party's intervention in State management became well known through a memo by Prime Minister Vo Van Kiet to his Politburo colleagues, whereby he demanded a clear division in the functions of Party and government. Vo Van Kiet's arguments, published in a domestic newspaper, have been translated by Riedel and Turley (1999, p. 37):

> Party and State functions need to be separated more clearly. The party must cease passing its directives through party committee secretaries and instead pass them through the government chain of command, allowing government officials to take full responsibility for implementation. A 'law governed State' must supplant organisational structures that had originated in war, and State agencies for their part must cease their involvement in commercial activities. Failure to take these steps in the past is the reason many correct positions and policies of the Party and laws of the State cannot be implemented.

Recently, similar comments have been heard from figures in the Party elite. For example, in an effort to draw a line between the Party leadership and the State management, Nguyen Van An, interviewed by Dang (2009a), states that

You cannot directly manage the nation by Party directives and resolutions. Those papers are for leading, but not for replacing laws.

In summary, for the Prime Minister and Ministers, the inability to exercise prerogatives supported by law, and continuing intervention by the Party, are two major impediments that limit the autonomy of government to perform its executive roles. Given the rising assertiveness of the National Assembly, the responsibilities and powers of these government leaders are seriously mismatched.

5.5 Vietnam Communist Party

The Vietnam Communist Party was established on February 3, 1930 by President Ho Chi Minh. Over 80 years of its existence, the Party has been renamed several times: the Communist Party of Indochina (October 1930), the Vietnam Workers' Party (February 1951), and the Communist Party of Vietnam since December 1976 (Vietnam Government Website, 2008).

5.5.1 Stalinist Model

The term 'democratic centralism' dates back to 1847, and today's application of this term is influenced by the Soviet Union's model of the Stalin era, but with essential differences between the countries (Bottomore, et al., 1991). Six essential points in the principle of democratic centralism in the 10th statute of the Vietnam Communist Party which are applied universally to the Party apparatus are:

1. election is compulsory of all bodies of the party;
2. the highest Party body is the National Party Congress, and between congresses the Central Committee act as the head body;
3. party bodies must periodically report their activities and be accountable to upper and lower bodies in the Party;
4. party resolutions bind party organizations and members, and decisions of Party organizations are binding on individuals and decisions of higher bodies are absolutely binding on lower bodies;
5. resolutions of the Party take effect only if approved by more than half of the participants; and

6. decisions of Party organizations must not go against the law and decisions made by higher levels in the Party hierarchy.

Because decisions of higher bodies are absolutely binding on lower bodies, the Politburo elected by the Central Committee is the most powerful in the Party system. However, as demonstrated below, the personal responsibility and accountability of Party members at the highest level are unclear.

5.5.2 Issues of Responsibility, Accountability and Elections

The fact that Party rules are sometimes followed in form but not in intent, coupled with the influence of the Politburo, has contributed to an erosion of democracy within the Party. The effects are reflected particularly in Party elections and the discharge by Party leaders of their individual responsibilities, and the manner in which they display accountability. Appointments to Party positions are subject to a vote by Party members, but this voting process in many cases is not a real contest. Gainsborough (2003a, p. 41), for example, observes that 'the vote is in reality just a formality, with the real decision being made elsewhere'. At a central level, the body that nominates candidates (*cơ quan trù bị*) is the Commission for Organisation and Personnel of the Party Central Committee, led by a Politburo member. The nomination by this Commission is subject to approval by the Politburo. A proportion of sitting Politburo members is always re-elected. In addition, most members of the Central Committee come from provinces or cities or from other government ministries and ministry-level agencies. Therefore they have few incentives to challenge the decision of the Politburo. As a result, candidates nominated by the previous Politburo are virtually all elected.

On this issue, Vo Van Kiet has warned that, while a body the Party which nominates candidates in is necessary, it should not take away the rights and also responsibilities of deputies. Otherwise, the Party congresses would be a formality (Tuoi Tre Newspaper, 2005). Likewise, in an interview, cited in Da Trang and Dang (2006), former Party General Secretary Le Kha Phieu has stated:

> In terms of personnel, suggestions from the Politburo should be taken into account, but if there are other ideas, the Central Committee has to decide... I

> hope that this (the 10th) National Party Congress will not follow the tradition that whatever the old Committee nominates the Congress will take them all.

However, the expectation of the former General Secretary was not fulfilled. In the election for the 10th Politburo, all candidates suggested by the 9th Politburo were elected (Xuan Trung & Doan Trang, 2006). Normally, in Party elections at central level, there are no alternative candidates, constraining the choices of Party Congress members. Nguyen Van An, interviewed by Thu Ha and Lan Anh (2009), has argued again that there should be more nominations:

> As in economics, in politics it is bad if there is no competition...In our context, we can organise it in a manner that candidates can publicly compete with each other by presenting their views and strategy on several issues... In so doing, they provide evidence which people can use to compare and select.

With regard to the most senior position of Party General Secretary, there have been calls for direct election by the Congress, rather than by the Central Committee. The current Party statute provides that the General Secretary is elected by the Central Committee of the Party. This regulation limits participation by all members of the Congress in deciding their leader. On this matter, there are considerable arguments supported for direct election (Dang, 2008; Le & Van Anh, 2009; Viet Anh & Hong Khanh, 2009). First, since there is always manoeuvring to secure the top position (Koh, 2008; Ruwitch, 2010), and it is always easier to dominate a smaller body than a larger one, it is argued that the current approach enhances the impact of factionalism. Second, in a large body there are diverse opinions that will help prevent the winner from becoming complacent and making arbitrary decisions.

Among those who support the direct election of the General Secretary by Congress, Nguyen Van An, the former National Assembly president, regards widening the election as a step in widening democracy (Thu Ha & Lan Anh, 2009). In fact, the trend has begun. At lower levels, new Party regulations provide that about 15-20% of the Party Secretaries of provinces and districts will be directly elected in 2010 (Binh, 2009). Experienced observers speculated that the position of the General Secretary would be directly elected by the Congress in the coming 11th term, in early 2011 (Bui, 2009; Tuan Quan & Luu thao, 2006). But there was no change in the latest Party congress (Minh Thuy, 2011).

Further, within current Party regulations, there is a lack of clear accountability by individuals, especially in the case of the Party General Secretary. Party heads at all levels are, in principle, elected from the most competent members. Incumbents are always viewed as holding the most influential positions, particularly at the highest levels of the Party. The General Secretary convenes Politburo and Central Committee meetings, which decide those issues that are of paramount importance to the nation. In effect, the holder of this position also leads the armed forces (Thu Ha, 2010). Ironically, by law, the General Secretary does not act on behalf of the nation in domestic and international affairs or assume executive power (Thu Ha, 2010). Nguyen Van An has observed that this creates clear problems in public management (Dang, 2009b; Nghia Nhan, 2009):

> Looking at the current constitution and legal documents, there are no clauses that regulate the accountability of the General Secretary or Party Secretaries at other lower levels. However, if these cadres are the heads of executive bodies in the State apparatus, their leadership is associated with their lawful accountability.

Arrangements for Party bodies at central level lead to separation of personal power and accountability. An examination of the reports to the 10th Congress (Central Party Committee, 2006) shows that no single section discusses individuals. References are to collective self-evaluation. To counter this practice, there are calls for personal accountability. Le Kha Phieu, in an interview by Da Trang and Dang (2006), for instance, has asserted that:

> We must lay all things on table and discuss them in greater detail. The Congress should question the Central Committee: what is the responsibility and accountability of the Central Committee, the Politburo and the General Secretary?... The Party needs to learn from the way the National Assembly questions the government and the Prime Minister... The Party should have set examples for the National Assembly.

In short, democracy within the Party, especially as reflected in the election of Party officials and in the personal responsibilities of Party office holders at central level, has been subject to critique by its own key figures. The main reasons for these problems arise from the Party principle of democratic centralism and a lack of democratic elections within the Party.

5.6 The State President

This section discusses two main points: the separation of the position of State President and Party General Secretary and recommendations for an empowered institution of State President.

5.6.1 Separation of the Position of State President and Party General Secretary

Since the country's unification in 1975, the positions of the State President and the Party General Secretary have always been held by two people. This convention contributes to an overlapping structure of the Party and State and to a less than clear delineation of responsibility and accountability for these two positions. This arrangement entails at least three problems. First is the overlapping structure of the Party and State systems. In major areas such as personnel and economics at both central and provincial levels, there are always a number of similar committees in both Government and Party. The involvement of these two organisations, for example in nominating candidates for election, makes the situation more complex (Gainsborough, 2003b). Second, the Party General Secretary seems to be detached from responsibility and accountability to the State. Although the Party General Secretary has the most influential role in Politburo decisions, it is the State President (in theory) and the Prime Minister (in reality) who bears responsibility for those Politburo-decided policies. The third problem is the diplomatic dilemma created by these arrangements. In particular, in the case of a state visit where the guest leader holds both positions of party and State leadership, it takes both Vietnamese counterparts to participate in a State-level ceremonial welcome, creating an unnecessary diplomatic puzzle (Tuan Vietnam, 2010b) and an unusual international practice. Further, as exchange visits between Vietnam and the leaders of other countries becomes more frequent, it is time-consuming in individual meetings (thus leaving less time for discussions) for there usually to be three separate interactions, one with each of these two positions and the other with the Prime Minister.

5.6.2 Towards an Empowered Institution of State President

There have been calls for a more empowered institution of State President so as to mitigate the problems caused by the separation of the two most influential positions. Merging the two positions has long been suggested as an option. According to Nguyen Van An, in the

interview conducted by Dang (2009a), this issue has been discussed since the 6th term (1986-1991) of the Party and nearly received approval in the first meeting of the 7th term (1991-1996). However, opponents expressed concern about the concentration of power in a single individual. In 2006, the National Assembly deputies attempted to nominate the General Secretary to the State President position, but he refused (Duc Hoa, 2006). Recently, Nguyen Van An again raised the issue and strongly argued for the two positions to be united. He used examples from other countries, arguing that (in the same interview by Dang, 2009a):

> In the remaining socialist countries like China, Cuba, Laos, all the General Secretaries are the head of the executive. In Europe, leaders of ruling parties are always head of the executive.

Remarkably, when Ho Chi Minh was the Party leader, he was chosen by the Party to run for the post of State President (Thu Ha & Lan Anh, 2009).

The merger of the two most senior positions would not only fix the ceremonial role of the position of State President but also encourage more responsible leadership in both the State and the Party. As stated above, the Constitution provides that the State President nominates the candidate for Prime Minister before conducting an election for this position. By law, the State President is accountable to the National Assembly, and deputies are entitled to question the State President. If the two senior positions were merged, the Party General Secretary would become more accountable for his or her decisions, since as the State President, he or she would be accountable to the National Assembly. In addition, the complex and parallel structures of the Party and the State, which have been dramatically expanded in Vietnam (Gainsborough, 2003b), would be simplified.

The merger is seen as desirable in order to encourage responsible Party and State leadership. Re-configuring the State system is important if the State President is to be more responsible for government performance. It is noteworthy that in the current State system, the Prime Minister and not the State President is the Head of the Executive. The growing scrutiny of domestic affairs by the National Assembly applies only to the Prime Minister and his government members. The right of National Assembly deputies to question the State President have rarely been exercised. A reorganisation under which the State President

assumes executive power, as in the 1946 Constitution, would more clearly link power with accountability.

When Ho Chi Minh was in the role of State President, he responded to questions from deputies, took full responsibility for the government and was accountable to the National Assembly (Lam, 2006). In another interview conducted by Nghia Nhan (2009), Nguyen Van An has given the proposal to return to this model his strong support:

> The General Secretary should run for the position of State President... the current parallel system where the Party assigns [power] to the General Secretary, and the State does to the State President is a mismatch... The role of the current State President is largely ceremonial... [we] should amend the Constitution, and the law of government so that State President is the Head of executive power like the arrangements in the 1946 Constitution.

It is argued that a return to such arrangements would improve accountability for the highest authorities of the Party and of the State.

In summary, the discussion above demonstrates that, despite progress, there is a lack of independence between the National Assembly and the Party, which as a consequence weakens the oversight function of this important organ, the National Assembly. Collective decision making in the Party fails to identify individuals responsible and accountable for mismanagement in both the Party and government apparatus. The government faces considerable constraints in policy making and high-ranking personnel appointments and discipline. These problems pose several challenges, especially in the matter of public administration reform. The following section discusses these issues.

5.7 Reforms in Public Administration and Causes of Problems

The move to a market-based economy requires a reform in the public administration model which has suffered from the consequences of years of pursuing a centrally planned model. There have been several programmes aimed at public administration reform (PAR), especially since the early of the 2000s. However, little change has been made to the political system, which was derived from the former Soviet Union, and which was a major constraint on the progress of PAR.

5.7.1 Public Administration Reforms

The 2001-2010 over-arching programme on PAR could be viewed as the most advanced plan since *Đổi Mới*. In 1999, the then government undertook a comprehensive review on PAR, which showed the limited results achieved since 1986 (Painter, 2003b). It was pointed out that the legacy of the central planning system remains embedded in the state public administration; That system is thus unable to meet the demands of the new (market-based) management mechanism under new conditions (Prime Minister of Vietnam, 2001c). A master programme was therefore designed for 2001-2010 (Prime Minister of Vietnam, 2001b). This was viewed as an ambitious and comprehensive plan in which were set out four major reform areas:

1. institution
2. organizational structure
3. civil service
4. public finance reform.

This wide-ranging plan was divided into two periods: 2001-2005 and 2006-2010. There were seven action programmes corresponding to these seven programmes, and each programme was sub-divided (ADB, 2005; Painter, 2003b; Prime Minister of Vietnam, 2001c). Different central government agencies were charged with these programmes.

Of particular relevance to this study was the plan for modernization of the administrative system, the seventh programme in the master Plan. The comprehensive project (Project 112) on computerization of state management (see section 1.2.2) was seen as the key to realizing the seventh action programme. This project received strong support from the Party and government and donors; however, a report reviewing the performance of the first (2001-2005) period acknowledged that 'the overall results so far are well below the initial expectations and hopes' (ADB, 2005). As stated in section 1.2.2, in 2007, the project was cancelled by the Prime Minister for its poor performance. Cancellation was followed by a corruption scandal involving several high-ranking government officials who were imprisoned for serious frauds during the implementation of the project (Thao, 2010).

In 2007, more than two-thirds of the operational life of the master plan for PAR had passed. However, there remained a number of obstacles to achieving the goals for PAR programme.

This necessitated a further strong response, which came in the form of Project 30. By 2007, the government had issued several legal binding documents to support the PAR process (Prime Minister Decisions 181/2003/QĐ-TTG, 23/2005/QĐ-TTg and 22/2006/QĐ-TTg; Prime Minister Directive 09/2005/CT-TTg and 32/2006/CT-TTg, and Government Resolution 01/2007/NQ-CP). However, in terms of administrative reform, little progress was made. A government document (Prime Minister of Vietnam, 2007) publicly acknowledged several reasons for the poor progress, of which the following problems are noteworthy:

1. resistance from the cadres and public servants due to loss of benefits arising from the existing cumbersome administrative procedures;
2. lack of inter-operation among government agencies; and
3. lack of a strong legal enforcement to ensure responsiveness to citizens' demands.

To curb these problems, the Prime Minister established a comprehensive project on further simplifying public administrative procedures for the period 2007-2010, Project 30 (De an 30). Project 30 could be viewed as the most substantial initiative, aiming to achieve targets set out in the 2001-2010 overarching plan. However, the results in general were still limited, as described below.

General outcome of public administration reform

The overall results of PAR for 2001-2010 have not reached the planned targets, although some progress was made (National Assembly Standing Committee, 2010). Important laws were issued in this period, such as the Law on Government Organizing, on People's Councils and People's Committees, and on Cadres and Public Servants. In reality, this achievement has not met the demand of the process of development, but was nonetheless good in view of the level of economic development (CIEM & ACI, 2010). In addition, thousands of procedures have been cancelled or improved to bring better services to citizens (Thuy Chung, 2011b). These are noticeable positive changes as a result of the PAR process. However, on balance, the outcomes remained limited, compared to the targets set in the master programme. For example, the time and money spent to get business registration certificates remain unchanged, and informal fees (known as '*phí lót tay*') tended to increase (Hien Anh, 2011). A report by the National Assembly Standing Committee (National Assembly Standing Committee, 2010, p. 16) recently revealed that:

> The PAR outcome generally did not meet the targets set in the master programme; the outcome could be viewed as the initial accomplishment. In certain areas, administrative procedures remain cumbersome, inconsistent and irrational, causing difficulties for people and enterprises.

With regard to reform in government structures, a reduction of 18 ministries and ministry-level agencies was achieved in the 12th government compared to the 10th government. Ironically, several ministries have more deputies than is provided for in regulation. For example, Government Resolution 178/2007/NĐ-CP regulated each ministry, requiring it to have no more than four deputies. But both the Ministry of Agriculture and Rural Development and the Ministry of Industry and Trade have ten deputies; three other ministries have more than five deputies (Nghe Nhan, 2011). In a context where the accountability of the leaders of these ministries was not not clearly specified (Thuy Chung, 2011b) (see also section 5.4.1), more deputies in ministries than regulated in ministries have only made its operations more complicated.

In general, the PAR initiatives by 2010 seemed to focus on people (Hien Anh, 2011). There therefore remain a number of problems facing the country's public servants, and these issues are taken up in the following section.

5.7.2 Problems for the Development of the Cadres and Public Servants

One of the overall objectives formally written into the 2001-2010 PAR master programme was to:

> build a force of cadres and public servants who have appropriate capacities and ethical qualities able to meet the requirements of national building and development' (Prime Minister of Vietnam, 2001c).

After ten years of working towards this goal, this target has yet to be achieved. There remain a number of steep hurdles on the path to a strong force of public service. It is not just in isolated cases that cadres and public servants have delayed their work, misbehaved with citizens, indulged in corruption. In general, the capacities of public servants, particularly in local governments, remain limited (National Assembly Standing Committee, 2010).

There are four main reasons that explain these problems. First is the low salary of public servants. Anecdotal evidence set out in the following case illustrates the point (Cam Quyen, 2010). A public servant, after 23 years working in a government agency, achieved a modest salary of about VND 2,263,000 (a little more than US$100 at the exchange rate in April 2011). Although total formal income includes elements other than base salary alone (Painter, 2006), public servants have to pay other fees, such as insurance. As a result, this public servant and her husband, who was a driver in the same agency, earned VND 3.7 million per month (less than US$200). Undoubtedly, such poor income forces public servants to seek additional earnings, which may be from legal or illegal sources (Vu, 2010a). The low payment of public servants is also outlined in the case studies (Chapter Eight and Nine), especially for IT staff.

Second is the problem of patronage and nepotism (CIEM & ACI, 2010). Despite low salaries, there is evidence that some public servants are wealthy due to corruption. Six prominent types of work where informal and illegal income is often generated are:

1. people with the right to allocate land to enterprises;
2. people with the right to approve projects of different types;
3. people with the right to ask banks to lend money to enterprises;
4. people who decide the level of tax that individuals or enterprises must pay;
5. people with the right to issue fines; and,
6. people with the right to recommend appointments or rewards (Vu, 2010b).

Two other associated problems are overstaffing and the poor quality of public servants themselves (CIEM & ACI, 2010). Painter (2006) shows that Vietnam has the highest percentage of public servants, compared to Indonesia, Thailand, the Philippines and South Korea, comprising 5.5% of the work force. One direct consequence is that qualified public servants tend to leave the public sector, and potential qualified candidates do not apply (Thuy Chung, 2011c).

5.7.3 Root Causes for Slow Public Administration Reform

There have been several studies, articles and reports on PAR in Vietnam (ADB, 2005; National Assembly Standing Committee, 2010; Painter, 2003b; Prime Minister of Vietnam, 2007; UNDP Vietnam, 2009; Vu, 2010a, 2010b, 2010c). Both the achievements and causes of poor progress in PAR have been presented above. However, important causes that stem

from the organizing principles of the Party and State have not been discussed. Based on the analysis in this Chapter, it is argued that the organizing principles of the Party and State constrain the advance of PAR. Particular problems in these principles are the lack of independence of the National Assembly, opaque accountabilities of Party and State leaders, and the constraints on government leaders in exercising their authority.

Regarding the scrutiny by the National Assembly on PAR policy and performance, it is hard for the National Assembly to investigate and expose problems. As discussed earlier, the National Assembly is still far from fully independent from the Party so that their investigations and reports on PAR are more likely to be influenced by the Party. Further, the problems in the capacity of National Assembly (due to part-time delegates) limit time and resources devoted to PAR inquiry. Thus a full report that exposes the problems affecting PAR reform is difficult to develop. As the full extent of problems in PAR is yet to be uncovered, it is difficult to advance the PAR programme.

Even if all the problems were detected, opaque organizing principles (see sections 5.4 and 5.5) make it hard to find and call to account those who are responsible for failures in the PAR process. At a central and local government level alike, the double structures of the Party and State apparatus complicate the responsibilities of the leaders in an organization. For example, in the provinces, the President of Provincial People's Committee is the chief executive of the province; it is he or she, therefore, who is charged with overall performance of the province, including the PAR process. However, in the Party hierarchy, the President has to follow decisions of the Party, which is led by the provincial Party Secretary. But the latter has no lawful responsibility for and accountability to the people (via the People's Council Committee). Further, the People's Council Committee, like the National Assembly at central level, is lacking in independence from the Party. In this setting, locating those who are responsible for problems and rectifying them is a complicated process. The PAR process, therefore, cannot easily be expedited while such unclear mechanisms exist.

In certain cases, where the incompetence of leaders is evident, the constraints on the powers of government members prevent them from issuing necessary measures. As will be presented in the next chapters, although several laws and legal documents have been issued to regulate the leadership of ICT applications, they generally have not worked as expected.

The key problem again stems from the collective leadership of the Party that constrains leaders from exercising their power and from selecting the right individuals for the job.

5.8 Conclusions

This chapter has examined key institutions at the central level of the Party and State of Vietnam. The challenges facing Vietnam's public administration are several. First, although the National Assembly is increasingly assertive and gaining real power, its representative features and independence have yet to reach their full potential. Second, while central government ministers and the Prime Minister are under increasing pressure from the National Assembly, they do not have authority commensurate with their accountability. Third, the responsibility and accountability of individual Party leaders to the Party Congress is not clear. In addition, within the Party there is a gap between theory and practice, with regard to democracy. The position of the State President is less about the exercise of power than about ceremony, indicating that the real State power is not vested in the highest elected position.

These factors give rise to an under-performance in PAR, including in e-government. Despite initial achievements in the PAR process, shortcomings remain. Particular problems in the process of developing a strong force of public servants were discussed, including the low salaries of public servants, nepotism, over-staffing, the departure of qualified public servants, along with the failure to attract qualified candidates to work for government agencies. The main causes that were identified included: the lack of independence of the National Assembly, opaque opaque accountability among Party and State leaders, and constraints on government leaders in exercising their authority.

CHAPTER SIX

E-GOVERNMENT IN VIETNAM

6.1 Introduction

The objectives of the chapter are twofold: first, to answer Research Question Two, which asks why Vietnam initiated and developed its e-government initiatives; second, to provide background to critical factors relevant to e-government implementation identified in the conceptual framework (Chapter Two). This chapter facilitates the analysis in the case study chapters (Chapter Seven, Eight and Nine) and discussion (Chapter Ten).

As presented in the following section, five main factors have driven e-government development in Vietnam. Of these, the principal drivers were the ambition to reform public administration and the pressure from international economic integration. This chapter indicates that online services such as websites, portals and online services have increased in both quantity and level of complexity in recent years. In relation to state capacity, it is seen that the central government has provided insufficient leadership of e-government and that steering capability is limited. E-projects experience unstable e-government funding from constrained government budgets. But there is in fact a large need for investments in the context of a developing country. Therefore, despite efforts to improve e-government performance, there remain a number of challenges. Finally, the chapter argues that, although ICT infrastructure has grown significantly during the last decade, Vietnam remains in a modest position in world ICT rankings, with a considerable digital divide between the provinces.

The chapter is organized in the following order. It begins by answering the question as to why Vietnam initiated its e-government initiatives. This is followed by an outline of key e-government initiatives in Vietnam. The subsequent sections analyse two important groups of factors relevant to e-government implementation: state capacity and infrastructure. There is also a discussion about aspects of the digital divide. Finally, the conclusions provide a summary of key discussions in the chapter.

6.2 Key Drivers of Vietnam E-Government Initiatives

There are five main drivers of e-government initiatives in Vietnam:

1. influence of the reformist forces in the Party and State apparatus;
2. the master plan of public administration reform;
3. pressure from global and regional integration;
4. promotion by international donor agencies; and,
5. increased workload in certain areas.

The leading advocates of reforms are those who set the initial ground for internet and e-government development. It is a fact that there is always a reforming force and a conservative force within the Party and State apparatus (Lee, 2000; Vuving, 2010). This reality is highlighted in the approach employed by Painter (2003b) to interpret the trajectory of administrative reform in Vietnam. Certain outspoken critics, such as former Prime Minister Vo Van Kiet and former General Secretary Le Kha Phieu played an essential role in opening the nation to the world by advocating policies for internet and e-government development in the early years (Le, 2007; Surborg, 2008).

As one of the key politicians of the reform era, former Prime Minister Vo Van Kiet was a pioneer in introducing the application of information technology to government affairs. He led the government from 1992 to 1997. During his term, four IT projects in government offices began. These projects were later viewed by government officials as the cornerstone for e-government development (Prime Minister of Vietnam, 2001b). Remarkably, in the early years of the internet and email in 1994, Vo Van Kiet and the Swedish Prime Minister, Carl Bildt, exchanged an email message (Surborg, 2008), which is said to be one of the world's first transactions between two government leaders (Bui, 2007). This act might have seemed a symbolic gesture, but it did reflect the embracing of modern tools by the reformists in central government at the time.

Although it was important to secure the approval from the most senior position of the Party, the efforts of progressive leaders such as Dr Mai Liem Truc and Professor Chu Hao in government were even more important in ensuring approval for internet connection, a fundamental tool of e-government implementation. With a vision that the internet is one of the most important tools for the development process of Vietnam, leaders of the ICT sector

in the government did their best to convince the Party leaders to make the change. Between 1992 and 2005, Dr Mai Liem Truc and Professor Chu Hao were senior officials of the government in charge of post and telecommunications (Hh, 2007). Given many doubts and the conservative perspectives of Party leaders concerned about the loss of Party control of the state and society (Surborg, 2008), these reformers sought to persuade sceptical leaders of the inevitable trend of the internet and its applications. Recalling difficulties in this process, Dr Truc, cited by Phuong Loan (2010a), described it thus: 'the negotiations in Hanoi are even tougher than those from the outside [with foreign partners]'.

Despite the efforts of these reformers, they could have little effect if senior Party officials were not open-minded. In other words, it needed influential advocates to get things done. As pointed out in Chapter Five, Le Kha Phieu, who was one of the key Party leaders at the time, gave the 'green light' to the internet policy. As Professor Chu Hao (Le, 2007) recalls, in 1997 his team, led by the then Minister for Science and Technology, was asked by the Standing Party Secretariat to present arguments for connecting to the internet. In the meeting, each member in turn discussed benefits from different angles to win the support of the Party General Secretary for internet penetration. After listening to their presentation, Le Kha Phieu concluded: 'I trust you; give it a go!' cited in Le (2007). After the meeting with Party leaders, the team had a meeting with the then Prime Minister Phan Van Khai for a similar purpose and also won his support. A noteworthy point here on the sequence of the persuasion process is that the approval from the Party leader for a specific policy is more important than any other leaders in government. However, as discussed in Chapter Five, the highest party leaders (at central and local level alike) do not have accountability to elected bodies such as the National Assembly at the central level or the People's Councils in local government.

Modernization of the administrative system was a key component of the 2001-2010 master programme on public administration. As discussed in section 5.7, there were seven programmes in the over-arching master plan. The seventh programme directly related to e-government development, and it set out five broad targets (Prime Minister of Vietnam, 2001c):

1. transform operations in the administrative system;
2. modernize state agencies, ensuring sufficient modern equipment and good conditions;
3. apply ICT in the activities of state agencies;
4. continue to upgrade and widen the CPnet (a Wide Area Network connecting all ministries, ministry-level agencies, other state agencies, cities and provinces' People's Committees) to four levels of local government; and,
5. ensure that sufficient tools for managing purposes are furnished to authorities at commune level.

The programme was divided into two parts with separate action plans (ADB, 2005): Part 1 focused on the reforms in coordination, working modalities and routines of administrative agencies. Part 2, approved in 2001 (Prime Minister of Vietnam, 2001b) was about applying IT in state management; this was known as Project 112. Despite its failure (detailed in the following section), Project 112 represented an ambition to reform the conventional administrative procedures in state agencies. As analysed in the Chapter Eight and Nine, although Project 112 failed, certain ICT initiatives were as built in provincial governments.

The third driver of the e-government initiatives was the push from global and regional integration. As discussed in Chapter Four, Vietnam has, since the 1990s, increasingly integrated itself into global systems. As a member of ASEAN, APEC and the WTO, Vietnam must commit to frameworks and rules of these regional and international organizations, especially in areas of transparency in government. For example, the e-ASEAN framework which was signed by its members in 2000 regulates the promotion and development of the IT revolution, particularly in those ICT applications for better delivery of government services (ASEAN, 2000). Realization of the commitments set out in this framework was one of the four basic reasons for the establishment of Project 112 as noted above (Prime Minister of Vietnam, 2001b).

Similarly, in its regulations, APEC requires that member countries:

> Promptly publish and make available on the internet, information on its Customs laws, regulations, procedures and administrative rulings of general application in such a manner as to enable interested persons to become acquainted with them (APEC, 2005, p. 9).

In the WTO, transparency is the most fundamental principle, and government procurement is a notable example (WTO, 1996). Vietnam started its application for WTO membership in 1995 and was accepted in 2007. During the 12 years of preparation, a considerable amount of work had to be done, including efforts towards making government more transparent. One objective of a reform initiative in 2007 (Project 30: see section 5.7.1) was to demonstrate Vietnam's commitment to transparency of the public sector to the WTO (Nguyen, 2010a). There is little doubt that requirements from these organizations played a role in promoting e-government initiatives.

The fourth driver was the push from international donor agencies. Samaratunge, Alam and Teicher (2008) demonstrate that international donor agencies have been facilitating institutional and structural reforms in developing countries through necessary guidance, and financial and technical support. As presented in section 4.6, Vietnam has been a major beneficiary in recent years of international donors such as the World Bank and Asian Development Bank (ADB). That support is not without conditions; one of these is to promote transparency. The following subsections provide in detail typical projects on Public Administration Reform (PAR) and e-government.

Several e-government projects have been funded by international donor agencies. To facilitate the adoption of a modern public administration in its Comprehensive Poverty Reduction and Growth Strategy, the World Bank (Ministry of Finance, 2008; World Bank, 2005a, 2005c) funded notable projects: Customs Modernization and Vietnam ICT Development (e-Customs will be discussed further in Chapter Seven). The focus of the former project has been to modernize the customs system (World Bank, 2005a). The latter project's objectives are to promote process reengineering, standard information architectures, and extensive training and familiarization among stakeholders and potential users. In particular, it addresses five main sector issues (ADB, 2005; World Bank, 2005b):

1. government leadership of ICT in development;
2. information infrastructure: access and connectivity;
3. ICT skills/human resources;
4. ICT usage in government, in urban areas: HCMC, Hanoi and Da Nang; and
5. ICT industry and ICT-enable private sector development.

ADB also provided indirect assistance to e-government development. An important project assisted by ADB was the PAR master plan (ADB, 2005; Painter, 2003b). With a view that e-government is closely linked with PAR, the ADB project aimed at building up the institutional e-government framework within the PAR master plan. It contended that the work on e-government by 2005 had still mainly been on the conceptual and preparedness aspects and urged further action toward e-government implementation.

Apart from assistance from multinational donors, there has been bilateral support from other international agencies. In the areas of e-government development, projects by GTZ (German Technical Cooperation) and by USAID (United States Agency for International Development) are prominent. The GTZ project provided an e-government solution to online business registration, computerized and online public services for enterprises and business information transparency at the provincial level (Le & Becker, 2009). The initiative by USAID, the Vietnam Competitive Initiative, supplied valuable inputs for policy makers in the areas of e-government (Vu & Jones, 2006; Vu & West, 2005).

The fifth driver was the increased administrative workload of government officials in some special areas. In general, procedural bottlenecks built up along the way of the transformation to a market-based economy (Vasavakul, Le & Le, 2009). Public servants in significant areas became overloaded. This necessitated development of an efficient tool to handle the problem. Owing to rapid economic growth over the last two decades two typical areas that would benefit from service automation were customs, business registration and taxation. As presented in Chapter Four, Vietnam has been pursuing an export-oriented economy, export and import activities have become one of the busiest sectors (GSO, 2006, 2010, 2011a, 2011b). Further, tourism has been fast developing over the last decade (CIEM & ACI, 2010). Therefore, there has been a huge workload for staff in Customs offices. In addition, following *Đổi Mới*, private enterprises were allowed to operate, making a sudden increase in number of enterprises (section 4.4.2). This led to a large demand for business registration. Another major area is taxation. Take the case of individual tax files. On 1 July 2009, a reformed personal income tax system was introduced. It was estimated that about 15 million people needed to provide a tax file number (Hong Anh, 2008). It would have taken vast resources to supply information to this number of people if it was done manually.

For these reasons ICT-driven applications in customs, business registration and taxation were therefore encouraged.

In brief, in relation to Research Question Two, Vietnam initiated and developed its e-government initiatives because of five principal drivers, including: (1) the influence of the reformist force in the Party and State apparatus; (2) as part of general public administration reform; (3) the push from economic integration; (4) promotion by international donor agencies; and (5) the increased workload in offices of customs and taxation.

As a consequence of these drivers, Vietnam government put in place a number of e-government initiatives. The following section presents the key government initiatives in Vietnam.

6.3 Key E-government Initiatives in Vietnam

Previous studies of e-government in Vietnam (Nguyen & Schauder, 2007; Obi & Nguyen, 2010; Tsai, Purbokusomo, Cheng, & Tuan, 2009; Vu & West, 2005) provide valuable information on e-government implementation, but they look into different issues of e-government and do not provide a systematic analysis. This section and the next provide a history of e-government development in Vietnam and a more systematic analysis of factors relevant to e-government implementation as defined in the conceptual framework in Chapter Two.

From the early 1990s Vietnam began its initial IT projects in the Party and State apparatus. Between 1991 and 1997, there were four major IT projects aiming at modernizing the state administrative procedures; of these, two were sponsored by the French Government (Prime Minister of Vietnam Government, 2001b). However, the outcome of these projects was limited. For example, the project initiated in 1996, which aimed at computerizing the administration of state agencies for the 1996-2000 period, was halted in 1998 with large targets unachieved (Quoc Thanh & Khiet Hung, 2007; VN Gov, 2001). In 1997, a notable project, the CPNet, was established in accordance with Prime Minister's Decision 280/TTg. This was a Wide Area Network connecting all ministries, ministry-level agencies, other state agencies, cities and provinces' People's Committees. Little is known about the performance of the CPNet; however, this project was later transferred to the Board of Management of a larger project, Project 112.

6.3.1 First major E-government project: Project 112 on Computerization of State Administration

Since 2000, the leaders of the Party and State at central level have placed more emphasis on ICT applications in state administration. Prime Minister's Decision 112/2001/QD-TTg (Prime Minister of Vietnam, 2001b), better known as Project 112, was an effort to realize a Party cornerstone policy on ICT, Party Directive 58 (Party Central Executive, 2000), and to implement an important reform programme in the agenda of the 2001-2010 master plan on PAR. This project has been generally considered the first and most comprehensive e-government project in Vietnam (Obi & Nguyen, 2010; Vu & Jones, 2006).

In any analysis of e-government in Vietnam, Project 112 is significant. This is because this project had broad objectives, a vast scale and large funds, but a disappointing outcome. Regarding objectives, there were several ambitious targets; if they had been all successful as planned they would have had a tremendous impact on national e-government advancement. Five broad objectives included (Prime Minister of Vietnam, 2001b):

1. building several systems of computerization of state administration which support the management in state agencies;
2. constructing and integrating national databases for common use, initially for the Ministry of Investment and Planning, the Ministry of Trade, the General Bureau of Customs, the Ministry of Labour War Invalids and Social Affairs, the Ministry of Justice, the Ministry of Education, and the Ministry of Heath;
3. computerizing public services and heightening the capacity of state agencies in providing citizens and business with convenient, fast and high-quality services;
4. training for nationwide managers and public servants at district and upper levels so that they have sufficient IT skills and knowledge, and can handle their daily work; and,
5. fostering the reform process of state administrative procedures; reforming organizing structures and working habits in state agencies; and, synchronizing the process of computerization with the 2001-2010 master programme of PAR (see Chapter Five).

The project had a long delivery time, incurred cost overruns and lacked authoritative leadership. Hardware systems and training schemes were deployed nationwide, in all

provinces and cities, and down to district level (Bui Van, 2007; Prime Minister of Vietnam, 2001b). The initial planned time for the project was five years; however, this was extended and then cancelled by the sixth year of implementation. Funding for the project was calculated as an estimate only (Prime Minister of Vietnam, 2001b), but not less than VND 1000 billion (approximately US$62.5 million) at the commencement, yet the real investment amounted to VND 3.836 billion (approximately US$240 million) (Nguyen Linh, 2007). Additionally, the project leader was a Deputy Head of the Office of Government, who had no ICT background and nor any strong mandate from government to supervise other ministries, provinces and cities (Bui Van, 2007; Obi & Nguyen, 2010).

The project was terminated by the Prime Minister on 19 April 2007 (VietnamNet, 2007a). The main reason cited for this sudden end was that the project failed to reach targets planned by 2005. Further analysis for the failure of this super project will be presented in Chapter Ten, following the discussion of other factors in e-government implementation in the case-studies.

6.3.2 After-Project 112

After the demise of Project 112, two further major plans were pursued for e-government development. On 24 March 2008, the Prime Minister issued a Decision (Prime Minister of Vietnam, 2008b) which approved an e-government plan for 2008. Unlike Project 112, this plan set out more specific objectives which aimed to enhance the managerial capacity of the state apparatus and to provide some basic online services to citizens and businesses. In particular, there were the following targets (Prime Minister of Vietnam, 2008b):

1. on-line meetings: certain meetings were to be conducted via the internet at central level and between central government and provincial government;
2. other applications: by the end of 2008, 40% of documents exchanged between the central government and cities and provinces were to be done electronically; ***gov.vn*** email was to be used by 50% of leaders and public servants of cities and 30% in provinces; respectively, 70%, 50%, and 20% of the offices of ministries, cities/provinces, and districts were to use the software for specialized document management;

3. pilot projects: deploy e-government initiatives in four ministries and six provinces with different levels of development (including Daklak Province and Ho Chi Minh City, the two areas where the case studies were conducted, as detailed in the following three chapters);
4. construction of 19 systems and databases for different state agencies at central level and pilot provinces, which started from 2008; and
5. building an e-government plan for 2009-2010.

It is noteworthy that the scale of this project was significantly smaller than Project 112. However, the performance of this plan was also relatively limited. As reported at the meeting of the National Steering Committee on ICT on 21 November 2008 (MIC, 2008c), three targets could not be met. In particular, the pilot projects were postponed due to insufficient funds, except for Ho Chi Minh City and the Ministry of Finance. Several databases were not able to be constructed, and the 2009 e-government plan failed to be drafted within the timeline set, that is, by 31 July 2008 (MIC, 2008c; Prime Minister of Vietnam, 2008b, 2009a).

In 2009, the Government issued another e-government plan for 2009-2010 (Prime Minister of Vietnam, 2009a). In this plan, the agenda was largely similar to the 2008 plan, but the targets were set higher and with an orientation to 2015. In addition, this plan placed more emphasis on infrastructure and IT human resources for e-government development (Prime Minister of Vietnam, 2009a).

Apart from the projects set in the two cited national e-government plans, other ministries and ministry-level agencies formulated ICT-based projects for themselves, including (NSCICT & MIC, 2010, p. 40):

- a project of Information Technology Development in Vietnam, carried out in 2006-2010 by the Ministry of Information and Communication;
- a project of modernization of Customs, carried out in 2005-2010 by the General Bureau of Customs – the Ministry of Finance;
- a project of Tax Administration Management (TAMP), carried out in 2008-2013 by the General Bureau of Customs – the Ministry of Finance;

- a project of Treasury and Budget Management Information System (TABMIS), carried out in 2003-2008 by the Ministry of Finance;
- a project of Standardization of Geography System, carried out in 2006-2008 by the Ministry of Natural Resource and Environment;
- a project of Modernization of Banks and Payment System, carried out in 2005-2009 by the State Bank of Vietnam; and,
- a project of internet Development for Rural Community, carried out in 2008-2013 by the Ministry of Information and Communication.

These projects were initiated by the central government. At local level, provincial governments drafted and implemented their own e-government plans. Initiatives in national projects such as Project 112 were funded by the central government; the other e-projects used provincial government budgets. Other sources of e-government funding will be discussed in the next section.

6.3.3 E-Services Availability

Websites, portals and online services were widely provided by the central and provincial government; some advanced services have also been emerging. In 2008, the Ministry of Information and Communications (MIC) for the first time provided a definition of three levels of online or e-services to rank the development of e-government at both central and local levels. In 2011, Government Decree 43 (Vietnam Government, 2011) provided official definitions for four levels of e-services:

- level-one services are those that include the description of full, or almost all, steps and procedures, a list of necessary documents, costs, and deadlines for processing;
- level-two services are those that satisfy level-one conditions and all related forms are downloadable;
- level-three e-services are those that meet requirements of level-two and are able to undertake electronic exchanges with service providers, meaning that the only steps that are done on a face-to-face basis are service payments and outcome returns; and

- level-four e-services are those that meet requirements of level-three and users are able to process online payment and get results online or via a post office.

Following these efforts, online services have increased in both quantity and level of complexity. A report by the Department of ICT Application Promotion of MIC (DIAP, 2010b) shows that by the end of 2009, 14 of 16 ministries offered level-two services, and 6 of 16 ministries provided level-three services. Typical level-three services are business registration, copies of birth/death certificates, copies of marriage certificates, and registration of representative offices. Similarly, 44 of 54 provinces and cities have level-two e-services, and one third of these locations were putting in place level-three e-services. In 2010, there was a surge in level-three e-services, with 38 provinces providing 748 e-services, compared to 18 provinces and 254 e-services in 2009 (DIAP, 2011). By the end of 2010, except for one province (Daknong Province), the other 62 provinces/cities nationwide have their websites or portals in place (DIAP, 2011).

Putting in place e-services is one thing, making them attractive to people to use is another. The conceptual framework, developed in Chapter Two, indicates several critical factors in e-government implementation. The following section describes facts and context related to these critical factors, which provide essential background for the analysis in the case studies (Chapter Seven, Eight, Nine) and the discussion chapter (Chapter Ten).

6.4 State Capacity of E-Government

This section briefly discusses the important factors identified in the model set out in Chapter Two related to e-government state capacity, including leadership commitment, funds, strategy, steering capability, and the legal framework. In general, despite efforts outlined above to improve e-government performance, there remain a number of challenges.

6.4.1 Leadership Commitment

Inadequate leadership has been devoted to e-government activities. This is reflected in the absence of any key political figure in the area of e-government. As presented in Chapter Five, the most powerful body and individuals in Vietnam are the Politburo and its members. Therefore, in central government, Politburo members are normally responsible for

important areas. In the 12th government term (2007-2011), five out of 15 Politburo members were government members, but none were in charge of ICT activities.

The findings of the 2005 study on e-government by Vu and West (2005) also indicate limited vision and leadership in e-government. The following table is extracted from the survey results in this study, which sought the views of 21 informants who were responsible for or involved in e-government at a substantial level at both central and local levels. Respondents were asked to rank leadership on a 5-point scale (1=very weak to 5=very strong).

Table 6.1 Leadership in E-government development in Vietnam

Leadership in e-government development in Vietnam	Average Score	Interpretation
The vision of the leadership on e-government development	2.0	Weak
Interest of the leadership in embracing e-government	2.95	Close to Average

Source: Vu and West (2005, p. 12)

Further discussion of the factors that embody leadership support will be provided in Chapter Ten.

6.4.2 E-government Funding

Funds for e-government come from two principal sources: the state budget (central government and local government) and the non-state budget (international donors and loans). In regard to State funds, an e-government initiative may be funded by the central government (e.g., in pilot projects, as discussed in section 6.3.2) or the provincial government. In theory, government at all levels prioritizes funds for ICT activities and e-government. The Law on Information Technology (Vietnam National Assembly, 2006) provides that the State budget should prioritize investment in ICT development and that the growth rate of funding for ICT should be higher than the growth rate of the State budget. Similarly, the government resolution on ICT application in State agencies (Vietnam Government, 2007a) encourages investment in e-government activities. It is considered explicitly that e-government expenditure is an investment. These legal documents (Vietnam Government, 2007a; Vietnam National Assembly, 2006) also require related state bodies

such as the Ministry of Planning and Investment and Ministry of Finance to ensure sufficient and timely funds for e-government activities.

However, State funds have been not sustainable. The main reason is that provincial governments normally have a limited state budget but a wide ranging investment portfolio. The state budget as a whole is conditional on tax revenue which fluctuates in accordance with the status of the world economy. As analysed in section 4.4, Vietnam is a trading economy; thus unfavourable conditions in the world economy can immediately affect its tax revenue and thus shrink its budget expenditure capacity. For a developing country, Vietnam tends to spend more on ICT infrastructure due to its underdeveloped condition (Bhatnagar, 2004) and high level of corruption (Transparency International, 2010). In addition, Vietnam has been in need of investment capital for essential infrastructure such as transportation and electricity over the last decade (Price Waterhouse Coopers, 2008). This trend seems to continue for the foreseeable future; for example, a Deputy Minister recently predicted that Vietnam needs about US$300 billion to invest for 2011-2015 (Hookway, 2011; Lan Huong, 2011). However, poor performance of state-owned enterprises that have caused the government a huge budgetary loss (Hookway, 2011) and difficulties in macro-economic conditions (CIEM & ACI, 2010) undermine funding for large capital investment, including for e-government projects.

The non-state budget includes international loans and donors. Several e-government projects have been funded by international financial institutions. For instance, the World Bank loaned $US70 million for a Customs modernization project (Ministry of Finance, 2008). In addition, several initiatives have been unconditionally funded by international donors such as France (ASYCUDA, 1993; Prime Minister of Vietnam, 2001b) and Germany (Le & Becker, 2009).

6.4.3 E-government Strategy

The main objectives of this subsection are to provide contextual information relevant to the discussion of e-government strategy in the discussion Chapter (Chapter Ten). All relevant plans for e-government since the early 1990s are considered.

The two goals repeatedly presented in any ICT project have been to (1) heighten the capability of state administration, and (2) provide better services to business and citizens.

For example, Government Resolution 49/CP in 1993 clearly stated that IT applications should provide sufficient information for proper decision-making and management in state agencies, improve the state provision of information to business and people, and foster the state's administrative reform. In the same vein, Project 112 also had these two purposes, among others. In the recent e-government plan, specified in Prime Minister Decision 48 in 2009, the two principal aims are also to modernize the government administration and to provide high quality services to government clients. In other words, the rationale for e-government development in Vietnam has always been stated as to enhance state capacity and supply people and businesses with better services.

In several e-government plans, the status quo is described before targets are set, so that the question 'Where are we?' in strategy formulation (Heeks, 2006) is answered. The very first legal document, Government Resolution 49/CP, lists many challenges facing the country, especially in the areas of IT and telecommuting infrastructure and human resources (Vietnam Government, 1993). Similarly, Party Directive 58 (Party Central Executive, 2000) admitted that 'the country's IT conditions (in 2000) are still underdeveloped and potentially lag far behind many other regional countries'. Even in the proposal for the failed Project 112, several problem statements were acknowledged; ironically, it appears that the Project failed because of these already identified issues. Chapter Ten provides further analysis on these issues.

Specific objectives have also always been stated. For example, the two most recent e-government plans (set out in Prime Minister Decisions 43 and 48 and detailed in section 6.3) present both general and specific targets. Similarly, general and specific objectives are presented in many older documents such as Government Resolution 49 in 1993, Party Directive 58 in 2000, Prime Minister Decision 112 in 2001, the internet development plans in 2001 and 2006, and in the recent plan on making Vietnam a robust ICT nation (Prime Minister of Vietnam, 2010a). In other words, the responses to the 'Where are we?' and 'Where do we want to get to?' questions have been addressed in major e-government policies and plans.

However, sufficient attention has not been paid to the solutions necessary to realize objectives. The three principal plans since 2000 (Project 112, e-government for 2008, and e-government plan for 2009-2010), each lacks detailed action programmes, although a

number of broad objectives and specific targets are set. Generally, most issues that experts have been concerned with in e-government projects have revolved around failure to answer the question 'who does what?' (Bui Van, 2007; Nguyen, 2007a; Quoc Thanh & Khiet Hung, 2007; VietnamNet, 2007b). This issue will be discussed in Chapter Ten.

6.4.4 Steering Capability

It is important to examine the relationship of the two bodies managing ICT activities and e-government in Vietnam: the National Steering Committee on ICT (NSCICT), and the National E-government Steering Committee (NESC). The former is in overall charge of ICT development and applications, while the latter takes charge of national e-government implementation, including strategy drafting and policy proposing.

At the central level, the history of the NSCICT shows that it is not a stable committee and lacks power, making it difficult for it to formulate sustainable strategies. There have been five committees of this type since 1994. The first National Steering Committee on IT Programs was set up in 1994 (Prime Minister of Vietnam, 1994). In 1999, the Prime Minister established the Eco-Technical Programme Steering Committee on IT which replaced the 1994 committee (Prime Minister of Vietnam, 1999; Quoc Thanh & Khiet Hung, 2007). The Steering Committee for implementing Party Directive 58 was formed in 2001 (Prime Minister of Vietnam, 2001d). A year later, however, this committee was replaced by the new one, set up in 2002 (Prime Minister of Vietnam, 2002c). When the new term of government began in 2007, a new NSCICT was established (Prime Minister of Vietnam, 2008a). The last two committees were led by a Deputy Prime Minister while the others were chaired by a Minister.

Heads of NESC have always been officials whose positions were no higher than deputy minister. During Project 112 (2002-2007), the chair was the Deputy Head of the Office of Government. Four of the five other members on this committee were deputies from other ministries, and the other member was the vice-manager of the informatics centre of the Office of Government (Prime Minister of Vietnam, 2001e). Ironically, the Office of Government is not a functional ministry (such as the Ministry of Information and Communications) with ICT expertise or the right to issue legal documents on ICT. However,

the Office of Government is considered to be a ministry, so a deputy head of the Office of Government is seen as a deputy minister.

The demise of Project 112 put pressure on the government to reconsider the management of e-government activities. Since 2008, there has been restructuring in the management of e-government activities. Accordingly, a National E-government Steering Committee was established in 2008. The head of this committee was a Deputy Minister of the Ministry of Information and Communications (MIC), with nine other members coming from other departments of MIC, representatives of other Ministries and government. Recently, due to some members retiring, this committee was restructured in May 2010 with more members but no change in the leadership (MIC, 2010b). Details of the management structure at provincial level will be discussed in section 10.2.2.

6.4.5 Legal Framework of E-government

This subsection is designed to systematically review Vietnam's e-government policy framework since the early 1990s by examining relevant policy and legal documents. Outlining these key documents helps in understanding policy milestones in e-government development, facilitating discussion on the legal environment in Chapter Ten.

Before going into detail, it is important to clarify policy instruments in Vietnam. There are three types of documents (CIEM & ACI, 2010):

1. overarching national master plans, such as on public administration reform for 2001-2010;
2. legal normative documents, such as Laws, Ordinances and Resolutions by the National Assembly, Government Resolutions and Decrees, and PM's Decisions, and Ministries' Circulars; and,
3. non-normative documents, such as strategies or master plans for specific sectors or regions, which are ratified by Prime Minister.

As discussed in Chapter Five, policy making in Vietnam is substantially influenced by the Party through its Directives. A Party Directive may be translated into a Law, a Government Decree, a Government Resolution or a Prime Minister's Decision. An example is Party Directive 58 on ICT usage promotion by the Politburo in 2000, although this process is not directly stated in the most recent Law on Issuing Legal Documents (Vietnam National

Assembly, 2008). Similarly, implementing a law normally needs a Government Decree, which in turn needs Prime Minister Decision(s) for further implementation solutions. In many cases, circulars from ministries are needed to provide guidelines for carrying out a Prime Minister Decision. In this study six types of documents are viewed as legal and policy documents: Party Directives, Laws, Government Decrees, Government Resolutions and Prime Minister Decisions, and Ministries' Circulars.

During the 1990s there were at least three major policy documents that established the initial legal basis for later e-government development. Government Resolution 49/CP in 1993 could be considered the very first effort towards e-government development. This document acknowledges lack of technology use in the nation and sets targets for the year 2000, especially for applications in state agencies (Vietnam Government, 1993). In realizing this policy, in 1994 the Prime Minister issued Decision 212-TTg on establishment of the National Programme Steering Committee on Information Technology for the period 1996-1999. This committee was in charge of formulating strategies of IT development in state agencies from central to local levels (Prime Minister of Vietnam, 1994). The third important legal document in this period was Prime Minister Decision 280/TTg in 1997 (Prime Minister of Vietnam, 1997) which established the CPnet.

Significantly different from practice in the previous decade, policy documents on e-government development have been regularly issued since 2000. Taking the view that IT is a tool to drive the development of Vietnam, the Politburo issued Directive 58 (Party Central Executive, 2000), which requested the Party, Government agencies and other socio-political organizations to take the lead in IT applications (Party Central Executive, 2000). In 2001, discussed earlier, the first comprehensive e-government project (Project 112), was set up (Prime Minister of Vietnam, 2001b). The Management Board of Project 112 was also established in 2001 (Prime Minister of Vietnam, 2001f).

In early 2002 the Prime Minister issued a Decision (Prime Minister of Vietnam, 2002a) to approve a plan for internet development for 2001-2005. A similar Decision in 2006 (Prime Minister of Vietnam, 2006) endorsed an internet development plan through to 2010. Both plans aimed to quickly develop internet usage in all socio-economic and political sectors. Notably, the former decision was intended to promote high quality internet services at prices equal to or lower than those in comparable countries in the region by 2005. The

second decision aimed to build up telecommunications and the internet by 2010 so that 25-35% of people would have access to the internet.

Two other important Laws were promulgated in 2005 and 2006. First, the Law on Electronic Transactions was passed in late 2005 (Vietnam National Assembly, 2005). This legal document is important because it defines important concepts and legalizes online transactions. Types of electronic transactions in state agencies, and related terms such as electronic signatures and electronic contracts, are defined. In addition, parties which take part in making online transactions possible are specified (Vietnam National Assembly, 2005). Though there had been several policy documents addressing information technology, it was not until 2006 that the Information Technology Law (Vietnam National Assembly, 2006) officially came into effect. As in the Electronic Transaction Law, terminology such as computer viruses, ICT infrastructure, the digital divide and digital data are defined in this law. In particular, Articles 24 to 28 detail IT applications in state agencies; for instance, the required contents of websites of state agencies are specified.

To bring the two Laws to life, the government issued Decree 64 (Vietnam Government, 2007a), supplying its agencies with further implementation details. Several instructions and clarifications of terminology used in IT applications are given. Information security, transparency and storage are specified in this document, for example. The contents of and conditions for placing services online are also specified. Implementing guidelines, roles and responsibilities of key personnel, such as the organization leader and the Chief Information Officer (CIO), are also spelled out in this Decree.

In 2008 and 2009, the Prime Minister endorsed two e-government plans (Prime Minister of Vietnam, 2008b, 2009a) which detailed e-government plans for the period 2008-2010, with an orientation to 2015 (discussed in section 6.3.2). Between these two plans, the Prime Minister issued a Directive on 3 December 2008 to promote email usage in state agencies. This document raised issues about the lack of commitment to increasing ICT usage in the state apparatus and provides measures to reinforce that commitment (Prime Minister of Vietnam, 2008).

In June 2009, the Prime Minister approved a master plan for ICT human resources with a target date of 2020 (Prime Minister of Vietnam, 2009c). The broad target is to develop an

ICT workforce that can meet the demands of the ICT industry. A remarkable target is that by 2015 all pupils nationwide from grade six are to have computer units in their school syllabus.

A prominent policy document issued in September 2009 was the Prime Minister Decision on approving the plan for making Vietnam a robust nation in terms of ICT (Prime Minister of Vietnam, 2010a). The plan embraces some ambitious targets in infrastructure ICT industries and e-government development. For instance, it planned to have more than 50% of the population using the internet by 2015 and 70% by 2020. The plan also aims to make Vietnam a nation in the top one third of UN e-government rankings by 2020.

Another legal document issued in 2009 that affects e-government implementation is Government Decree 102 (Vietnam Government, 2009) regulating the investment in ICT projects. ICT projects are significantly different from other types of project due to their distinguishing features of hardware and software; therefore the investment procedures are different from other projects. In this document (Vietnam Government, 2009), necessary steps and requirements are regulated for the pre-investment phase, investment phase, and operations phase. Other management requirements and parties involved in IT projects are also listed. Despite this long list of legal authorizations and requirements, there remain problems in the legal framework, such as frequent changes in laws (particularly demonstrated in the case studies in the next three chapters), low effectiveness and lack of feasibility of planned targets and effectiveness measures. These issues will be discussed in Chapter Ten.

6.5 Infrastructure and Digital Divide

This section addresses the context of ICT infrastructure in Vietnam from two sides: government and citizen. The emphasis is on both ability to provide e-government services by the government and on accessibility of e-government services for citizens.

In general, Vietnam's ICT infrastructure has grown remarkably over the last decade in spite of Vietnam's modest position in world ICT rankings. Vietnam's telecommunications index has steadily improved in recent years, reaching 79th in 190 countries in 2010 (UN, 2010). Furthermore, the rankings for networked readiness on the 2010 report on Global Information Technology by the World Economic Forum (2010), Vietnam tops the low-income group, and performs better than some other countries with higher incomes, at 54th out of

133 developed and developing economies. In addition, the nation is one of the countries with the highest growth rate in the index rankings since 2001 (World Economic Forum, 2010). Similarly, the International Telecommunication Union acknowledges that Vietnam has been making good progress in information society development (International Telecommunication Union, 2010).

6.5.1 Government Perspective

Despite a rapid expansion of Vietnam's ICT industry in the last decade, the most relevant indexes on e-government are still low. Computers and the internet are two of the most basic and important tools of e-government infrastructure. Therefore, the usage of these tools by public servants, citizens and businesses significantly affects e-government implementation. However, Table 6.2 shows that there remains low usage in provincial governments. The percentage of computers per 100 public servants in provinces and cities was 31%, and only 73.50% of those computers were connected to broadband internet.

Table 6.2 ICT infrastructure in government in 2010

Index	Ministries and ministry-level agencies	Cities and Provinces
Computers per 100 public servants	86.00%	31.00%
Computers with broadband internet/all computers in State Agencies	87.30%	73.50%
Percentage of specialized IT staff among public servants	3.70%	0.60%
Percentage of public servants who know how to use computers	91.10%	74.60%

Sources: Vietnam ICT Index 2010 (Vietnam Informatics Association, 2010)

Table 6.2 shows also that on average, only 0.6% of public servants in provinces were specialized IT experts and 74.6% of public servants knew how to use a computer. This makes it difficult for provincial governments to provide and maintain higher e-government services. Further analysis of problems facing provincial government agencies in recruiting and retaining IT staff will be analysed in Chapters Eight and Nine.

Evidence computed from the Vietnam ICT Index report (2009) shows that the proportion of computers per 100 public servants is less than 20% in one third of all 63 provinces. Similarly, the percentage of specialized IT staff as public servants is only about 0.2% in one third of 63 provinces and cities. Notably, in 19 of 63 provinces and cities, public servants who know how to use a computer only account for 50% or less.

All of these figures indicate a low e-readiness for e-government from the government side, especially in provincial governments.

6.5.2 Citizen Perspective

Figures and rankings on the citizen side in Table 6.3 also show discouraging signs. First, 71.4% of the population (GSO, 2010) lives in rural areas, which poses great challenges for take up of e-government services. In addition, the e-government human capital index of Vietnam, a component index which measures the human capital of e-government in UN e-government rankings, has steadily fallen since 2003; in 2010, it was 114th (UN, 2003, 2010). Secondly, on average nationally only 19.10% of families had computers (Table 6.3), and less than half had a broadband internet connection. Perhaps the most surprising figure is ICT applications in enterprises. On average, 59.80% of enterprises were reported to have an internet connection, but only 27% of staff had computers.

Table 6.3 Human capital for e-government in Vietnam in 2010

Index	Cities and Provinces
Households with computers	19.10%
Households with internet connection	9.30%
Computers per 100 staff in enterprises	27.00%
Enterprises with internet connection	59.80%

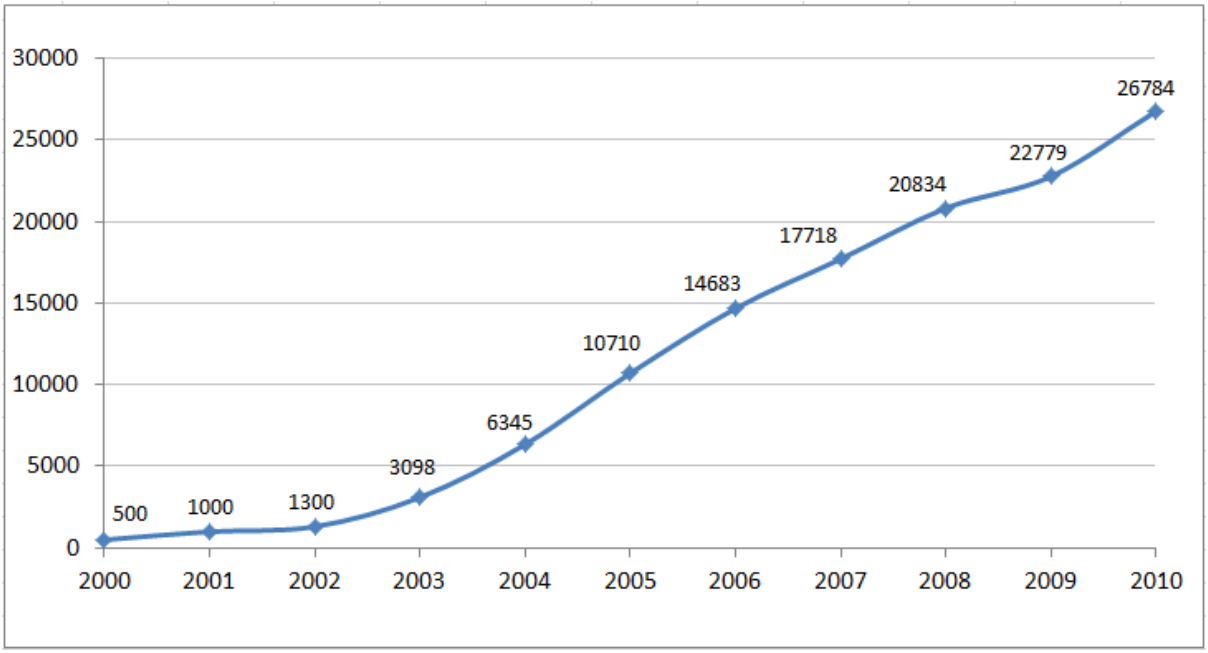
Sources: Vietnam ICT Index 2010 (Vietnam Informatics Association, 2010)

The divide among provinces is extremely serious. By further calculating from Vietnam ICT Index results in 2009 (Vietnam Informatics Association, 2009), it is found that fewer than 1.5% of families have computers in more than half of the provinces and cities (33/63). Since the same statistic for the whole nation is 18.21%, this figure shows that the divide in

computer distribution is huge between provinces and cities. Similar evidence is found in the case of Daklak Province (Chapter Nine).

A positive sign, however, is that there has been a significant increase in internet users over the last ten years. Figure 6.1 illustrates a high and sustainable growth rate of internet users during the period 2000-2009. By the end of 2010, there were about 26.8 million internet users in Vietnam, accounting for 31.11% of the population. In terms of growth rate, Vietnam is the best performer in East Asia with a 12,034.50% increase for the 2000-2009 period (Internet World Stats, 2010).

Figure 6.1: Development of internet users for period 2000-2010 (unit: 1000)



Sources: Nguyen and Schauder (2007), Vietnam internet Center (2011)

However, there is also a significant divide between internet users. A comprehensive survey by Cimigo (2010) reveals that more than 50% of the population in urban areas of Vietnam have used the internet, and the figures are even higher in large cities like HCM City and Hanoi City. In addition, a third of internet users are still studying, and 40% are white-collar workers. These statistics indicate that a majority of internet users are young and from urban areas. The majority of people living in rural areas share a much smaller part of total internet penetration.

In summary, ICT infrastructure and human capital for e-government in Vietnam remain underdeveloped. A digital divide is serious between provinces and between citizens. Such issues are a major hurdle for e-government and demand further attention in Vietnam.

6.6 Vietnam's E-government in an International Context

This section provides an overall picture of Vietnam's e-government in international e-government rankings. Several organizations have provided ICT ranking systems such as the World Economic Forum, the International Telecommunication Union and the Economist Intelligence Unit. These rankings are, however, ICT-centric. Thus in the previous section on ICT some of these rankings have been used to illustrate ICT development in Vietnam. As briefly analysed in section 2.4, three recent popular e-government ranking systems have been developed by the United Nations, Brown University, and Waseda University. However, only the rankings by the UN cover virtually all countries in the world and are regular (six reports in 2002-2010). On the contrary, Brown University has not provided a new report since its 2007 edition, and Waseda University's ranking sample is only up to 50 countries. The objective of this section is not to evaluate ranking quality, but to present a relative picture of e-government of Vietnam in the world. Hence the appropriate ranking system used in this study is one that can provide an update of statistics and covers the majority of the world's nations. For these reasons, only rankings by the United Nations are used.

The United Nations has published much on e-government since 2002, and rankings from this organization are widely cited as snapshots of countries' e-government status. There are six major global surveys on e-government. The results from its very first research in 2002 to the latest one in 2010 are employed to provide an overview about the development and position of e-government in Vietnam between 2002 and 2010. Though these studies are broad, they do not provide details on the development path of individual countries. To suit the requirements of this section, further calculations are made to illustrate the progress of Vietnam's e-government performance.

There are two principal rankings in these studies, e-government readiness and e-participation (except for the 2002 study, which only focuses on the former). The e-government readiness index, which is renamed the e-government development index in the 2010 study by UN (2010), measures the generic capacity or the aptitude of the public sector

in using ICT to provide better public services (UN, 2003). The other ranking is e-participation. This index is more focused on government and measures the willingness of government to use ICT for the purpose of empowering people to participate in consultations and the decision-making process. Understanding what underlies these rankings is important, for it partially explains e-government policies and e-government political willingness of a particular country.

Table 6.4 indicates that, while e-government readiness has continuously improved, the e-participation environment worsened in 2010. In terms of ranking, the second row of Table 6.4 shows that Vietnam has moved up 22 positions in 2004-2010, standing at 90th position in 2010. There seems to be, however, a completely different story when it comes to e-participation. In 2003-2005, it is clear that Vietnam was in the group of the most deficient. A sudden increase is seen in 2008, standing at 16th position out of 170 rankings. Yet, Vietnam's e-participation plummets to an alarming level in 2010, down to 110th.

Table 6.4 Vietnam's rankings on global e-government development and e-participation

	2002	**2003**	**2004**	**2005**	**2008**	**2010**
Global e-government readiness ranking	90/139	97/173	112/178	105/179	91/182	90/183
e-participation	NA	36/37	36/37	36/44	16/170	110/157

Sources: UN (UN, 2003, 2004, 2005a, 2008, 2010; 2002)

This fall, however, does not come as a surprise, since the latest e-participation index is defined as an indicator of how governments strengthen citizens' participation and interacts with them via popular Web 2.0 tools such as blogs, chat rooms and other social networks such as Twister and Facebook (UN, 2010). Given the country's poor record on corruption (Transparency International, 2010), strict press control (Surborg, 2008), harassment of bloggers (Boykoff, 2010), and, at times, blocking of social networks like Facebook (Economist Intelligence Unit, 2010), the fall is understandable.

Table 6.5 shows indexes of three important factors in e-government: web applications or online services, ICT infrastructure and human capital, which are used to build the e-government readiness composite index. The number of countries which have rankings on

three sub-indexes is relatively consistent, allowing us to use the rankings to arrive at a preliminary estimate of the trend.

Table 6.5 Vietnam's sub-index rankings of global e-government readiness

	2003	2004	2005	2008	2010
Web applications/online service index	98/191	123/191	113/191	65/192	79/189
Telecommunication infrastructure index	115/191	127/191	120/191	103/191	79/190
Human capital index	84/191	95/191	98/191	103/182	114/183

Sources: UN (2003, 2004, 2005a, 2008, 2010)

Looking further into these indexes, it is revealed that web applications and ICT infrastructure have been making significant improvements in the world rankings, especially since 2004. Conversely, human capital is deteriorating. As discussed in Chapter Ten, these results in part reflect government's policies and management on e-government development.

In summary, e-government initiatives were proposed and established early, but these early projects produced very limited outcomes. During the last three years, there have been more achievements, which have enabled Vietnam to achieve a world-average position in e-government rankings.

6.7 Conclusions

The chapter presented five main drivers of e-government development in Vietnam. The initial driver was the determination of certain Party and State leaders and high-ranking officials in the government. As a consequence of the first driver, the second most important driver was the application of ICT in reforming the public administration, as part of a larger PAR plan. The other drivers include requirements arising from global and regional integration, promotion by international donor agencies and the increased workload in certain areas.

As a result of these drivers, Vietnam initiated several major e-government initiatives and had some initial achievements to show by 2010. Four projects and programmes were

initiated between 1991 and 1997. In 2000, Project 112 was seen as the first comprehensive one in Vietnam; however, this large project dramatically failed and the Prime Minister halted it in 2007. The failure of Project 112 made government officials more cautious. Later initiatives have been on a smaller scale, particularly pilot projects implemented under the 2008 and 2009 e-government plans. However, by 2010, 62 of 63 of the provinces had websites or portals and many provided some e-services.

The important factors in government implementation set out in the chapter were guided by the conceptual framework (Figure 2.1) and provide background for more in-depth discussion in later chapters. Overall, the chapter shows that increasing attention has been paid to improving the performance of e-government in recent years. However, there remain a number of challenges. First, the most influential leaders have not been assigned to lead ICT activities; the position of head of the NESC has not always been assigned to an official who has sufficient influence. Second, constraints on the state budget make funding of e-government projects non-sustainable. Third, while from 1993 a range of legal normative documents was issued to facilitate e-government implementation, providing effective legal support for e-government remains a continuing problem. Fourth, e-government strategies gave poor answers to the question 'who does what?' Fifth, while in an international context, by 2010 Vietnam's e-government development stood at a world-average position, both ICT and human infrastructure are still underdeveloped and the digital divide remains serious. Finally, e-government was not high on the government's agenda.

The following three chapters will use the material presented in this chapter to investigate the case studies.

CHAPTER SEVEN

THE CASE OF E-CUSTOMS CLEARANCE

7.1 Introduction

E-customs clearance is the most advanced and complex e-initiative led by the General Bureau of Customs (GBC), a central government agency. The aim of this chapter is to investigate an e-government project initiated by the central government and carried out at the local level. The case provides a rich source of evidence for discussion in Chapter Ten.

Before setting out the details of this project, from its preparation and performance through to its challenges, it is important to understand the relationship of the HCMC Bureau of Customs (HBC) and GBC. The investigation for this case was undertaken in HCMC. As discussed in section 2.3.3, HCB is a functional department of the People's Committee of HCMC; however, this department is vertically organized (*ngành dọc*), meaning that it is largely under the control of the GBC, rather than the HCMC People's Committee. This is an important distinguishing feature, compared to, for example, the cases of the Department of Information and Communications (HDIC) and Department of Planning and Investment (HDPI). As a result, the e-Customs clearance project is considered an initiative of the central government, despite the fact that it is located in HCMC.

As the largest port for business in Vietnam, HCMC Customs offices process about 50% of the total volume of the whole nation (Nguyen, 2006). Important reform initiatives have been often introduced in HCMC. This chapter examines the most advanced e-initiative: e-Customs clearance. In addition, two earlier projects, the Automated System Customs Data project (1993) and the E-declaration for Customs Procedure Project (2002), are also briefly discussed to enhance understanding of the process of modernization of Customs administration.

E-customs clearance initiative has been viewed as a breakthrough in the customs modernization process, because theoretically it can overcome the challenges that faced previous initiatives. As discussed later in this chapter, a number of modifications were required for this system, including a new legal framework, organizational structure reform and changes in coordination. The e-Customs clearance system made considerable progress after commencing operation in 2005, especially in the dramatic fall in the time required for

e-Customs declarations, and an increase in sets of documents and total value of goods compared to several other peer branches. Despite the achievements, this project confronted major obstacles such as the absence of a long-term strategy, low steering capability, underdeveloped ICT infrastructure, and resistance from Customs staff and authorities who favour the conventional approach.

The chapter starts with a brief overview of the Customs administration and its major ICT-driven initiatives. This is followed by the case of e-Customs clearance. In this section, important aspects are analysed, including the legal basis and the redesign of organizational structures, procedures, work-flow and reform in coordination. The chapter continues with discussion of the performance of the e-Customs branch. The subsequent section explains problems facing the e-Customs clearance initiative that led to the closure of the e-Customs branch and the phasing out of the e-Customs clearance initiative.

7.2 Overview of Customs Management and ICT-driven Initiatives

The General Bureau of Customs is the central government body that directly manages the fastest growing import/export activities in the nation since *Đổi Mới*. As presented in Chapter Four, rapid and sustained export-led growth in the last two decades put Customs officials under increased workload pressure.

Customs offices have been notorious for their corruption. In the context of low pay for public servants (discussed in section 5.7.2), corruption is common in Vietnam (section 5.3.3) and Customs offices are generally viewed as one of the 'good places' for gaining unofficial earnings (Interviewee 15, 17 and 18). Bribes are normal in Customs offices (Dai Duong, 2009; Ly, 2009; Youtube, 2009). A recent video clip by *Tien Phong* newspaper (Dai Duong, 2009) circulated on the internet shows an official taking bribes twice in less than three minutes (Youtube, 2009), but this is not an isolated case since there has been other similar evidence (Ly, 2009). Analysing components of public servants' total income, researchers always cite the important 'add-ons', including the proceeds of corruption (Painter, 2006).

ICT-driven initiatives in Customs administration are thought to be an effective solution for reducing both workload and corruption (Nguyen, 2006). These projects attempted to automate a part or all of the procedures in Customs clearance. However, all of these

projects faced a number of challenges in the implementation process. The following sections present briefly two early projects leading up to e-Customs clearance.

7.2.1 Automated System Customs Data Project

The Automated System Customs Data Project (ASYCUDA) was an early project, started in September 1993 and funded by the United Nations Development Programmes (UNDP) and the French Government (ASYCUDA, 1993). The main objective of this project was to reform the process of customs clearance by introducing computerized procedures. Other associated goals were to reduce the administrative costs for the business community and to raise customs revenues, which in turn would enhance the government's budget. Despite comprehensive provision of computer-based infrastructure, the project failed to reach its targets for a number of reasons, as set out below.

Legal issues, technical issues, and in particular resistance from Customs officials were the causes of the failure of the ASYCUDA project. Tan Son Nhat airport and seaports in HCMC and Hai Phong were selected for implementing the project. All these ports had installed a complete set of software and hardware to ensure smooth operation. The system was developed by the United Nations Conference on Trade and Development (UNCTAD) with Zenith servers and Bull personal computers (Nguyen, 2005). Technology alone, however, did not guarantee success for this project. A paper by the World Bank (2005a) acknowledges that this system never exploited its real capacity. Analysing this project in more depth, however, a study on e-Customs (Nguyen, 2005) provided several other reasons for failure. The first was the unwillingness of staff. This study argues that the recipients (Customs officials at ports) did not want to take on this project in the first place, largely because it could seriously affect their own interests – their unofficial earnings – and they were not competent to operate the system. Secondly, the selected Customs offices in both HCMC and Hai Phong City were in separate ports, which had no links with their head offices in the inner city, given the poor quality of the network at the time. The third hurdle was the system operation based on the Unix Server for which maintenance required special knowledge and skills not common in Vietnam at that time. Furthermore, the system software was designed for fixed procedures, whereas Customs regulations changed regularly, making the system unworkable.

The two important lessons drawn from this project are that, first, an e-initiative should not be too technically complicated, but user-friendly and able to incorporate changes, and, second, that high human resistance to such an initiative is to be expected.

7.2.2 E-declaration for the Customs Procedure Project (Khai báo điện tử)

The second project was the electronic declaration (e-declaration) for Customs procedures in 2002, which started at four pilot provinces and cities in Vietnam, including Binh Duong, Hai Phong, HCMC and Dong Nai. It followed a decision by the GBC in February 2002, (252/2002/QĐ-TCHQ), and eligible candidates at the first stage were enterprises that did the outsourcing for international partners. Unlike the ASYCUDA project, electronic data sent from enterprises were accepted by Customs offices. Yet, businesses were required to present paper-based versions to Customs officials to check against the electronic version and then the paper documents had to be filed. Processing times were reduced, since Customs officials had the information in the system and the time spent at the counters was, therefore, reduced. It took more than a year for the nation's four principal Customs bureaus to launch e-declarations. The results, however, were limited. In particular, only six companies joined the system in HCMC, whereas Customs officials had expected 200 in the first two months (Thu Hien & Bich Ty, 2004). Similarly, in Hai Phong after three months only 13 enterprises exchanged electronic data with Customs offices, accounting for about 10% of eligible enterprises (Tuong Vy, 2004).

Like the ASYCUDA system, this system confronted technical and human problems. The requisite computer program to submit documents was not provided by the government agency, so that applicants had to use a commercial version, the Dolphin e-Customs Services (Thu Hien & Bich Ty, 2004). Consequently, incompatible software in Customs offices and enterprises led to operational errors and high maintenance costs, making the e-declaration system less attractive. Even when accepted by the system, applicants had to submit paper-based forms since there was no technical solution to verification problems at that time. Further, Customs procedures remained virtually unchanged, whereas the new services required businesses to spend more money and time (Thu Hien & Bich Ty, 2004). When it came to human factors, Customs officers typically prioritized paper-based applications (Nguyen, 2005), rather than the new initiative, because the latter limited their (illegal) earnings. Additionally, the cost issue was also a barrier to this initiative. To use this service,

at that time enterprises would have had to invest in software and the associated hardware at significant cost – a complete facility would cost up to $US10,000 which in Vietnam at this time was a large figure for many businesses (Thu Hien & Bich Ty, 2004).

7.2.3 E-Customs Clearance Project (Thông Quan Điện Tử)

In 2005, the Prime Minister issued Decision 149/2005/QĐ-TTg, which regulated a more advanced e-Customs initiative than previous ones. The major differences in this new model compared with previous initiatives were addressed in Article 2 of the decision, were as follows:

1. customs procedures were processed based on electronic messages;
2. customs declarations in electronic form have the same legal validity as paper-based form;
3. businesses were allowed to calculate their import/export duties, and monthly fees were applied (rather than fee collection on the spot, as in the traditional approach); and
4. Customs offices examined declaration applications through electronic forms; both decisions to clear goods and to undertake inspection were also based on these electronic data and the customs database, rather than using Customs officials.

Generally, these four features helped overcome the problems faced by previous initiatives, for example in time reduction and cost saving for enterprises and corruption reduction. In theory, as the electronic data are accepted, paperwork for Customs declarations is significantly reduced and so are the physical contacts between Customs officials and companies. This system is more cost-effective because enterprises do not have to pay for each individual application, and all costs for software and infrastructure are borne on the Customs side and businesses do not require investment other than a computer with an internet connection. In addition, the system plays a role in reducing corruption as it decides whether or not the consignment needs inspection, whereas under the traditional approach, this stage is one of those occasions where corruption occurs (Interviewee 18).

However, not all of these features worked in practice. For example, only certain classified types of goods are able to be processed without hard copy documents, or decisions made by

the system to inspect goods are not final due to database problems. These issues will be discussed later in this chapter.

HCMC and Hai Phong City, as the two largest Customs bureaus in Vietnam, were chosen again to undertake the first stage (2005-2007) as pilot Customs offices (Prime Minister of Vietnam, 2005a). The trial period was divided into three phases:

- Phase I (In 2005): implementing the system in HCMC and Hai Phong City;
- Phase II (from 01/01/2006-30/08/2006): Evaluating Phase I performance and selecting other places to replicate the model; and,
- Phase III (from 9/2006 to 02/2007): Reporting to the Prime Minister the results of the whole pilot programme.

After Phase I, e-Customs clearance was extended. By early 2011, this initiative remained the most advanced and complex system that could minimize required paperwork and interactions between businesses and Customs officials (Interviewee 15). Compared to previous initiatives, the preparation process of this project was longer and more comprehensive. It required a long list of difficult tasks, including these important issues:

- issue of legal documents;
- redesign of process;
- restructure of the organization;
- construction of infrastructure;
- recruitment and training for staff;
- promotional campaigns; and
- training for the business community.

The following section discusses in detail the e-Customs clearance project in HCMC.

7.3 E-Customs Clearance in HCMC

The e-Customs clearance initiative has been viewed as a breakthrough in the history of Customs in Vietnam because of the outstanding benefits brought by this system. The important contributions of this initiative include: a dramatic drop in the time required for e-Customs declarations; significant cost savings; more empowered staff to make decisions with support from software; and instant interactions between Customs staff and

enterprises. To achieve all these, as presented in the previous section, Customs authorities undertook a number of tasks. This section particularly examines factors discussed in the e-government literature, which include the legal framework, organizational structure redesign, rearrangement of procedures and workflow, and new ways of coordination in e-Customs branches.

7.3.1 Legal Framework

Both GBC and HCB organized a series of preparatory works. In total, the GBC and HCB accomplished a list of 42 tasks before the e-Customs branch took its first clients (Nguyen, 2006) on 4 October 2005. This section presents the development of laws and regulations which were critical in the process of implementation.

The 2005 version of the Customs Code is the first important legal basis for e-Customs procedures. In regards to modernizing the Customs administration, at Article 8 this Code directs the business community to develop advanced technology for participating in the Customs modernizing process. The Code also mandates the Government to issue relevant legal documents to facilitate the implementation of e-Customs initiatives. Despite the fact that this as a cornerstone of the legal framework for e-Customs development, the Code remains general. Therefore, further implementation details were required.

A week after the promulgation of the amended Customs Code, the Prime Minister issued Decision 149 on piloting e-Customs development in HCMC and Hai Phong. Following this Decision, the Ministry of Finance, the body that the GBC reports to, issued a Decision to announce the establishment of the e-Customs branch in HCB and the Hai Phong Customs Bureau (Ministry of Finance, 2005b).

In order to guide the implementation process, the Ministry of Finance issued a general instruction for the implementation of e-Customs procedures (Ministry of Finance, 2005a). In this regulation, general eligibility criteria specified were, for example, who and what type of goods were eligible in the first place. In addition, standard forms and documents used in the procedures were also specified. Under the new procedure, there were several major differences compared with the paper-based approach (detailed in the next section); the regulation also instructed both the business community and Customs offices regarding what to do, when to do it and how to do it.

New issues kept emerging, and the GBC issued an additional regulation, 3339/TCHQ-HĐH, in 2005 to supplement previous regulations. This legal document helped make clear those companies that were eligible to participate in the first stage by specifying conditions such as import/export revenue and financial transparency. Similarly, other issues in the documents and procedures which were insufficiently detailed in the Decision were supplemented by this document.

These legal documents served as the necessary legal framework for the pilot programme. However, additional legal grounds that could enforce the legality of electronic messaging were needed. Although instructions including electronic data used in the system were established, these documents were used only for e-Customs in an interim manner, because the Electronic Transaction Code was not in place at that stage.

In November 2005, the Law on Electronic Transaction (Vietnam National Assembly, 2005) was promulgated. It regulated transactions in and between state agencies, the private sector, individuals and other sectors. This was the first legal document to define all the relevant concepts and process used in electronic transactions. The Code established a firm background for all other related areas such as commerce, banking and customs.

In addition, the GBC and HCB issued a number of other regulations during the preparation process such as the decision on staff size (Interviewees 02 and 15).

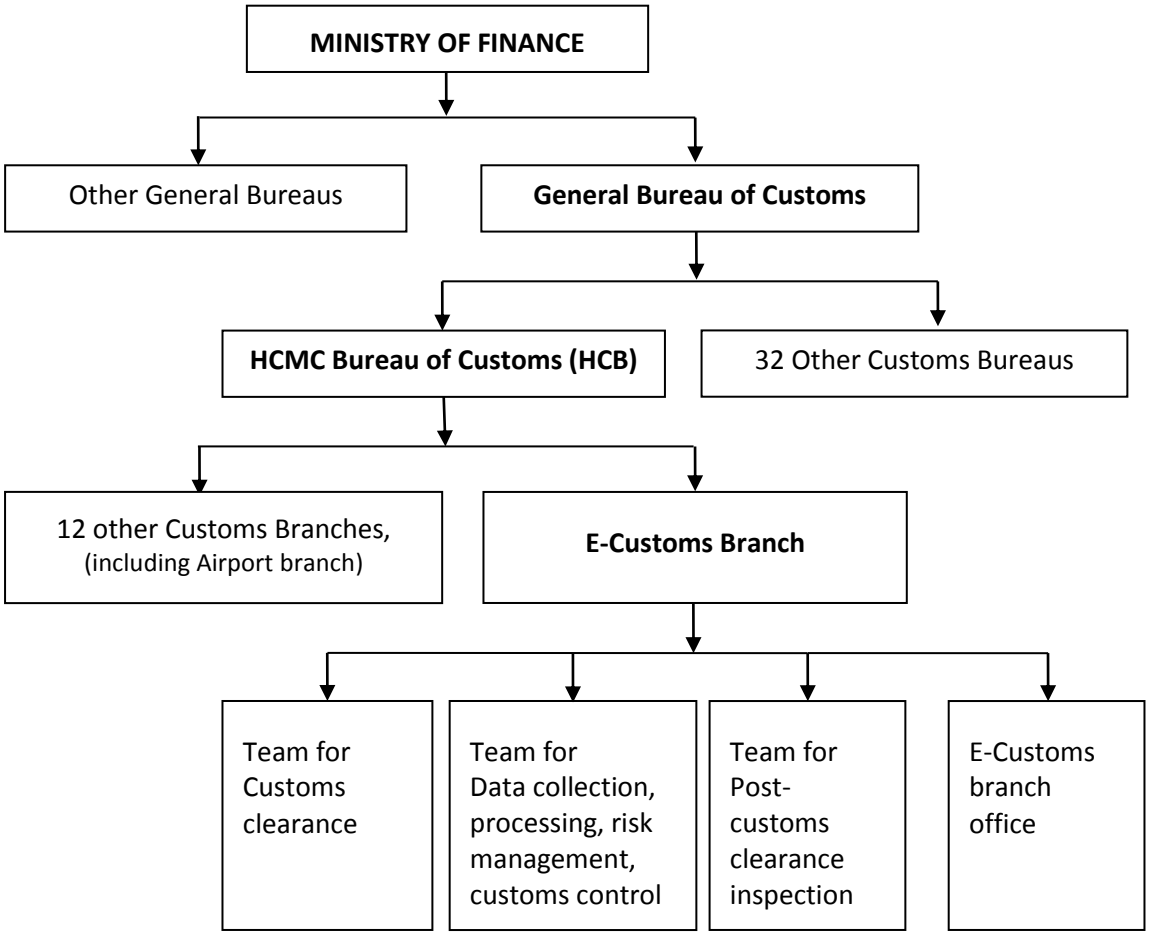
This section indicates that to put in place advanced e-initiatives, the authorities have to prepare a number of legal documents and regulations. Despite the efforts, as will be analysed later in the chapter, there were still problems with the legal framework.

7.3.2 Redesign of Organizational Structure, Procedure and Workflow

The e-Customs branch was one of 13 branches under the management of the HCB. The relationship between the e-Customs branch and the HCB was similar to that between other 12 branches (see Figure 7.1). Day-to-day operations were managed by the e-Customs branch leaders who reported to the HCB, and the HCB in turn reported to the GBC. The relationship between the e-Customs branch and other branches was on a cooperation basis, meaning that no branch was superior to any other. This feature, as will be explained in section 7.5.2, added to the problem of poor coordination between the e-Customs branch and others. For

external interactions with other agencies in HCMC, such as the Tax Bureau, the Head of HCB was the representative of the e-Customs branch (E-Customs Branch, 2009).

Figure 7.1 Organizational structure of Customs management



Source: GBC Website (2011), MoF website (2011), e-Customs branch (2009), T. L. Nguyen (2006)

In terms of the structure of the e-Customs branch, there were many differences from conventional departments. According to document 8741/BTC-TTCB, 40 staff were allocated to three functional teams and one office. The e-Customs branch was led by a Head and two Deputy Heads. In terms of staff size, the e-Customs branch was the smallest, compared to other similar functional departments in the HCB. As shown in Figure 7.1, there were an office and three functional teams in charge of:

1. customs clearance,
2. data collection and processing, risk management, and Customs control, and
3. post-customs-clearance inspection.

There have been significant reforms in the first two functional teams. The first team, the Customs clearance team, was considerably more compact in this structure than in the conventional structure. Under the conventional structure, there was more than one team in charge. For example, the procedure established in the 2003 regulation (Ministry of Finance, 2003a) showed that an applicant's document set had to pass through two different divisions (Registration and Tax), with compulsory involvement of Customs department leaders, for the purpose of Customs clearance. However, this procedure was streamlined under the new structure. Accordingly, the Customs-clearance team in reality simply did all the tasks required by the two divisions under the old procedure. This is one of the reasons why the performance of the e-Customs branch was better than several others (detailed in section 7.4).

The operation of this team was simple, with all steps being computerized. In particular, when enterprises filed a Customs declaration form electronically, the team viewed it on their system. They then checked it and performed their professional tasks on computer with assistance from specialized Customs databases. Staff in the second team took charge of Customs databases, which contained relevant information on goods, regulations, and enterprises' profiles. These databases were regularly updated. The second team was a new feature compared to conventional branches. Except in special cases, the leader of the e-Customs branch normally was not involved in operational procedures.

Procedure and work-flow redesign

Reform in organizational structure leads to changes in the coordination and function of Customs officials. This section highlights changes in the new procedures by comparing the old and new. The comparison is based on three relevant legal documents, Decision 56/2003/QĐ-BTC, Decision 50/2005/QĐ-BTC, and document 3339/TCHQ-HĐH, and a study by Nguyen (2006). Additionally, Interviewee 15 clarified the operation of the two procedures in practice. All these differences are presented in Table 7.1. It is noteworthy that there have been changes to the e-Customs procedures over time; however, Table 7.1 sets out the first procedures with the intention of showing the difference at the time e-Customs project started. The most recent changes in procedures will be discussed later in the chapter.

Table 7.1 Procedures and workflow under the two approaches

Procedures		Workflow	
Main Steps	**Sub-steps**	**Traditional approach**	**E-customs approach**
Get the Customs registration form registered	Form of Document	Paper-based only	Electronic form for the Green category of goods (*) Electronic and paper-based forms for the Yellow and Red categories of goods (*)
	How to declare	Enterprises prepared a complete set of document in paper and took it to Customs offices	Enterprises prepared the declaration on their computer in their premises and sent it to the Customs department by internet
	Date entry	Customs officials physically took the paper-based document set and checked it, either manually entering them into the system or using a removable drive to copy to their system	Electronic data exchange was done by the system and it automatically stored the data
	Categorizing declaration form	A department leader decided the size of the inspection sample for the goods (if this applied), signed the document and forwarded it to the team in charge of the next step	Staff of the customs-clearance team proposed a category for the goods that needs approval from a team leader or department leader
Inspection of import/export goods	Task of Inspection	A team leader assigned staff to carry out this task	This was not the task charged to the e-Customs branch until 30 September 2007 It has done this task since 1 October 2007 but only for goods in the Red category
	Inspected results	Results were hand written on the declaration form Record the inspection results Return to team leader to sign	Inspection results were recorded in the system by a Customs staff in charge at the port. The result sheet could be printed out from the system at the e-Customs branch
Checking tax declaration	Determining price for tax purpose	After the inspection had been done	Done after the goods were cleared by the team from post-customs clearance

	Check the tax amount declared	Customs staff examined and double checked with the tax declaration from enterprises and did the following:	Enterprises self-declare the tax amount and are responsible for it. The system automatically double checks
	Tax notice	manually prepared the tax statement and other fees passed the tax and fee statements to the cashier did the data entry returned the document to the leader of procedure team	The Tax statement is sent to enterprises from Step 1, when the notice of goods category from e-Customs was sent to enterprises in feedback form of the system
Approval for clearance of goods		The leader of procedure team approved clearance of the goods	For Green-category goods, the leader of the customs-clearance team or department leader approves the goods clearance in the system For other types, paper-based document set needs to be presented
Payment of tax and other fees	Fees	Pay on the spot by cash or bank transfer before the goods could be released	Enterprise pays related fees to an appointed bank on a monthly basis, according to the notice sent by the Customs office to enterprises by the system
	Tax	Paid to authorized bank	Paid to authorized bank
Release of Goods		The document was returned to the leader of the team who was in charge of tax issues for this document. The document was then signed and given back to enterprise to release the goods	Enterprises take the declaration form with clearance approval to the department of goods oversight at the port where the goods are stored. The staff at the port check with the database, updated the database, sign the form and return the form to the enterprise to release the goods
Document storage		A copy of the complete set of document was required for all types of goods	In the Green category, one copy of declaration form is required. For the other two categories, a copy of the complete set of document is required

(*) Goods are classified into three categories:

Green: accepted for clearance without presenting hard-copy documents

Yellow: accepted for clearance only if presenting all required hard-copy documents to the e-Customs office

Red: similar to requirements for the Yellow category but inspection of the cargo is compulsory

Sources**:** Adapted from T. L. Nguyen (2006), Decision 56/2003/QĐ-BTC, 50/2005/QĐ-BTC, Document 3339/TCHQ-HĐH,

There are a number of reforms at every main procedural step in the e-Customs approach. Most significant are the acceptance of electronic messages and the use of databases, which reduce significantly the paperwork and time spent in almost all sub-steps. Secondly, since the procedures are standardized, the procedures for payment of tax and fees are streamlined and instantly transacted by the system.

In summary, it is evident that there has been a transformation in both organizational structure and in business processes of the e-Customs branch.

7.3.3 Coordination in the e-Customs Branch

Under the new e-Customs clearance procedure, staff members were assigned a greater role. When receiving electronic data from enterprises, staff in the Customs clearance team checked the information against a required checklist. If all were correct, a team member in charge accepted the application. The system then automatically assigned a reference number to the application. The system also suggested a category (Green, Yellow or Red, as defined in the legend Table 7.1) for the goods. The category of goods significantly affected the time and cost for releasing goods. This is noteworthy because the database for risk management was not yet complete, and the system's classification was therefore treated as a reference. A team member reported his/her suggestion for a classification of the goods to the team leader who could easily get access to the application from his/her computer by the reference number. The team leader then decided the category of goods. Staff received the decision from the team leader and sent the information back to enterprises electronically. In most cases, the team leader approved the proposal by team members. The role of staff in this way had been significantly increased. An Interviewee states:

> More power has been devolved to staff as they are able to decide the category of the goods. Even though it needs the team leader to approve, the decision is basically made by staff with support from the software. The software on its part is based on the information of the goods and the enterprise profile in classifying goods (green, yellow, or red); this is a remarkable support from the system (Interviewee 02).

The e-Customs branch leaders could intervene sometimes in cases where staff and team leaders were unsure of the correct way to resolve an issue. For example, with new

commodities which had never been processed before, or goods that were difficult to classify, leaders then stepped in. However, this type of intervention was not common. Branch leaders only paid attention to cases that showed indications of problems (Interviewee 15).

Real-time interactions were practised under the new system. All interactions among Customs officials and between Customs staff and enterprises were conducted online. In this system, branch leaders and team leaders could easily oversee staff performance. An interviewee described this:

> E-customs branch leaders are able to get access to any transactions that their staffs process at any time. All of the procedural information is displayed on their computer. For example, who deals with which companies; details of each transaction, the number of document sets that a staff member has done or been processing at a given stage. If the leader wants to discuss a case with their staff he simply opens it in his computer and talks to the staff by the internal telephone system (Interviewee 15).

Feedback to enterprises was also sent electronically. Unlike the paper-based approach, where an error in a document would potentially require an enterprise's representative hours to travel back and forth to ensure the correction, under the new system responses for any mistakes or confusions could be made instantly via the system. Enterprises could fix any errors or provide further documents as required from their premises. As a result, time, money and opportunity squandered under the traditional approach were substantially saved under this e-Customs procedure. An interviewee described this:

> It would normally take 5-15 minutes for a document set to be completed, and enterprises' staff can come to pick up the approved form to clear their shipments. In case additional documents are needed, they receive an electronic Customs officials' notice; they then submit the additional documents right from their office. This is totally different from the traditional approach where applicants have to physically go to Customs branches at ports with their paper-based document set, and had to return to their premises if the supplement documents were not correct (Interviewee 02).

Thus, it is clear that, instead of organizing the system in a vertical control hierarchy, the mediation of computers and the whole ICT system has made the e-Customs structure more horizontal. There was no need for physical contacts; leaders' facilitation and coordination was instant and effective. Employees were more empowered in that they were able to decide tasks that were previously performed by leaders under the conventional structure.

7.4 Performance of the e-Customs Branch 2005-2009

The project produced positive effects on both sides – Customs authorities and enterprises. This section first looks into the performance of Customs authorities, followed by the enterprises' evaluations.

With regard to the number of processed sets of document and total value of goods, the e-Customs branch achieved impressive results in 2006 and 2007 but these were not sustained in 2008. As detailed in Table 7.2, the volume of processed sets of document increased rapidly, from 1728 sets in the last three months of 2005 to 16429 sets in 2007.

Table 7.2 Performance of the e-Customs branch in 2005-2009

Criteria		04/10/05 - 31/12/05	2006	2007	2008	01/01/2009-30/06/2009
Number of sets of documents	Import	1398	13091	23686	26258	13723
	Export	330	3338	7538	6666	3497
	Total	*1728*	*16429*	*31224 (91%)*	*32924 (5.4%)*	*17220*
Total value of goods (Millions US$)	Import	94.5	842.3	1631.5	2154	1070
	Export	55	497.8	1371.7	1882	1271
	Total	*149.5*	*1340.1*	*3003.2 (124%)*	*4036 (34%)*	*2341*
Number of enterprises	Licensed	54	105	174	267	349
	Participated	33	87	136 (56%)	190 (38%)	260

Source: E-Customs branch, Ho Chi Minh City

The total value of those processed sets of documents soared from about US$150 million to US$4 billion in the same period. High levels of expansion, however, were not sustained in 2008: the growth rate for document processing stood at 5.4%, compared to 91% in the previous year, and 34% versus 124% for the total value. The main reasons for this unsustainability were the barriers faced by new candidate enterprises for the system and some laborious tasks undertaken by the e-Customs branch. More details about these causes will be discussed in the next section, but the figures in last row of Table 7.2 illustrate a relative fall in new participants in 2008 (38% in 2008 compared to 56% in 2007).

Figures on productivity in Table 7.3 below show that the e-Customs branch did far better than many other branches in the HCB. Due to a lack of data on the number of sets of documents from other departments, the analysis is based on the total value of goods processed by the system. Accordingly, the e-Customs branch ranked fourth in terms of total value per staff member for the first six months of 2008.

From the enterprises' side, a dramatic drop in time required for e-Customs declarations was the most recognizable benefit. Time needed for processing a set of e-documents was about 10 to 15 minutes, compared to seven or eight hours in the conventional approach (Interviewee 02 & Ministry of Finance, 2008). The new approach transcended traditional methods in both time and place. Traders no longer travelled to Customs offices at ports for paperwork; instead, they could at the same time lodge several e-documents for goods at several ports.

A company staff member whose job was to handle the Customs procedures for his company explained how he could save time with e-Customs clearance:

> In the traditional approach, after preparing the whole document for a consignment, I rushed to the ports and lined up to get a ticket then waited for a turn after hours of waiting. If there were any mistakes (which were common), I needed to get back (to the company) to fix the errors or seek supplementary documents. Returning to the port, I had to restart the process of getting a ticket. Sometimes it could take me half a day or even a whole day for just one set of documents. But with this new system, if anything goes wrong, feedback is popped up online and all sorts of other related interactions are electronically done. We save a lot (Interviewee 18).

Table 7.3 Productivity among Customs branches in the HCMC Customs Bureau

No	Branches of HCMC Customs Bureau	Staff size	Total value (millions US$)	Total value/staff(*) (millions US$)
1	Sai Gon Port zone 4	157	7370	46.9
2	Branch to Process for Investment Goods	120	3113	25.9
3	Branch to process Goods from Enterprises Out-sourcing for International Partners	133	2701	20.3
4	E-Customs	67	1310	19.6
5	Linh Trung Export Processing Zone	79	978	12.4
6	Tan Thuan Export Processing Zone	76	764	10.1
7	Tan Son Nhat Airport	241	2188	9.1
8	Sai Gon Port zone 1	210	1808	8.6
9	Sai Gon Port zone 3	162	1038	6.4
10	Sai Gon Port zone 2	79	110	1.4
11	Post-Office	108	5	0.0
12	Post-clearance	86	N/A	N/A
13	Tan Tao (closed)	NA	NA	NA

(*) Author's calculation
Source: The e-Customs branch (2009b)

Significant financial savings were another important benefit. Operational costs on the business side were significantly reduced because of minimal physical interactions between businesses and Customs officials. Under the new system, all electronic data were standardized and organized in databases. Mistakes in e-documents were not common since they were largely prevented by system software. Payment of all administrative fees was made on a monthly basis thorough bank transfers. All of these factors made the procedure

transparent and far less reliant on face-to-face interactions. Opportunities for misconduct, therefore, decreased. A manager of a coffee exporting company stated:

> On average we are filing 250 sets of e-documents to the e-Customs branch a month. All transactions are going smoothly. We save a huge amount of time and warehouse cost (cited in Ba Tan2009c).

On a larger scale, 82% of a 60-enterprise sample survey acknowledged a reduction in costs since joining the e-Customs procedures (Nguyen, 2006).

Other than in time and costs, e-Customs clearance could reduce opportunity cost and increase competitive advantage for enterprises. A manager of a trading company (Interviewee 17) emphasized the business opportunity that migration to e-Customs clearance helped him to seize. He said:

> Since my business is very sensitive to exchange rates, delayed shipping coupled with fluctuated exchange rates could destroy all plans. Put another way, timing in delivery is especially essential in the nature of my business. Regrettably, in terms of opportunities, we suffered a lot when we dealt with the old system because of its time-consuming procedure. This system changes things nicely; we get things done quickly and are in better control (Interviewee 17).

Regarding the advantages of the e-Customs system, the import/export manager of the SaiGon Industry Corporation, a regular and large client of the e-Customs branch, confirmed:

> The e-Customs service builds up the confidence of foreign business partners in my company as they know we are handling the import/export activities through an e-system. This is a competitive advantage for us (cited in Ba Tan, 2009b).

In general, the performance of the e-Customs branch was better than most of its peer branches in the HCB. This resulted from the better services the e-Customs branch provided to its clients. With the e-Customs clearance system, enterprises not only saved time and costs, including opportunity costs, but also enhanced competitive capability.

Despite making considerable progress during the five years of operation since establishment in 2005, the project for e-Customs clearance in HCMC faced a number of challenges, especially in state capacity. In late 2009, the e-Customs branch was closed and the e-

Customs clearance system was relocated and merged with an existing Port branch. The next section discussed the problems that faced this system.

7.5 Problems in the e-Customs Clearance System

The conceptual framework in figure 2.1 is adapted to guide the discussion in this section. In particular, relevant factors in state capacity, infrastructure and domestic context are analysed. Generally, confusion in strategy formulation and low steering capability coupled with personal interests of Customs staff and authorities were the most challenging problems encountered by the system. This was further complicated by the lack of an adequate coordination mechanism.

7.5.1 Strategy

Central government prioritized modernization of Customs procedures. International technical and financial assistance packages from both organizations and nations such as UNDP and the World Bank, France and Japan were reserved for Customs offices (Ministry of Finance, 2008). As demonstrated earlier (section 6.2), international economic integration and the increased workload which resulted from the steady increase in import/export volumes (see section 4.4.4) were drivers of the modernization process. Thus one common objective in Customs strategies was to modernize and catch up with ASEAN and other Asian countries (Ministry of Finance, 2004, 2008). However, this was more about formulating high-quality strategies rather than simply pouring resources into modernization projects. The remainder of this section looks into how strategies were formulated and implemented.

It is evident that, in the e-Customs clearance, a well-prepared and long-term strategy was not in place. Measures tended to be reactive rather than proactive. In the first stage, the pilot projects in HCMC and Hai Phong aimed to finish by 30 August 2006, after which preparations would begin to replicate them on a larger scale. However, this stage was extended and the pilot lasted until July 2009 (Le & Tran, 2009). During this extension period (from October 2007 to November 2009), there were costly interim measures because an additional team was added to the e-Customs branch to do all the tasks previously undertaken by other branches. This occurred because inspection tasks were previously performed by other Customs branches. However, officers in other branches were antagonistic to the project and obstructed it by delaying the release of goods (Nguyen,

2006). To curb this problem, in the second stage, effective from 1 October 2007, the e-Customs branch took charge of the inspection tasks. This solution, however, worsened the problems from a management perspective:

> The additional team in charge of inspecting goods in reality made the e-Customs branch more 'manual'. Instead of handling from the office, staff from the e-Customs branch had to travel to different sites, where commodities were located, to inspect goods (Interviewee 15).

The problems continued because such on-site inspections were time-consuming due to the distances travelled, which necessitated an expansion of staff. The larger staff demanded more resources such as office space and ICT equipment, which increased operational cost. In addition, the efficiency of the inspection team in the e-Customs branch was lower than the site branches since they had to travel from their office, which was located in the inner city to various ports located far away from the city centre (Interviewee 15).

More seriously, the e-Customs clearance initiative, instead of being implemented at an existing branch in the first place, was started in a separate branch (e-Customs branch), and then this new branch was closed and merged with an existing branch after a few years of operation (Ba Tan, 2009b). This indicated a lack of long-term strategy. The HCB acknowledged that a lack of determination and also confusion in selecting an appropriate model complicated the possibility of reaching planned goals (HCB, 2008a). Eventually, the closure of the e-Customs branch occurred in November 2009. Accordingly, all ICT infrastructure and equipment had to be relocated to Tan Cang Port, an existing port Branch. This went against an earlier HCB plan (HCB, 2008a; Ministry of Finance, 2008) which provided that, by 2010, centres of Customs transactions and centralized check points would be established (in the inner city) and that the port branches should be used as locations for goods clearance only. After the relocation, the e-Customs clearance initiative kept working for a few months and was phased out in early 2011. Another version of the e-Customs clearance was put in place (Interviewee 17). This new version of e-Customs clearance is, however, beyond the scope of this study.

7.5.2 Inadequate Coordination Mechanism and Fears of a Super e-Customs Branch

There was a lack of an adequate mechanism to enhance coordination. Formal regulations for e-Customs procedures (General Bureau of Customs, 2005; Ministry of Finance, 2007) specify the procedures and tasks of other branches that participate in e-Customs procedures. However, the coordination between the e-Customs branch and others was generally problematic largely because of personal interests.

There was some interdependence in procedures and premises between the e-Customs branch and other branches. Although all customs data were processed by the e-Customs, the tasks of inspection goods before releasing were conducted by the port Customs branches. The problems were that, as noted in preceding subsection, the port branches reluctantly coordinated with those applicants using the e-Customs clearance system. Instead, the port branches preferred to use paper-based applications (HCB, 2008b; Nguyen, 2006). This was a major obstacle for e-Customs to advance their performance. This problem originated from personal interests, as one interviewee revealed:

> As far as I know, the business community that applied e-Customs clearance has been happy with the new approach. It saves them a fortune. That's why this branch has been growing fast in the last few years. But the problem is that the more enterprises going with this e-Customs branch, the fewer go with other traditional branches. Of course, many, including leaders of other branches, dislike the expansion of the e-Customs branch. All difficulties, I bet, come from this (Interviewee 04).

In more specific terms, realistic fears of job losses and falls in illegal earnings were cited as a principal reason for the poor coordination. Another interviewee explained:

> There has been a growing worry among others about the development of this branch since its establishment in 2005. This branch is increasingly known as a 'super branch'. Many believe that if the branch keeps developing, it will become the largest body, as more and more enterprises apply for the new approach, and this is obviously a loss of enterprises dealing with the other branches which go with the traditional approach. In the long run, these traditional branches would

> have to be downsized or even closed, badly affecting their (illegal) earnings (Interviewee 15).

This informants' observation was not isolated. The practice was generally reported in other official document; for example:

> A part of the leaders of Customs offices at all levels have yet to be aware of the important role of reform and modernization. Therefore, they have not been working hard to realize the objectives. Indeed, they try to complicate the reform process. Conflicts of personal interest and national interest have been the barrier on the pathway of modernization (Ministry of Finance, 2008).

Not limited to the case of e-Customs clearance, the lack of a coordination mechanism is also addressed in the overall modernization process of Customs modernization. In reality, at both the GBC and the HCB, committees in charge have been established, but they are not effective because of a lack of a coordination mechanism (Ministry of Finance, 2008). In other words, the steering capability was low, for the following reason, as cited in a government document:

> There was insufficient preparation to establish a specialized body with sufficient authorized power to organize, supervise and coordinate the reform process and to be accountable for the outcome. This leads to confusion in managing the reform process (Ministry of Finance, 2008).

It is evident that against the backdrop that there was resistance to change, especially to the fast growth of e-Customs branch, adequate coordination mechanisms were not in place.

7.5.3 Infrastructure

Technical problems emerged from the system of e-Customs clearance, including digital signature provision, data transmission and software used by both Customs offices and enterprises.

A completely paperless transaction system in e-Customs was not achieved because the government failed to provide a legal and electronic framework for digital signatures. Although electronic data in Customs declaration forms were accepted, other documents such as approved forms for collecting goods were still required in paper format. By

September 2009, the first digital signature provider, the Vietnam Data-communication Company, was licensed and most clients so far have been in area of banking (Duc Hiep, 2011). In this case, a delay in providing legal regulations for providers of digital signatures led to a delay in their application in e-Customs.

In addition, the system still lagged behind real demand, particularly if the Customs office widened the number of participating enterprises. Despite the fact that the GBC initially invested a considerable amount in IT infrastructure, with 27 servers and 537 work-station computers (Nguyen, 2006), there were no changes or upgrades in these systems in more than three years of operation (Interviewee 15). This backward system not only caused frequent delays and errors, but also constrained the possibility of applying new technology (HCB, 2008b). The connection between the head office to other Customs branches was unstable due to low bandwidth, making data interchange corrupt at peak times (Interviewee 02). A reason cited for the delay in upgrading the system was a lack of a long-term strategy (Interviewee 15).

Software used by both Customs offices and enterprises caused difficulties. Frequent changes in Customs policies posed a great challenge to software adjustment. For example, changes were regularly made in the list of commodities that need import/export licenses, in tax rates, or in regulations for certificates of origin (CO). Take the case of goods needing a license, for example. In 1995, a Government Resolution (Vietnam Government, 1995) cancelled the general import/export license for each consignment of imported goods; however, certain special commodities (such as goods that are under quota control or goods that may affect people's health or public security) require a license that must be approved by ministries of other government agencies before they can be imported or exported. There are about 50 government agencies that have similar lists of goods of this type (Ba Tan, 2009a). A change in these lists undertaken by these specialized bodies must be incorporated into the Customs system. Frequent changes therefore make it difficult for the Customs office to manage the system. An interviewee states:

> Although policies and regulations such as the changes in the list of special commodities kept changing, the software in Customs offices had no function to include these changes. Customs staff had to do manually the task that was supposed to be done by computer programmes (Interviewee 02).

From the business side, ICT-related problems were in fact a concern addressed by the business community when they evaluated e-Customs clearance. Interviews with two different companies' representatives, who were regular participants in the new system, showed their anxiety about this technical issue, among others. On the technical side, network capacity needed improvement. The manager of a trading company said:

> Technically, the problem, I think, is the speed of data transmission. Sometimes it is very slow; we even experienced a disconnection occasionally. However, this often occurred during the early months of last year; the network seems to be getting better now (Interviewee 17).

Similarly, when asked about the quality of online transactions between his company and the Customs office, another Interviewee replied:

> Most of the time, it is ok for me. However, last year there was something wrong with the system so we could not use the service on a regular basis for few months. We sometimes had to have my goods done by the conventional approach during that time and it caused us some delays in clearing the shipment. Now it is improved (Interviewee 18).

In relation to human capital, no problems were found on both sides of the e-Customs clearance services. In preparing to staff the e-Customs system, the GBC directed the HCB to select young staff with high-level computer skills, meaning that these jobs in e-Custom branch were filled by internal transfer. At first, some of the candidates reluctantly accepted, as they had to change their normal working places that usually provided them with good income (Interviewee 15). However, the interviewee continued:

> These young staffs are working well and there are no problems regarding technical skills (Interviewee 15).

From the enterprises' perspective, it was relatively easy for enterprises to use the e-Customs software. The company manager further explained:

> Since we deal with overseas partners, our staff must have acquired a certain level of computer [skills] and English. The e-Customs software is not tough for us at all (Interviewee 17).

However, he mentioned a drawback in that the software was installed by technicians from the Customs office; therefore, if there were any problems with the software or the computer, only a technician from the Customs office could fix it.

7.5.4 Domestic Context

Financial affordability was not an issue for enterprises, but there remained enterprises that favoured the conventional approach. Investment for e-Customs clearance was completely affordable to enterprises. Unlike previous initiatives, for example, the e-declaration, e-Customs clearance requires nothing other than e-Customs software and a computer with an internet connection. This software was provided free of charge from the Customs office. Further, as international trading companies, computers and broadband were necessary conditions in their day-to-day operation. Therefore there were almost no extra costs for infrastructure. When asked about the affordability of the e-Customs service, a company representative stated:

> We had been using the internet for several years before the establishment of the e-Customs branch. So it is easy, and we do not have to invest anything to go with this new system (Interviewee 18).

It was, however, revealed that there were enterprises that preferred to use the traditional approach rather than new system because of personal (illegal benefits) interests. An Interviewee posited:

> Ironically, despite the advanced features of e-Customs system, there are still several entrepreneurs who like to stay with the face-to-face approach. The main reason is that these people can abuse their personal relationship with Customs officials to get better treatment, i.e., lower tax rates or other unfair advantages (Interviewee 15)

This problem suggests that it takes two sides for a bribe to take place. The resistance to change in this case was not from government officials but from citizens.

7.6 Closure of the e-Customs Branch

In June 2009, when the fieldwork for this research was conducted, an article about the e-Customs branch appeared, entitled ‘E-customs clearance in HCMC: waiting for an end’ (Ba

Tan, 2009a). This described the imminent closure of the e-Customs branch as 'sudden death'. The article, published in a popular daily newspaper of HCMC, created a wave of anxiety from all who had had an interest in the development of this service since its inception. A representative from the HCB said later in a press conference that this was a move already decided in a long-term strategy. In fact, as analysed above, expanding the e-Customs branch led to a dilemma rather than to a well-planned step.

The rumoured closure of the e-Customs branch had been circulating earlier (Interviewee 04); however, concerns among enterprises were particular triggered by the article (Ba Tan, 2009a). According to a Customs official, quoted by Ba Tan (2009a), the reasons cited for the shut-down of the e-Customs branch were that, apart from other technical and legal issues, 'e-Customs public servants have yet to be interested in the work, and enterprises have not yet shown their firm commitment'. He concluded: 'up to now, the model of e-Customs clearance has not yet been appropriate', quoted by Ba Tan (2009a). Shocked by the news, several enterprises' representatives showed their concern in the feedback section of the article. For example, Nguyen Ha Phuong, the Head of Customs procedure of Vinamilk Corporation, stated:

> Although there remain minor problems, the e-Customs branch has been increasingly making good progress and meeting business demands, making it a one-stop shop for Customs clearance procedures. If this system comes to an end, it is truly a shock and a matter of despair for enterprises, cited by Ba Tan (2009c).

In November 2009 the e-Customs branch was closed. The e-Customs clearance service was not stopped, but it was gradually phased out. As analysed in section 7.5.1, the e-Customs branch was merged with an existing branch at a port. At a follow-up interview conducted in October 2010, in responding to a question about any changes since the e-Custom branch was moved to the Tan Cang branch, a company manager said:

> Except that we have to travel a little bit further since we no longer go to 74 Hai Ba Trung Street [the location where the e-Customs branch used to be], but to Tan Cang port, there has been no change since the time of relocation. The software has some updates but not applied to my goods category. Data transmission was slow sometimes, but that is not a big deal. I find everything normal, not much changed (Interviewee 17).

In July 2011, a manager (Interviewee 17) revealed that the e-cutoms clearance that used to work in the e-Customs branch was phased out, and a new system of e-Customs clearance has been implemented at all port Customs branches. Initially, the new software of e-Customs clearance in port Customs branches showed initial positive results. By the end of 2009, 13 of 70 bureaus nationwide used the system, and 4.7% of enterprises in these bureaus followed this new system, a 6.2-fold increase compared to the previous year (An Thong, 2011). However, it is too early to make conclusions about the long-term effects of this new model. All processing work is now undertaken at the ports where the ICT infrastructure still faces problems. Customs staff have to travel back to ports to process applications, the work that had been planned to be done in the city centre. Further, as an Interviewee (Interviewee 15) posited, the new model cannot compare with the one that was earlier used by e-Customs branch when it comes to functional features.

In summary, the e-Customs branch which was established in 2005 was closed and merged with an existing branch in 2009. The software that was used in the e-Customs branch had been gradually phased out and was no longer in use by early 2011. A new system of e-Customs clearance has been deployed at all port branches. The closure of the e-Customs branch was a result of several challenges in the process of implementation of e-Customs clearance, including the lack of a long-term strategy and resistance from Customs staff and authorities, who favoured the conventional approach. The closure of the e-Customs branch also indicates a failure to realize the target of building a centralized data processing for applications for Customs clearance. This has forced Customs staff to travel daily back to the ports to process applications.

7.7 Conclusions

The chapter briefly discussed three principal e-initiatives in the process of modernizing Customs procedures, of which the e-Customs clearance project has been the most advanced initiative. To put in place the service, an enormous amount of organization was undertaken, ranging from providing a legal basis to redesigning organizational structure, procedures, workflow and the mechanism for coordination.

It has been shown that, in a far-reaching initiative established by a central agency but operated by a local government, the legal grounding is important in guiding the

implementation process. In this case, dozens of legal regulations were issued preceding the redesign of the old system.

The findings also suggest that there were reforms in workflow and coordination toward information sharing based on ICT and flexible management with interdepartmental teamwork. The structure of organization was more compact, and employees were more empowered to perform their given tasks. These transformations improved significantly the performance of the e-Customs branch. Time and other resources were considerably reduced in the new transaction system with fewer physical interactions.

However, when the e-Customs operated in a separate e-Customs branch it confronted significant problems. Prominent problems were a lack of long-term strategy formulation, low steering capability, underdeveloped ICT infrastructure, and the resistance from Customs staff and authorities who favoured the conventional approach.

Overall, the findings supply considerable evidence about changes brought by e-government and about critical factors in e-government implementation as discussed in the literature of e-government (section 2.6 & 2.7). Chapter Ten discusses in further detail these issues.

CHAPTER EIGHT

E-GOVERNMENT: THE CASE OF HO CHI MINH CITY

8.1 Introduction

The objective of this chapter is to analyse overall e-government development in HCMC and a major e-initiative, the Online Business Registration System (OBRS). This chapter is particularly important because it examines one of the most successful cities in Vietnam in terms of e-government performance. HCMC initiated its first ICT-driven projects in 1996. OBRS is a typical example being both longstanding and high performing. Between 2000 and 2009, OBRS processed about 40% of more than 150,000 applications for business registration certificates. Examining the long process of e-government development in HCMC therefore supplies a significant amount of evidence for the discussion in Chapter Ten.

As analysed later in this chapter, important e-projects that have shown strong performance include the OBRS, City-Web, the Online Dialogue between Businesses and Authorities, and the Electronic One-stop Shop. In their areas, these projects have reduced administrative bottlenecks that resulted from a fast-growing economy and the large population of HCMC. However, e-government development in HCMC encountered several challenges in the implementation process. The major obstacles include poor steering capability in the initial stage, especially initiatives in Project 112, resistance to change, a lack of IT staff due to low pay levels and high workloads, and frequent changes in legal regulations. Critical factors that emerged from the analysis in this chapter that explain the initial achievements of HCMC are: committed leadership of the People's Committee, funding availability, and suitable coordination mechanisms. In addition, ICT infrastructure and human capital of HCMC also played an important role in HCMC's e-government progress.

This chapter begins with a description of the social and economic development of HCMC and the machinery of HCMC government. It is followed by the history of e-government development in HCMC which is divided into three periods: 1996-2000, 2001-2004, and 2005-2010. The subsequent sections analyses the OBRS case and the critical success factors guided by the conceptual framework developed in Chapter Two (figure 2.1). The final section draws out the key issues.

8.2 Overview of Social Economic Development

To facilitate analysis of the later sections in this chapter, this section describes the context of the socio-economic development of HCMC.

8.2.1 Social Background

The background of HCMC society is generally favourable for e-government development since this city has a better educated population and more advanced infrastructure compared to the nation as a whole.

The City, better known as Saigon, was named Ho Chi Minh City after reunification in 1975. It has, however, a history of over 300 years. HCMC is bordered by six other provinces: Binh Duong province, Dong Nai Province, Tay Ninh province, Ba Ria Vung Tau province, Long An Province and Tien Giang province. It is a major traffic hub for many primary roads, seaways and airways. Geographically, HCMC is viewed as in a strategic position in the South of Vietnam and a centre of Southeast Asia (see figure 8.1).

Administratively, HCMC is one of five cities under direct management by the central government, meaning that the city is considered as an independent province without any intermediate authority between it and the central government. Of these five cities, HCMC and Hanoi City are in a special category, which gives them an important advantage in higher budget allocations (see section 8.5.1). HCMC is split into 24 districts (19 urban and 5 rural).

HCMC is Vietnam's most densely populated city. In 2009, it had a population of 7.2 million, accounting for 8.3% of the nation's population (General Statistics Office, 2010b). Average HCMC population density is high, at 3420 people per square kilometre. The population of a single district like Binh Tan with 572,796 people (HCMC Bureau of Statistics, 2010) is equivalent to some other entire provinces in the middle of Vietnam. By contrast, only 73,014 people are accommodated in Can Gio, a rural district (HCMC Bureau of Statistics, 2010). In terms of gender, males account for 48% and females for 52% of the population. The Kinh people, ethnic Vietnamese, represent 93% of the city's population, and the second largest group is Chinese with about 7%. Less than 0.2% are other minority groups such as Cham and Khmer (HCMC Bureau of Statistics, 2006).

Figure 8.1 Location of Ho Chi Minh City

Source: Economist Intelligence Unit (2011)

Unlike the nation as a whole, where farmers account for 70.4% of the population (General Statistics Office, 2010a), the city's residents are dominated by white and blue collar workers. Accordingly, services and industry comprise respectively 52.5% and 46.2% of total GDP in the city (HCMC Bureau of Statistics, 2008), while agriculture accounts for only 1.3%.

8.2.2 Economic Development and Income Distribution

HCMC has comparably higher financial affordability for e-services since HCMC residents are generally more affluent than the residents in most other cities and provinces.

HCMC is the largest economic centre and a financial hub of Vietnam. Since 1990, it has accounted for more than 16% of the nation's GDP (HCMC Bureau of Statistics, 2005). Despite the global economic downturn, it has achieved a growth rate of 8%, and its share of national GDP increased to 20.2% in 2009 (General Statistics Office, 2009b; HCMC Bureau of Statistics, 2009). HCMC was projected to have the world's highest average real GDP growth between 2008 and 2025 (Price Waterhouse Coopers, 2009).

A large number of enterprises operate in HCMC. As presented in section 4.4.2, state-owned enterprises have been gradually privatized, creating a boom in enterprises' establishment. HCMC alone accounts for 30% of total enterprises active in Vietnam. By 2011, there were three export processing zones and ten industrial parts. These zones and parts have significantly contributed HCMC's manufacturing capacity which accounts for about 30% and 40% of the national manufacturing output and export revenues respectively (Vu, 2011). It is also a favoured location for foreign enterprises' investment (Anh Quan, 2010), including large corporations in the ICT field such as Intel and Nidec. Furthermore, major international banks and large consulting firms have been operating in HCMC since the late 1980s. As a result, people in HCMC, on average, are wealthier than the rest of the country with per capita GDP in 2009 being $US2606, about 2.5 times higher than the country average (HCMC Bureau of Statistics, 2009; US Department of State, 2010).

Despite this general prosperity, income inequality is a serious problem. Luong (2009, p. 19) observed that:

> The growing social-economic gap can also be observed in daily life, with gated communities like Phu My Hung in Saigon South at one end, and new pockets of residential shacks at the periphery of urban Saigon at the other.

Another study (Huy & Ho, 2010) estimated that the income gap between the rich and the poor is high, with a ratio of about 7 times. This problem is likely to pose a challenge for including more of the population as e-government users.

8.3 History of E-government Development in HCMC

This section traces the history of e-government development in HCMC, beginning with the typical e-government initiatives in the city. This analysis provides an important context for the examination of the Online Business Registration System and of critical success factors which are conducted in the following sections.

8.3.1 Typical E-government Initiatives in HCMC by 2010

In 1996, HCMC formally commenced its first ICT applications. By 2010, a number of e-initiatives were in place; of these, four typical projects are presented in Table 8.1, including CityWeb, the OBRS, the Online Dialogue between Businesses and Authorities and the Electronic One-stop Shop. These projects are typical because they have made a major contribution to the city's public administrative reform, and they embrace a large number of participants.

Details of the process of development of these initiatives are presented in the following sections which can be divided into three landmark periods:

1. Individual attempts
2. Building initial e-government initiatives
3. Fostering e-government implementation.

Table 8.1 Typical E-government initiatives in HCMC to 2010

Typical initiatives	Brief outlines	Launch year
1. Online Business Registration System (OBRS)	39% of about 150,000 new business licenses were granted via the system during 2000-2009	2000
2. CityWeb	An information portal provided background information on HCMC society and administrative procedures. Information from 78 city government agencies was linked to this portal About 9 million visits/month by January 2009	2002
3. Online Dialogues between Businesses and Authorities	More than 1500 enterprises participated; thousands of questions answered by 43 City government agencies	2003
4. Electronic One-stop-shop	One-access point system, automatically reported progress of applications being processed by City government's agencies 29 City departments, agencies and districts joined the system	2007

Sources: HDIC (2010a), HDPI (2010b), Cac Ngoc (2010), Thuy Hai (2008), ODBA Project Management Board (2007), Thuy Nguyen (2009) and Interviewee 13

8.3.2 Individual Attempts (1996-2000)

E-government activities between 1996-2000 were largely spontaneous and sponsored by individual departments (HDIC, 2007a). The most prominent initiative was the establishment of the OBRS which established a crucial basis for later e-government development in HCMC. The OBRS was developed by the Department of Planning and Investment (HDPI), which has been considered to be the first advanced e-government service in HCMC and the nation. This system was launched on 22 December 2000 (Van Minh Hoa, 2003); however, preparation started in 1996 (Interviewee 13).

Apart from HDPI, the Office of District 1 also actively applied IT in its management systems in 1997-2000. This was the period in which the one-door-one-stamp policy (a mechanism aimed at reducing time and costs of travelling to different agencies) was in place (Tran, 2003). Although there were no online services during this period, some simple G2E services

were established. For example, some databases and networks were created which linked the data from 10 wards and other offices of District 1 (Ong, 2003). These efforts helped make it the first district to put in place online G2B service in 2002.

E-government development during this stage was embodied in the individual efforts of government agencies rather than an overall plan from the highest authority of the City, the People's Committee. The absence of an e-government plan was for two main reasons: insufficient attention from the city government and underdeveloped ICT infrastructure at the time. Literature on public administration reform in the City, particularly on the plans for reforming public administration in 1996, 1997 and 2000 (HCMC People's Committee, 1996, 1997, 2000; Truong, 2008), shows that City authorities placed emphasis on rearranging procedures, establishing new functional bodies and implementing a one-stop-shop policy, rather than on developing e-government services. In addition, computers and internet connections were not common at that stage. Fewer than 1% of the population had such access (Nguyen & Schauder, 2007).

8.3.3 Building Initial E-Government Initiatives (2001-2004)

CityWeb and initiatives of Project 112 were the prominent e-government activities carried out in this period. However, the performance of these initiatives was mixed. The largest project during this period was the establishment of the Ho Chi Minh CityWeb (www.hochiminhcity.gov.vn); its purpose was threefold:

1. to provide information on several areas of culture, economics and other aspects of HCMC society under the management of the HCMC People's Committee;
2. to provide people with general guiding information on administrative procedures; and,
3. to establish a platform where the People's Committee, functional departments and districts could gradually implement e-administration.

With special functions to serve the people and business, CityWeb was the first portal of a provincial/city government in Vietnam. CityWeb started on 3 May 2002 (Tran, 2004), with 14 agencies asked to participate. This project was led by the Vice-President of the People's Committee (HCMC People's Committee, 2001), Nguyen Thien Nhan, who later became the

Deputy Prime Minister in charge of national ICT. Two major e-government services incorporated via the CityWeb platform were the OBRS and the Online Dialogue between Businesses and Authorities. While detailed analysis of OBRS will be provided in section 8.4, a brief discussion of the ODBA is now provided.

The ODBA project was established in 2002 (HCMC People's Committee, 2002) with three objectives:

1. building a new information channel which promotes the interactions between the business community and authority;
2. strengthening the efficiency of the City administration; and,
3. promoting gradually e-government implementation.

By 2010, 42 government agencies in HCMC participated in this system, which handled about 6000 questions from business community (Cac Ngoc, 2010). The ODBA has been considered for replication throughout the nation (ODBA Project Management Board, 2007).

By contrast, several initiatives in the national Project 112, which were also implemented in HCMC during this period, produced poor results. Initiatives of Project 112 comprised a large part of e-government activities in HCMC in 2001-2005. In 2003, 25 IT systems were deployed in HCMC government agencies, according to report No. 87/BC-UB. In terms of training, 50 public servants were trained as network administrators. In the following years, more people were trained, and new initiatives such as commonly used-software, were put in place for a number of government offices (HDIC, 2005). However, in contrast to the other high-performance projects such as ODBA and OBRS (to be discussed in the next section), performance of initiatives of Project 112 was poor. For example, the software was less useful than its predecessor, training was repetitive and costly (HDIC, 2005), and the management board was dysfunctional (Bui Van, 2007). Because of these problems, Project 112 in HCMC was stopped earlier than in other provinces. It is arguable that the halting of the whole national Project 112 in 2007 by the Prime Minister was triggered by the problems caused in HCMC. The problems of mismanagement and poor preparation for these initiatives will be further analysed in section 8.5.

Apart from the above initiatives, online services and other e-initiatives were applied in the city departments and district offices. Apart from HDPI, the Department of Science and

Technology initiated the use of open-source software in its operations, beginning with Open Office. At district level, District 1 again stood out in implementing several programmes in management and customer services (HDIC, 2006a). Extending the success of the G2E transaction in the earlier period, District 1 put online the registration for household business, starting in 2002 (Mai Huong, 2008) and increasing to four online services by 2004. Applications in District 1 were adopted and developed by other districts such as Tan Binh (Minh Yen, 2003). Binh Thanh District further developed a system with a barcode application for better customer services (HDIC, 2006a).

8.3.4 Fostering E-Government Implementation (2005-2010)

HCMC more systematically fostered e-government activities in the period 2005-2010. A significant project in this period was the one-stop shop, which used CityWeb to provide real time reports of the progress of applications being processed by state agencies in HCMC. The initiative was put in place in March 2007 (HDIC, 2007b). It is a one-access-point system by which residents can track the status of their applications by the telephone system, SMS messages or the internet. The performance of public agencies in regard to processing citizens' applications is automatically updated and reported online on CityWeb. By December 2010, 29 city departments, agencies and districts had joined the system (HDIC, 2010a). The system makes transparent the work of participating agencies. Therefore they and their leaders come under pressure to increase their performance.

During this period, e-government services became increasingly common in HCMC. A number of G2E, G2B and G2C were put in place by the end of 2007 in almost all districts (HCMC People's Committee, 2008c). Of the G2E types, there were specialized Web pages for Party leaders, and management software for legal documents and regulations. Certain types of G2B and G2C services were made available such as business registration and labour registration. In addition, eight different software packages based on the Geographic Positioning System (GPS) were applied in construction licensing, land user rights and urban management Web. In addition, a database of City population, land and construction was commenced. By December 2010, about 9000 email addresses with the domain name gov.vn were granted to public servants (HDIC, 2010b).

As analysed in section 8.5, after the failure of initiatives in Project 112, significant changes were made to e-government management. As a result, more departments provided online services, making access to administrative information and services more convenient than in the previous period. Almost all departments and districts had built their own websites, and these were incorporated into CityWeb. These websites provided a huge amount of information on various aspects of HCMC, from City to district level. An English version of CityWeb was made available in April 2005 (HDIC, 2006a). By 2008, three other departments joined HDPI in offering complex services (HCMC People's Committee, 2008c); and, HDPI maintained its leading position.

The change in e-government management, which resulted in better coordination mechanisms and legal framework, boosted e-government activity in 2005-2010. Details of these changes will be discussed in section 8.5.1 after the examination of the OBRS is undertaken in the following section.

8.4 The Online Business Registration System

The OBRS had long been the pride of the City for its great contributions to the process of granting business registration certificates. Given common public administrative procedural bottlenecks (Vasavakul, et al., 2009), this initiative mitigated the problems of the time-consuming conventional approach and prevented a massive expansion of the Registration Office at HDPI which would otherwise have been required. Despites these achievements, over the course of 10 years' operation, the OBRS faced several challenges, including leadership commitment, skill shortages, coordination and regulation.

8.4.1 What Was the OBRS?

Business registration, tax code registration and a company seal are the principal requirements for a establishing a business in Vietnam. The business registration certificate is the prerequisite condition, which has to be satisfied before the other two can be granted. HDPI is the body to grant this certificate. OBRS was developed by HDPI to allow applicants to send to the Registration Office of HDPI a complete set of documents in digital form. HDPI staff examined the application documents online but applicants needed to travel to the Registration Office to present original copies of documents. The OBRS was put online in December 2000 and by the end of 2009, about 59,000 applications had been processed via

this system (HDPI, 2010b). The performance of the system eased the transactions burden of the Registration Office (Anh Quan, 2010). For this reason, the OBRS has long been the success story of HCMC when it comes to ICT applications in state management.

8.4.2 Why Was the OBRS Established and Developed?

Operating since 2000, the OBRS was considered an early but advanced e-government initiative in Vietnam, given the relatively poor state of the ICT infrastructure and low internet penetration at the time. There were two main reasons for this early establishment. The first was the high demand for business registration in the City which the paper-based approach was unable to meet. As the largest economic centre, HCMC has always had a major share in the total number of business registrations. Although there was a lack of comparable data for earlier times, the statistics for the first five months of 2010 show that more than one third of new enterprises nationwide registered in HDPI (Anh Quan, 2010). Sole reliance on the traditional face-to-face approach would therefore cause either a huge bottleneck or a massive expansion of the staff and office space required at HDPI. In order to avoid this expansion, there was a need to reform the old method. However, as discussed later in this section, it took years to build the OBRS from scratch, and the process confronted several human, technological and cultural challenges. The system could not have been launched in 2000 if the Director of HDIC had not championed the system. Leadership commitment was, therefore, considered the second force that contributed to OBRS establishment in 2000.

Since its establishment, the system had become increasingly important as it helped ease the burden of time pressures imposed by new regulations. Before 2000, it could take three months to process a business registration application (CIEM & GTZ, 2005); however, after 2000, when the 1999 Enterprise Law took effect, HDPI had to process the document within 15 days. It was then further shortened to 10 days, when 2005 Enterprises Law became effective. The time reduction created a huge workload pressure on the Registration Office. In addition, HDIP had to take the responsibility for coordination with the offices of the Tax Bureau and the Public Security Department to get certificates of tax codes and company seals for applicants. This was regulated in the inter-ministerial circular 05 July 2007 (MPI, MOF, & MPA, 2008). This duty also put more pressure on HDPI since it had to expend more resources on this new task. Against this backdrop, the OBRS proved increasingly important

because it saved significant amounts time and money otherwise spent on physical interactions and enabled the office to achieve the targets imposed by law with negligible increase in resources.

Although this analysis indicates that ICT-driven initiatives like the OBRS were obvious, the development of this system was never easy. Details of the development process of the OBRS and the challenges it faced will be discussed in the subsection below.

8.4.3 How Was the OBRS developed?

It was a time-consuming and challenging process before the OBRS could operate. It took about three years for HDPI to organize all necessary steps for the computerized system. In 1996, a project for computerization of administration in government agencies started at HDPI. The project's focus was to computerize all steps in the business registration procedure. Two main issues to tackle at the beginning of the project included standardization of forms and data used in the procedure and staff training. The former took considerable time for the following reasons. First, HDPI started from scratch to build a computerized programme (Interviewee 13). Second, there were no standard formats for the forms used in the process. All forms therefore needed to be redesigned (Le, Bui, & Tas, 2006). Third, computer programming and applications were still in the early stages in the middle of the 1990s in Vietnam and HCMC. Fourth, there was a lack of full-time IT experts responsible for the tasks (Interviewee 11 and 13).

A challenge in relation to training was heavy workload. First, all staff and office managers started to learn how to use computers. Next they were trained to operate the programme designed to replace their manual jobs. All this training was undertaken while officers continued to perform their daily duties (Interviewee 13).

In 1999, the computerized system started operating, despite great reluctance on the part of the staff. Generally, employees in HDPI were unwilling to learn and use the computer system in their work. An interviewee recalled:

> The toughest issue was human. The reform spoilt the income of many people who could abuse the old process for (unofficial) earnings. Hence, they did not want to learn to use computers or apply the new system; instead these people cited many disadvantages of the new approach (Interviewee 13).

The OBRS was put in place in December 2000 (Interviewee 13 & Van Minh Hoa, 2003) with eligible businesses confined to private companies. Technically, as remarked by Interviewee 13, putting the system online was not difficult compared to what it took to transfer to computerized procedures from paper-based ones used previously. When all procedures, forms and data were standardized, the move to a Web environment was simple. The interviewee continued:

> It took only a few months for the IT division to bring the system online. I can tell you that the tough stage was in the period 1996-1998 when the team started from nothing but with the huge resistance from people. Once the database and forms and procedures were ready, the transition to the web environment was not a big deal (Interviewee 13).

It is evident that there were a number of challenges when an advanced e-initiative was put in place, which required a substantial amount of time, work and efforts, especially from leaders.

8.4.4 Performance

The 2000-2009 performance of the OBRS was impressive, with 39% of new certificates being processed online, which reduced significantly the administrative bottleneck in HDPI (HDIC, 2010a). After the launch in late 2000, more types of business were accepted online. In mid-2002, five other types of transactions became eligible for the OBRS: New Branches, Representative Offices, Joint Stock Companies, Limited Liability Companies, and business amendments (Van Minh Hoa, 2003). Since 1 April 2004, foreign enterprises which meet certain criteria have been able to file their applications electronically (Interviewees 11 & 13). The criteria were that the established capital limit was no more than US$5 million and that the project met environmental regulations. However, foreign business category was removed from electronic processing in 2005 because a new version of the Enterprise Law was promulgated, resulting in changes in business operations and procedures (Interviewee 11). Generally, seven types of online services were made available in HDPI in 2000-2010, and services were confined to categories of domestic enterprises.

Regarding the capacity of the OBRS, a noticeable point in performance through 2009 was the average use of the system. As shown in Table 8.2, 58,916 sets of documents were

processed via the online system, which accounted for about 39% of all new licenses granted (HDPI, 2010b). The highest percentage was in 2007 when half of all new licenses granted were processed online. There was, however, a reduction in 2008 and 2009 as the percentage was down to 48.0% and 40.1% respectively, from 50.3% in 2007. This fall is explained by the change in regulations for Limited Liability Companies, following Government Decree 139 in September 2007. The legal change which allowed more types of Limited Liability Company (i.e., one, two or multiple owners) made it complicated to continue with online registration (Interviewee 13).

Table 8.2 New licenses granted, 2000-2009

Year	Total new licenses granted	Number of sets of documents processed online	Percentage
2000	1,854	5	0.27
2001	5,913	167	2.82
2002	11,616	1,437	12.37
2003	12,442	4,026	32.36
2004	13,632	5,301	38.89
2005	15,702	6,076	38.70
2006	19,803	9,660	48.78
2007	22,382	11,249	50.26
2008	22,559	10,835	48.03
2009	25,335	10,160	40.10
Total	151,238	58,916	38.96

Source: Department of Planning and Investment (HDPI, 2010b)

In addition to the function of granting new certificates, there were also thousands of processes via the OBRS for business amendments. Table 8.2 only shows the numbers of new licenses; however, the OBRS also allowed applications to amend existing business registration, for example, in relation to capital or ownership transfers. Statistics for 2000-

2009 show that there were 37,088 sets of such documents, accounting for 18% of all applications of this type, processed through the OBRS (HDPI, 2010b).

There is no doubt that the OBRS contributed a great deal to administrative practice at HDPI and the socio-economic development of HCMC as a whole. This is because there was a great reduction in cost and time for traveling, waiting and interacting at a counter required under the traditional approach (Anh Quan, 2010; Van Minh Hoa, 2003).

8.4.5 Challenges in the Development of the OBRS in HDPI

Despite its high performance, several problems confronted the OBRS during its operation, stemming from human issues (leaders and IT staff), institutional problems (coordination between the offices involved) and technical issues (legitimacy of electronic messages and changes in the legal framework).

- **Changes in leadership**

Following the launch of the OBRS, changes in leadership significantly affected the trajectory of this initiative. Ha Van Dung was appointed as the Director of HDPI in 1996. He led the department for five years. In October 2001, he was no longer in the job, and Nguyen Huu Tin, a Deputy of Ha Van Dung, became the Director. In May 2004, Nguyen Huu Tin was promoted to a vice-chairman of the HCMC People's Committee. As his replacement, Thai Van Re became the Director of HDPI.

The changes in leadership affected the performance of the OBRS as can be demonstrated by reference to two periods, 1996-2004 and 2004-2010. As presented in section 8.4.3, despite great difficulties at the beginning, a breakthrough was observable in 1996-2000, the period under the leadership of Ha Van Dung, because he made great efforts to lay the cornerstone for the first online registration in late 2000 (Van Minh Hoa, 2003). Interviewee 13 recalled:

> He established an information group responsible for the project. He often oversaw and helped the team when their work confronted difficulties or resistance from other employees. Those staff or leaders at whatever levels who were unwilling to cooperate received strong discipline, such as being shifted to other departments with a lower rank or being offered early retirement (Interviewee 13).

The expansion of types of business eligible for registering via the OBRS 2001-2004 was considered as a combination of the legacy from the previous period and a strong deputy manager who was responsible for the OBRS. The Interviewee stated:

> The second phase (since 2001) was easier from a technical perspective, since the database and other ICT infrastructure were in place. We have to adjust and work on some further procedures required by the new categories (Interviewee 13).

Also, it is noteworthy in this period that a Deputy in charge of the system was Le Manh Ha, who was later appointed Director of the Department of Post and Telecommunications (later renamed as HDIC). He played a crucial role in the e-government development of the City. For example, he was the first high-ranking official to strongly criticize the problems of Project 112 (Bui Van, 2007). During his time at HDPI, three new and complicated types of business registration were made available online.

In 2004-2009, the commitment of the leader of HDPI did not appear as strong as under previous leaders. Despite the rise in numbers of processed document sets, as shown in Table 8.2, this increase was due largely to what had developed during the previous period. In addition, there was negligence over emerging challenges to the OBRS in this period. For example, the introduction of online registration for foreign businesses was paused due to changes in the Enterprise Law and was never resumed. Similarly, the new forms of Limited Liability Company were not available. Furthermore, coordination between the IT office and Registration Office was not well handled. When asked to compare the current leader and the leader who initiated this programme, another informant commented:

> Speaking frankly, I do not know why the past leader [Ha Van Dung] was appointed to another City Department [the Department of Transportation]. He did a much better job than the others (Interviewee 11).

Insufficient attention from the incumbent leadership is also demonstrated by the problems facing the Registration Office when the OBRS was replaced by a national system. In July 2010, when a new national online system was centrally imposed by the central government (Vietnam Government, 2010) took effect, which replaced the OBRS (HDPI, 2010a). The Registration Office became overloaded, leading chaos at HDIC. The HDPI Director at the time revealed his concern at a press conference, in that ‘hundreds of people are waiting for their

turn at the office' and that the new system confronted his department with a critical situation (Anh Quan, 2010). In fact, the national system was not imposed overnight; it was tested in HDPI with the permission of the HDPI Director before official operation (Interviewee 13). Difficulties must had been disregarded or underestimated by the HDPI Director because several other provinces were able to operate the new system from July 2010 (Finance Magazine, 2010). The operation of the new initiative is beyond the scope of this study.

It is evident during the 14 years (1996-2010) of construction and operation of the OBRS that the leadership of HDIC had an important effect on the trajectory of this initiative.

- **Legal Framework**

Legitimacy of electronic messages and the frequent changes in laws and regulations were the two principal problems in the legal context. For a decade after the launch of the OBRS in 2000, applicants' visits to the Registration Office were compulsory. This is because hard copies of document sets for business registration were always a requirement. A reason put forward for this cumbersome procedure was the lack of legality of electronic messages and it was expected that a digital signature was thought to overcome this barrier; however, as will be analysed in Chapter Ten, digital signatures were still uncommon by 2010. The OBRS had in fact not reached an advanced level, as Interviewee 11 explained:

> The e-services offered until now [May 2009] are classified as Stage 3 [the advanced level at the time, according to the ranking of the Ministry of Information and Communications]. But applicants must carry all original hard copies of required documents to the Registration Office for the purpose of verification before any license can be granted. In other words, it is not completely an online service (Interviewee 11).

However, a Government Decree in 2010 (Vietnam Government, 2010), which is in accordance with the new national system launched in July 2010, no longer requires the hard copy of applications, but businesses must still travel to the Registration Office for processing payment and receiving certificates.

Another challenge was frequent changes of law and regulations, which led to amendment of the software. During the lifetime of this initiative there were two different versions of the Enterprise Law, in 2000 and 2006, and a number of changes in procedures, such as in Government Decrees 139 (Vietnam Government, 2007b) and 43 (Vietnam Government, 2010). The new versions of Limited Liability Company analysed above and changes in regulations of State Owned Enterprises in the process of privatization were particular examples. These alterations led to modifications of software in the OBRS. Interviewee 11 contended that, whenever there is change in business procedure, even a small one, we have to modify the software. If that is the software developed by the department, it is easier to handle; otherwise, it has to be outsourced by private partners. In the latter instance, it takes a considerable time, largely due to procedures applied to getting funds.

- **IT staff**

The increase in types of business eligible for online registration correlated with the expansion of the IT Office in HDPI. As the number of online registration types reached 7 in 2004, the IT Office of four members in 2000 expanded to 8 full-time staff to meet the increasing demand, including a leader and two deputies. However, recruiting and retaining a stable and competent IT team in the office was one of the trickiest tasks. An interviewee revealed:

> Because of poor salaries and poor working conditions, it has been difficult to find experienced and well-trained IT professionals who are willing to work in the IT office. Instead, inexperienced university leavers have been common choices for IT vacancies in government agencies. Recruitment was difficult, but retaining the IT workforce was even harder (Interviewee 11).

Since they were inexperienced and there was a large gap between what was taught in schools and business needs in Vietnam (The Economist, 2010; Vallely & Wilkinson, 2008), the IT Office had to organize extensive training sessions before new staff could start work. But the staffing problems went on:

> When new recruits become well-trained and experienced, they often leave for other organizations where they have better working conditions and benefits. The

> office is again understaffed and a new recruitment round begins. This circle is very common (Interviewee 13).

Apart from payment issues, poor facilities were another reason causing recruitment difficulties in the IT office. The premises of HDPI had been overloaded due to its small size (Anh Quan, 2010). In the IT Office, eight people sat in a small office with no partitions. Facilities such as computers and other equipment were generally older models; wires were exposed and carelessly installed. The staff member whose job it was to support applicants online was normally on the phone. When she was talking, it could affect the whole office (Interviewee 13).

- **Issues of coordination**

Collaboration between offices in HDPI did not go smoothly. As in the early days when the computerization plan was first introduced in 1997, there were tensions between the IT Office and the Registration Office. For example, when the leader of the Registration Office was asked to ease the time limit of application processing which put pressure on her office staff, the IT Office leader did not agree, saying that this would go against Department regulations and take more time for applicants. It is noteworthy here that the IT Office was responsible for technical guiding applicants to lodge the documents; therefore the longer it took to technically accept applications, the more complaints from applicants the IT Office could be received (Interviewee 11). The two offices had tensions over the issue for months until the HDIC Director held a meeting to resolve it.

Several reasons have been cited to explain the uneasy relationships between the IT Office and the Registration Office. First, the new system put operational staff under closer scrutiny. For example, the office leader or IT administrator could also have access to and know details of the progress of staff at any stage. This visibility caused frustration among operations staff in the Registration Office. In theory, one of the virtues of IT is that it enables better collaboration (Fountain, 2001; Ho, 2002); however, that virtue can only be achieved when the leadership is engaged, which did not occur in HDPI for the later phase of the OBRS.

Second, the online system significantly reduced the opportunities for corruption. Under the traditional approach, some staff in HDPI could indulge in unofficial earnings (Tquang, 2010). With online application, opportunities to request bribes were fewer as notices of missing or

supplementary documents and explanations could be sent through the system within the deadline set. Another reason contributing to the deterioration of the coordination of the two offices was the poor discipline of certain staff. As discussed earlier, nepotism and patronage have been pervasive in Vietnam society (Diep, 2010) (see also sections 4.3.3 and 5.3.3). HDPI is no exception. Interviewee 11 contended that 'there are quite a lot of staff in this department employed thanks to nepotism'. Staff of this type are normally arrogant and undisciplined. It is a dilemma for the leader as to how to deal with them. An interviewee further explained this:

> By convention, an HDPI Director is promoted to higher positions in either the City or the central government. However, the appointment is also conditional on their relationship with other City leadership positions. Disciplining a staff member whose relatives are powerful would do more harm than good to the future promotion of the director (Interviewee 13).

As a result, many leaders choose to exercise a balancing act when making decisions whether to discipline employees who rely on their powerful relatives.

- **Funding problems**

Despite a comparative abundance of funds for e-government in HCMC (Observation 06), there was a lack of necessary funding for ICT in HDPI. In order to get funding for an upgrade or establishment of an ICT system, there were several time-consuming steps. The first was to prepare a project proposal. The HDPI leader had to approve this. The next step was to send the proposal to the HDIC leader. After having examination and approval, step 4 was to obtain approval from the Department of Finance. Finally, the City People's Committee endorsed the proposal (Interviewee 13). During these steps, explanations and amendments were made as necessary. It normally took several months to a year to complete the procedure. According to Decision 61 in 2008 (HCMC people's Committee, 2008b), the funding for ICT projects was implemented on an annual basis. The Interviewee said:

> Ironically, funds are not in short supply; rather it is all about cumbersome procedures. It sometimes took a year to get the funds we want for a particular e-government project or maintenance service (Interviewee 11).

In summary, the OBRS faced several changes since its establishment: first, changes in leadership had profound effects on its expansion; second, there were a lack of legitimacy of electronic messages, and changes in laws and regulations for business registration were regularly made; there was the lack of IT staff, and coordination between the IT Office and the Registration Office is low; and, back-up funds for technical issues was also lacking.

8.5 Critical Success Factors

This section examines the critical factors in the process of e-government implementation in HCMC. This is guided by the conceptual framework developed in Chapter Two.

8.5.1 State Capacity

State capacity, particularly in relation to transformational leadership, funding and the strengthening of steering capability, were a critically important factor in advancing e-government development in HCMC.

- **Leadership**

It was leaders who initiated changes, tackled challenges and sustained e-government development in HCMC. The leader played a crucial role in the development of important e-services in all three periods. During the 1996-2000 period, the PAR process at this stage focused mostly on rationalization of procedures of public administration, rather than boosting ICT applications, so as to make government bureaucracy less cumbersome (HCMC People's Committee, 1996, 1997, 2000; Truong, 2008). Further, the government bureaucracy was still heavily affected by the central-planning system, operating in a command mode rather than serving the people (Interviewee 13). In that context, the OBRS faced a number of challenges (section 8.4.5). However, the HDIC Director stimulated creativity by initiating the online registration system, an advanced e-services even in comparable countries at that time (Interviewee 13). As analysed in the previous section, there were significant resistance from staff and challenges from the underdeveloped technology at the time. According to interviewee 11, the Director kept raising mission awareness among the IT team and the overall HDIC employees; he also stood by the IT members and enabled them to perform their tasks despite the challenges. His leadership style which has certain features of

transformational leadership as discussed in section 2.7.5, made the OBRS system the first and most advanced system in Vietnam for online business registration.

Similarly, in 2001-2004, two important projects (CityWeb and the ODBA) could not be initiated without committed leadership. The principal difficulty of these two projects was that they engaged a number of departments and agencies in the City. However, Nguyen Thien Nhan, a Vice-President of the People's Committee, stimulated his subordinates by regularly organizing meetings and listening to his subordinates (Observation 01 & 05). He also provided measures to ensure the progress of these projects to translate proposals into action (HCMC People's Committee, 2001; Tran, 2004). For example, in order to deal with resistance or late responses from participating state agencies in the ODBA, his office (The Office of People's Committee) could issue formal document to remind or discipline (Vnexpress, 2003). Looking back on this period, Le Manh Ha, the HDIC Director, acknowledged the important role of leaders in those large ICT projects in that period:

> The most important factor, not only for e-government but also for the ICT development, was the direct participation of the leaders of the People's Committee, especially in the initial period. If the leaders did not meet weekly to oversee the progress and to give directives, we would not have the Quang Trung Software Part and CityWeb…. Support is not enough, and direct participation is important. In the absence of leader participation, there could be no success (Observation 06).

Since 2005, especially since Nguyen Thien Nhan accepted a new position in the central government in 2006 (Vietnam Government Portal, 2011), there has been less direct involvement of leaders from the People's Committee. However, City leaders assigned significant authority in the functional department (Interviewees 01 & 13). In addition, City leaders prioritized large funds for e-government, said to be 'unlimited' by the HDIC Director (Observation 06).

It is evident that HCMC leaders with certain qualities of transformational leadership (see section 2.7.5) made significant changes to the history of e-government development.

- **Funds**

Funds for e-government activities in HCMC were not in short supply, because of leadership commitment and a generous state budget. While other provinces must mobilize all sources of available funds (state and non-state sources – see section 6.4.2), for ICT infrastructure development, HCMC was an exception. This is because HCMC and Hanoi are the only two special cities which enjoy special policies on budget allocations (Vietnam Government, 2004). In particular, HCMC was entitled to obtain more funds to enhance its role as an economic centre of the nation. An Interviewee revealed:

> However, HCMC mainly relies on its local funding. This feature makes it a unique case in the context where lack of funds is the constant challenge of almost all provinces in Vietnam. Further, as I know, from the HDIC Director, funds from ODA sources are not his priority (Interviewee 01).

Funding availability of HCMC was an important factor contributing significantly to the HCMC e-government achievements. The HDIC Director underscored the importance of funds for e-government and the advantage that HCMC possesses:

> If you have power (quyền) but no money (tiền), you still cannot implement (e-government). In the case of HCMC, funds are not a problem. Whatever amount of money I need for ICT projects, the City fully supplies. Instead of lacking funds, we find ways to spend all the money allocated. The matter of concern for us is how to well spend the given money (Observation 06).

As shown in Table 8.3 below, funds for ICT development and applications have steadily increased since 2005.

Table 8.3 Funding for ICT activities in 2005-2010

Year	Fund (billion VND)	Approximately in $US million
2005	31.965	2.0
2006	61.311	3.8
2007	83.447	5.2
2008 - 2010	323.277	18.2

Sources: HCMC People's Committee (2008c); HDIC (2010a); Vietcombank (2005, 2006, 2007, 2009)

This source of finance prevented delays due to the financial crisis. In 2008, while the other provinces and cities had to delay their national pilot projects due to central fund shortages, HCMC was able to self-finance its projects (MIC, 2008c).

- **Strategy**

What remained problematic for e-government strategy in HCMC were specific solutions for problems facing e-government IT staff and public servants. HCMC People's Committee has had a genuine desire in its e-government strategy to solve its administrative workload in the context of fast economic growth and a populous city (section 8.2). Further, the city's leadership has shown their strong commitment to e-government. In other words, the need for ICT-driven reform is real and priority for this reform is high. However, there remain certain important issues that need to be carefully addressed in order to achieve the objectives of e-government strategies. These include e-government stakeholders (particularly, the attitude of IT staff and public servants) and technical challenges (particularly, security issues and overall architecture).

It was revealed from examining recent e-government plans (HCMC People's Committee, 2007a, 2007b, 2008c) that targets were clearly set and solutions were provided. The consolidation of management boards of e-projects and placing them under HDIC have been effective moves by the People's Committee in e-government strategy. The HDIC after being empowered has been able to formulate overall and comprehensive e-government strategies for the whole city since 2008. Specific targets for online presence and transactions within government agencies and with businesses and citizens have been formulated (HCMC People's Committee, 2008c). In addition, as will be presented in the following sections, steering capability and the legal framework have been improved by this consolidation.

The problem remained however that existing e-government strategies did not provide specific or feasible means of tackling problems facing two important e-government stakeholders, the IT staff and public servants. For example, while the departure of IT staff from state agencies became common (Interviewee 08, Observation 03 & 10, Quantrimang, 2008) there was no effective solution to curb this problem. There the Director of HDIC (Observation 06) stated in an interview by Le and Quoc Thanh (2008) that:

> Most of my worries are the moments that my staff come to see me with a letter of resignation or a job transfer.

In addition, there were no effective solutions to give the IT workforce strong incentives. There were certain initiatives for training the ICT workforce (HCMC People's Committee, 2007b); however according to a HCMC informant (Interviewee 01), measures were not implemented that could encourage IT staff to keep working. The key measures, in his opinion, were recognition in the public service system with a formal title for IT staff and an increase in salary (Interviewee 01).

Public servants in general faced similar problems. They supplement their incomes by abusing their positions (Interviewee 05 & 13, Vietnam Government, 2007b). The main purpose of e-government initiatives is to simplify complicated procedures in government bureaucracy, which goes against the personal interests of a large group of public servants (Ministry of Finance, 2008; Prime Minister of Vietnam, 2007). However, no effective solutions to this problem were initiated in HCMC. An official in HCMC stated in an interview by Le and Quoc Thanh (2008) that salaries in the public sector were clearly not attractive, but the vicious circle was that there was no money for an increase in public servants' salaries.

Another problem facing the e-government strategy of HCMC was the interoperability of the HCMC e-government system and the rest of the country. Despite achievements, there is no guarantee that HCMC's system will be compatible with the national system, largely because there has not yet been a long-term strategy for e-government at national scale. An informant revealed:

> HCMC is active in formulating its own path, thanks to the advantage of funding availability and relatively strong authority. But for the whole nation there is no long-term e-government strategy. Consequently, there is no interoperability between provinces, resulting in a possibility of reinventing the whole system; if so, that would be a costly experience. This is clearly a major concern in the national e-government strategy (Interviewee 01).

It is evident that the improvements in e-government strategy made HCMC one of the most successful e-governments in Vietnam; however, effective measures to deal with issues of IT staff, public servants and overall e-government architecture were provided.

- **Steering Capability**

Low steering capability was the most challenging problem in the early stage of e-government development in HCMC; however, since the coordination mechanism was established in 2005, it has become a model for other provinces to follow.

During the first two periods (1996-2000, 2001-2004), there were several problems due to the unclear function of steering committees of e-government implementation in HCMC. Multiple agencies shared the functions of managing ICT projects: the Department of Science and Technology, the City Project Management Unit, and the office of the People's Council and People's Committee. For instance, initiatives of Project 112 in HCMC were managed by the office of the City People's Committee, 32 other ICT projects were managed by the City Project Management Unit, while 18 projects on the Geographic Information System were run by a centre in the Department of Science and Technology (HDIC, 2006b). As result of multiple managing bodies, two serious problems emerged. Firstly, projects were implemented simultaneously when there was no master plan for the City (HDIC, 2007a & Interviewee 01), which resulted in inconsistency and incompatibility between them (HDIC, 2006a). Secondly, the managing bodies were loosely structured. For example, bodies with no IT expertise or state management functions were in charge of large ICT projects; they therefore could not issue the legal ICT regulations binding other state agencies in the City.

The failure of Project 112 initiatives in HCMC (analysed in section 8.3.3) and problems that emerged from multiple managing bodies led City leaders to reconsider the management of overall e-government in the City. Consequently, the Department of Post and Telecommunications, the old name of HDIC, was significantly empowered from 2005. Explicitly, by Decision 84/2005/QĐ-UB the People's Committee granted this Department the right to consolidate all plans of e-government activities in HCMC and the right to allocate funds to e-government for all state agencies in HCMC. The Director of HDIC, Le Manh Ha, repeatedly emphasized the crucial role of the power of a specialized body responsible for e-government (Observation 06 & MIC, 2009). He considered influential power (the right to decide overall e-government and funds allocation in the City) assigned to his Department one of the most important factors, contributing to the success of e-government in recent years. He asserted that:

> City leaders developed a very strong mechanism for the functional department (the HDIC) for management, assigning sufficient authority and granting enough funds for implementation [of e-government]. This made a difference in the case of HCMC…. As far as I know, this is what most of other cities and provinces do not have yet (Observation 06).

Another contribution of the empowered HDIC has been the establishment of a legal framework which facilitated implementation during the period 2005-2010. This legal issue is analysed below.

- **Legal Framework**

Due to a lack of an overall steering committee, initial regulations created confusion in e-government management. The legal framework has been significantly improved in recent years. It is noteworthy that one important policy instrument in Vietnam is decisions from central and local government (discussed in section 6.4.5). In 2003-2004, important legal regulations were issued, including, in 2003, Decisions 105/QĐ-UB and 821/QĐ-UB, which approved e-initiatives of Project 112 in HCMC and appointments to the Board of Management for these initiatives, in 2004, Decision 17/2004/QĐ-UB on project management for initiatives of Project 112, and Decision 80/2004/QĐ-UB on financial support for special public servants, including IT staff (in 2004). Except for the regulation on financial support, which had produced positive effects in retaining the ICT workforce, others caused problems in overall management of e-government. For example, the two 2003 regulations established a management body which belonged to the office of the People's Committee. This board lacked a power to issue legally-binding regulations in regard to e-government. Further, the 2004 Decision (17/2004/QĐ-UB) provided this board with authority in selecting contractors, software and project appraisal. Le Manh Ha, the HDIC Director publicly criticized this, in an interview by Bui Van (2007):

> The principal error was that 'you' [the office in charge] are not a body that has the role of state administration. Only functional departments have the right to appraise and approve projects. In this case, for several years, the managing board has been exercising these functions.

Recently, especially since HDIC was significantly empowered, this body drafted several important regulations. The first noteworthy regulation was about funds for ICT workforce development, accompanied by Decision 4383/QD-UBND issued in September 2007. Three months later, the master plan for ICT development in 2007-2010 was promulgated (HCMC People's Committee, 2007a). In July 2008, regulations on ICT projects that used state funds were issued (HCMC people's Committee, 2008b). More importantly, the plan for e-government in the 2008-2010 was promulgated in October 2008 (HCMC People's Committee, 2008c). In evaluating the legal environment, an interviewee in HCMC acknowledged:

> There has been a significant progress in regulations of e-government implementation in the HCMC (Interviewee 01).

However, the steepest hurdle for HCMC in regard to the legal framework was the frequent changes in policies and regulations in areas that e-initiatives apply to. For example, when HDIC deployed the computer programme for land management in District 9, there were a number of changes in a short period, which presented a huge challenge to HDIC. A vice-director of HDIC (Observation 11) revealed that his Department faced four different changes in regulations on land management. The official concluded that 'a series of changes made in administrative procedures created tough problems'.

In summary, in relation to state capacity, engagement of the leadership from the People's Comittee, availability of funds, appropriate coordination mechanisms, and an improved legal framework drove sustained e-government development in HCMC.

8.5.2 Infrastructure

HCMC has significant advantages in ICT infrastructure and human capital for e-government implementation, especially compared to the rest of Vietnam. High network capability and high usage of computers and the internet by both citizens and public servants are important to e-government implementation in HCMC. However, the shortage of IT staff made e-government operations problematic.

- **ICT Infrastructure**

ICT infrastructure in HCMC is very advanced compared with the rest of Vietnam. As analysed in section 2.7.6, the conventional ICT tools for e-government are the internet, computers and telephones. This section focuses on the development of these tools. Table 8.4 below shows that HCMC was well advanced compared to the majority of provinces and cities. While the average rate of computers per public servant in local government was 31%, the figure for HCMC was 91% in 2010. In addition, 90% of computers in government agencies in HCMC were connected to the broadband internet. On the citizen side, 96% and 53% of households in HCMC had computer and broadband internet connectivity respectively, compared to the national averages of 19.1% and 9.3% for all provinces and cities. In telephone statistics, both fixed line and mobile links were higher than the national average, especially in the mobile index, where there were 225 subscribers per 100 inhabitants (since many people have more than one subscription).

Table 8.4 ICT infrastructure in HCMC compared with other cities and provinces in 2010

Index	HCMC	Cities and Provinces
Computers per 100 public servants	91.0%	31.0%
Computer with broadband internet/all computer in state agencies	90.0%	73.5%
Households with computer	96.0%	19.1%
Households with broadband internet connection	53.9%	9.3%
Households with landline telephone	27.6%	20.1%
Mobile subscribers	225.1%	113.4%

Source: Vietnam ICT index 2010; NSCICT and MIC (2010)

Apart from these indicators, HCMC was among first locations to deploy the Metronet, a high-speed network. Metronet stands for the Metropolitan Area Network (MAN), which is a large computer network that usually spans a city. Its purpose is to connect all city departments and districts, functioning as a platform where participants can share databases. The Metronet was first introduced in 2004 in the City (Vietnam Post and Telecom, 2010).

When asked to evaluate the ICT infrastructure for e-government implementation, a HCMC participant contended:

> There is a fairly long way for Vietnam to go to catch up to other advanced countries in the e-government field. However, domestically, HCMC is the leader in terms of e-government. Although much has to be done, it is confident that the current system is able to serve the ICT architecture designed by the HCMC authority (Interviewee 01).

While ICT infrastructure is comparably advanced for e-government initiatives, the human capital on the government side has displayed certain troubling signs, as analysed below.

- **Human Capital**

On the government side, the usage of basic tools for e-government is high in HCMC. As shown in Table 8.5, in early 2010 over 90% of public servants were using computers and emails. In 2010, full-time IT staff in government agencies reached 2%, much higher than the national average of 0.6%.

Table 8.5 ICT usage by HCMC public servants in 2010

Index	HCMC	National Average
Email usage in all public servants	91.7%	47.0%
Percentage of public servants who know how to use computers	96.0%	76.4%
Percentage of specialized IT staff among public servants	2.0%	0.6.0%

Source: Vietnam Informatics Association (2010)

These achievements, especially the capability of public servants, were the direct result of the city authorities' efforts in providing policy and training programmes for public servants since 2005; 3100 public servants, 384 IT staff and more than 1000 leaders at different levels of the hierarchy were trained in 2005-2007 (HCMC People's Committee, 2008c). In addition, regular funds for ICT manpower development (HCMC People's Committee, 2007b), also facilitated ICT training. Further, HCMC also has an advantage in supply sources from a number of universities located nearby. For example, in 2008, there were 20 universities with

an IT major, along with about 150 centres for short courses on ICT in HCMC. It was estimated that there would be 11,000 advanced IT graduates from colleges and universities and 25,000 other professionals each year since 2008 (HCMC People's Committee, 2008c). However, the plentiful supply of ICT professionals is one thing; the capability to recruit and retain them in government agencies is another as will be presented in the section of challenges facing human capital below.

On the citizen side, HCMC also is one of the most suitable places in Vietnam for e-government implementation because of its comparatively well-educated workforce. As analysed in 8.2.1, with 1.3% of GDP coming from the agricultural sectors, most of the City's residents are white and blue collar workers. Further, basic computer skills and knowledge have long been introduced in all primary, secondary and high schools in HCMC. It was reported that 100% of schools at all levels have introduced computer subjects into their curriculum since 2008 (Vietnam Informatics Association, 2008, 2009, 2010). In relation to internet usage, Vietnam has seen a high and steady increase of internet users over the last entire decade (section 6.5). This rapid growth was partly fuelled by the expansion of internet development in HCMC. Despite some differences in the two surveys by Cimigo (2010) and by Yahoo and Taylor Nelson Sofres (2010), the percentage of internet users in HCMC is almost double the national average. For example, the first survey shows that more than 50% of the population in HCMC used the internet (Cimigo, 2010). The second study, reported by Nhu Dung (2009), indicates that about 42% of the population of the four largest cities, including HCMC, used the internet at least once a week in 2008.

Human Resources Challenges

Although these statistics on human resources for e-government appear to suggest that human capital is adequate for e-government services in HCMC, this is one of the most challenging problems facing the City. Inquiring into the ICT workforce for government machinery, problems of the absence of the lack of title for full-time IT staff, pressure of workloads and low pay made it particularly difficult for city government agencies to recruit and retain IT staff. By 2009, there was still no formal title which recognized public servants responsible for IT, although this problem had long been analysed by leaders of provincial ICT departments (Quantrimang, 2008). Moreover, the workload for IT staff increased because IT staff are normally responsible for two tasks (interviewee 1): to transform a paper-based

approach into an ICT-driven one and to assist high-ranking officials with ICT applications. The nature of their work put IT staff under high pressure because of resistance of public servants and a lack of ICT usage by leaders (Interviewees 01 & 13).

While the workload was heavy and pressured, the salary of IT staff was low. Poor pay for public servants has long been recognized as one the most challenging problems in public administration in Vietnam (Le & Quoc Thanh, 2008; Le Nhung, 2010a). IT public servants normally rely on their 'hard' salary (without other illegal earnings), because their jobs are often not in contact with citizens. As a result, their income is low. The Director of HDIC and his colleagues from Danang City publicly acknowledged that salary was one of the key reasons contributing to the departure of IT staff in government (Quantrimang, 2008). In particular, the Director of HDIC stated (cited in Quangtrimang, 2008) this:

> Low salary, no title, and not to mention that they never have a chance for career promotion, make the leaving a matter of course.

In the 2009 E-government Symposium, the Director of Danang City DIC asserted:

> A graduate IT engineer earns about VND 2-3 million (US$100 – 150) if working for a state agency in Danang, while he could earn VND 6-7 million (US$300 - 350) by working for enterprises (Observation 03).

The HCMC informant summarized problems facing IT staff in HCMC that the current policies and regulations make it difficult to attract and retain IT personnel to work in the public system. The main obstacles include the following: salary is low; benefits are limited, but the workload is heavy; and IT staff are constantly under high pressure (Interviewee 01).

Although the HCMC People's Committee (2003) has long identified the incompatibility of payment and workload, the problems have not been addressed. As a result, many public servants left government for the private sector. For example, in 2007, three important officials from HDIC and other experts quit their jobs at this Department (Le & Quoc Thanh, 2008). An example was Vo Van Khang, the manager of the IT division in the HDIC, who earned a doctoral degree from a foreign education institution, left HDIC to work for a private bank where he enjoyed much better working conditions with a salary several times higher (Interviewee 11). Similarly, Luong Van Ly, a Deputy Director of HDPI, decided to quit his job to start his own business for better payment (Xuan Toan, 2007).

In summary, as with state capacity, it is evident that HCMC has been advanced in e-government infrastructure compared to the national level. However, the issues facing the city government IT staff stand out as the most challenging that this city must overcome to further develop its e-government implementation. An observation of Le Manh Ha (cited in Quangtrimang, 2008) on recruitment to and resignation from the public agency IT workforce, is true: 'exiting is smooth but entry is sticky'.

8.5 Conclusions

HCMC has developed e-initiatives since 1996. Of these, four projects are particularly important: the OBRS, City-Web, the Online Dialogue between Businesses and Authorities, and the Electronic One-stop Shop. These produced valuable results. Overall, analysis of the case of HCMC shows that this city has a major comparative advantage in all three important factors in e-government implementation: state capacity, infrastructure and the domestic context. However as the analysis of the OBRS shows even in HCMC e-government initiatives faced long implementation processes and needed to surmount significant technical and institutional challenges.

In relation to state capacity, certain transformational leadership qualities of the leaders of the People's Committee, funding availability and suitable coordination mechanisms played a critical role in the initial success of HCMC. During the history of e-government development in HCMC, especially the periods of 2001-2004 and 2005-2010, key leaders strongly supported e-government. Leaders displayed transformational leadership qualities by stimulating creativity and enhancing awareness of ICT tasks, enabling their subordinates (especially the DIC) and mobilizing resources for the e-government implementation process. Apart from supportive leadership, another important factor was a large budget, which made e-government funding generous and sustainable. The establishment of a rational mechanism which enhanced steering capability by the consolidating authority to HDIC was another factor contributing to the achievements. The legal framework, which has been increasingly improved since 2005, was largely a result of this mechanism.

In terms of infrastructure, network capability and ICT tools deployed in public agencies are significantly higher than the national average. The comparatively advanced ICT infrastructure was the result of early efforts in constructing systems since the early 2000s.

Similarly, human capital was also an advantage for HCMC, as this city is the largest economic centre in Vietnam, and where white and blue collar workers dominate the workforce. The supply of IT professionals is large because HCMC is also a centre of education where the largest universities and vocational schools can supply a vast number of graduates, including IT professionals. In regard to domestic conditions, HCMC residents are overall comparatively rich, which enhances affordability for ICT tools or accessibility to ICT services, both important conditions in e-government implementation.

Despite favourable conditions, some serious problems face HCMC which can constrain or even jeopardise e-government achievements. These problems include skills shortages, low pay for public servants, and frequent changes in the legal environment in those areas where e-initiatives have been applied.

Overall, the case of HCMC provides rich evidence that facilitate discussion in Chapter Ten of critical factors in e-government implementation and the changes that e-government can bring to the government bureaucracy.

CHAPTER NINE

E-GOVERNMENT: THE CASE OF DAKLAK PROVINCE

9.1 Introduction

The objectives of this chapter are twofold: first, to analyse overall e-government development in Daklak Province; and second, to examine the Business Portal, an advanced e-initiative sponsored by an international donor. Important e-government objectives have been set by provincial authorities to minimize paper-based systems by using electronic devices in government agencies. However, it has been difficult to achieve these targets because of a number of challenges facing the province that include domestic socio-economic conditions, state capacity, ICT infrastructure and human resources. In this chapter, the picture of Daklak Province that emerges is in contrast to the case of HCMC.

As demonstrated in the chapter, Daklak Province is characterized by low ICT readiness for e-government, especially on the citizen side. Part of the province's population is indigenous. These minority groups are generally poor and illiterate, and they often live in remote areas. Daklak Province has an agriculture-based economy. Its average income per capita is well below the national level. E-government activities have relied on financial and technical support from central government and donors. With their adoption by provincial authorities, certain e-initiatives have been put in place. However, in some projects technical feasibility does not necessarily mean practicality. The case of the online business registration system in the Business Portal (details in section 9.4) faced a number of challenges, such as steering capability, ICT infrastructure, human capital, legal issues and cultural barriers, which resulted in no applications being processed by this system. The analysis of critical factors shows that low state capacity for e-government and low e-readiness among residents are the major hurdles in the province. Despite increasing commitment from leaders, there have been other essential and competing priorities such as poverty reduction. E-government funding significantly depends on central sources, which is not sustainable. Low steering capability, the lack of an appropriately IT workforce and the absence of supportive legal regulations are also major disadvantages in implementation. More importantly, citizens have generally not been able to access e-services because of low financial affordability and their own educational levels.

The chapter starts with an overview of socio-economic development in Daklak Province. This is followed by the description of principal e-government initiatives. The subsequent section is the development of the Business Portal at the Daklak Department of Planning and Investment (DDPI). This is then followed by the analysis of critical success factors for e-government management. The chapter concludes by summarising the main findings.

9.2 Overview of Socio-Economic Development

The domestic socio-economic conditions of Daklak Province can be generally characterized as underdeveloped. A large part of the population comprises indigenous ethnic minority communities who are generally poorly educated and live in remote areas. With an agriculture-based economy, a quarter of Daklak Province's population lives in poverty (lower than $US1/person/day). On the citizen side, these factors have resulted in low ICT readiness for e-government.

9.2.1 Social Background

As one of large provinces, situated in the central highlands of Vietnam, Daklak Province is considered a mountainous province. Daklak Province is bordered by Gia Lai Province to the north, Phu Yen and Khanh Hoa Provinces to the east, Daknong Province to the southwest and Cambodia to the west. It is relatively distant from the two busiest centres of Vietnam – 320 km from HCMC and 1410 km from Hanoi (see Figure 9.1 below).

Administratively, Daklak Province is subdivided into 15 smaller administrative units, including one provincial city (Buon Ma Thuot City), one town (Buon Ho Town) and 13 districts. These units are further divided into 152 rural communes and 32 urban wards. Other than Buon Ma Thuot City and Buon Ho Town which take in 20 out of 32 urban wards, all the districts are considered rural areas. In terms of size, Daklak Province used to be the largest province in Vietnam; however, in 2004, about one third of its area and one fifth of its population were separated to become the independent province of Daknong Province. Daklak Province is now the fourth largest province, after Nghe An, Gia Lai and Son La Provinces.

Figure 9.1 The location of Daklak Province

Source: Economist Intelligence Unit (2011)

Daklak Province has a diverse population of 1,733,113 (as of 2009) with a low population density at 132 per km2 (DLP Statistics Bureau, 2010). There are 44 different ethnic groups, consisting of the Kinh people and minority groups. Minorities have higher levels of illiteracy and live in geographical remoteness (Ministry of Culture Sports and Tourism, 2008), factors which worsen the digital divide in the province. In 2009, 75.6% of the population were living in rural areas (DLP Statistics Bureau, 2010). Before the subdivision into two separate provinces, about 30% of the total population was indigenous ethnic minority communities, predominantly ethnic E'De (18.4%), M'Nong (4.8%) and J'Rai (ADB, 2003). One of the most serious administrative challenges in the province is population growth. Daklak Province has the highest rate of population expansion, mostly from intra-country migration (ADB, 2003). This trend is continuing, making it hard for provincial authorities to manage. This problem has affected several areas, including the development of ICT applications. Recently, the province's leader had to address the issue with the Minister of Information and Communications (Van Truong, 2009).

The infrastructure system is generally underdeveloped (ADB, 2003). Most residential areas are distant from the provincial centre, Buon Ma Thuot City. There remain 23 rural communes that do not have sealed roads (DLP Statistics Bureau, 2010). Travelling to and from these remote communes is therefore still difficult. In a number of districts and communes, essential infrastructure such as roads, electricity, schools and hospitals is insufficient, as is ICT infrastructure.

In such poor conditions, government authorities have strong incentives to prioritize resources for essential investment rather than e-government. Therefore poor e-readiness on the residents' side and low priorities on the government side are the first obvious challenges for any potential e-initiatives. These issues will be further analysed in the chapter.

9.2.2 Economic Performance and Income Distribution

Despite recent fast economic growth, the Daklak Province economy remains agriculture-based. The province is famous for its fertile basaltic soil which is suitable for the production of crops, particularly coffee. A large part of its 487,137 hectares of agricultural land are used for coffee growing (DLP Statistics Bureau, 2010). The main source of income for many people in this province comes from coffee export. In 2009, 57.3% of the province's GDP was

from agricultural activities, which is significantly high compared to 1% for HCMC (DLP Statistics Bureau, 2010). This income, however, fluctuates with world market and climate conditions (ADB, 2003). Additionally, an irregular climate with long droughts has routinely increased the risk to farmers' earnings.

Although Daklak Province has experienced high economic growth rates in recent years, its income per capita is still below the national level. The Daklak Province economy has made progress in last few years, despite backward infrastructure and a diverse population. In 2007, the province achieved a record annual economic growth rate of 17% (Van Truong, 2009). The overall economic growth rate for 2006-2010 was 12% (Le Ngoc, 2010). Because of this development, the average income per head increased to $US681 in 2009, up from $US368 in 2002 (ADB, 2003; DLP Statistics Bureau, 2010; Vietcombank, 2010). However, this is still far below the national US$1043 level (GSO, 2010; Vietcombank, 2010) in the same year.

Disparity between rich and poor has long been a severe problem in the province. High economic performance in 2006-2010 helped reduce the proportion of poor households. However, according to the new threshold for a 'poor family' (not higher than about $US308/person/year), it was estimated that in 2010 poor households comprised 23-26% of the population (Minh Quan, 2010). Most poor people live in remote areas, are indigenous ethnic inhabitants or are migrant communities (ADB, 2003).

The economic conditions indicate that Daklak Province remains poor province in the context of a low-income developing country. This is a steep hurdle for e-government implementation.

9.3 History of E-government Development

ICT applications in government administration in Daklak Province have only developed in recent years. However, development has been rapid because of support from the central government and donors. During the 1990s and early 2000s, there were plans to develop information technology in the province (Tran, 2007); however, the results were limited due largely to funding shortages and an inadequate IT workforce (Interviewee 08). In 2005, Daklak Province was still on the list of the lowest 10 out of 60 provinces in Vietnam's ICT index ranking (Vietnam Informatics Association, 2005). Since 2006, there have been more

vigorous steps towards building initial e-government services with provincial leaders committing funds to e-government in 2006 (Interviewee 08). ICT policies have been more carefully drafted (Daklak DIC, 2008). In 2008, five important e-initiatives were funded by central government (Prime Minister of Vietnam, 2008b), including:

1. building a provincial information portal;
2. an email system;
3. installing capacity for multi-media conferencing
4. installing software for document management; and,
5. promoting internet connections and training.

In addition to central government funded projects, the Business Portal, an ICT-driven initiative, aimed to promote management for local governments. This portal was opened in January 2008 (DDPI Website, 2008). In the Business Portal, a prominent component was an online business registration system, a similar system to the OBRS in HCMC. The trajectory and performance of this system are discussed in the following section.

Another important initiative was the project on internet connection to all schools, which was sponsored by Viettel, a domestic ICT corporation. This project started in September 2008 and was completed in December 2010. All 427 institutional educations from kindergartens to universities were connected to the internet by the end of 2010 (Kim Bao, 2010).

Prominent activities and their performance are presented below.

- The provincial portal (http://www.daklak.gov.vn/) has been built, and all provincial departments have their own information page in this portal. Several provincial departments have their own websites, for example, the Department of Information and Communications, the Department of Education, and the Department of Planning and Investment (DLP Portal, 2010a).
- Some Provincial Departments, such as the Department of Planning and Investment, deployed online G2B service and other management software in their areas. By May 2010, there were eight agencies using software to manage incoming and outgoing policy and legal documents (MIC, 2010a).

- The Business Portal, with an advanced initiative on business registration, was put in place in January 2008 (Le & Becker, 2009).
- High-speed connection has been established between the office of the Party in the province and its branches in all districts. In this system, various applications have been explored. For example, databases, such as profiles of all provincial Party members, have been built, and legal document management software and a customized database serving the Party leaders and leaders of the People's Committee were installed (Daklak DIC, 2008; DLP portal, 2010b).
- A domain-name email system has been built and put in place. By May 2010, 3382 domain-name emails had been granted to public servants (MIC, 2010a).
- A system for multi-media meetings has been deployed at 10 points, one at the DDIC and the others in nine districts (MIC, 2010a).
- At ward and commune level, some basic applications had been developed. For example, computers have been installed in all wards in the province; these are used for specific data input such as household records, marriage registrations and birth records. By June 2009, the internet has been connected in about 90% of all ward offices in the province, and the remaining 10% in remote areas have not because of problems of distance (Interviewee 8).
- All educational institutions have been connected to the internet (Kim Bao, 2010).

These initiatives have proved their initial benefit for public administration. For example, the provincial portal supplies the general structure of the provincial government and a rich source of official background information on a number of areas in the province. Contact details of government agencies down to district level are provided. Legal and policy documents are available online (DLP Portal, 2011). Public servants have started to use domain-name (.gov.vn) emails, which have been widely distributed (Interviewee 08 & 10). These initial achievements have helped Daklak Province make good progress in Vietnam's ICT Index (Vietnam Informatics Association, 2005, 2010), moving from 50th in 2005 to 21st position in 2010 in the 63-province scale.

Putting these initiatives in place has never been an easy task (Interviewee 07, 08 &10); it requires enormous efforts on the part of provincial leaders (Interviewee 14) in mobilizing resources from central government and domestic and international donors. However, how to make these systems work is even more difficult. On the one hand, these initiatives can

bring benefits to citizens. For example, email accounts for staff can reduce substantial amounts of paperwork if usage is boosted. Similarly, the provincial portal can effectively provide basic services such as administrative procedures and forms for downloading. The Party high-speed connection can help facilitate communications across provincial authority boundaries. On the other hand, this can also lead to a waste of resources and opportunities if the utilization of these initiatives is limited. As analysed in later sections, it is evident that performance of these initiatives has not yet realized their potential. For example, email usage among provincial department leaders is very limited, and the online business registration system does not work.

The problems facing the online business registration system is analysed in the following section.

9.4 The Online Business Registration System in Daklak Province (DOBRS)

The Business Portal, and particularly one of its components (the online business registration system), are examined in this section. This is the most advanced e-service in Daklak Province; however, no applications were processed during its operation. This section traces the development of this initiative and investigates the reasons why the business community did not use a system designed to simplify procedures and bring benefits to them.

The analysis of the Business Portal indicates three important points in the context of an underdeveloped province like Daklak: first, a simple innovative initiative is able to work; second, it takes substantial resources and effort to build an advanced technical solution; and third, technical feasibility does not necessarily mean that it can work in practice.

9.4.1 The Online Business Registration System as a Component of the Business Portal

The Business Portal is a project designed and sponsored by an international donor agency, the German Agency for Technical Cooperation (GTZ). This is a project belonging to a group of cooperative programmes between Vietnam and Germany to boost economic growth, jobs creation and poverty reduction. GTZ represents the German Federal Ministry for Economic Cooperation and Development in delivering these projects (GTZ Website, 2010). The initiative of the Business Portal stemmed from a 2005 study on business registration, conducted by GTZ and the Central Institute for Economic Management in provincial

governments, including Daklak Province. The study findings suggest that time-consuming business registration procedures were an entry barrier for potential enterprises (CIEM & GTZ, 2005). An ICT-driven solution was, therefore, designed to overcome this barrier. The Business Portal, however, does more than provide for e-business registration procedures; it has several other component e-services, including an enterprises database, automatic reports of enterprise registration, a list of administrative procedures and legal documents, online dialogue between authorities and businesses, and household business registration.

The focus of this study is on the online business registration system (DOBRS). This was the most advanced initiative in the Business Portal; it put online the process of business registration. This focus has the advantage that the online business registration system in the province can be compared with the similar system in HCMC (section 8.4).

9.4.2 Why was the DOBRS Established and Developed?

Daklak Province was among the first locations to install the Business Portal in early 2008 with the support of Daklak authorities after their direct observation in other places (Interviewee 05). The Business Portal was first launched in Hung Yen Province in April 2007 (Le & Becker, 2009); it was then installed in three other provinces: Quang Nam, Nam Dinh and Quang Binh. In January 2008, it was formally opened in Daklak Province by the Vice-President of the Daklak People's Committee (DDPI Website, 2008).

The convenience of the system impressed DDPI leaders, though they had shown some hesitation at the first invitation from the donor. An interviewee recalled:

> At first contact with the DDPI leaders to propose implementing this system at their department, there seemed to have been some hesitation. However, after they observed a pilot operation in other provinces, the DDPI leaders expressed their willingness and commitment to try the new initiative in their department (Interviewee 05).

It is important to demonstrate the benefits of a new ICT-driven service before the leaders are persuaded to accept it. Initial reluctance indicated that DDPI leaders were sceptical about the feasibility of the Business Portal. Their scepticism, as explained later, was due largely to the underdeveloped status of the ICT infrastructure and a shortage of skills.

However, when the system pilot operated in other provinces such as Hung Yen Province yielded benefits (Interviewee 05), DDPI leaders began to embrace it.

A particularly advanced feature of the system was the possible connection between the Department of Planning and Investment (DPI) and the provincial Taxation Bureau. The Deputy Director of the DPI highlighted the benefits of this system at the opening ceremony in Daklak Province:

> It is very easy for enterprises to do business registration by filling all related information in the document required in electronic form. This set of documents was sent directly to the registration office, and it was also available for the Taxation Bureau via the portal. This significantly reduced the time required for business registration for enterprises (DDPI Website, 2008).

The establishment of DOBRS suggests that an important factor for an e-initiative is to obtain the support of the leaders where the e-initiative will be operated. One of the most effective ways was in this case was to demonstrate its benefits in a real system.

The support of leaders is important but not enough in itself. DOBRS was thought to have received a large number of applications for business registration. The reality was, however, the opposite to initial expectations. The reasons include technical, institutional and cultural issues. The next subsections explore the performance of the system and the challenges it faced.

9.4.3 Performance of the DOBRS and Challenges

The DOBRS granted no business registration certificates during its lifetime at the DDPI, despite advanced features and the willingness of DDPI leaders. The disappointing results were confirmed at both interview stages, in June 2009 and in the follow-up in November 2010. This poor outcome is, however, not isolated to Daklak Province; it also happened in the case of other provinces where the Business Portal was installed (Quang Nam, Hung Yen and Nam Dinh). The take-up rate of the online registration initiative was also very low in these provinces (Le, 2010a). There were several reasons for the failure of DOBRS, including underdeveloped ICT infrastructure and human capital, legal issues, cultural barriers, and inadequate promotion.

In regard to infrastructure, limited access to computers and the internet in the province was the first and foremost reason that resulted in zero participation from applicants. Only 2.7% of households in Daklak Province have a broadband internet connection (2010; Vietnam Informatics Association, 2010); this number would be even lower in rural areas due to the great income divide between urban and rural districts. In fact, some applications were sent to the OBRS, but they were not processed by the system (as explained in the legal barrier below). These few applicants all came from within Buon Ma Thuot City (Interviewee 12), meaning that nobody from rural districts tried this system. The low internet access was also acknowledged as the principal reason for the low take-up rate in Daklak Province and other provinces that carried the business systems. Having experienced the operation of the Business Portal in several provinces, an informant confirmed that:

> Access to the internet and computers in many provinces is very low; this is one of the major hurdles for the online registration system (Interview 05).

In terms of human infrastructure, from the demand side, the clients for this initiative were business people who in general have some skills in computer and internet usage to assist with the online registration system. However, many enterprises had not used these tools in the case of Daklak Province (Interviewee 07). This was another contributing factor to the poor performance of the OBRS. Another interviewee revealed a reason for the performance as:

> Computer and particularly internet usage in the business community in Daklak Province are not very common. Therefore online services for many people are something that is very complicated (Interviewee 07).

Apart from accessibility to the ICT network, there were legal barriers. The requirement for hard copies of original documents put an end to occasional efforts to embrace the DOBRS. Electronic messages were not fully accepted, and applicants had to bring hard copies of documents to the DDPI office for checking before certificates were granted. This was curious in that the online system directed towards a paperless approach did not reduce paperwork but asked for an additional digital version of documents. This issue was explained in the case of the OBRS of HCMC in that the system could reduce travelling time for applicants, since they could correct any mistakes before going to the Registration Office to submit applications. However, the challenges were more serious in the case of Daklak Province than

in HCMC for two reasons: first, in Daklak Province and in a number of other provinces, consultancy companies for this service were underdeveloped (Interviewee 05); second, this service was new and there was no legal guarantee that documents would be processed by the registration office, which leads to a high degree of uncertainty for online applicants.

Consequently, the few applicants who tried to send their documents online eventually withdrew and returned to the traditional approach. Interviewee 12 revealed that after the applicants uploaded their documents, they called the office to follow up their applications. As these applicants soon learned that they needed to supply further documents and must present all original copies, they abandoned online applications. This informant further explained:

> We told them that, if you were around in the City, you could bring your set of document here for convenience, and they all opted to go with that suggestion. All of these cases were from the inner City (Buon Ma Thuot City); no applications were from districts (Interviewee 12).

It is worth reiterating that the requirement for hard copies was generally lifted in the new national system of business registration which operated in accordance with a Government Decree which took effect from June 2010 (Vietnam Government, 2010). Accordingly, after completing the required procedure online, the system provides a report sheet. The company legal representative signs this sheet. This signed document can replace the whole paper-based document set previously required. This is an improvement, although it still requires physical travel to the government registration office for service payment and for certificate collection.

Another aspect was a lack of legal enforcement. Since the DOBRS was an initiative which was based on a voluntary system, there was no legal obligation to follow up on the part of state agencies or applicants. For example, in the case of the Tax Bureau in Daklak Province, since there was no regulation from the People's Committee, it was Tax Office's choice to go with the online system. Likewise, there was no regulation that kept applicants using the online system. In regard to this legal issue, an interviewee contended that:

> Registration through this portal is not compulsory. It was hard to change the habit of face-to-face transactions, which has become a long-standing legacy (Interviewee 08).

Apart from these reasons, cultural barriers also contributed to the failure of the DOBRS. Interviewees (05, 07, 08 & 12) agreed that the culture of face-to-face transactions was deeply rooted in Daklak Province and they considered this an obstacle. A unanimous view among these interviewees was that users think that, when they followed the conventional path, this was more flexible and provided instant feedback if there was something missing or incorrect in their application. The 'flexibility' element here can be understood as the importance of the relationship with officials who could 'fix' problems faster. This was a reason why business people in provinces rate the relationship with provincial officials as more important than transparency (CIEM & ACI, 2010). Another possible reason was the limited information about the system. An interviewee acknowledged that:

> There needs to be some advertising of the service. What we did so far is not enough to get potential applicants to recognize the service (Interviewee 07).

It is evident that there are a number of factors that could make an e-initiative impracticable, especially an initiative at advanced level. In the case of the DOBRS, the process of implementation was first favourable as a result of support by local leaders, but it later confronted several challenges, including ICT infrastructure and human capital, legal issues, cultural barriers and project advertisement. However, these problems tend to accompany advanced systems. With simpler e-initiatives, there is a difference in performance. The following subsection provides a review of performance of other components in the Business Portal.

9.4.4 Overall Performance of the Business Portal System

Although the DOBRS, the main component of the Business Portal, failed, Daklak Province leaders decided to pay for the Business Portal's continuation after the sponsorship by GTZ ceased. The main reason was that other initiatives in this system were producing positive results. As presented in section 9.4.1, apart from the DOBRS, other services of the Business Portal included an enterprises database, automatic reports of registrations for government agencies, a list of administrative procedures and legal documents; in addition, there was a

forum for authority and business, and there was software for household business registration.

These utilities assist investors to obtain all related forms and documents in their business operations. It also helps government officials to have a complete database of enterprises. In addition, people can interact with authorities through the portal by posting their questions to which authorities can reply via the same portal. This feature was to some extent similar to Online Dialogues between Business and Authorities in HCMC but on a much smaller scale. Although limited, some initial achievements were secured. For example, by December 2010, 11 of 17 districts were able to update some data through the Business Portal (Daklak Business Portal, 2010). Questions from enterprises were responded to in the forum under the direction of HDPI, and legal documents were updated. Thanks to these features, the log-in frequency to the portal was quite high, which enabled leaders of the People's Committee to fund its maintenance for a further two years after sponsor funding ceased (Interviewee 12). Similarly, in other provinces the Business Portal continues to operate. An interviewee argued for positive prospects for the Business Portal:

> Other than the business registration system, many other components in the Business Portal are working well. For example, household business registration at district level, listing of administrative procedures and legal documents and others could be further rolled out in the future (Interviewee 5).

In conclusion, the implementation of the Business Portal shows that simple innovative e-initiatives can be feasible in an underdeveloped province, but that complicated systems cannot.

9.5 Critical Success Factors

This section analyses critical success factors for e-government activities. The main objective is to provide insight analysis into issues that relate to factors in the conceptual framework of the thesis.

9.5.1 State Capacity

Important objectives set out in the e-government strategy of Daklak Province (Daklak DIC, 2008) include:

1. to gradually change the mindset and habit of relying on paper-based approaches;
2. to put online all related information and data serving the Leaders of Party and the People's Committee; and,
3. to minimize the paper-based approach, and to use electronic devices for communication in government agencies.

As analysed in this subsection, state capacity for implementing e-government was generally weak, compared to what it was required to realize these objectives.

- **Leadership**

There has been greater commitment to e-government development from the leaders of the People's Committee in recent years. More active participation in e-government meetings and policy making has been observed. For example, as required by the Ministry of Information and Communications (MIC), the provincial Chief Information Officer (CIO) and the Steering Committee on ICT were established in Daklak Province. Compared to other provinces, Daklak Province has advanced those policies required by the central government further than other provinces (Interviewee 08). A Vice-President of the People's Committee, Dinh Van Khiet, chaired the ICT committee. He was also eager to participate in the e-government symposium in Vietnam to learn more about the experience of e-government implementation in other provinces (MIC, 2009).

Direct supervision from the central government had an important effect on the highest leaders' awareness of ICT development in the province. In the 2008 e-government portfolios of the central government, included five initiatives in a pilot project in Daklak Province (set out in section 9.3). As a result, the provincial authorities were under the spotlight from the central government through the Ministry of Information and Communications. In particular, the province had to report regularly to the MIC about the progress of these pilot projects (MIC, 2010a). The pilot project has been important not only in funding assistance, but also in getting special attention from leaders of the provincial People's Committee since the implementation progress is monitored by the central government agency (Interviewee 08).

However, poor IT skills and poor awareness of the role of ICT among departmental leaders remains a problem for e-government progress (Daklak DIC, 2008; MIC, 2010a). Although

there has been no national survey on leaders' ICT literacy, the following anecdotal evidence shows that many high-ranking officials lack basic skills, such as in using email and accessing the internet. For example, even some department leaders did not know how to use such basic tools as emails (Interviewee 08). The interviewee quoted a Vietnamese saying, 'Cán bộ sao phong trào vậy', meaning that, by looking at the leader's background, we can predict what he is going to do for the organization. By this he meant that it is difficult to speed up the implementation of e-initiatives when there are a number of department leaders at provincial level who are not users of basic applications. This problem is, however, not isolated to Daklak Province; it occurs, too, at the central level. As observed by the Deputy Head of the National Steering Committee on ICT (Observation 02), even some deputy ministers at central level do not use emails.

- **Funds**

E-government funding was problematic in a poor province like Daklak. As a geographically large province with a diverse population living in remote areas, the province had a long list of essential and prioritized investments such as the road system, electricity, education and poverty reduction programs. Against this backdrop, there were reasons for resources to be pooled for these priorities:

> Unlike other wealthier provinces and cities, Daklak has a lot more urgent issues than ICT development. Leaders of the People's Committee recognized the backward ICT situation; however, in the context of the province, the top priority is not ICT development and/or e-government services, but poverty reduction, education and political security and stability as their most immediate concerns (Interviewee 08).

Given a tight budget with other immediate needs, Daklak Province authorities made significant efforts in mobilizing funds for ICT during the period 2006-2010. Apart from its own budget, the province managed to get funds from the central government in the pilot projects for a total amount of 8.5 billion VND (approximately US$47,000) for the five pilot initiatives. Other sources from domestic and international donor agencies such as Germany, Denmark (Interviewees 07 & 08) and Viettel Corporation were also obtained (Kim Bao, 2010). However, donor financial assistance normally accompanies specific projects, such as the Business Portal by GTZ and the internet connection to schools project by Viettel.

In the ICT investment portfolio, the most costly projects were usually ICT infrastructure; however, this cost burden is normally funded by local funding, making it hard to keep ICT projects sustainable. The 2009-2010 fund plan is presented in Table 9.1; half the total cost was for developing ICT infrastructure (Daklak DIC, 2008).

Table 9.1 Funding for Daklak Province e-government in 2009-2010

Year	VND (Billion)	USD (Million)
2009	31.900	1.7
2010	28.600	1.5

Sources: Department of Information and Communications (2008), Vietcombank (2009, 2010)

The funding from central government was mostly used to develop applications. For those pilot initiatives funded by central government any delay in providing promised central funding resulted in an immediate halt to the pilot project in Daklak Province (Interviewee 08 & MIC, 2008). This occurred in 2008 when the state budget was in difficulty, so that funds promised to all pilot projects could not be released (MIC, 2008c). When funding resumed in late 2009, all these initiatives had been undertaken and were completed by early 2010 (MIC, 2010a). The larger projects with investment from local funds have a higher possibility of delay (Interviewee 08).

- **Strategy**

Looking at the 2009-2010 ICT plan, there is a problem of unclear targets. More specifically, Section IV of this plan did not quantify most targets or the targets specified were not measureable. General terms such as 'some', 'basically', 'gradually' or 'step by step' were used to describe the goals (Daklak DIC, 2008). Without measurable targets, it is hard to know where exactly the province wanted to go, how much resources it had to pool and how it was to evaluate performance. The second problem is that the plan failed give sufficient and specific solutions to the question of 'how do we get there'. One important objective was to gradually change the mindset of cadres and public servants and the habit of a paper-based approach. However, inadequate and non-specific measures were provided. For example, the plan criticized the lack of attention from leaders at department level in e-government; it did not provide specific solutions to tackle issues.

Similarly, solutions to the ICT workforce problem were constrained by a lack of resources. Interviewees (Interviewees 06 and 09) contended that limited budgets and human resources were the most difficult issues facing e-government in Daklak Province. In fact, the plan pointed out relevant issues that need to be implemented, such as enhancing the ICT capability of the current workforce recruiting new IT staff and improving legal regulations to attract talent. However, the problem remains primarily on the budget constraint. An interviewee said:

> We know that the currently applied rate paid for work of IT staff is low, but what can we do to attract ICT experts? It is completely different in Daklak, compared to other wealthier cities like HCMC, Hanoi and Danang. We do not have plenty of funds whereas everything is in need of funds here, from education to infrastructure. We could draft a proposal for supportive policies for the IT workforce, but where is the money for it? It is a tricky business (Interviewee 08).

Resource constraints are therefore shown to be a most serious challenge in formulating a feasible strategy.

- **Steering Capability**

Steering capability for e-government activities is significantly low due to lack of a powerful steering committee. There was no formally specialized e-government steering committee in Daklak Province. Although the province has a committee on ICT, this body was charged with overall ICT policies and activities, not only e-government. This committee was chaired by a vice-president of the provincial People's Committee, which gathered twice a year (Interviewee 08). The DDIC was fact in charge of e-government (Interviewees 06 & 09). However, since it is a functional department which has no superior power over other departments, coordination was problematic. As revealed by Interviewee 08, coordination in e-government therefore often confronts an impasse or delays. For an example, when building a provincial e-government strategy, inputs from other departments were essential; however, there were often delays in obtaining feedback from these departments, which caused difficulties in preparing an e-government strategy (Daklak DIC, 2008, Interviewees 06, 08 & 09).

At the level of a single initiative, poor coordination was also evident. In the case of the DOBRS, in addition to DDPI, the Tax Bureau and the Department of Public Security were also involved if a business was to be operated legally. According to the old approach, after an application was approved by DDPI, staff of DDPI (or enterprise staff prior to the issuance of the inter-ministerial circular in 2008 (MPI, et al., 2008)) went to the Tax Bureau and the Department of Public Security to apply for a Tax Code and Seal permit. The DOBRS, however, could arrange this coordination online, eliminating physical travel and interaction. The Tax Bureau could check approved applications online through the Business Portal and simply grant the tax code. This simple action, however, did not occur during the existence of the DOBRS because 'the Tax Bureau said that is was unready for this new initiative' (Interviewee 07). For the Department of Public Security, it declined to participate because 'this department restricts the use of online exchange for the sake of network security' (Interviewee 12). A failure to get these two agencies on board meant that there was no change in administrative behaviour between these agencies.

Commenting on the issue, the informant from the donor office said:

> The message sent from our project at the time was that an ICT-based solution could fix the problems of time-consuming procedure caused by physical interactions between related agencies. However, willing or not to take that solution, it was out of our control (Interviewee 05).

More than just an ICT solution, the implementation process requires cooperative efforts from those government agencies involved from among the highest provincial authorities. In this case, coordination did not occur.

- **Legal Framework**

Experience of e-government development in Daklak Province encountered two challenging legal issues: first, the lack of supportive regulations due to resource constraints; second, frequent changes in regulations. Regarding the first issue, there were no effective regulations in the province that could facilitate the development of new technology to deliver better public services. Unlike in other provinces such as Binh Duong or Tien Giang (Do Duy, 2009; MIC, 2011), Daklak Province was not able to provide financial assistance to retain or attract IT staff. Other immediate priorities such as poverty reduction and political

stability used up all resources; therefore it was difficult for provincial leaders to ensure favourable conditions for e-government development.

The second challenge was frequent changes in regulations. The case of the DOBRS shows that, in a short period of time, the system had to be modified twice. The first version launched in 2007 was revised due to variations in local regulations before it was installed in Daklak Province and three other provinces, Quang Nam, Nam Dinh and Quang Binh. However, the revised version had to be once again overhauled due to a new regulation from the central government regarding the procedures in granting business registration certificates in 2008 (MPI, et al., 2008). In the DOBRS, the changes in regulations were quickly translated into software, thanks to the financial support of the donor (Le & Becker, 2009). This is, however, not a simple task for public agencies lacking funds.

The latest change in regulations for business registration was in a Government Decree in 2010 (Vietnam Government, 2010), which requires all provincial DICs to use the national business registration system (http://dangkykinhdoanh.gov.vn/en/index.html); this put an end to all other systems like the DOBRS and the OBRS in HCMC from June 2010. The examination of this new system is beyond the scope of this study. However, from a donor perspective, an interviewee asserted that:

> Laws and regulations change very frequently in Vietnam. This has caused lots of problems in the implementation. In this context, a project that is funded by a donor can adapt to these changes thanks to funding availability. But it becomes extremely tough if funds are from the state budget (Interviewee 05).

In conclusion, it is evident that state capacity for e-government implementation in Daklak Province remains weak. The highest provincial leadership showed a certain commitment to e-government, but this factor alone was not enough. There remained challenges such as poor ICT skills and lack of awareness about ICT roles on the part of provincial departmental leaders. Resources in short supply caused delays in e-projects and made e-government strategies infeasible. Steering capability was low due to a lack of authority of the HDIC in coordinating. Finally, a supportive legal framework was not in place.

9.5.2 Infrastructure

- **ICT infrastructure**

This section illustrates a contrasting picture of the two sides of e-government, the supply side (government agencies) and the demand side (citizens). While there has been considerable progress on the supply side, the demand side remained unready for e-government services. This situation, on the one hand, provides a potential for replicating e-government services; on the other hand, it can be a significant waste if there is little benefit for citizens or no efficiency gained in administrative practice.

The availability of the internet and computers for public servants was relatively high in Daklak Province. Table 9.2, below, shows that, in 2010, on average there were 61 computers per 100 staff in government agencies, nearly double the national average. Furthermore, most of these computers were connected to broadband internet, virtually equal to the national average level. In fact, Daklak Province progressed well in the national ICT scale, up to 21st position out of 63 provinces and cities in the 2010 Vietnam ICT index, compared to 50th in the 2005 rankings (Vietnam Informatics Association, 2005, 2010). There were two reasons for this progress. First, more attention to ICT development was observed among leaders at the provincial level; consequently, there was more investment in ICT infrastructure in recent years (Interviewee 08). Second, initiatives in the pilot project funded by the central government played an important role in its progress. This achievement, however, needs to be seen in an international context. As presented in Chapter Six, the Vietnam 2010 ICT index was the 79th out of 190 countries. That the ranking of Daklak Province in the 2010 Vietnam ICT index was 21st indicates that this achievement remains modest in the international context.

However, ICT conditions among Daklak residents are generally not conducive to e-initiatives. Poor access to the internet and a considerable digital divide are evident on the citizen side, and this will remain a serious challenge in the years to come. Statistics for computers and the internet for households were significantly low at 10.6% and 2.7% (Table 9.2). These figures were also far lower than the national average at 19.1% and 9.3% respectively. In addition, rates for telephone lines and mobile subscribers were also lower than the national average. Although this low penetration for families is understandable in a province where

the majority of the population lives in rural areas, the divide issue remains and is potentially the most challenging factor for the future.

Table 9.2 ICT infrastructure in Daklak Province and the national average in 2010

Index	Daklak Province (%)	National average (%)
Computers per 100 public servants	61.0	31.0
Computers with broadband internet/all computers in State Agencies	72.6	73.5
Households with computers	10.6	19.1
Households with broadband internet connections	2.7	9.3
Main fixed telephone lines	16.0	20.1
Mobile subscribers	92.5	113.4

Source: Vietnam Informatics Association (2010), NSCICT & MIC (2010)

Looking further into the 2009 figures, in 9 out of 13 rural districts, only 10% or lower households had telephone lines (DLP Statistics Bureau, 2010). Internet connection through mobile devices is still expensive for an average person (Interviewee 08); the common broadband internet connection technology was ADSL which is based on telephone lines. Despite an increase in ADSL connections (DLP portal, 2010b), low landline coverage prevented the majority of people in rural areas from having access to the internet.

- **Human resources**

Chapter Eight identified that one of the most serious problems that faced HCMC e-government implementation was skill shortages. The case of Daklak Province was even more severe. A recent report in 2010 (MIC, 2010a) shows that the situation of the ICT workforce was weak and inadequate. There are several important reasons to explain this. First, as discussed in Chapter Four, tertiary education institutions are often located in the larger and more developed cities. As a result, fewer than 1% of the province's people have had a tertiary education (DLP Statistics Bureau, 2010; Tran, 2005). Additionally, low pay and poor working conditions are not attractive enough for a well-educated workforce (Interviewee

03), including ICT professionals. The IT workforce was therefore evaluated as among the most significant difficulties facing the process of e-government implementation (Interviewees 06 & 09).

Furthermore, the unrecognized role (the lack of a separate job classification structure) of IT staff in the government machine made it difficult to retain IT staff, given the competition from the private sector. An interviewee (Interviewee 08) in Daklak Province stated that whilst IT staff were commonly seen as handymen who could assist in tackling technical issues, such as fixing computer problems, they were well treated by enterprises. Acknowledging this problem, the Director of DDIC, in a meeting with the Minister of Information and Communication, claimed that it was hard for his province to attract and keep well-trained IT staff in government agencies. He said (quoted in (Van Truong, 2009):

> Competent IT staff in enterprises were treated as experts or as real engineers with lots of benefits and high income, but if they worked for state agencies they would be placed among low-ranking positions such as archivists and ICT assistants with low incomes.

In addition, IT professionals do not have promising career paths due to the tradition of seniority in government organizations and uncertainty of promotion. The practice of seniority is relatively popular in government organizations (Hoai Nam, 2010). It is uncommon for a senior position in the public service system to be occupied by someone who has a lesser length of service than their staff. Most IT experts are young; therefore it takes time for them to be promoted, whereas elsewhere in industry merit based promotion is more often the norm. Further, career direction is not clear for an ICT expert; for instance, a leader of DIC of Dong Nai Province revealed:

> ICT specialists normally transferred to other functional departments where they had more potential to become leaders of the organization. If they keep working as ICT experts there were less likely to have any opportunities to go far (Observation 10).

The challenge was much more serious because tempting offers from the private sector were plentiful (Observation 03 & Quantrimang, 2008).

Shortage of supply for IT-training providers was another problem, contributing to the bleak picture of the ICT workforce. There were only a few formal ICT training providers, with limited capacity, in Daklak Province. By 2008, only four formal providers were operating, with about 200 graduates by the end of 2007 (Daklak DIC, 2008). Expansion of these institutions was difficult due to constraints on resources and experts in Daklak Province.

The lack of IT staff made several e-initiatives less attractive to users as in the case of the Business Portal of DDPI. This portal was installed at DDPI in early 2008; however, DDPI did not have either IT staff or full-time staff in charge of this initiative. Consequently, it faced embarrassing security issues. For example, Interviewee 07 revealed that a hacker broke into the Business Portal and left offensive messages and images in early 2009. In addition, many functions in the Business Portal that needed frequent updates, such as the dialogue between authorities and business or uploading new legal documents, were not undertaken regularly. For instance, the last update for these functions was in April 2008. The provincial portal is another example of the lack of updating. This portal has been in use since 2009. However, the content is still limited due lacking of staff in charge (MIC, 2010a).

Positive indicators were, however, that the ability to use computers and email among public servants was higher than the national average. The following table (Table 9.3) shows statistics in 2010 for all public servants; thus 80% have been using emails, and 88.4% know how to use computers. However, little is known about how these public servants use emails or computers in their daily work, especially externally to communicate with citizens. Anecdotal evidence from the thesis fieldwork shows that face-to-face and paper-based approaches absolutely dominate daily transactions between public servants and citizens, especially in the registration office and for applicants. However, email exchanges are undertaken increasingly often among public servants. For example, in the first fieldwork period, staff tended to offer as their free email addresses, but in the follow-up interviews many of them were using .gov domain emails.

From the residents' perspective, there is a limited prospect for a dramatic improvement in e-government services in the short term. Major obstacles are the affordability of access to ICT infrastructure and the lack of competencies and skills necessary for using basic ICT tools. Schools at all levels have been connected to the internet, and all high schools have a computer unit which teaches pupils basic computer skills and knowledge.

Table 9.3 Email and computer usage of public servants in Daklak Province

Index	Daklak Province	Average of all Cities and Provinces
Email usage among all public servants	80.0%	47%
Percentage of public servants who know how to use computers	88.4%	76.4%

Source: Vietnam Informatics Association (2010)

In rural areas, people generally do not have the educational and financial capability to access internet services. Although 3G mobile phones have been increasing in the province and distant and remote communes are covered by mobile internet signals (Giang Nam, 2010), mobile internet is still expensive and far out of reach for the majority of people in rural areas (interviewee 03 & 08). There was no service for mobile access provided by the province by 2010. An interviewee contended:

> Of people who live in remote areas, especially the 43 minority groups and immigrants, most are very poor and illiterate. They are absolutely not the clients of e-government services, at least in the short run (Interviewee 08).

Given its available resources, the province cannot provide incentives that can make a difference to the current situation any time soon. Therefore it may be a long time before e-government services are accessible to the general public in the province.

9.6 Conclusions

The chapter has undertaken an analysis of overall e-government development in Daklak Province and an investigation of the Business Portal, with particular attention to the initiative of the Online Business Registration System (DOBRS). The poor performance of this initiative analysed in this chapter, which is contrastive to the similar system, the OBRS, in HCMC supplement evidence for the discussion in Chapter Ten.

The following are the main findings from the chapter. Although e-initiatives have only been developed in recent years, development has been comparatively rapid, largely because of support from central government and donors and the commitment of local leaders.

Important initiatives include the provincial information portal, the email system, multi-media conferencing, the business portal, a high-speed network between Party offices in all districts, and internet connection in educational institutions. Initial benefits from these initiatives have beengained. For example, legal and policy documents and contact details of offices of departments and districts are provided on the provincial portal, along with rich sources of background information on a number of areas in the province. Cadres and public servants have wideaccess within their organizations to email facilities.

In relation to challenges, the chapter found two important hurdles. First, the digital divide was the most serious. A large population still lives in rural and poor areas and many of these are minority groups who are illiterate and lacking financial affordability and educational capacity to access ICT devices and thus e-government basic services. Second, state capacity in e-government implementation in Daklak Province remains weak. The highest provincial leadership has shown increasing commitment to e-government, but this factor alone is not enough. Resource constraints shift the focus of the most senior leaders on to other immediate needs in an underdeveloped province. At department level, leaders' attention to e-initiatives has been insufficient, largely because of their lack of ICT skills and their poor awareness about ICT roles. Shortage of funds and IT staff have caused delays in e-projects and made e-government strategy infeasible. Steering capability remains low due to an absence of a coordinating mechanism. Finally, a supportive legal framework was not in place.

CHAPTER TEN

DISCUSSION

10.1 Introduction

This chapter has two objectives: first, to discuss the research findings for Research Questions Two and Three, which, respectively, ask what the critical factors in e-government implementation in Vietnam are, and how e-government initiatives have changed the contemporary public administration in Vietnam; second, to examine how the conceptual framework proposed in Chapter Two works in the case of Vietnam. Combining findings from case studies are the principal sources of evidence for the discussion in this chapter. In addition, when necessary, relevant experience of other provinces such as Lao Cai, Da Nang and Long An is also used. These cases were presented and discussed at the 2009 National E-government Symposium in which the researcher participated (see details in section 3.3.3 and Appendix C).

Generally, the findings show that factors which prove to be critical in e-government implementation in Vietnam include: state capacity, ICT infrastructure and human capital (treated as infrastructure overall), the specific context of the local governments studied, and international donor agencies. However, there remain a number of problems confronting these four factors. In state capacity, the challenges include a lack of transformational leadership, unsustainability of funds, a low priority for e-government, low steering capability and low effectiveness of the legal framework. Infrastructure remains underdeveloped in both ICT and human infrastructure and there is a serious digital divide across Vietnam. In the domestic context, preference for face-to-face transactions and traditional relations-based contacts are barriers to the usage of e-initiatives. Apart from factors in the conceptual framework, the findings indicate the important role of international donor agency in e-government implementation, especially in providing technical and financial assistance for e-initiatives.

In relation to changes brought by e-government to current public administration, the findings suggest that there have been significant improvements in the internal communication of government bureaucracy and specific impacts on service delivery. However, the changes in public sector structures, business processes and management

principles are limited to isolated complex and cross-agency e-initiative projects. Indeed the findings suggest less that e-government is changing public administration and more that it may contribute to the depth of agendas for change in public policy and management that remain unresolved.

10.2 Discussion of Findings in Relation to Research Question Three

What are the critical factors in E-government implementation in Vietnam?

In all the case studies, the analysis centres on the critical factors for e-government implementation, which are predefined in the conceptual framework; they include three groups of factors – state capacity, infrastructure and the domestic context. In this section, a cross-case discussion seeks to answer Research Question Three and see how the conceptual framework works in the case of Vietnam.

An important feature in this chapter is the overall analysis of e-government performance of projects studied in all case studies. This analysis is important because it helps indicate how the critical factors have shaped the outcome of e-initiatives. The measurement of performance is adapted from a study by Chen and Hsieh (2009), which is detailed in the following subsection.

10.2.1 Performance

Based on the framework components of Fountain (2001), Chen and Hsieh (2009) provide a measurement of performance which employs *seamless government* and *citizen participation* as defining features (discussed in section 2.7.4). According to these authors (Chen & Hsieh, 2009, p. 152), the indicators of seamless government are:

- network and technical infrastructure;
- service integration; and,
- business process transformation.

For citizen participation, indicators include:

- availability; and
- use.

Adaptation to the case of Vietnam

As analysed in Chapter Six and to be discussed later in this chapter, in the context of a developing country like Vietnam, common e-services are generally at initial stages and integrated services and business process transformation are generally not available. For example, by mid-2010 there were no integrated services and little business transformation could be found (DIAP, 2011). Therefore, in this study *levels of online services* (defined in section 6.3.3), which show how advanced online services are, are used as an alternative indicator for *service integration*. Further, the indicator of *business process transformation* is not applicable. In other words, indicators for seamless government in the case of Vietnam are *maturity of infrastructure* and *level of online services*.

For indicators of citizen participation, *availability of e-services* and the *access rate* to provincial government portals are employed as indicators, which are appropriate to the defining features of performance used by Chen and Hsieh (2009). Data sources for all these indicators are presented in Table 10.1 below.

Analysis of data and performance

The four rankings in Table 10.1 are taken from the Vietnam ICT index (Vietnam Informatics Association, 2009, 2010) and reports by the Department of ICT Application Promotion of the Ministry of Information and Communications (DIAP) on the performance of ICT application in central and provincial governments (DIAP, 2010a, 2011). The following are the details of these ranks:

- The infrastructure rank: built from 12 sub-indexes which take into consideration of indexes of telephone, computer and internet for citizen, government officials and business. This shows how advanced ICT infrastructure is for e-government among Vietnam's provinces;
- The online service rank: based on the level (for definitions, see section 6.3.3) of online services provided by provinces and ministries, revealing the magnitude of the province in serving its people in relation to e-services;
- The overall-availability-of-information rank: based on the richness of information, access convenience and responsiveness of government agencies; and
- The access rank: based on average access of the provincial population to its provincial websites/portals.

Other data for single e-initiatives are supplied by HCMC Department of Planning and Investment (HDPI, 2010b) and HCMC e-Customs Branch (2009a).

Table 10.1 Comparative performance

CASES	E-government Performance Criteria	
	Seamless Government (Maturity of infrastructure, level of online services)	**Citizen Participation** (Availability of e-services, access rate)
HCMC	2010 infrastructure rank: 2nd (3rd)(*) 2010 online service rank 18th (1st). Three level-four online-services	2010 overall-availability-of-information rank: 22nd (2nd) 2010 access rank: 2nd (1st)
- **OBRS**	Level-three service (**)	58916 Business Registration certificates granted in 2000-2009, accounting for 39% of all new certificates
Daklak Province	2010 infrastructure rank: 31st (26th) 2010 online services rank: 54th (44th)	2010 overall-availability-of-information rank: 28th (34th) 2010 access rank: 56th (58th)
- **DOBRS in the Business Portal**	Level-three service (**)	Some access to system but no application
E-Customs	Level-three service	190 pilot enterprises joined the system; and 82305 processed sets of import/export documents during 2005-2009

(*): Figures in brackets are 2009 ranking;

(**): the e-services in which most of steps are conducted online, only the payment for service and outcome returning are face-to-face conducted (details in section 6.3.3).

Sources: DIAP (2010a, 2011), Vietnam Informatics Association (2010), HDPI (2010b), HCMC e-Customs Branch (2009a)

The important finding is the contrasting performance of the two overall cases of HCMC and Daklak Province. The indicators of infrastructure and access clearly demonstrate the advanced status of HCMC compared with Daklak Province in terms of e-government performance. What is clear from Table 10.1 is that HCMC tends to top the ranks in the nation while Daklak Province lags behind. Citizen participation in Daklak Province, for instance, is in the worst group in the nation, at 58th and 56th out of 63 cities and provinces, in 2009 and 2010 respectively. Another contrasting outcome is the performance of the Online Business Registration System (DOBRS) in Daklak Province and the OBRS in HCMC. While there were no applications processed via the former, the latter processed a considerable number of applicants (39% of all certificates granted). However, there was a sudden decline of HCMC's 2010 rank for online-service provision (1st in 2009, but 18th in 2010) and rank for overall-availability-of-information (2nd in 2009 but 22nd in 2010). Cause to the falling was due to a problem of 'fad' projects in other provinces, which is explained in the next subsection.

10.2.2 State Capacity

As demonstrated in this subsection, all factors in state capacity prove critical to e-government implementation; these include leadership, funds, strategy, steering capability and the legal framework. However, a number of unresolved issues confront state capacity. In particular, transformational leadership is constrained by the power hierarchy of the Party and Government, the leaders' ICT background and their priority for e-government, and the resistance to changes that affect personal benefits of government employees. E-government funding is problematic because of a lack of sustainability of funds and poor planning. E-government strategy faces three difficulties: (1) less attention to the take-up rate, which makes e-initiatives more a matter of fashion rather than actual use; (2) failure to carefully consider the question of "who does what" in e-government implementation; and (3) e-government is not high on the agenda of governments at both levels. Steering capability remains low because of loose structure in the national management of e-government, despite the fact that reforms in steering committees in 2008 contributed to higher e-government performance. Finally, the legal framework is characterised by low effectiveness and frequent changes in laws and regulations.

Table 10.2 presents the central findings regarding the five factors in state capacity. Analysis of each factor is provided in the remainder of this subsection. The findings for specific factor suggest direct links to the differing performance of the initiatives.

Table 10.2 Comparative analysis of factors affecting State Capacity

CASES	STATE CAPACITY				
	Leadership	**Fund**	**Strategy**	**Steering Capability**	**Legal Framework**
HCMC	Strong support from highest leaders for e-government initiatives since 2001 Stimulated followers	Local sources Well-funded	Real need of reform due to increased workload and bottlenecks Strategy relatively well crafted A prioritized policy	Influential steering body in place since 2005 Improved coordination among departments since 2005	Important regulations available Frequent changes in laws and regulations
- **OBRS**	Varying according to individual leaders, but strong leadership at the beginning	Sufficient budget allocation Lack of reserved funds	Genuine need of reform High Priority, especially in first stage	No steering committee Coordination largely depending on HDPI leaders	Lack of legal standing for electronic data Frequent changes in laws and regulations
Daklak Province	Increased commitments from People's Committee leader since 2006 Poor ICT support from departmental leaders	Limited local funding Central funding not sustained Some donor funding but subject to conditions	Push from central government policy Targets unclear; solutions insufficient Other more pressing priorities than e-government	Limited power for the de-facto steering committee (the DDPI) Poor coordination among departments	Lack of regulations and poor recognition of ICT workforce Frequent changes in laws and regulations
- **DOBRS** in the **Business Portal**	Insufficient attention from provincial leadership	Funded by international donor	Opportunities offered by donor agency Not a priority	No steering committee Poor coordination	Lack of legitimacy of electronic messages; no legal obligation to go with the system Frequent changes in laws and regulations
E-Customs	Leadership commitment not sustained	Central funding and international loans	Real need for reform Infeasible targets; lack of sustainable solutions High priority	Problematic coordination	Relevant regulations in place Frequent changes in laws and regulations

Source: Summary of the case studies

- **Leadership**

The discussion on leadership will centre on two main issues. First, the case studies confirm the critical role of leadership in implementing e-government initiatives, which has been widely discussed in the literature (section 2.7.5). Second, four challenges for deploying transformational leadership in e-government implementation are identified. These are: dilemmas in the power structure of the Party and Government, the background of leaders, the leaders' priority for e-government development, and the resistance to change. Each of these issues is considered below.

Evidence from all the case studies shows that the overall outcome of e-initiatives depends on the extent to which leaders are committed to them. For example, cooperation of provincial departments in the online business registration system in Daklak Province (DOBRS) was poor largely for the reason that provincial leaders were not seriously engaged in the project (see section 9.5.1). In particular, the leadership of the People's Committee took little part in coordinating issues between the Department of Planning and Investment, the Taxation Bureau and the Department of Public Security. It was technically feasible for these departments to interact online through the DOBRS; however, this did not happen at DDPI. An interviewee affirmed:

> ICT initiatives are technical solutions; whether or not these solutions are successfully implemented depends on several conditions. Leadership engagement is one of most important factors (Interviewee 08).

All interviewees in HCMC and Daklak Province who were asked about the role of leadership agreed that it was the most important factor for determining the success of e-government implementation. An interviewee revealed:

> To get an e-initiative implemented in an agency, the first and foremost thing is that the agency head has to strongly support it. If you pour resources for an e-service into an agency but its leader is not interested, it is hard to make any advance (Interviewee 15).

In HCMC, it was the leaders who played an essential role in implementation and shaped the trajectory of overall e-initiatives. The advanced position of HCMC in e-government

implementation, according to Le Manh Ha, the Director of HDIC, has been because of the direct participation of the City's leadership:

> Apart from showing commitment and support, it is important to have the direct and regular involvement of leaders of the People's Committee in e-government implementation, especially at the initial stage of implementation (Observation 06).

The role of leader in e-government was also confirmed by the Director of Department of Information and Communications of Lao Cai province (Observation 07). Located in a remote area, this province is one of the most underdeveloped provinces in Vietnam; however, it achieved impressive progress in e-government development (DIAP, 2011). A critical factor for success in this province was the engagement of its People's Committee president. To Trong Ton, the Director of Department of Information and Communications of this province stated that

> The President regularly oversees ICT activities; he was one of the officials who participated in the online public forum to respond to citizen's queries (Observation 07).

From the experience of his province, the leader of Lao Cai DIC rated leadership the first and foremost important factor for the success in his province (Observation 07).

The important support of the highest provincial leadership was also acknowledged by the Deputy Prime Minister, Nguyen Thien Nhan, who stated in a conference of e-government in HCMC in 2009:

> Never start a single project if approval from the [provincial] leader has not yet been obtained (Observation 01).

The case studies and other observations indicate that better-performing initiatives were associated with leaders who showed transformational leadership qualities by engaging in e-initiatives, overseeing regularly the projects' progress and supporting their subordinates in implementation. However, cases such as HCMC or Lao Cai where transformational leadership is present are uncommon, because of a number of challenges facing the provincial leadership, which are provided below.

Challenges for Deploying Transformational Leadership in E-government

The first challenge is the dilemma in the power structure of the Party and government. Directors of provincial Departments of Information and Communications (DIC) who are normally assigned the roles of managing e-government activities in provinces do not have sufficient power to make decisions on important e-government issues such as funding and coordination. On the other hand, Party leaders, who are conventionally seen by their subordinates as charismatic and traditional leaders (see section 4.3.3), have the real power on final decisions on important policies, including e-government. However, these Party leaders are constrained by their disadvantages in background (to be discussed in the following paragraphs). Just as at central level (analysed in 5.5.2), the Secretary of the provincial Party is the most powerful person and second to her/him is the President of the People's Committee. By convention, the President is normally a deputy of the Party Secretary in the Party hierarchy. However, in most cases these two figures are not formally in charge of e-government or ICT activities, except in isolated cases like Lao Cai (Interviewee 08 & Observations 07, 09, 11). As a result, the Director of DIC normally reports to a vice-president of the People's Committee in provinces. Important policies on e-government which are drafted by the DIC normally therefore need to pass three different people (the vice-president, the President of the People's Committee and the Party Secretary). Opposition from any one of these people can jeopardise the policy. That is why several informants (Interviewees 07 and 08) and a number of provincial directors (Observations 03, 06, 10 and 11) agreed that they experienced a 'difficult path' in order to obtain approval for their proposal from higher leaders. If these directors of provincial DICs are lucky, they have the support and close engagement of leaders as in the cases of HCMC or Lao Cai Province, and the implementation process is favourable.

Transformational leadership in e-government implementation is, however, relatively uncommon because of the leaders' backgrounds and the low priority accorded e-government. According to Lee (2000), the leadership in cities and provinces in Vietnam (Party Secretary and President of People's Committee) are usually held by people with experienced as provincial or regional commanders in the guerrilla wars before 1975, so they are normally elderly. These leaders normally have a rural background (Hayton, 2010). Their ICT background is therefore limited (Observation 02). The Deputy Prime Minister

(Observation 01) described ICT leadership in provincial governments as a paradox – 'old people do new tasks'. He further elaborated this paradox in the people who do not know about ICT becoming the leader of the Steering Committee on ICT in provinces. With these background characteristics, it is difficult to expect these leaders to exercise transformational leadership qualities, particular intellectual stimulation and inspirational motivation. On this point, the view of the Deputy Head of National Steering Committee on ICT is relevant:

> Leaders need to know a little of basic ICT applications such as email or information searching, to know their importance and then to inspire others (Observation 02).

He, however, stressed the reality that several government leaders at both central and provincial level still did not use computers and email.

Leaders' low prioritising of e-government policy is another hurdle for transformational leadership. In Vietnam, provinces still face other essential concerns that need immediate attention such as poverty reduction, education reform and correction of irrational and cumbersome administrative procedures. As discussed in the case of Daklak Province (Chapter Nine), since there are still many people living in poverty, resources have to be prioritized for road building, school building and electricity connection, rather than e-government development (Interviewee 08; Observation 09). The provinces and cities in a similar situation to Daklak Province are more typical than the case of HCMC, a national economic centre. For example, in certain provinces in Vietnam such as Thanh Hoa, hunger is seasonally widespread (Van Hung, 2011). Other provinces struggle with devastating calamities such as floods and storms, which occur almost every year in Central Vietnam. Resources in this context are difficult to reserve for e-government development. Even in a comparatively wealthier province such as Long An, an investment US$100,000 per district was unaffordable. The Director of DIC in this province stated:

> If an investment of 2 billion Dong [US$ 100,000] per district [the province has 13 districts] is proposed, the proposal will certainly be rejected for the reason that it is much too costly (Observation 12).

It is once again evident that government budgets in provinces are too tight and leaders have other urgent issues to address.

The third reason which constrains the exercising of transformational leadership was the resistance to change due to the loss of personal benefit. A government document highlights this

> There are still a considerable number of cadres including key leaders who are slow in reforming. These people just want to have a firm grip on everything... In many cases, implementing administrative reform means cutting down power and the benefits brought by existing procedures, so there is resistance from these cadres (Prime Minister of Vietnam, 2007).

In summary, the study findings confirm the critical role of leadership as raised in the literature of e-government implementation. However, transformational leadership confronts the power structure in the Party and government, the weak ICT background of leaders, the often low priority accorded to e-government, and the resistance to changes which reduce personal benefit

- **Funds**

As discussed in the literature review (section 2.7.5), funds for e-government are another critical factor which correlates with e-government implementation. However, the budget for e-initiatives from within a government organization is limited while external sources tend to be uncontrollable. The discussion in this section first confirms the important role of funds in the trajectory of e-initiatives, and, second, discusses the problems arising from the existing e-government funding mechanism and management, including a lack of funding sustainability and problems of poor planning for the use of e-government funds.

The Director of HDIC (Observation 06) repeatedly cited funding availability as one of the most important factors underpinning the achievements of e-government implementation in HCMC. At the other extreme, in Daklak Province, all e-projects such as email systems, multi-media conferencing and training had to be halted due to delays in funding in 2008 (section 9.5.1). In the cities and provinces where e-government performance is high, such as Da Nang City and Lao Cai and An Giang Provinces, funding availability is among the critical factors behind their success. In the views of the DIC leaders (Observations 03, 07 and 05 respectively), their initial successes in e-government implementation are attributable to availability of funds, even though procedures for obtaining funds involve 'hardship'

(Observations 03 & 04), and they had to mobilize all sources of funds (from central/local budgets and non-state sources). In An Giang Province, a border province in the Mekong delta, its DIC Director revealed:

> The Department of Finance was unable to allocate capital because of the tight budget, but the People's Committee decided to use the province's back-up fund for e-government implementation. This ensured the projects progressing as planned (Observation 05).

The funding factor in part explains why this province achieved a high position (10th for the services in the province portal and 11th for the ICT applications) in e-government compared to peer provinces with a similar level of development (DIAP, 2011).

In single e-initiatives such as the OBRS, e-Customs and the Business Portal, funds were not a problem because their financial sources were sustainable. As a consequence, deployment of these initiatives ran smoothly.

Challenges of e-government funding

As analysed in section 6.4.2, the two main sources of funds for e-government come from state budgets (central and local government) and non-state budgets (international loans or donors). Although funding allocations are stressed in law (Vietnam National Assembly, 2006) and regulations (Vietnam Government, 2007a) that the budget should prioritize e-government, there has been no fixed budget proportion for e-government. In 2005, there was a suggestion to set such a fixed proportion (Prime Minister of Vietnam, 2005b), but this proposal failed to be passed in the Law on Information and Technology in 2006 (Vietnam National Assembly, 2006). Even in the foreseeable future, it is not likely that this goal will be achieved, as both senior officials in central government pointed to difficulties facing this goal (Observations 02 and 04).

The Head of the National E-government Steering Committee (NESC) stated:

> We have had to 'fight' to get a specific rate in the state budget, but so far we have not yet succeeded (Observation 04).

And the Deputy Head of the National Steering Committee on ICT (NSCICT & MIC) stated:

> It is not easy to modify the law on Information Technology to get a fixed proportion in the budget for e-government (Observation 02).

The funding for e-government has been unstable. This has happened to all major national initiatives since 2001. In respect of Project 112, it was claimed that a shortage of funds caused major delays for the project, adding to its failure (Vu, 2006). After the failure of Project 112, pilot projects carried out in 2008 experienced similar situations when they faced financial problems (MIC, 2008c). At the provincial level, the government budget is even more limited because of the diverse portfolios of priorities. Leaders of provincial DICs (Observations 10 & 12) agreed that unless the central government imposed a fixed proportion of the provincial budget for e-government, they could not get the funds necessary for e-government, since their provinces had other higher priorities. Dong Nai Province is a case in point. This province, which is located Southeast Vietnam and borders HCMC, is comparatively developed in Vietnam. However, its Deputy DIC Director (Observation 10) said that e-government funding proposals from his department often failed to win support from the provincial People's Council. He said:

> We had eight or nine pivotal issues in our proposal; however, only one was considered, and the rest were put off. But the only issue considered was finally rejected by the People's Council (Observation 10).

Given the constraints of central and local government budgets, the role of Directors of DIC is important. It is evident that in those locations that the DIC Directors are active in mobilizing funds, they get ahead in their e-government performance. The DIC Director in Da Nang City reveals:

> One has to be very patient in persuading the City leaders and other department leaders such as the Department of Planning and Investment and Department of Finance to get approval for policy and funds (Observation 03).

Funds, however, do not only come from the state budget. The leaders of Lao Cai Province (Observation 07) and Da Nang City (Observation 05) showed that they have mobilized all sources of available funds for e-government, including central and provincial budgets, international donors and international loans. In reality, funds by donors have been critical for a number of e-government projects in Vietnam. The Business Portal in Daklak Province

would not be in place if it was not completely financed by an international donor (see section 8.4.1). Similarly, the Customs Office received considerable financial (and also technical) support from many different international donors in its modernizing process. For example, the World Bank recently committed a loan of US$70 million for a project that aimed at modernizing the customs administration (Ministry of Finance, 2008). It could be argued that without donor support, projects like e-Customs and the Business Portal would not have been introduced at the time. Cases such as these, however, are more the exception than the norm, and international funding from donors and loans is likely to be less available in the future due to the country now being classified as a middle income country.

Unlike other cases, the OBRS relied only on the City budget to build and operate its system. This was possible in the unique context of HCMC, where funds for e-government were declared by the Director of HDIC as 'not a problem', because his department could get whatever funds it needed for the City's e-government development (Observation 06). This is another exception where funds come from a wealthy local government (HCMC). In addition, as analysed in section 8.5.1, HCMC and Hanoi are only two special cities which can have larger budget allocations from the central government.

Apart from funding instability, funding planning in central government was not properly managed, leading to delays in fund release. The annual plan is normally approved in March (Prime Minister of Vietnam, 2008b, 2009a). Due to administrative procedures, it then takes months for the funds to arrive at provincial DICs. In some cases, the province cannot access committed funds until the second half of the year, which puts them in a difficult situation (Observations 10 & 12).

In summary, similar to the experience of other developing countries (see section 2.7.5), funds have shown to have a decisive role in e-government implementation in Vietnam. In addition, the findings indicate the problem of unsustainability of e-government funding, which is, in the case of Vietnam, due in part to ineffective planning.

- **Strategy**

The e-government literature shows that performance of e-government initiatives is uncertain without a good strategy; the three important questions asked in e-government strategy are: *why* one develops e-government, *what* is it and *when* is it (see further detail in

section 2.7.5). The findings in this subsection suggest that e-government strategy proved to be vital in the performance of e-initiatives in all the case studies. It is also revealed that the three questions are not properly answered. In particular, a lack of attention to user take-up rates resulted in e-initiatives in several provincial governments being more about fashion than actual use, indicating a failure to answer the 'why' question. Current national e-government strategies have yet to propose effective measures to deal with challenges facing e-government stakeholders, suggesting the 'what' question is also unanswered. Finally, evidence showing that e-government is not high on the agenda of provincial governments demonstrates that the 'when' question is often not considered.

As presented in Table 10.2, important components of the e-government strategy were relatively well-formulated in HCMC. The City was able to provide measures to realize its objectives. For example, the steering capability of HDIC was empowered, the necessary legal framework was developing, and resources were well provided. In addition, there was a real motivation to reform bureaucracy because of increased workloads. Conversely, the e-government strategy of Daklak Province failed to provide sufficient, specific solutions to realize its targets. For example, there was no solution to enhance steering capability or improve the legal framework. The differences in e-government strategy of the two locations were for reasons discussed in the two cases, for example, leaders' priorities and availability of resources, and, in particular, socio-economic development. For these reasons, it is not entirely fair to make a comparison between the two locations. However, the cases of Lao Cai and An Giang can be compared to Daklak Province. The DIC Directors of Lao Cai and An Giang provinces (Observations 05 & 07) show that their provincial authorities pay close attention to e-government strategies and provide specific measures for realizing their objective. This is another explanation for their high e-government performance (DIAP, 2011), despite their poor socio-economic conditions.

A common problem facing provincial e-initiatives is the fact that e-initiatives are more about appearance than actual use. In only a few provinces such as Lao Cai (To, 2009) was e-government strategy developed with a genuine motivation to serve potential clients. One of the important lessons from this province's e-government strategy, according to the Lao Cai DIC Director (Observation 07), is that it only focused on those e-services that had potential clients. In a number of other provinces, e-initiatives were copied without taking into account

the actual or potential usage rate (Hoang Ha, 2010). The Director of Lam Dong DIC (Observation 08), for instance, confirmed this:

> Some provinces provide many e-initiatives just to show that they have reached certain levels in e-government implementation [to report to central authorities], but citizens' access [to these services] is very low (Observation 08).

This explains for the sudden fall of HCMC's 2010 rank for online-service provision compared to other provinces as noted earlier in table 10.1.

Failure to formulate a strategy that can properly answer the question *who does what in e-government implementation?* is another challenge that confronts central and provincial governments. It is evident that e-government strategies have yet to specify the tasks of stakeholders (politicians, senior public managers, IT professionals and mainstream staff: see section 2.7.1) in e-government implementation and provide effective measures which can hold them to work towards their specified tasks. The case studies in HCMC and Daklak Province and observations show that politicians (the Party leaders) tend to have priorities other than e-government. Public managers in both central and provincial departments (except MIC and DICs) often have poor ICT backgrounds (Interviewees 01 & 08, Observations 01 & 02) and do not even use basic tools such as email (Hoang Ha, 2010; Prime Minister of Vietnam, 2007). IT staff in government agencies have been increasingly difficult to recruit and retain, as discussed in the cases of HCMC and Daklak Province. For mainstream staff (public servants), their embracement is viewed as a critical factor for the high performance of e-initiatives (Observation 09); however, current low salaries (see section 5.7.2) can make it difficult for them to embrace new e-initiatives which normally reduce the (illegal) earnings brought by the old systems (Interviewee 05; Hoang Ha, 2010; Vietnam Government, 2007b). However, effective measures to deal with these issues have not been proposed in current e-government strategies of central government and provincial governments, according to the case studies.

Fourth, e-government is not high on the agenda of local government, especially in provinces that have a low level of socio-economic development. As discussed in the case of leadership, several provinces face difficulties in poverty reduction and economic development; hence it is difficult to prioritize e-government in resource allocation.

- **Steering Capability**

The impact of steering capability on the e-government implementation process is evident in this study, particularly in the coordination among participating agencies in e-initiatives. This confirms the necessary and important role of steering committees in the e-government literature. In addition, the findings in this section present that current steering committees in both central and provincial governments do not have sufficient influence and are loosely structured, resulting in a low steering capability. This is also in line with the literature.

Since the reform in the national e-government management structure in 2008 (section 6.4.4), e-government performance has been continually improved, as demonstrated by progress in world rankings and the quantum of e-services and online presence provided by government agencies (described in sections 6.3 and 6.6). Greater participation from central government leaders such as the Deputy Prime Minister has been seen in e-government activities (Observation 06). Under the new management structure, regulations have been issued more regularly; e-government projects are more carefully drafted; and ICT indices and performance evaluation for ministries and provincial governments have been annually reported. These changes have made a difference to overall e-government performance in Vietnam, which is acknowledged by international organizations (International Telecommunication Union, 2009; Internet World Stats, 2010; UN, 2008, 2010; World Economic Forum, 2010).

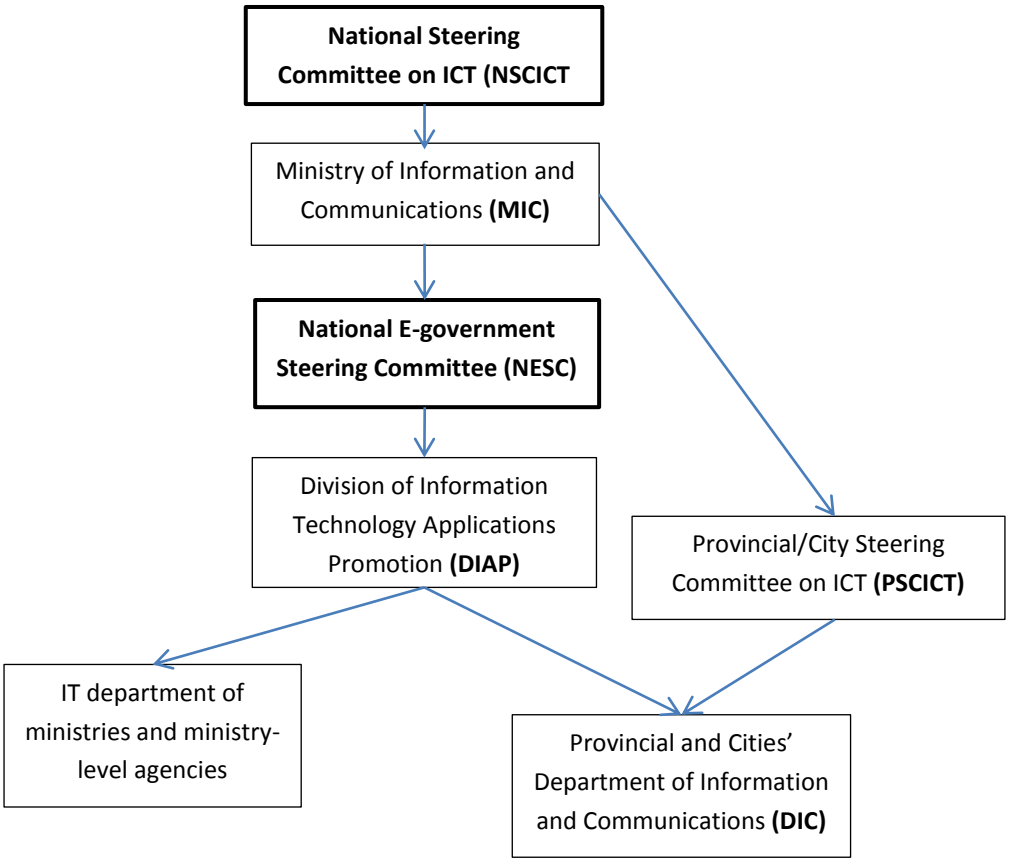
In those provinces where steering capability is empowered, e-government performance is higher. In the case of HCMC, since 2005, HDIC (then known as the Department of Post and Telecommunications) has been increasingly empowered and has become an e-government steering committee in HCMC (HCMC People's Committee, 2008 & Observation 05). As analysed in section 8.5.1, HDIC, in its role as overall steering committee, has contributed significantly to e-government development in HCMC. Similarly, other provinces such as Lao Cai and An Giang have shown that their provincial DICs have been strongly supported by their provincial leaders in steering e-government activities (Observation 05 & 07; To, 2009; Truong, 2009).

In single e-initiatives, a steering committee has also been shown to have an impact on the trajectory of e-initiatives. It is evident in the case of the OBRS (section 8.4.4), especially in the early stage, that the IT division functioned as a steering committee, backed by the HDPI

Director (Interviewee 13), so that the project operated smoothly despite the lagging ICT context in the early 2000s. By contrast, the case of e-Customs (section 7.5.2) demonstrates that low steering capability due to the inadequate coordination mechanism was one of the major reasons causing an uncertain future for the e-Customs clearance initiative. These findings, again, suggest the crucial role of steering committees in the process of implementation.

Despite progress made by the new e-government management structure, steering capacity remains low at both national and provincial level. As described in section 6.4.4, at central level, the National E-government Steering Committee (NESC) takes charge of overall national e-government activities, including other ministries and provinces and cities (see Figure 10.1 below).

Figure 10.1 National e-government management structure



Sources: MIC (2010b), NSCICT & MIC (2010)

At provincial level, the management structure comprises two main bodies: the Provincial/city Steering Committee on ICT (PSCICT) and the Department of Information and Communications (DIC). Like the central structure, the PSCICT is responsible for general development of ICT-related activities in a province or city while a DIC is in charge of a long list of tasks (see the description of HDIC in section 3.3.3), including e-government. By the end of 2009, 75% of provincial governments had established PSCICT and DIC (DIAP, 2010b).

This new management structure was established in 2008 (DIAP, 2010b). As discussed earlier in this section, although this structure has brought positive changes, steering capacity is demonstrably limited. For example, important proposals by the NESC on fixed budget proportions or on higher salaries for IT staff have not produced any positive results. The Head of NESC (Observation 04) said that he has still kept 'fighting' to achieve these targets. At provincial level, a majority of DICs has not assigned sufficient authority to coordinate e-government in provinces and cities (Observations 03 & 06), which results in poor coordination.

There are two principal causes for the low steering capacity at both levels of government: insignificant influence and loose structure of the steering committees themselves. At central level, as discussed in section 6.4.4, senior officials of the Party and Government have not taken charge of ICT activities and e-government. The Head of NESC has been a Deputy Minister. The experience of public administration reform in Vietnam shows that a ministry-level committee cannot effectively coordinate a national project that involves many other ministries, cities and provinces (Anh Minh, 2011). At provincial level, the DIC is a *de facto* steering committee, because this department has a number of other tasks. Further, most DICs are not empowered by regulation from the People's Committee, except the few cases like HCMC (Observations 03, 05 & 12); therefore there is no influence from DICs on other departments. The DIC Director of Lam Dong Province revealed that:

> Sometimes I felt very demoralized because of the lack of cooperation from other state agencies (Observation 08).

In addition, the leadership of the NSCICT and PSCICT (Provincial/city Steering Committee on ICT) are not key figures in the Party hierarchy, which limits the influence of these bodies in central and provincial government. In particular, at the central level, the Head of NSCICT is not a member of the Politburo. This is different from the case of South Korea, one of the

world best nations in terms of e-government: the President of South Korea put the Information Promotion Committee (similar to the NSCICT of Vietnam) under the Presidential Commission on Government Innovation (dicussed in section 2.7.5). In provincial governments, as discussed in the leadership section, the PSCICT is conventionally led by a vice president of the People's Committee who is normally not the leadership of the provincial Party. It is worth reiterating that the provinces in which the president of the People's Committee is also the head of PSCICT like Lao Cai province is rare (Observation 11).

The second problem that weakens steering capacity is the loose structure of these steering committees. Both the NSCICT and the PSCICT are part-time committees, and the members gather once every six months, with an agenda covering a number of areas, not just e-government (Interviewee 08). The NESC is also a part-time committee, and during its last term several members from other ministries retired before the new NESC was established in 2010 (MIC, 2010b). In addition, members of the NESC often join other committees. The case of Project 112 shows that a member of the Board of Management did not even realize that she was a member (Vu, 2008) until the project became a scandal of corruption and mismanagement. One of the reasons given for this was that she had joined dozens of similar committees (Vu, 2008). The contribution of part-time members is, for these reasons, therefore limited. In terms of subordinate committees, both the standing body and the advisory committee for the NESC are within MIC. In particular, the Department of Information and Technology of the MIC is the advisory committee, while the Division of Information Technology Applications Promotion is the standing body for the NESC (DIAP, 2010b; MIC, 2008a). They both belong to the Ministry of Information and Communications, an ICT-centric ministry, so the decisions and policy can be inclined to technology rather than institution.

At local level, there is no e-government steering committee similar to the NESC at central level; therefore the DIC is also considered the e-government steering committee in the provinces and cities. However, the DIC is a functional department and not superior to other departments. Therefore, it is very difficult for DICs to coordinate e-government implementation. In some exceptional cases such as HCMC and Lao Cai Province, the DIC is empowered by both transformational leadership and effective legal documents (Observations 05 & 07). Unfortunately, this is not the case for most other DICs. The Director

of a DIC of Long An Province (Observation 12) told an interesting story about his experience with his leaders in regard to a suggestion to empower his DIC. As he knew HCMC has had a strong legal mechanism since 2005 (HCMC People's Committee, 2008c), he obtained a copy of these regulations gave them to his leader. The problem was, he pointed out, that the leader was not much interested in it, but just skimmed it and threw it away; therefore, no empowered steering committee is seen in this province. The problem of poorly empowered DICs is acknowledged by the Director of Danang City (Observation 03): the majority of DICs do not have favourable conditions such as HCMC has, insofar as he knew from his network of about 40 DIC Directors nationwide. There is little doubt that steering capacity of a DIC is limited.

In summary, steering capability is important in the coordination of agencies involved in e-initiatives. However, the current structure of steering committees at both levels of government does not provide sufficient influence for the role of effective coordination.

- **Legal Framework**

As presented in section 2.7.5, it is argued in the relevant literature that failure to provide effective e-government laws and regulations will lead to a problematic process of e-government development. The discussion in this section confirms the important role of the legal framework. It also reveals in the case of Vietnam that the challenges facing current e-government policy instruments include a lack of regulation, frequent changes of regulations and delay in issuing implementing details. In addition, it is found that the quality of the legal framework in provinces is conditional upon leadership commitment and availability of resources.

Policy instruments at central level were presented in section 6.4.5. These include three principal types: overarching national master plans, legal normative documents and non-normative documents. At provincial level, apart from the instruments from the central level, one important instrument is any legal normative document from the Provincial People's Committee, such as their Decisions.

All the case studies and observations from other provinces revealed that, without effective legal frameworks in place, e-initiatives face problems. The case of HCMC (section 8.5.1) shows that several important regulations have been issued since early 2003. Despite

regulations related to Project 112 that did not work, other regulations demonstrated their value, such as encouraging the ICT workforce, enhancing the influence of HDIC and providing details in the procedure for management of ICT projects. By contrast, the case of Daklak Province was unable to provide a favourable framework, and this province needed to rely on regulations from the central government (Interviewees 06 & 09). The contrasting performance of HCMC and Daklak Province (in Table 10.1) is also due to other factors such as infrastructure, human capital and the level of socio-economic development; however, it is argued that the legal framework played a key role in explaining the difference in performance between the two provinces. This argument is enhanced by other observations. For example, the comparison of Lao Cai and Long An Provinces shows that the former performs better (DIAP, 2010; Vietnam Informatics Association, 2010) than the latter in the past years, despite its lower social-economic development status. One of the main causes is that Lao Cai Province (Observation 07) has been able to provide relevant legal framework while that is not the case for Long An Province (Observation 12). It is evident that the availability of the legal framework has made a difference to e-government performance at a provincial level. Questions arise as to why only a few locations are able to provide a relevant framework. What are the key problems in the legal framework of e-government implementation? These questions are addressed below.

Factors of leadership and resources are the two main causes for the difference in legal frameworks in provincial government. At central and provincial government levels alike, important proposals for e-government need approval from Party leaders. However, all factors that influence provincial Party leaders in e-government are generally problematic, as discussed in the section on leadership. A minority of provinces can provide their own framework while the majority ignore the need for such a framework for e-government, as in Long An Province (Observation 12). Another reason is limited resources in the provinces. As in case of Daklak Province (section 9.5.1), they can draft a legal document similar to that of HCMC, but the problem is that they do not have the funds to implement the policy.

A majority of provinces which have to rely on the central government for legal framework face two main challenges: low effectiveness, despite a time-consuming issuance process, and frequent changes in regulations. It normally takes a considerable time for a legal document to be issued. An example is the Law on Electronic Transactions, issued in 2005.

However, the first Government Decree guiding the implementation of this law was issued in 2007 (Nguyen, 2007b). Similarly, regulations on e-project management were raised in 2007 (Bui Van, 2007), but a relevant legal document (Vietnam Government, 2009) was only in place in 2009, after two and a half years. Despite the time taken, the legal documents also show gaps between reality and what they purport to regulate. This is demonstrated in the regulation that directs the process of determining software value; it became obsolete just after its promulgation in 2008 (MIC, 2008b). The rate regulated in this document was too low so that ICT staff can accept to develop the software for government agencies (Interviewee 08). Similarly, regarding salaries of public servants, there have been some changes in regulations; however, the Head of NESC acknowledged:

> Although there are many levels [of salary for public servants], there is not much difference, and the current salary cannot attract ICT staff to work for government (Observation 04).

The second problem facing e-initiatives in the case studies are the frequent changes in law and regulations. This was regarded as the steepest hurdle for e-government implementation, as far as informants were concerned. In terms of single e-initiatives, the OBRS and the DOBRS underwent several changes in laws relating to enterprises and formal procedures in business registration. Since its establishment, the OBRS experienced two different versions of the Enterprise Law first in 2000 and then 2006 followed by two other major changes in procedure in 2007 and 2010 (section 8.4.4). The e-Customs project confronted difficulties in frequent changes in tax policy and the management of special commodities (see section 7.5.3). Similar problems were seen in the case of HCMC. For example, the HCMC Department of Information and Communications experienced four changes in regulation of land management in the preparatory phase of the project.

On balance, the legal framework plays an important role in getting e-government projects implemented. However, only a few provinces have been able to provide e-government legal documents. The majority of provinces rely on the central legal framework and are impeded by the low effectiveness of the existing legal system on e-government and the changes in legal regulations from other areas where e-government is implemented.

In conclusion, the above analysis of state capacity strongly confirms the critical role of leadership, funds, strategy, steering capability, and legal frameworks in e-government

implementation, which are raised in the literature of e-government implementation. However, a number of challenges face state capacity in advancing e-government implementation. The findings in part answer Research Question Three, which asks about the critical factors in e-government implementation. The next two sections will examine the factors of ICT infrastructure and human capital, and the specific context of the local governments studied.

10.2.3 Infrastructure

As analysed in Chapter Two, this study uses the term 'infrastructure' to cover both ICT and human factors. Unlike previous studies, this investigation considers both sides of e-government, the citizen and the government, for both ICT infrastructure and human capital.

- **ICT infrastructure**

It has been argued in the e-government literature (see section 2.7.6) that ensuring the basic level of ICT infrastructure is a necessary condition for e-government implementation, and that e-government is impossible without the minimal threshold of ICT infrastructure. Overall, the findings show that in Vietnam ICT infrastructure has remained underdeveloped for e-government development, despite rapid development during the last decade. The digital divide remains serious across and within provinces, which has a clear impact on e-government implementation, and the problems are more serious on citizen side. These issues are discussed below.

The two most common ICT tools used in e-government are the computer and broadband internet. The case of Daklak Province suggests that the internet is still costly for the majority of the population. Therefore, despite widespread mobile phone use, it is still unlikely that the general public, especially in rural areas, gets their mobile phone connected to the internet. Further, e-services that are specialized for mobile access are still uncommon in developing countries due to their limitations (see section 2.7.6). The telephone line is, therefore, essential for internet access at present. Following the format of earlier sections, Table 10.3 summarizes key points of infrastructure that have been elaborated in Chapter Seven, Eight and Nine.

Table 10.3 Comparative analysis of ICT infrastructure

CASES	ICT infrastructure (Telephone, Computer, and Internet)	
	Citizen side	**Government side**
HCMC	Comparatively high internet and computer usage	Comparatively advanced
- **OBRS**		Sufficient system in place
Daklak Province	Serious shortage, much lower than national level, especially in rural areas	Equal or higher national level
- **DOBRS** in the **Business Portal**		The whole system was designed and installed by international donor
E-Customs	Having no difficulties	Huge investigation done, but need upgrading

Source: Summary of the case studies

Although Vietnam has attained a middle position on a world scale in terms of ICT infrastructure, overall indicators for computer and internet usage for both public servants and citizens remain low. For example, 31% of public servants had a computer in 2009 but only 9.3% of households had broadband internet nationwide (presented in Table 6.3, Chapter Six). An associated issue is the skills to use computer, which is also low the Vietnam population (discussed in the human capital section). With this low internet access, it was almost impossible to implement any e-initiative that could serve the general public.

A digital divide was serious across and within provinces. Among provinces and cities, HCMC has advantages over others, particularly compared to Daklak Province, in all aspects of e-government implementation. The most contrasting figure in the relevant ICT indexes in 2009 was that those households with broadband internet in HCMC stood at about 54% while for Daklak Province this was only 2.7%. This was not, however, an isolated instance, since only 1.5% of families in almost 50% of all provinces and cities had computers in 2009 (Vietnam Informatics Association, 2009). This divide has a clear impact on the take-up rate of e-government services. For example, among other factors, poor performance in the online

registration system in Daklak was due largely to underdeveloped infrastructure. In the meantime, positive results from e-government development in HCMC, especially in typical e-government services (in section 7.3.4), were attributable greatly to its comparatively advanced infrastructure. Within provinces and cities, the digital divide was also serious. Even in HCMC, one of the wealthiest and best educated cities in Vietnam, in the two remote districts and the peripheral city areas, there was insufficient infrastructure for people to be able to gain access to e-government services. The disparity is more serious in Daklak Province. Three quarters of the population live in rural areas with poor ICT infrastructure. Internet usage in this province is therefore largely reserved for government staff, other white-collar workers and a small number of affluent families.

Between the two sides of e-government, problems of ICT infrastructure were more serious on the citizen side. Experience from the case of Daklak Province showed that severe problems of ICT infrastructure came from the demand side. It did not take long for Daklak to develop an ICT system for its government machine. From 2006 Daklak Province leaders paid more attention to investment in e-government (Interviewee 08). By 2010, indexes for e-government infrastructure from on the government side of Daklak Province were, on balance, a little higher than the national average, but on the citizen side a large part of the population was unable to gain access to computers or the internet. This is clearly evident in the latest reports of ICT ranking and ICT applications in government (DIAP, 2011; Vietnam Informatics Association, 2010). It is noteworthy that the provision of computers and internet in necessary for e-initiatives; it must be, however, considered other factors such as state capacity (discussed above) and domestic context (to be discussed). The case of other developing countries such as Bangladesh suggests that public servants do not fully make use of the computing capacity which is already available (Teicher el al, 2008).

In contrast to the overall cases of HCMC and Daklak Province, the single case of e-Customs demonstrates that ICT problems are on the government side. Businesses that were clients of e-Customs were import/export companies, so investment in computers and internet connections is not a problem. But their most common grievances were the fluctuation of quality of the connecting system between companies and the e-Customs office. This resulted from a delay in the Customs' office in upgrading the system as transactions increased. The contrasting picture of e-Customs suggests an important lesson, that for e-

services that users have good access to, demand is high and the government needs to pay attention to ICT systems that meet that demand.

In conclusion, ICT infrastructure remains underdeveloped and there is a serious digital divide across Vietnam. As widely addressed in the literature of e-government development, although these requirements are more than just technical, it is difficult for e-government to be implemented if the infrastructure is not in place.

- **Human Infrastructure**

In the latest ranking index relating to human capital by the UN (2010), Vietnam ranked 114th out of 183 countries. As in earlier UN studies, this index is largely based on the adult literacy rate. However, a literate adult is not necessarily able to use a computer. Therefore looking into computer literacy is important to supplement evidence of human infrastructure. Table 10.4, below, shows the users' background and government ICT workforce.

Nationally, overall human infrastructure on both sides is not ready for e-government services, especially in computer skills. By 2010, about 70% of population was in rural areas, and most of them have a farming background. Overall internet access is 26%, but there is a huge divide between provinces. On the government side, only 58% nation-wide of public servants were using computers.

Great division in human infrastructure is seen within and across cities and provinces. HCMC has better-educated citizens. This is contrary to Daklak Province's citizens, where a farming background is typical amongst the majority of the population. Earlier study (Nguyen & Schauder, 2007) shows that typical features of farmers are their limited education and low awareness of ICT. Between provinces and cities there are also gaps. In HCMC, despite a high rate of internet usage, it is not necessarily the case that people in need of government services use the internet, since young people make up most internet usage and their reasons for internet usage are dominated by social networking and search activities (see section 6.5.2). Another example from the case of the OBRS is that 80% of applicants were from consultancy companies, indicating a low participation rate from citizens (HDPI, 2010b).

Further, HCMC is also known for migrants, including unskilled worker families. These people are not potential users of e-government services, at least in the short term. In Daklak Province, about 30% of the population comprises ethnic groups and most of these are poor

and illiterate. Therefore, being able to use computers for the purpose of e-government services would be something impossible for the vast majority.

Table 10.4 Comparative Analysis of human infrastructure

CASES	Human infrastructure	
	Citizen side	**Government side**
HCMC - **OBRS**	Comparatively advanced with a large part of white and blue collar workers	High percentage of public servants using ICT tools Lack of ICT staff to work for the government machine Little incentive for capable ICT staff to work for government agencies because of low salary and unclear career path
		Problems in recruiting and retaining ICT staff
Daklak Province	Majority of farmer background and lacking in computer illiteracy	Public servant ICT usage: relatively higher than national average percentage Serious lack of ICT staff to work for the government machine
- **DOBRS** in the **Business Portal**	Businesses overall is not used to e-government services	Lack of staff for system operation
E-Customs	Competent users	Young and capable staff to run the system

Source: Summary of the case studies

Looking at the government side, the most noticeable problem is how to recruit and retain an ICT workforce. Given the increasing competition from the private sector and poor recognition from state agencies, putting in place a qualified ICT workforce remains an unrealized dream. It should be noted here that the problem with the government as an employer is not limited to remuneration but also the failure to create an occupational classification structure that gives a measure of professional recognition to the skills and responsibilities of this group of workers. In a follow-up interview in late 2010, an

interviewee in HDIC confirmed that 'the most problematic issue facing HCMC was still the ICT workforce' (Interviewee 01). This is true for almost all provinces and cities, as participants unanimously agreed when representatives of provinces discussed the problem at the 2009 e-government symposium in Vietnam (MIC, 2009).

Overall, the analysis of e-government infrastructure in Vietnam shows that it remains underdeveloped in both ICT and human infrastructure and that there is a serious digital divide across Vietnam. E-government development has been so far unequal for both sides of e-government implementation and for both technical infrastructure and human capital. Policies tailored to suit context-specific conditions are yet to develop.

10.2.4 Domestic Context

Other than state capacity and infrastructure, the research findings show that there are other relevant domestic factors that influence e-government implementation. Of particular relevance are economic development status and cultural factors. Summaries of relevant findings on these factors are presented in following table (Table 10.5).

- **Financial affordability**

Generally, it appears that the majority of the population is still unable to afford ICT tools, except in some developed localities. Average ICT costs for Vietnam, in relation to GDP per capita, remain expensive when compared across Asia and the Pacific (International Telecommunication Union, 2009); therefore, most people cannot afford ICT tools, with only 10.6% of families in Daklak Province having computers. This is also reflected in another study in rural areas where 'only rich families can afford to buy a computer' (Nguyen & Schauder, 2007, p. 43). Also, half of the 19.1% of families nationwide having computers had an internet broadband connection. If citizens are still struggling to pay for basics of life such as food, shelter, education and health care, expectation they will invest in ICT tools is unrealistic. As shown in the case of Daklak Province, a quarter of its population are estimated to be living in poverty (Minh Quan, 2010), meaning that the observation in Nguyen and Schauder (2007, p. 43) that the 'internet is something far away' still holds true.

Table 10.5 Comparative analysis of factors in Domestic Context

CASES	DOMESTIC CONTEXT	
	Economic factor	**Culture and other factors**
HCMC	Comparatively high income level Divide between urban areas, rural districts and the City periphery	Face-to-face habit Paper-based tradition
- **OBRS**	Not a problem	Face-to-face habit
Daklak Province	Generally low income, poor economic conditions (poverty remain large); agriculture-based activities Large income divide between rural and urban areas	Face-to-face habit Paper-based tradition
- **DOBRS** in the **Business Portal**	Not a problem for the applicants for the online business registration in the business portal	Face-to-face habit
E-Customs	Not a problem because users are business people	Face-to-face habit Regulation loopholes explored by paper-based approach

Source: Summary of the case studies

In the single case studies where users are business people, ICT costs are not a matter of concern. Computers and the internet have been becoming necessary for the business community. It would be difficult to see a company without computers and internet connections in large cities like HCMC. In Daklak Province although there remain enterprises operating without computers and the internet; however, as explained by an informant (Interviewee 07), it is not because of lack of affordability; rather it is a lack of demand for the internet in their business. This finding, and those in the previous section, suggests that developing G2B initiatives would be most appropriate, since there is generally the technical, financial and educational capacity for e-services.

- **Cultural Factors**

Face-to-face habits of communication are a cultural factor that impedes e-government development. In three single case studies (e-customs, OBRS, and Business Protal – see table 3.1), interviewees (07, 08, 12 & 13) agreed that direct, in-person transactions were deep-rooted in citizens. Citizens simply think that it is safer and manageable to use a face-to-face approach and that in cases of emerging problems they can obtain immediate advice (Interviewee 13). A Director of the Department of Information and Communications (Observation 08) in another province revealed that his province put in place an advanced e-initiative for online registration for a publication service. All procedures were clear and available online, yet applicants still chose to follow conventional face-to-face procedures. The Director (Observation 08) said that the applicants opted out of the e-service because they liked to go to the office, chat, and then get the service. This is a cultural habit, and for this reason, it may be slow to change.

Relations-based transactions, which are common among many Vietnamese, have proved to be another type of cultural barrier to the spread of e-government. People consider transparency or ICT-driven solutions inferior to close relations with government officials. In reality, as discussed earlier, enterprises in a recent large survey consider relationships with public officials more important than transparency (VCCI & USAID, 2009). In addition, as discussed in section 4.3.3, the perception that 'the money that goes first is the wise move' appears obvious in businesses where corrupt business practices prevail and there is a preference for a paper-based system in which it is easier to explore personal relationship and opaque regulations for their own benefit. So long as these habits and perceptions remain deeply rooted, challenges remain for e-government, no matter how much money and effort are poured into it by governments.

10.2.5 The important factor of international donor agencies

In addition to these factors, the roles of international donor agencies are important. International donor agencies have supplied both funding and technical assistance for a number of e-projects. As discussed in section 6.2, multilateral donors and international agencies such as the World Bank or ADB funded important e-projects such as Customs Modernization, Vietnam ICT Development, or institutional e-government framework within

the PAR master plan. These projects have promoted reform in process, standard information architectures, and training and familiarization among e-government stakeholders and potential users. International donors (usually bilateral donors) also provided either full packages of e-initiatives or guidelines for policy makers such as those initiatives provided by GTZ (Germany), USAID (the United States) and the French Government that have been analysed in the research.

Funds for e-government have been proven to be an important factor in the implementation process. Except for the unique case of HCMC, DIC leaders of other cities and provinces such as Da Nang and Lao Cai (Interviewee 08, Observation 03 & 07) acknowledged the importance of finance sources from international donor agencies in achieving their initial success. This factor must therefore be included as an important source to improve fund availability and sustainability for e-government. This is essential in the context of a developing country like Vietnam where state budgets remains limited.

10.2.6 Relationship between Factors

The study shows the importance of specific relationships between factors. In particular, strong leadership tends to lead to empowered steering capability which in turn helps the formulation of better strategy and the provision of facilitating regulations. In addition, good strategy can lead to effective investment in infrastructure and feasible e-initiatives; among the parts of such a strategy are arrangements for selecting projects and evaluating progress for accountability purposes.

That strong leadership results in higher steering capability is evident in both single and overall e-initiatives. Single e-initiatives such as the Online Business Registration System (OBRS) and the Online Dialogue between Business and Authority (ODBA) show that the Director of the Department of Planning and Investment (HDPI) always supported the IT team which functioned as a steering committee at the initial stage, amidst strong resistance from other staff (Interviewee 13). This ensures the high performance of the OBRS (Table 8.2). Similarly, the steering capability in the ODBA project was significantly enhanced when it was placed under the Office of the People's Committee (Vnexpress, 2003). In the case of HCMC where the leaders at People's Committee had certain transformational leadership qualities, empowered steering committee was established (Observation 06 & 07). For example, the

Director of the Department of Information and Communications (HDIC) repeatedly stated that he had full 'power' and 'money' from leaders to manage e-government (Observation 06).

It was also demonstrated in HCMC and in the e-Customs clearance case that higher steering capability facilitated development of well-formulated strategy and vice versa. In HCMC, when the HDIC consolidated the power for steering e-government in HCMC, it provided a clear strategy by focusing on building suitable coordinating mechanism and drafting facilitating regulations such as on e-government funding arrangements (Interviewee 01). On the other hand, the low steering capability in the case of e-Cutoms clearance led to confusion for a long-term strategy making (section 7.5.1). Similarly, the selection of the ASYCUDA project for Customs administration in the early 1990s (section 7.2.1) or the Online Business Registration System (section 9.4.2) in the Daklak Province were inappropriate when the other conditions were not right. These seletions were made in were in the context of low steering capability in Customs and Daklak authorities, as discussed in section 7.5.2 and 9.5.1 respectively.

Following discussion of literature of e-government implementation (see section 2.7) and analysis of the findings of this study, it is seen that e-government implementation is a complicated process, and that no single critical factor determines the high-performance of e-initiatives. The critical factors are interrelated: leadership with transformational qualities can have positive effects on other critical factors. However, the problems facing Vietnam are that it still relies on transformational leadership emerging by chance. One of the pressing issues in the agenda for governance in Vietnam is how to develop transformational leadership capability in both levels of government. Discussion of the implications of this research in the conclusions chapter provides a possible answer to this question.

10.2.7 Review of Analysis

The discussion of all factors identified in the conceptual framework demonstrates that they play important roles in determining e-government implementation in Vietnam and so provides an answer to Research Question Three, which asks about the critical factors in e-government implementation in Vietnam. In addition, international donor agencies can be considered as another important factor to the implementation process. State capacity in e-government implementation is defined by five factors: leadership, funds, strategy, steering

capability and legal framework. All of these factors have confirmed important roles in the implementation of e-initiatives examined in this study. The overall infrastructure, which is defined as ICT infrastructure and human capital in this study, has shown that, if the government fails to solve the problems of the digital divide and underdeveloped infrastructure, poor performance of e-initiative provided by government agencies is inevitable. The domestic context in relation to economic development status and cultural behaviour has demonstrated its influence on the take-up rate of services. In other words, the conceptual framework that is developed in this chapter is applicable to the case studies in Vietnam.

10.3 Discussion of Findings in Relation to Research Question Four

How Have E-government Initiatives Changed Contemporary Public Administration in Vietnam?

The overall findings suggest that e-government activities in Vietnam largely remain at the emerging stage, except for certain specific initiatives and government agencies. Changes brought by e-government to current public administration are therefore limited to internal communications of government agencies and to service delivery by particular agencies. Unfortunately, redesign of public sector structures, business processes and management principles remains rare and this provides a barrier to the government's ambitious plans to modernise the economy and society.

10.3.1 Overview of Analysis

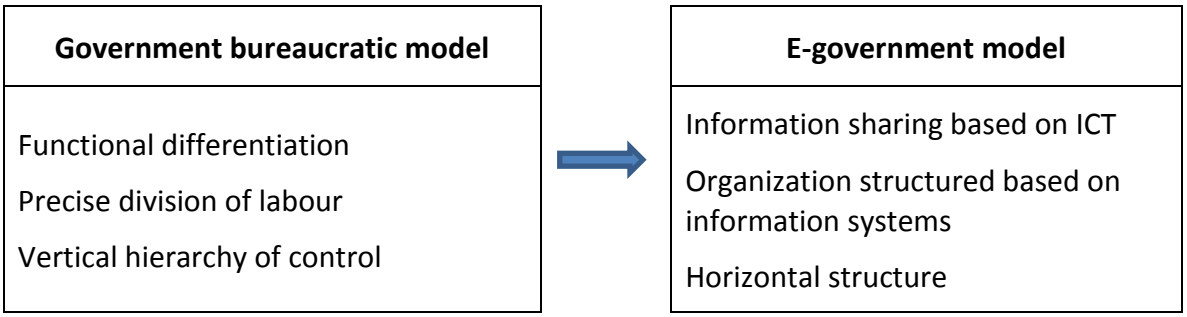
To guide the discussion in this section, the analytical framework that presents major changes brought about by the e-government paradigm to traditional bureaucracy (see Table 2.4) is employed. In brief, there are four main dimensions that Fountain (2001) and Ho (2002) inquire into: (1) Process and organization structure (vertical versus horizontal); (2) Management (principles and relationships of functional actors); (3) Communications (internal and external); and (4) Service delivery (principles, mode, and speed).

Methodologically, a cross-case analysis is used. Relevant findings from e-initiatives are tabulated in Table 10.6 (page 278). While Table 10.6 summarises the principal finding from the case studies, the analysis below also uses observations from other provinces and national reports on ICT applications in government by the Ministry of Information and Communications (DIAP, 2010b, 2011).

10.3.2 Process and Organization

The overall expected changes brought by e-government model are discussed in section 2.6.2. The changes in relation to process and organization structure are revisited in Figure 10.2 below.

Figure 10.2 Changes in process and organization brought by e-initiatives



Source: Extract from Table 2.4

The findings indicate that e-government initiatives generally have not reformed the organizational structure or made any significant process redesign in mainstream public administration because Vietnam remains at the early stage of e-government. Significant changes in process and organization tend to accompany complex e-services. However, in the case of Vietnam, complex initiatives like e-Customs remain scarce. Even in the e-Customs case, the transformation in procedure and organizing was limited to one Customs branch until late 2009; this served a tiny share of business (HCMC E-Customs Branch, 2009b). This indicates that the vast majority of Customs offices are continuing with the conventional paper-based system; hence reform in process and organization is, at this stage, very limited.

In the case of the OBRS, the 1996-2009 experience showed that the most significant change in HDPI structure has been the staff expansion of the IT Office, from two to four in 2000 to eight staff in 2009 (section 8.4.4). This expansion is usually attributed to that fact that a number of other provincial departments did not have full-time IT staff (Interviewees 08, 10, & 14).

Table 10.6 Changes produced by e-government initiatives

Dimensions / Cases	Process and organization	Management	Communications	Service delivery
HCMC	Generally unchanged to the existing structure No typical organizational redesign found	Little evidence showing changes made to the management by rules and mandate, albeit some facilitation in the specific projects such as the Online Dialogues between Businesses and Authorities system	Enhanced by e-government services and tools such as special websites for leaders; popular email usage of public servants; and popular online feedback forms provided	Certain improvements such as some basic services done online and automatic processing time control (via electronic one-stop shop), but interpersonal interactions required.
- **OBRS**	Process redesigned, and IT office expanded; However, paper-based system remains operating	Inter-office teamwork required (Registration office coordinating with IT division), but staff with cross functional roles not yet reached	Constant monitoring; fast feedback	Electronic exchange; rapid delivery (despite paper-based system being retained); applications sent online; considerable time reduction
Daklak Province	No typical organizational or process redesign found	No evidence found for changes in the leadership style and employee working principles	Internal communications facilitated by emails, but limited external communication	Face-to-face remaining absolutely dominated approach
- **DOBRS** in the **Business Portal**	Process redesigned in the online registration but failed in practices; no organizational change	No change to the existing approach	External communications and feedbacks used to work but suspended due to a lack of staff in charge	Some simple services run on the Business Portal such as legal documents and enterprises database, providing rapid outcome
E-Customs	Process largely redesigned, and reform in the organizational structure	Relatively flexible management and inter-departmental teamwork; more facilitating from leader; and, employees with more cross-functional and more empowered	Internally multidirectional communication; constant monitoring and facilitating; externally fast feedback	Mostly electronic exchange, albeit paper-based documents still required at times; fast processing

Source: Summary of the case studies

That few changes have been made to the redesign of process and organization is also explained by slow progress in public administration reform (PAR) and the existence of parallel systems of both conventional approach and e-initiatives. As analysed in section 5.7.1, despite progress, by 2010 the overall PAR outcome was limited and cumbersome, and inconsistent and irrational administrative procedures remained common. This constrained the development of e-government. The Head of National Steering Committee on ICT stated that:

> If the existing bureaucratic procedures are irrational, computerization of these procedures could worsen the situation (Observation 01).

In addition, the problem of parallel system impeded the speed of change made to process and organization. As discussed in section 10.2.3, the digital divide remains serious which rules out the full participation of users in e-services. Therefore, when e-initiatives are put in place, they cannot replace the existing system (Interviewee 13). Consequently, a new e-initiative is established means a parallel system starts to operate, which may consume more resources. This is another hurdle for making significant changes in organization structure.

10.3.3 Management

The potential changes in management made by e-government initiatives are revisited in the figure below. Changes made to management in these respects generally remain limited to advanced systems. The case of e-Customs clearance and the OBRS in HCMC exhibited a transformation in management. For example, in the e-Customs clearance case, physical contacts were minimized; employees were more empowered as they were able to make decisions on issues that were previously performed by team leaders under the conventional structure, and branch leaders' facilitation and coordination were instant and effective through the meditation of computers and the ICT system.

However in certain particular cases, simple e-initiatives could change conventional management. A typical example is the Online Dialogues between Businesses and Authority (ODBA), one of the typical initiatives of HCMC since 2003 (see section 8.3.1).

The ODBA has indeed been a simple Web platform. Its operation does not require an intensive outlay of resources or a legal framework. The business community raises questions and the system administrative team forwards these questions to functional departments for

responses within required deadlines. All unanswered questions remain visible in the system where leaders of the People's Committee and leaders of participating departments can easily see them. If participating departments fail to meet deadlines without a good excuse, they are reminded and may even be disciplined by the People's Committee (Vnexpress, 2003). This system has made the inter-agency teamwork operate effectively with central coordination. This is an important change that e-government has brought to government bureaucracy. However, e-initiatives like this system are still isolated.

Figure 10.3 Changes in management

Government bureaucratic model		E-government model
Management by rules and mandate, standard operating procedures, and performance program		Flexible management; interdepartmental team work with central coordination; rules embedded in applications and systems; and, invisible, virtual structure.
Leadership style: command and control Employees are neutral, impersonal, attached to a particular office.		Leadership style: Facilitation and coordination, and innovative entrepreneurship Employees are cross-functional, empowered; jobs limited not only by expertise but also by the extent and sophistication of computer mediation.

Source: Extract from Table 2.4

Therefore, management changes in government bureaucracy brought about by e-government as specified in this study remain insignificant.

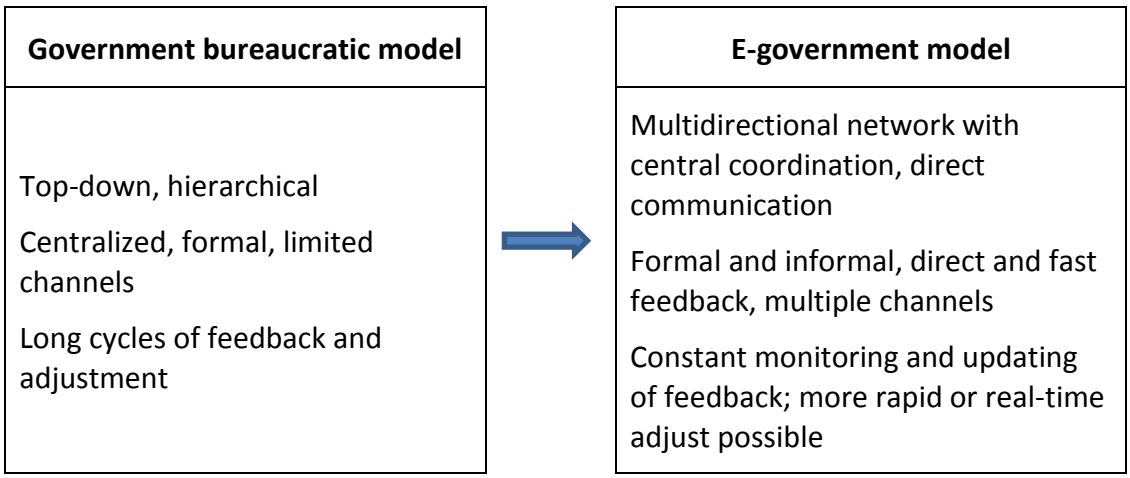
10.3.4 Communications

Unlike the two previous dimensions, progress has been made in communications in public agencies, particularly internally. Figure 10.4 presents possible changes that e-government model can provide. The findings indicate that there have been certain changes in communications.

Most noticeable is on-line conference systems, which have been deployed in the central government and in several provincial governments such as Daklak, Lao Cai and An Giang (Interviewee 08, Observation 01; To, 2009; Truong, 2009). These systems have

demonstrated important roles, since they save government a considerable cost in meeting organization. A number of online national conferences and meetings have been conducted in which hundreds of provincial delegates no longer travel long distances to Hanoi or HCMC (Observation 01). Further, online exchange of legal and policy documents between central and provincial governments and within and between provincial agencies has increasingly become a norm (Interviewees 01, 10 & 13). Email exchange among public servants is increasingly common (HDIC, 2010a) & Interviewee 10); for example, by 2010 email usage among public servants was 47% in provincial governments and 67% in ministries and ministry-level agencies (Vietnam Informatics Association, 2010).

Figure 10.4 Changes in communications



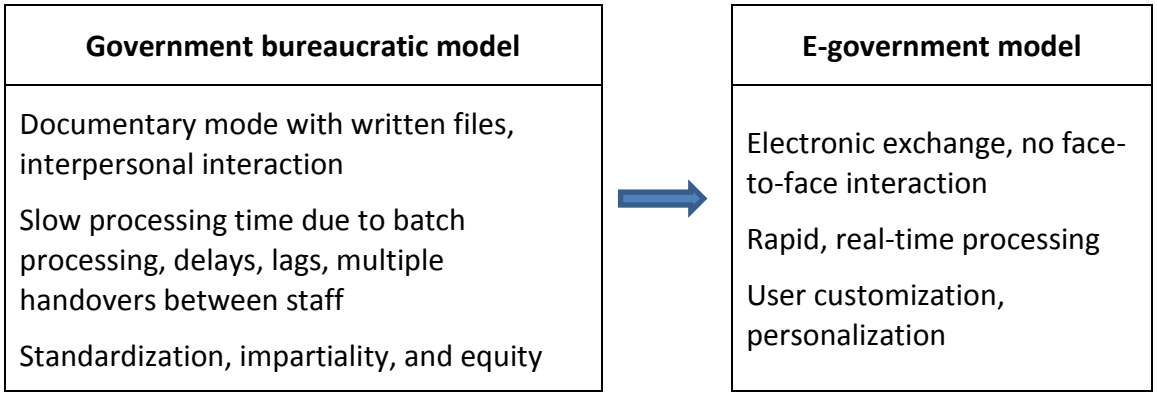
Source: Extract from Table 2.4

Despite significant changes in communication, the achievements have so far been more internal (within government agencies) than external (between government agencies and citizens). External communication has been limited to the government's online presence, such as through web pages, portals which provide information on public policy and governance, forms, reports and laws and regulations. Only isolated advanced systems such as e-Customs and the OBRS can provide multidirectional communication and instant feedback to applicants. In most cases, interactions of public servants and citizens are on a face-to-face basis (Interviewees 01 & 10). The limits to external communications have had effects on public service delivery, discussed below.

10.3.5 Service Delivery

The e-government literature provides promising changes made to service delivery of government agencies (as presented in figure 10.5 below). However, in the context of developing countries like Vietnam, these radical changes in service delivery remain in these respects isolated.

Figure 10.5 Changes in service delivery



Source: Extract from Table 2.4

The finding show that although there have been some improvements in service delivery achievements have been limited to a minority of provinces and cities. In the e-Customs case, time for processing was reduced from hours to minutes for both e-Customs and OBRS applicants. Another example is the HCMC CityWeb. This website has provided a wide range of information and data, making it one of the top informative websites that attracts the highest rate of users (DIAP, 2011). In addition, the Electronic One-Stop-Shop system in HCMC indirectly improves service delivery, since it puts strong pressure on public agencies to meet committed timelines. However, achievements like these services belong to only a few provinces and cities. For example, a 2009 report which surveyed all local government websites revealed a poor picture of these websites' contents. As shown in Table 10.7 below, too few local governments provided important information such as legal documents, administrative procedures (5.0%), procurement and investment portfolios (3.3%) or feedback forms (3.3%). Further, fewer than 7% of localities updated their website regularly.

For e-services, although more advanced e-services were reported as in place, there have been no attempts to evaluate how these work in practice. As discussed in 10.2.3, these advanced e-initiatives tend to be matters of fashion rather than actual use. For instance, while the case of Daklak Province continued to report a level-three service, the online

registration initiative in the Business Portal, there were no registrations in this system from when it was first put in place.

It is evident that, except for particular initiatives and government agencies, e-government activities in Vietnam largely remain at the emerging stage (the first step in the 2008 UN model: see section 2.4), where websites, portals and other online services are provided but information is generally static, and little interaction with citizens is conducted online.

Table 10.7 Information provision in Websites/portals of provinces and cities

No.	Criteria	In provincial govt. webs/portals (%)
1	Introduction about the organization and its subordinate agencies	5.00
2	Legal documents and relevant documents on administrative procedures	5.00
3	Information on e-services	3.33
4	Information on guidelines, policies, master plan and strategies	20.00
5	Information of projects, procurement and investment portfolio	3.33
6	Feedback forms	3.33
7	Information to assist authorities' management	10.00
8	In other languages than Vietnamese	3.33
9	Search engines	16.67
10	Regularly updated information	6.67
11	Information security	70.00

Source: Department of Information Technology Applications Promotion - DIAP (2010b, pp. 33-34)

In conclusion, the central findings for Research Question Four, which asks how e-government initiatives have changed contemporary public administration in Vietnam, are that redesign of public sector structures, business processes and management principles remains isolated, while there have been changes in internal communications of the

government bureaucracy and specific impacts on service delivery in particular government agencies of a minority of provinces and cities. Wider issues, especially regarding improvements in arrangements for managing relationships between the Party and the institutions of State remain untouched.

10.4 Conclusion

This chapter has discussed critical factors in e-government implementation in Vietnam and how e-government initiatives have changed contemporary public administration in Vietnam. This was achieved by combining findings from case studies and other relevant national and international evidence. The chapter also provided a synthesis of principal findings from case studies that helped confirm the factors identified in the conceptual framework.

The findings confirm the important roles of all factors in the conceptual model and demonstrate the crucial roles of international agencies in the process of e-government implementation. This is also the answer to Research Question Three. In particular, state capacity is shown to be critical to e-government implementation, despite challenges facing all factors that include leadership, funds, strategy, steering capability and the legal framework. Constrained by limited ICT backgrounds and priority accorded other, more immediate concerns, transformational leadership in e-government has been unable to emerge in most provinces and cities. Sustainability of funding for e-government has not been ensured because of a lack of funds and poor funding planning. E-government strategy has generally failed to provide feasible measures for challenges facing e-government stakeholders, and there remain several e-initiatives which are more fashionable than practical. E-government steering committees have not been properly organized, which results in a low steering capability. Finally, the legal framework faces problems of frequent changes and low effectiveness in laws and regulations.

When it comes to infrastructure, central issues were underdevelopment and the serious divide in both ICT and human infrastructure for e-government. Inequality was also seen on both sides of e-government. In relation to the domestic context, except for the business community and developed localities, a majority of the population still cannot afford ICT.

Culturally, the preference for relations-based transactions and corruption appeared to be other hurdles in the path of e-government development.

The interpretation of findings for Research Question Four revealed that the internal communications of the government bureaucracy have improved, and that some service delivery has been facilitated by e-services. However, the changes in public service organisation structures, business processes and management principles are limited to isolated complex and cross-agency e-initiative projects.

CHAPTER ELEVEN

CONCLUSIONS

11.1 Introduction

This chapter has multiple objectives. First, it presents the principal findings of the research in relation to the four research questions about the implementation of e-government in Vietnam. Second, it points to theoretical implications and practical recommendations that follow from the research findings. Third, it restates the limitations of this research. Fourth, it makes recommendations about directions for future research.

The context of the research is that governments worldwide have enthusiastically embraced e-government, but many significant e-initiatives have failed in both developing and developed countries. This thesis examines e-government implementation in the context of the modernization process of Vietnam, a developing country and transitional economy. The thesis has three main objectives: first, to explore challenges facing contemporary public administration in Vietnam and identify drivers of e-government initiatives there; second, to examine critical factors relating to e-government implementation in Vietnam, based on an analytical framework developed from the literature on e-government implementation; and, third to examine the extent that e-government initiatives are changing public administration in Vietnam. The study proposes a holistic conceptual framework of e-government implementation, which has been developed from earlier theoretical and empirical studies. The research findings in the case of Vietnam confirm all the critical factors proposed in the conceptual model and suggest an emerging important factor of international donor agencies.

The chapter starts by consolidating the key research findings for each research question in the study. This is followed by the implications of the thesis, the limitations of the research and suggestions for future research. The final section summarizes the key arguments of the whole thesis.

11.2 Central Findings for the Research Questions

The study uses a case approach and qualitative methods. Three case studies are presented. The first focuses on a national initiative to improve Customs administration in HCMC, one of

the busiest ports for business in Vietnam. However, since local governments interact directly with citizens, two province-level locations, Ho Chi Minh City and Daklak Province, were chosen for two further case studies. Two-stage interviews, archival studies and the author's interactions with key leaders in both central and local government supplied a significant amount of the evidence on which the analysis is based.

In order to achieve these objectives, a rigorous research design, outlined in Chapter Three, was developed. This relied on a case approach and multiple qualitative methods. Two procedures were designed (section 3.3) to methodologically guide the research process.

The following subsections consolidate the research arguments that are developed in the thesis.

11.2.1 Research Question One: What are the key challenges facing contemporary public administration in Vietnam?

The research findings show four overriding challenges facing contemporary public administration in Vietnam.

First, the senior leaders of the central government confront serious constraints in managing their assigned tasks, particularly regarding appointments of high-ranking officials and policy decision making. Ministers are responsible for their portfolios and are accountable to the Prime Minister. However, neither the Prime Minister nor ministers have the direct right to choose their deputies. This is because appointments of deputies to the Prime Minister and ministers are heavily influenced by the Party, through powerful individual figures or the Party Commission for Organisation and Personnel. Not only are the appointments of deputies and key government staff outside the control of the Prime Minister and ministers, so too are dismissals and discipline. One of the Party's key tenets is that in all spheres of life individuals must follow the organisation which is the leading organisation in the country. Accordingly, disciplining or dismissing ministerial and provincial leaders' appointees in the government is subject to Party approval. Beyond these constraints, the choice of candidates for government members is narrow, limited to members of the Party Central Committee. This condition eliminates a number of young and talented candidates who would otherwise be on the list of possible choices. In addition, decision-making and implementation in the government are not autonomous. The principle of 'Party leads, State manages' is not

supported by effective mechanisms to make that arrangement work in government. Figures in the Party elite have now and then urged introduction of a law that governs the Party and hence leaves the State with more scope to fulfil its function and roles. However, reform in Party organisational structures and processes inherited from war time has not yet been initiated.

The second challenge is the opaque responsibilities and accountabilities of high-ranking officials in the Party. Party heads at all levels are always viewed as holding the most influential positions, particularly at the highest Party level. However, the accountability of the Secretary or Party Secretaries at all levels is not regulated in legal documents. This leads to a separation of personal power from accountability. In addition, in the highest Party body, the Politburo, policies of national importance are collectively made on a consensus basis. This leads to difficulties of identifying specific senior Party and government leaders who are responsible for a number of serious instances of mismanagement. More concretely it means that when policy failures occur as in the case of Project 112 the process of analysis and rectification is long and uncertain.

Third, effective oversight of State activities is inhibited by dependence on the Party. Although the National Assembly is increasingly assertive, it is far from independent of Party influence. This is demonstrated in four principal ways: (1) Party deputies are numerically dominant in the National Assembly, which potentially limits diversity of views and scope for critical scrutiny by the National Assembly; (2) the Assembly President is always an important member of the Politburo; (3) the Assembly lacks autonomy in performing its crucial function of making and amending the Constitution; and (4) many deputies simultaneously work in government executive bodies, which leads to the phenomenon that they are both 'both player and referee'. For these reasons effective oversight of government activities is difficult.

The fourth challenge is the composition and management of public servants. Key problems in the public service include low salaries, patronage and nepotism, corruption, overstaffing, and difficulty in recruiting and retaining qualified and motivated people. The most serious barrier found in this study is low salaries. This creates incentives for corrupt behaviour. Due to low income, public servants (and even leaders of government agencies) complicate the implementation of online services because these initiatives normally reform the system that

these people abuse for additional earnings. Further, low payment for public servants in charge of IT causes them to leave government agencies for the private sector.

11.2.2 Research question Two: Why did Vietnam initiate and develop e-government?

The thesis findings identify five main drivers of e-government initiatives in Vietnam. While these five main drivers have been important to the process of e-government implementation, they have not necessarily provided the capacity to drive e-initiatives through to successful completion; rather, e-government implementation depends on the critical factors which are outlined in the next subsection.

First, there is the influence of forces for reform. The *Đổi Mới* ushered in major changes and stimulated e-government. As a result, individual Party and State figures and senior officials in the government provided initial support for internet connections and e-government development. Prominent contributions by Party and State leaders at an early stage through former Prime Minister Vo Van Kiet and Party General Secretary Le Kha Phieu were notable. Kiet was one of the key politicians of the reform era. He led the government from 1992 to 1997 and was a pioneer in introducing the application of information technology to government affairs. Phieu was led the central Party between 1997 and 2001. He made the critical decision to connect Vietnam to the internet. The drive for reform by Party and State leaders of this kind is important; however, the complicated relationships between the Party and Government as indicated in this study make it difficult to sustain reform initiatives. For this reason, agendas for change within the authorising environment itself in Vietnam are becoming more pressing, as proposed in the next section.

Second is the master plan for public administration to boost the process of transformation from the legacy of the central planning system. Although the overall outcome of the plan was limited compared to the planned targets, this plan played an important role in the trajectory of e-government development in Vietnam. E-government initiatives were one of the key components of the 2001-2010 master programmes on public administration, which set out targets to transform operations in the administrative system, modernize state agencies, and apply ICT in the activities of state agencies. The e-government agenda was divided into two parts, with separate action plans focused on (1) reforming coordination, working methods and routines of administrative agencies, and (2) applying IT in state

management via Project 112, a comprehensive e-government project which was established in 2001. However, similarly to the overall shortfall in public administration reform (section 5.7), Project 112 failed to deliver its basic targets and was terminated by the Prime Minister in April 2007 (discussed in section 6.3.1).

The third driver was the push arising from global and regional integration. Since 1995 Vietnam has increasingly integrated itself into global systems, as a member of ASEAN, APEC and the WTO. During the 12 years of preparation for accession to the WTO, Vietnam accomplished a considerable amount of work, including making the government more transparent such as in government procurement. Similarly, since becoming a member of APEC in 1998, Vietnam has made efforts to comply with this organization's requirements to publish online Customs laws, regulations and administrative procedures. In 2000, the e-ASEAN framework urged all members, including Vietnam, to promote ICT applications for better delivery of government services. The commitments to these organizations' e-initiatives put Vietnam in a position to reform and/or adopt e-initiatives designed by these regional and international organizations.

The fourth driver was promotion from international donor agencies. Vietnam has been a major beneficiary of international donors whose support is not without conditions; one of these is to promote transparency by e-initiatives. Donor agencies (both multilateral and bilateral) have been facilitating institutional and structural reforms in Vietnam through guidance, and financial and technical support. Donors such as UNDP, the WB, ADB, Japan and USAID have promoted reform by way of conditional loans, introducing management initiatives, providing training, and building policy making capacity in the area of e-government.

The fifth driver was the increase in administrative workloads in specific areas. Procedural bottlenecks built up during the transformation to a market-based economy because of the bureaucratic legacy of central planning. Since Vietnam has pursued a market-based economy, the rapid growth of enterprises establishments, export-import activities and tourism has created an enormous amount of work in major areas such as business registrations, customs and taxation. Vast resources would have been needed to cope with the increased workload manually. This supported the introduction of e-initiatives.

Despite their important roles, these drivers do not mean, however, that they are unequivocal forces pushing for reform. Indeed, some of these drivers operate to qualify the other critical factors, as will be explained below.

11.2.3 Research Question Three: What are the critical factors in e-government implementation in Vietnam?

The research found four significant factors in e-government implementation in Vietnam: state capacity, ICT infrastructure and human capital, the domestic context, and international donor and lending agencies. The central findings on each factor are presented below.

- **State capacity**
    - *Leadership*

The thesis findings show that the overall outcome of e-initiatives depends on the extent to which leaders are committed to them. The better-performing initiatives were those in which leaders showed transformational leadership qualities by personally engaging with e-projects, overseeing project progress regularly and supporting their subordinates throughout the implementation process. However, there remain several challenges in e-government leadership. First, e-government is not normally led by Party figures. The provincial Party Secretary and the President of the People's Committee are the most powerful persons at that level of government; however, except in isolated cases, these key Party leaders were not in charge of e-government or ICT activities. Second, the highest leadership in provincial governments in Vietnam has been provided by former war leaders in the period up to 1975. Such leaders are normally elderly and have a rural background. Thus their ICT awareness is limited. Third is the low priority accorded by many leaders to policy on e-government. This is because Vietnam remains a poor nation and the majority of provinces face serious issues such as poverty reduction and education reform which appear to be more pressing. In addition, there are still leaders who obstruct e-government for reasons of self-interest such as wanting to have a firm grip on everything.

    - *Funds*

The findings show that funds are an important factor in determining e-initiative progress. Lack of sustainable funding and poor management of funds have been shown to be serious hurdles. While the main source of funds is the state budget, no fixed proportion of that

budget has been allocated for e-government. Since there is no fixed allocation, and depending on the wealth of the province, resources are prioritized for other essential needs such as road building, school building and electricity connections, rather than e-government development. For example, in HCMC funding was not a problem because of its large budget, but this is not the case of majority of other cities and province such as Daklak. In addition, inefficiencies in financial management in the central government led to serious delays in release of funds to provincial governments. This caused great difficulties for provincial governments in carrying out plans for e-government.

- *Strategy*

The research findings suggest that the provinces or cities in which e-government strategies are better formulated tend to have higher e-government performance. However, it remains common that e-initiatives are often more about appearance than about actual services for citizens. These fad e-initiatives are to anable favourable reports to the central government, rather than to provide actual benefits to citizens. Further, even where clear objectives have been set, effective and feasible solutions have generally not been provided in such a way as to assist e-government stakeholders (politicians, senior public managers, IT professionals and mainstream staff) in undertaking their specified roles and tasks. For example, there have been no feasible measures to create transformational leadership, to raise awareness of ICT roles among public managers, and to provide incentives for public servants. Existing laws and regulations that hold heads of government agencies responsible for e-government performance did not work effectively, and additional measures, such as close oversight mechanisms, are not yet in place. On a more basic level, strategy development and implementation is impeded by the problems of attracting and retaining suitably qualified staff, problems that stem partly from poor pay but also from the failure to provide a career structure that appropriately recognises the skills and experience of IT professionals. Finally, the problem of low salaries of public servants, which makes it difficult for them to embrace new e-initiatives, is not yet sufficiently addressed in existing strategies.

- *Steering Capability*

It is evident from the research that steering capability has had a strong impact on the performance of initiatives. The 2008 reform in the national e-government management structure has resulted in improved performance of overall national e-government

programmes. Provinces where a steering committee is empowered tend to have better e-government outcomes. Similarly, single e-initiatives supported by strong steering capability seem to perform more effectively. However, steering capability remains limited in both central and provincial governments. Two revealing reasons are the insignificant influence and loose structure of steering committees at both government levels. At the central level, no Politburo member is in charge of ICT development and the head of national e-government programmes is only a deputy minister. At provincial level, the Department of Information and Communications (DIC) is assigned the task of e-government implementation, but this department also has a number of other tasks and is not sufficiently empowered to be able to coordinate implementation effectively. Further, the DIC is not properly resourced to perform its role. For example, leaders of several provincial DIC revealed that, as presented section 10.2.2, they lacked either or both funds and qualified staff to implement provincial e-government plans. In addition, the current National E-Government Steering Committee is a part-time body, and its advisory unit and standing body are limited only to divisions within the Ministry of Information and Communications.

- *Legal Framework*

The research findings reveal that the implementation of e-initiatives becomes uncertain if effective legal frameworks are not in place. Provinces and cities that are able to provide facilitating regulations to supplement the inadequacy of legal framework provided by the central government bureaucracy make a difference in e-government outcomes. By contrast, those provinces that rely solely on the central government legal framework are slow in making e-government progress. The difference in regulations between provincial governments is due largely to differences in leadership and resource availability. In addition, frequent changes in law and regulations present a serious barrier to the implementation process. A change in laws and regulations necessitates modifications in software and systems, which are not simple matters in provinces or agencies where resources are constrained.

- **Infrastructure**

  - *ICT infrastructure*

Overall ICT capability in Vietnam remains low, despite rapid development during the last decade. The indicators for computer and internet usage for both sides of e-government

remain low; for example, in all provinces and cities, less than one third of public servants had computers for their work by 2010. The internet is generally costly for residents in underdeveloped provinces like Daklak. Despite widespread use of mobile phones, it is still difficult for members of the general public, especially in rural areas, to get their mobile phones connected to the internet due to high costs and limited e-services for mobile phones. The digital divide within and between provinces remains serious. While more than half the households in HCMC have internet access, less than 3% did in Daklak Province in 2010. These problems have adverse impacts on e-government implementation.

- *Human capital*

The research shows that human capital is a decisive factor in providing and using e-initiatives; however, neither citizens nor government agencies in general are ready for e-government services. While developed cities like HCMC have citizens with higher education who work in white and blue collar jobs, approximately 70% of the total population still lives in rural areas and is predominantly occupied in farming. Within government, the skills shortage is critical in government agencies. IT staff and qualified public servants tend to leave government agencies for the private sector where they can enjoy significantly better working conditions with higher salaries. Five principal reasons for the problems facing the government IT workforce are (1) low pay and poor working conditions, (2) lack of formal titles and recognition for public servants responsible for IT, (3) unpromising career paths, (4) a shortage of IT-training providers, and (5) competition from the private sector.

- **Domestic context**
  - *Financial affordability*

The research findings reveal that e-initiatives are more likely to succeed if they have users who are better able to afford ICT costs. Except in cities like HCMC, the majority of the population is still unable to pay for ICT tools. As the largest economic centre, HCMC has had rapid economic growth and people are generally better off. By contrast, the case study of Daklak Province shows that generally it is underdeveloped socially and-economically. A quarter of this province's population lives in poverty (an income less than $US1/person/day). Indigenous ethnic minority communities are generally poorly educated and live in remote areas. Affordability of e-government services for these people is, therefore, almost impossible.

Further, in relation to GDP per capita, ICT costs in Vietnam remain expensive, compared to other countries in Asia and the Pacific (ITU, 2009). In 2010 the proportion of households with computers and internet access remained low, at 19.1% and 6.3% respectively (Vietnam Informatics Association, 2010). The low levels of access to computers and the internet present great challenges for the usage rate even of effective e-services.

- *Cultural Factors*

The study shows that in the history of Vietnam the values of liberal democracy have not had much opportunity to grow. Instead, feudalism and the later Stalinist model which concentrate much power in a small group of people have been dominant (see section 4.3.3). Citizen participation in government decision making is largely constrained. The prevailing culture in Vietnam supports the habits which do not facilitate e-government implementation; these include relations-based practices and face-to-face transactions which are open to corruption.

Relations-based transactions have proved to be a cultural obstacle for e-government. Close relations with government officials are perceived to be more important than transparency which is achievable through ICT-based solutions. The practice of paying a bribe is still considered a 'wise' move in people's perceptions. The willingness of people to explore personal relationships and opaque regulations governing receipt of personal benefits by officials provide an unwelcoming social context for ICT-based service initiatives.

Preference for face-to-face transactions is another impediment. Many citizens still think that it is safer and more manageable to conduct transactions in person. They prefer to go to the office, have a chat, and then get the service. This is a cultural habit and will take time to change.

- **International donor and lending agencies**

International donor agencies play an important role in providing funding and technical assistance for a number of e-projects. Both multilateral international agencies and bilateral donors have assisted Vietnam in several e-projects. In particular, World Bank and ADB has provided both financial and technical assistance in projects for development ICT infrastructure and for building institutional e-government framework within the Public Administration Reform master plan. Given the government limited budget, the funds from

these donor agencies contributed significantly to implementation process. Except HCMC for its large budget, provincial governments that have initial success in e-government such as Da Nang and Lao Cai acknowledge the important role of the funds from international donor and lending agencies. In addition, international donor agencies have proven its roles in promoting e-government (section 6.2) and capacity building for e-government in Vietnam.

11.2.4 Research Question Four: How are e-government initiatives changing contemporary public administration practice in Vietnam?

The findings show that Vietnam remains largely at the emerging stage (the first stage in the UN model – see section 2.4) in e-government. Information on popular topics is provided online but, except for a few advanced initiatives, there is little interaction with citizens (stage three). For this reason e-government initiatives generally have not reformed the organizational structure of public service agencies or contributed any significant process redesign in mainstream public administration. Even specific e-services that have been put in place cannot replace existing service channels because the majority of citizens are still not ready. Significant changes in process and organization are yet to come.

In regard to management principles, leadership styles and employee working principles, changes are largely to isolated high-level e-initiatives or to cross-agency projects. The reform in management principles was most apparent in the case of e-Customs clearance. Here leaders are more supportive and employees became more cross functional and more empowered. Changes in management styles are also seen in technically simple systems such as the Online Dialogue between Businesses and Authorities in HCMC. This has relied on a simple web-platform forum but has made significant achievements; for example, the system gathers almost all principal government agencies in this project to answer thousands of questions raised by the business community (section 8.3.3). Critically, however, since it first began operation in 2003 this system has depended on strong leadership from the People's Committee. Elsewhere the research findings indicate that leadership in provincial governments confronts major challenges such as low ICT familiarity and other more pressing policy priorities. At this stage initiatives like the ODBA are uncommon. As a result, changes to management in government agencies remain limited.

However, progress has been made in communications within and between public agencies. Multi-media conference systems have been installed and operate in several provinces.

These have significantly improved communications between central and provincial governments and between agencies within provinces. Email systems have been increasingly used among public servants. However, these applications remain internal. External communications (between public servants and citizens) remain limited to the government's online presence such as web pages, portals which provide information on public policy and governance, forms, reports, and laws and regulations. Arguably, there is a certain increase in government transparency brought about by these e-initiatives, although this is limited to a minority of cities and provinces.

With regard to service delivery, there have been specific improvements in advanced initiatives. However, these are limited to developed cities like HCMC or in specific advanced e-initiatives. As analysed in chapters Seven and Eight, e-Customs clearance and the OBRS have significantly improved service delivery: fewer physical contacts and rapid results, which limit changes for corruption. But, as has been shown, services like this remain isolated examples. For other common services such as legal documents, administrative procedures and feedback forms, the provinces or cities that can provide satisfactory services remain in a minority, at 5% or less.

11.3 Implications of the Thesis

The thesis has both theoretical and practical implications.

11.3.1 Theoretical Implications

The findings of this exploratory research have theoretical implications in the literature of e-government and of administrative reform initiatives in developing countries and transitional economies.

- Enhancement literature of e-government

The research findings reinforce the utility of the conceptual model. The model is holistic in that it draws on relevant previous studies and avoids shortcomings of models that are either ICT-centric or institution-centric. In particular, the thesis strengthens the important roles played by factors in terms of state capacity and infrastructure. In addition, domestic context factors, which were neglected in previous models, are also shown to have important roles in influencing user take-up. The thesis also indicates the relationship among factors in the

model. Accordingly, it is demonstrated that transformational leadership tends to empower steering capability which in turn leads to better strategy formulation and better legal environment. In addition, better strategy makes a difference to infrastructure building and to the feasibility of e-initiatives. Therefore, the contribution of the thesis is not only on the formation of the provision of holistic model but also in highlighting the key factor in these three groups of factors in the model.

Another important contribution to the e-government literature is the inclusion of the two factors: financial affordability and cultural issues which characterizes the domestic context. The factors are more about the demand side (the citizens) than supply side (the government). This is important because the demand side is commonly discussed in the literature of e-government while the supply side is often neglected. As the citizens are still struggling to afford ICT, the usage rate for e-services remains low no matter how convenient the e-services are. It is also shown that, even in the cases where ICT costs and computer literacy are not a problem, ingrained habits, such as face-to-face and relations-based transactions among citizens and officials can impede e-government development. Therefore, consideration of these additional factors, especially in the developing country context, can improve the take-up of e-government, which, as shown in this study and confirmed by the OECD (2009) has been at alarmingly low levels. Overall, the findings demonstrate the important roles of supply side and also highlight the need to investigate the demand side when rolling out any e-government services.

In terms of research methodology in e-government, previous models as analysed in the thesis neither took into account the views of e-government stakeholders nor use an appropriate research methodology. As a result, the findings tend to be normative. In this study, diverse views from four stakeholders of e-government (politicians, senior public managers, IT professionals and mainstream staff), were taken into account with case-study approach also contributes to the research methodology in studies of e-government implementing models.

- Implications for developing countries and transitional economies on complexities of reform initiatives

Competing and urgent demands for socio-economic development in the context of a developing country can complicate e-government targets. Implementing e-government

often requires an intensive outlay of resources. It is, however, common in developing countries that resources in the promotion of development are scarce (Bhatnagar, 2004; Hope, 2009). As a result, in the government policy agenda, programmes are understandably often placed lower than other urgent demands such as poverty reduction. The findings highlight the fact government officials in charge of e-government are often struggling with poor resource allocation and have to 'fight' for it. Without a highly developed capacity at the high levels of government, particularly transformational leadership can both set aside sustainable resources and follow through on initiatives, the trajectory of e-government projects is likely uncertain.

Given the scarcity of resources in developing countries, international organizations often play large roles, especially in providing financial assistance and technical advice in e-government implementation. However, international assistance should combine domestic understanding to ensure success of funded projects. Apart from other contributions discussed above, this study identifies the critical roles played by international donor agencies. The study's findings suggest that several e-government projects could have not been in place if there were no assistance from international donor agencies. Yet, certain of these funded projects, such as the ASYCUDA project in HCMC, failed, which strengthens the claims that advice from international organizations is not always useful (McCourt, 2008). This finding further acknowledges the need of indigenization of international practice in a specific domestic context of developing countries rather than a mechanical image of the foreign models (Kim, 2009).

This exploratory study also indicates several constraints of state capacity in initiating an administrative reform measure. This study indicates three constraints: authoritarianism, lack of evaluation, and lack of participation; these problems are thought to be common in other developing countries (Kim, 2009). Although the increased assertiveness of the National Assembly of Vietnam is demonstrated, there is still a lack of accountability and responsibility of government and Party officials for their performance. Further, the lack of participation of think-tanks and insufficient evaluation of performance failed to stop problematic projects such as project 112, thus making poor projects prolong with huge associated cost.

Certain normative claims in previous studies (e.g. Chen, 2006) regarding factors important to e-government implementation in developing countries are strengthened by this research.

Factors that are thought to be common in developing countries supported by the findings of this study include: short history of democracy which leads to less experienced in democratic system and less active participation in government policy-making process; limited financial capacity; underdeveloped ICT infrastructure; low priority for e-government implementation; low internet access for ordinary citizens; and few citizens are able to use computers.

Finally, regarding public governance in a transitional economy with an adapted version of Stalinist model, a further important contribution is the analysis of the complex relationships between top organs in the political system which vitally affect implementation of e-government initiatives. This analysis adds not only to understanding of the context in which e-government is developing but also to the contemporary literature of public administration in the context of a transitional economy and a developing country. Only a few states with a communist system remain and each has adapted the Stalinist model in different ways. The discussion on the organizing and operational principles between the Party and the State provides an important insight into challenges for contemporary public administration in Vietnam where the influence of the Party remains strong in all aspects of political life. These findings are enhanced by rich and relevant sources of data, especially from transcriptions of interviews with former high-ranking officials in the Party and State. It does however show that when key Party and Government officials back an initiative considerable progress can be made rapidly; however, the process of gaining the necessary consensus for reform is uncertain and not easily mapped. The findings therefore contribute considerably to the literature of public administration and politics in Vietnam and possibly other transitional societies.

11.3.2 Practical Implications

Vietnam formally embarked on its e-government journey in the early 2000s. Despite many failures, several initiatives continue and are growing in significance (Prime Minister of Vietnam, 2010a). Apart from initiatives by the government, aid agencies have promoted and are likely to implement a number of other e-projects in Vietnam (McCarty, et al., 2009).

The following practical implications from this study are therefore important for both policy makers in Vietnam and other developing countries and international development agencies. While the policy makers in Vietnam are the main target that these implications aimed at, international development agencies are also beneficial as they can speed up the process of

e-government implementation by incorporating these implications in their funded projects in other developing countries.

Separation of the functions of Government and Party

The research indicates that the intervention of the Party distorts the operations of government in making decisions. The research therefore supports views canvassed by reformers in Vietnam that the respective functions of the government and the Party need to be more clearly stated. There is no law regarding the role of the Party. Because of this, the motto that the 'Party leads, State manages' lacks a clear mechanism to express operational relationships. Intervention by the Party in important decisions on staffing and policies has contributed to government members' avoiding responsibility and accountability for serious mismanagement. This could be rectified by a law about the Party which clearly specifies its functions and conduct in the political system. Once such a law is in place, current laws on the Organization of Government and on the Organization of the National Assembly may become more practical. Otherwise, as discussed in Chapter Five, the prerogatives of government members regulated under these laws remain largely theoretical, because the Government and the National Assembly are currently significantly influenced by Party decisions.

The argument of accountability and efficient decision making necessitates that the Prime Minister and ministers must be autonomous in their decisions. This means that collective decision making should be limited in some way. At the same time, the Prime Minister and government members have to be fully responsible and accountable to the National Assembly for their performance, including reform initiatives. Similar arrangements should also be applied to provincial governments. To achieve this, a suggested solution in provincial governments is to merge the two positions of Party Secretary and President of the People's Committee. This merger would help solve not only the dilemmas in the power structure (analysed in Chapter Five and section 10.2.2), but also simplify the overlapped structure (of Party and Government).

Enhance the capacity of e-government stakeholders

As noted in the discussion of theoretical implications, e-government stakeholders include politicians, senior public managers, IT staff and mainstream staff. To achieve better e-government performance, the capacity of e-government stakeholders should be enhanced:

- Political leaders in central and provincial governments need to develop and practise transformational leadership qualities; these are demonstrated by stimulating creativity, enhancing awareness of ICT roles and enabling subordinates to extend their potential. The central government should develop a mechanism to oversee how provincial governments exercise transformational leadership.
- Public managers (ministers at central level and department directors at provincial level) must learn to use basic ICT applications. By using ICT they serve as role models and generate a need for subordinates to use ICT applications. In addition, these public managers should engage in e-government activities, oversee their progress, and support subordinates in the process of implementation in their departments.
- The important role of IT staff must be recognized in the public service system by formal titles and an appropriate career path with potential for promotion to senior levels based on merit and not time served, as has traditionally been the case in Vietnam. In addition, financial support mechanisms need to be put in place to retain the current IT workforce and attract new recruits.
- Public servants need be provided with incentives to support e-initiatives by increasing their salaries so that they can live without recourse to informal sources of income. The support of public servants should lead to the expansion of e-initiatives, which in turn reduce the opportunities for corruption.

Establish sustainable e-government funds

- E-government funding at both central and local government should be enshrined in law or legally binding documents to ensure the sustainability of e-projects. Funds are best allocated from the central governments to those provinces that are backed with strong accountability mechanisms which ensure that the budget is spent as intended and produces the planned results.

- Since the state budget is constrained, the central government should seek international funding assistance or loans from multilateral agencies and then allocate these to provincial governments. Provincial governments must actively seek all sources of possible funds while also seeking a legally fixed budgetary allocation.
- The planning mechanism for funds needs to be reformed so that funds can reach provincial beneficiaries at the beginning of the year of implementation, instead of in the middle of the year, causing delays in provincial provinces.

Formulate feasible strategy

- E-government strategy must ensure that e-government activities have a high priority in the government agenda of both levels. Once it is high, resources are more likely to be allocated and there should be more attention from public managers.
- E-government strategy should make clear the answers to the question 'who does what', particularly for key e-government stakeholders. More effective mechanisms of both incentives and disciplines need to be developed so as to ensure that the capacity of stakeholders is enhanced.
- Determination of potential users must precede the implementation of e-initiatives. Resources have been wasted on complex systems for which the take-up rate is very low. The negative effects of such initiatives not only include poor cost-effectiveness but also promote hesitation by the central government or donors in funding future e-initiatives no matter how good their potential appears.
- The central government must play a greater role in preventing 'fad' projects rather than actual use by developing a framework to determine the relevance of projects to a locality before the decision is taken and overseeing the take-up rate once the e-initiatives are operating.

Enhance steering capability

- Steering capability needs to be enhanced by assigning more influential leaders to the National and Provincial E-government Committees.

- At the central level, the National E-government Steering Committee (NESC) must report to the Prime Minister or a Politburo member. The head of NESC should be a deputy prime minister. NESC should have subordinate committees and think-tanks which can advise on a fuller range of issues relevant to e-government implementation, rather than rely on a single department which is IT-centric. Currently, except for contributions from divisions in the Ministry of Information and Communications that analyse e-government progress by the ranking websites/portals and ICT application of government agencies, the Informatics Association provides the Vietnam ICT index. Since they are ICT-centric, these bodies can provide technical solutions. However, e-government implementation as presented in the research requires more than just technical solutions. Reorganizing the structure of steering committees is increasingly pressing.
- At provincial government level, the head of the Steering Committee should be given to the President of the People's Committee. The Department of Information and Communication (DIC) must be empowered to steer e-government activities, including the right of funds allocation. This recommendation should go in line with earlier ones which suggest that the provincial Party Secretary and President of the People's Committee are merged and that this position should have the transformational leadership qualities as suggested earlier.

- Steering committees at both levels of government must be responsible for performance and be accountable to the National Assembly and/or the People's Council (through independent evaluations as suggested below).

Develop a facilitating legal framework

- Legal documents issued by the central government need to be more relevant and feasible by taking into account the situation of provincial governments. Implementation details of relevant laws or other legal documents need to be improved.
- Provincial governments must also complement central laws by actively providing supporting regulations such as coordination mechanisms.

Make strategic investments in infrastructure

- Policies from governments at both levels should first aim to reduce digital divide between and within provinces. This will enhance participation by residents. In particular, solutions to boost the access of residents to ICT tools and networks should be formulated.
- Given the costly investment in conventional ICT infrastructure such as landline telephones, alternative technologies should be considered. Mobile phones and devices may be potential solutions. As the economy grows more people will have access to increasingly powerful mobile devices. However, mobile phone internet linkage remains rare and expensive in many provinces. Therefore suitable service development and pricing policies should be considered. In addition, the wide network of post offices in province can provide free internet training services for the people.

Tackling cultural and affordability barriers

- Operationalizing e-projects in an environment of 'face to face' dealings, family ties, political ties and 'income augmentation' will never be an easy task. However, as younger people move into key jobs, the culture in workplaces in both government and business may change. This can be enhanced by promoting measures to raise awareness among public servants and cadres of the fact that citizens (the tax payers) have the right to be served, rather than the practicing the 'begging-giving' mechanism (cơ chế xin cho) which has long been rooted in Vietnam society. In the same vein, it is also important to train school children about citizens' rights, including the right to be served by government agencies.
- Further, demonstration of successful pilot e-initiatives should be boosted to gradually change the conventional perception and the habits of face-to-face transactions.
- More critical examination of financial affordability for provincial governments and their citizens is important. Socio-economic conditions are significantly different across regions and provinces in Vietnam. A successful e-initiative in one province does not necessarily mean it can be replicated in another.

Establish independent project oversight bodies

To hold steering committees responsible and accountable for e-government outcomes, the performance of overall e-government initiatives must be evaluated periodically by independent bodies. These bodies should be committees of the National Assembly and People's Councils of central and provincial government levels. The effectiveness of oversight activities will be enhanced if a law on the Party is in place (Recommendation 01) so that the National Assembly and the People's Council can perform their tasks with independence.

Effectively use support from international donors

The study shows that e-government is no quick fix or short cut. Relying on chance the support from political leaders or financial and technical assistance from donors will be insufficient. In relation to projects that involve international donors, it is important to assess important factors in e-government implementation. Early initiatives such as Customs offices (ASUCUDA) and the online business registration system in Daklak Province show that willingness and support from donors and Daklak authorities are not sufficient to ensure success. For this reason projects must be carefully selected to ensure that the right conditions for their success are in place. These include the four groups of factors found in the thesis: state capacity, infrastructure and human capital, the domestic context, and international donor and lending agencies. However, putting into place specific essential factors such as political support, steering capabilities, funding, technical infrastructure, and skilled technical staff has proved difficult. Selection of suitable future donor supported e-projects needs very careful consideration.

11.4 Limitations of the Research

The principal limitation of the research is its generalizability. The study is conducted for the case of Vietnam, a developing country with a transitional economy. Despite its contribution to e-government literature, there is a problem in generalizing the study's findings to another context. As discussed in the review of the literature on research methodologies (section 3.6), the principal reason is that in social science research, models are rarely replicated because of differences in context, time, politics, society and economic conditions. The structure of government and the role of the Party in Vietnam are different from many developing

countries. Cultural factors, especially regarding the role of civil society, are also very different.

A further limitation is the lack of detailed analysis of emerging technical issues in e-government implementation. The study examines essential questions about e-government strategy, but it does not scrutinize in detail emerging issues such as interoperability, technical standardization, privacy and security issues, and copyright issues. These issues will, however, be reserved for further study.

11.5 Future Research

As the conceptual model has worked in the case of Vietnam, testing the model in other contexts is an important further step.

Comparative research, in which the model is used, for example, between Vietnam and a more developed nation like South Korea, would both help enhance the external validity of the model and offer opportunities to compare how efficiently resources are used in implementing e-government in Vietnam.

Research that deepens examination of technical e-government strategies (as noted in the previous section) would complement the conceptual framework developed in this study.

11.6 Conclusion

The thesis argues that Vietnam initiated its e-government initiatives mainly because of ambitions to reform public administration. These ambitions followed the transition to a market-based economy and consequent pressure from processes of international economic integration. Factors proved to be critical in e-government implementation include: state capacity, ICT infrastructure and human capital, the specific context of the level of governments studied, and international donor organizations. Overall, relationships between Party and State in a one-party state and how these affect the exercise of government power have constrained the capacity to implement e-government. Finally, the thesis argues that changes brought by e-government to current public administration are limited to specific impacts on communications and service delivery in particular government agencies. At this stage, redesign of public sector structures, business processes and management principles remains rare.

The thesis contributes to the international literature on e-government implementation, especially the sparse literature on implementation in developing countries. It is hoped that the implications from the study are of value to the government of Vietnam, international development agencies and other developing countries. An agenda for further research is suggested.

Overall, the thesis provides insights into challenges facing contemporary public administration in Vietnam. It shows how e-government initiatives arose from ambitions to reform public administration, while also being hampered by continuing problems in the administration. It identifies key drivers of effective e-government implementation. It reveals the importance of context in e-government implementation. And it shows that, at this stage, changes brought to the traditional bureaucracy by e-government are limited. The thesis has therefore attained the research objectives.

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APPENDIX A

Semi-Structured Interview Questions

Questions for Public Manager-Level Interviewees (Overall e-initiatives)

1. Can you describe the main e-government initiatives in your province?
2. Can you brief me on the context of the development of these initiatives?
3. How is the pilot project (by the central government) progressing in your province/city?
4. What are the role of leaders of your province/city (both People's Committee and Party leaders) – on e-government and ICT (Information and Communications Technologies)?
5. To what extent do the departmental leaders use ICT-applications such as computers, emails and information searching in their work?
6. What are the main sources of funds for e-government in your province/city? Is the funding sustainable and sufficient?
7. How often does your department prepare an e-government strategy for the province/city?
8. What is the main content of the e-government strategy?
9. It seems that every province now has an ICT steering committee; how does it work in your province/city?
10. How do you evaluate the legal framework and regulations for e-government development in the province?
11. Some other provinces and cities provide other regulations and mechanisms to promote e-government; what arrangements does your province/city have?
12. Could you describe the overall situation of the IT workforce in the province/city? Are there any challenges facing this workforce?
13. Are there any cultural factors or habits of either public servants or citizens that hinder the implementation of the e-government process?
14. Are citizens ready to use the e-initiatives, financially and technically?
15. The uptake rate is generally low for certain e-initiatives in other provinces; is this a problem in your province/city? If so, why?
16. In your opinion, what are the most challenging factors that your province/city faces in implementing e-government?
17. What are the the most critical factors in e-government implementation?
18. What needs to be done to improve e-government, in your opinion?

Questions for Public Manager-Level Interviewees (Single e-initiatives)

1. Can you describe the process for the the establishment of the e-service in your department/branch?
2. What are the initial objectives of this e-service?
3. From your perspective what are the best benefits (for your organization and clients) that this new system brings?
4. How does the organizational structure change after implementing e-services?

5. Are your employees more empowered when working in the new system? If so, in what way?
6. Can you describe the performance of your system?
7. What are the critical factors in developing and operating the system?
8. How do you view the role of the leaders in the development and operation of the e-service?
9. Was this initiative self-funded by the department or is it funded by other sources?
10. Are there any difficulties in relation to funding?
11. How would you describe the coordination of the participating agencies and people in the e-initiative?
12. In terms of legal framework and regulation, are these sufficient and facilitating?
13. Is there any special mechanism provided for the system from your department or provincial/city government to facilitate the implementation of this project? If yes, how do they work?
14. Does your system need full-time IT staff? If yes, are there any issues related to recruiting and retaining this type of staff?
15. Have the operational staff welcomed the initiative? Why?
16. What are the difficulties facing the department during the process of implementing these online services?
17. Are there any cultural barriers from your institution or from the users? If so, what are these?
18. Overall, what factors do you think are critical in developing the e-service in your department (branch)?

Questions for IT Staff Interviewees

1. How would you describe the procedures in the current system in your department?
2. What preparation is required for this system to be put in place, technically?
3. How would you describe the ICT infrastructure in your province/city for government agencies and for citizens? Are they ready for this service?
4. Is there any divide between the people who have access to ICT tools and services and those who do not? Why is this?
5. What are the prospects for the development of the system?
6. What are the challenges that face the implementation of the system?
7. What are the critical factors for advancing an e-initiative like yours?

Questions for Public Servants Interviewees

1. How is the e-initiative system working?
2. In your opinion, what are the best benefits that this system brings?
3. Are there any difficulties with the new system?
4. What are the changes in your job functions since the new system set in?
5. How do you coordinate with others under the new system?
6. How differently do you interact with your managers and customers under the new system, compared to the paper-based one?
7. Can you give specific examples of how ICT helps you to perform your new functions?

Questions for Enterprises' Representatives Interviewees

1. How does the new system benefit your enterprise?
2. What are the major changes that the system brings in (for example, in the formal procedures), compared with the traditional system?
3. Can you give me an example of the benefit your company gets from this new system (time and cost, for example)?
4. How satisfied are you with the new system?
5. Are there any problems with the systems that affect your company?
6. In your opinion, what has to be improved in order to achieve a better service (if any)?

Questions for Donor Coordinator

1. What are the advanced features of the e-initiative that your organization introduced?
2. How do the authorities and public servants embrace the e-initiatives?
3. How do the users welcome the e-initiative?
4. How would you describe the ICT infrastructure in those locations that you have deployed the e-initiatives?
5. Does the current legal framework support the implementation of the e-service?
6. What challenges do you face?
7. What are the most important factors in implementing an e-initiative, in your opinion?

APPENDIX B

(Time of and Place of Interviews)

No	Code	Interview Time	Place
1	Interviewee 01	July 2009, November 2010	Ho Chi Minh City
2	Interviewee 02	May 2009	Ho Chi Minh City
3	Interviewee 03	April 2009	Daklak Province
4	Interviewee 04	July 2009	Ho Chi Minh City
5	Interviewee 05	September 2010	Telephone Interview
6	Interviewee 06	April 2009	Daklak Province
7	Interviewee 07	May 2005	Daklak Province
8	Interviewee 08	May 2009	Daklak Province
9	Interviewee 09	May 2009	Daklak Province
10	Interviewee 10	April 2009; October 2010	Daklak Province
11	Interviewee 11	May-June 2009; June 2010	Ho Chi Minh City
12	Interviewee 12	October 2010	Daklak Province
13	Interviewee 13	April 2009; November 2010	Ho Chi Minh City
14	Interviewee 14	July 2009	Daklak Province
15	Interviewee 15	June-August 2009; October 2010	Ho Chi Minh City
16	Interviewee 16	June 2009	Ho Chi Minh City
17	Interviewee 17	July 2009; October 2010; July 2011	Ho Chi Minh City
18	Interviewee 18	July 2009	Ho Chi Minh City

APPENDIX C

(The 2009 E-Government Symposium Agenda in Vietnam)

CONFERENCE AGENDA

Thursday, July 16th,2009	
08:00	**Conference Registration**
08:20 - 09:00	**PLENARY SESSION** **Opening Speech:** Mr. Nguyen Minh Hong, Vice Minister, Ministry of Information and Communications (MIC) **Guideline Speech:** Prof. Dr. NGUYỄN THIỆN NHÂN, Deputy Prime Minister Head of Steering Committee, The National Steering Committee on Information and Communication Technologies **Opening Remarks:** Mr. Nguyen Thanh Tai, Vice Chairman, Hochiminh City's People Standing Committee Mr. Patrick J. McGovern, Chairman, International Data Group
	KEYNOTE SESSION
09:00	**IT application in Vietnam public sector 2009: facts and figures, emerging issues and direction** *Mr. Pham Van Hai ,Vice Director, IT Application Promotion Department, MIC*
09:20	**Building e-government at provincial level (E-City): Experience and lesson of Hochiminh City** *Dr. Le Manh Ha, Director, Department of Posts and Telematics of Hochiminh City*
09:40	**BREAK** **OPENING CEREMONY OF EXHIBITION AND VIP TOUR**
10:30	**IT for Better Government: International Best Practice** *Mr. Raphael Phang, Vice President, Government Insights Asia/Pacific, IDC Asia/Pacific*
10:50	**Improve IT applications in public sector: Finance, technology and project management** *Mr. Pham Kim Son, Director, Department of Information and Communications of Danang City*
11:10	**Looking for an effective way to computerize the administration procedures .** *Mr. Nguyễn Tử Quảng, Director, BKIS*
11:30	**Open discussion:** Chaired by: Dr. Nguyen Minh Hong, Vice Minister of Information and Communications
12:00	**Luncheon**

APPENDIX C (Continued)

(The 2009 E-Government Symposium Agenda in Vietnam)

13:30 - 17:00	**SECTION 1:** **BUILDING FUNDAMENTAL IN DEVELOPMENT OF E-GOVERNMENT** Chaired by: Mr. Pham Kim Son, Director, Department of Information and Communications of Danang City	**SECTION 2:** **PRIVATE PUBLIC PARTERSHIP (PPP) IN BUILDING E-GOVERNMENT** Chaired by: Mr. Chu Tien Dung, Chairman, Hochiminh City Computer Association
13:30	**KPI for the development of e-Government** *Mr. Pham Van Hai ,Vice Director, IT Application Promotion Department, MIC*	**Building Internet Data Center in development of e-Government of Hochiminh city** *Mr. Chu Tien Dung, Chairman, Hochiminh City Computer Association*
13:50	**Establishing standards for e-Government operation & interoperability** *Mr. Ngo Truc Lam, CTO, Software Development Center, University of Economics – Finance Hochiminh City*	**commune-level area network based on educational network with Viettel (video conference)** *Mr. Quach Tuan Ngoc, Director, Department of Information and Communication Technologies, Ministry of Education and Training*
14:10	**Using WAN & LAN in the development of e-Government of Dongnai Province** *Mr. Le Hoang Ngoc, Vice Director, Department of Information and Communications of Dongnai Province*	**Public Private Partnerships to enhance public service and e-Governance** *Mr. Suhas S Hiwale, CEO, Sequent Infosystems Limited*
14:30	**Break**	**Break**
14:40	**Case study on IT implementation on Administration Procedures of Baria-Vungtau provinces** *Mr. Nguyen Van Tru, Director, Department of Information and Communications of Baria-Vungtau Province*	**Building data center for fundamental development of national public services.** *Mr. Shuhei Anan, Vice Chairman, Dong Tam Joint Stock Company*
15:00	**Administration Procedure Reform and IT implementation in Hochiminh city** *Mr. Le Hoai Trung, Vice Director, Department of Home Affairs of Hochiminh City*	**USTDA Assistance and E-governance** *Mark J. Dunn Regional Manager for Asia U.S. Trade and Development Agency*
15:20	**New threats and how to deal with them** *Mr. Craig Johnston, APEC Channel Manager, ESET*	**Private Public Partnership: Outsource and Software as a service (SaaS)** *Mr. Trần Lương Sơn , CEO, Vietsoftware*
15:40	**Discussion** Chaired by: Mr. Pham Kim Son, Director, Department of Information and Communications of Danang City	**Discussion** Chaired by: Mr. Chu Tien Dung, Chairman, Hochiminh City Computer Association

APPENDIX C (Continued)

(The 2009 E-Government Symposium Agenda in Vietnam)

Friday July 17th, 2009		
08:00	**Conference Registration**	
08:00 – 12:00	**SECTION 3:** **E-GOVERNMENT AT PROVINCIAL LEVEL: BEST PRACTICES** Chaired by: Mr. Nguyen Anh Tuan, Vice Director, Department of Posts and Telematics of Hochiminh City	**SECTION 4:** **TECHNOLOGY & GUIDELINE TO DEVELOP E-GOVERNMENT** Chaired by: Mr. Nguyen Minh Thong, Director, Department of Information and Communications of Cantho Province
08:30	**Building "electronic one-stop" eGovernment in Hochiminh city** *Mr. Nguyen Anh Tuan, Vice Director, Department of Posts and Telematics of Hochiminh City*	**Building Fundamentals for Successful Development of e-Government – Our Perspective** *Mr. Muralidhara Honnur, General Managers, Wipro Consulting Services, Government & Defense Vertical, Wipro*
08:50	**IT application for building electronic one-stop, interoperable one-stop at provincial level authority, first period (2007-2010)" project: Status of implementation at Longan Province** *Mr. Le Van Bich, Director, Department of Information and Communications of Longan Province*	**Checklist for e-Government leaders (pre recorded)** *Mr. Yih-Jeou Wan, Head of Unit, Project Leader - OECD E-Government Project, Innovation and Integrity Division, Public Governance and Territorial Development Directorate, OECD*
09:10	**IT implementation in Longan Province: experience and lessons** *Mr. Truong Minh Thuan, Director, Department of Information and Communications of Angiang Province*	**Open-source software solution on managing working documents and administration Procedures** *Mr. Pham Quang Son, CEO, Hanel Com*
09:40	**Challenges and favorable conditions of IT implementation in Lamdong Province** *Mr. Nguyen Trong Hoang, Director, Department of Information and Communications of Lamdong Province*	**Implementation and management of e-government projects: case studies of Ho Chi Minh City and Daklak province** *Mr. Nguyen Quang Trung, PhD student, Monash University*
10:00	**IT implementation in Lamdong Province: experience and lessons** *Mr. To Trong Ton, Director, Department of Information and Communications of Laocai Province*	**PKI (public key infrastructure) solution for enterprises and organizations** *Mr. Hoang Quoc Khanh, Vice Director, Nacencomm*
10:20	**Break**	**Break**
10:30	**Discussion province** Chaired by: Mr. Nguyen Anh Tuan, Vice Director, Department of Posts and Telematics of Hochiminh City	
11:00	**Conference Closing** Prof. Dr. Đỗ Trung Tá, Vice Director, The National Steering Committee on Information and Communication Technologies	

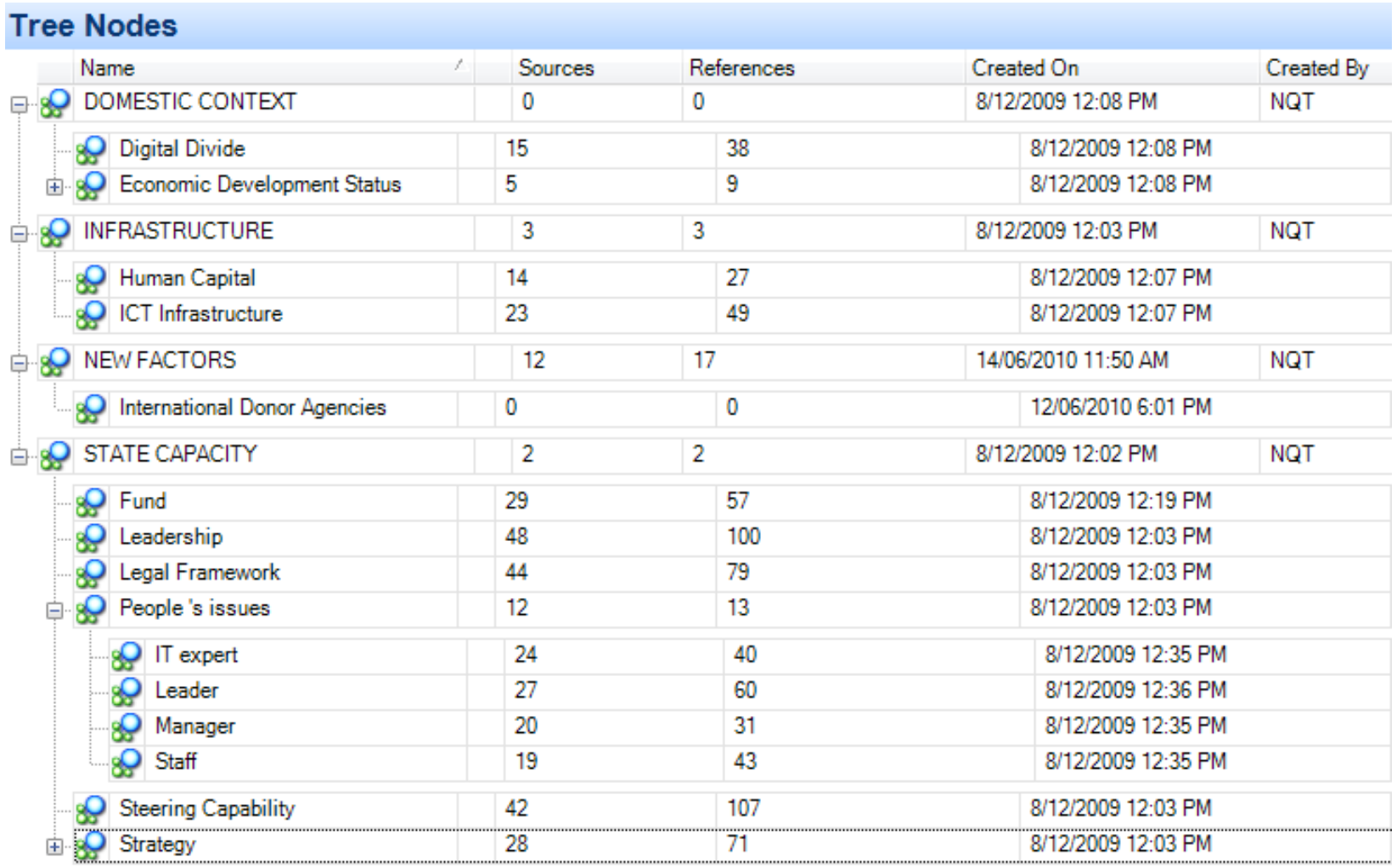
APPENDIX D

(List of Direct Observations in the 2009 E-Government Symposium in Vietnam)

NO	CODE	NAME	POSITION(S)
1	**Observation 01**	Nguyen Thien Nhan	Deputy Prime Minister – Head of National Steering Committee on ICT
2	**Observation 02**	Do Trung Ta	Deputy Head of National Steering Committee on ICT
3	**Observation 03**	Pham Kim Son	Director of the Department of Information and Communications of Da Nang City
4	**Observation 04**	Nguyen Minh Hong	Deputy – Minister of Information and Communications - Head of National E-government Committee
5	**Observation 05**	Truong Minh Thuan	Director of the Department of Information and Communications of An Giang Province
6	**Observation 06**	Le Manh Ha	Director of the Department of Information and Communications of HCMC
7	**Observation 07**	To Trong Ton	Director of the Department of Information and Communications of Lao Cai Province
8	**Observation 08**	Nguyen Dinh Dinh	Director of the Department of Information and Communications of Lam Dong Province
9	**Observation 09**	Nguyen Tu Quang	Director of Software Corporation (BKAV)
10	**Observation 10**	Le Hoang Ngoc	Vice-Director of the Department of Information and Communications of Dong Nai Province
11	**Observation 11**	Nguyen Anh Tuan	Vice-Director of the Department of Information and Communications of HCMC
12	**Observation 12**	Le Van Bich	Director of the Department of Information and Communications of Long An Province

APPENDIX E

(Conceptual Framework in Tree Node of N-Vivo package)



Tree Nodes

Name	Sources	References	Created On	Created By
DOMESTIC CONTEXT	0	0	8/12/2009 12:08 PM	NQT
Digital Divide	15	38	8/12/2009 12:08 PM	
Economic Development Status	5	9	8/12/2009 12:08 PM	
INFRASTRUCTURE	3	3	8/12/2009 12:03 PM	NQT
Human Capital	14	27	8/12/2009 12:07 PM	
ICT Infrastructure	23	49	8/12/2009 12:07 PM	
NEW FACTORS	12	17	14/06/2010 11:50 AM	NQT
International Donor Agencies	0	0	12/06/2010 6:01 PM	
STATE CAPACITY	2	2	8/12/2009 12:02 PM	NQT
Fund	29	57	8/12/2009 12:19 PM	
Leadership	48	100	8/12/2009 12:03 PM	
Legal Framework	44	79	8/12/2009 12:03 PM	
People 's issues	12	13	8/12/2009 12:03 PM	
IT expert	24	40	8/12/2009 12:35 PM	
Leader	27	60	8/12/2009 12:36 PM	
Manager	20	31	8/12/2009 12:35 PM	
Staff	19	43	8/12/2009 12:35 PM	
Steering Capability	42	107	8/12/2009 12:03 PM	
Strategy	28	71	8/12/2009 12:03 PM	

APPENDIX F

(Explanatory Statement of the research and a certified copy of the Vietnamese translation)

MONASH University

26 February 2009

To whom it may concern:

Research title:
PUBLIC ADMINISTRATION MODELS AND E-GOVERNMENT INITIATIVES: EVIDENCE FROM VIETNAM

My name is Trung Quang Nguyen, a PhD student at Monash University, Australia. I am also a lecturer at the faculty of Business Administration, Open University, Ho Chi Minh City, Vietnam.

I am writing to explain my research objectives and ask for your permission to collect data for my doctoral thesis. My research is supervised by Professor Julian Teicher and Dr. Bob Smith at Monash University, Australia. The main objectives of this research are to investigate how the important factors of e-government development are managed in Vietnam, and how e-government contributes to the contemporary model of public administration. If you have any further inquiries about the research, please contact Prof. Julian Teicher at his email: Julian.teicher@buseco.monash.edu or telephone: +64.3.99034586.

I am conducting interviews with people at different organizational levels, including manager or vice manager, IT professionals and staff, about their perspectives on e-government implementation at your organization. I am requesting your permission in the interview process.

At any time, participants are free to decide whether they take part or not. Note-taking will be used to record information. Interview outcomes will be double checked with participants before they can be used. The information collected will only be used for the purposes of the research and will be treated as strictly confidential. In particular, interview records will be kept for five years then be destroyed, and they are only accessible by researchers. In the event that the participants wish to request the summary of the research results, they can contact the researcher at one of these email addresses:

quangtrung.nguyen@buseco.monash.edu.au or trung.nq@ou.edu.vn.

Regarding interview length, each interview will last about 1 hour. I can assure that the interviews will not affect employees' productivity as they are conducted after work hours.

Faculty of Business and Economics
Faculty Office
PO Box 197, Caulfield East VC 3145, Australia
Building S. Caulfield Campus
26 Sir John Monash Drive, Caulfield East
Telephone +61 3 9903 1324 Facsimile +61 3 9903 1301
www.monash.edu.au
ABN 12 377 614 012

Should you have any complaint concerning the manner in which this research is conducted, please do not hesitate to contact the Monash University Standing Committee on Ethics in Research Involving Humans at the following address: Executive Officer, Human Research Ethics Building 3E, Research Office Monash University VIC 3800 Tel: +61 3 9905 2052 Fax: +61 3 9905 1420.

You can also make complaints (if any) about the research in Vietnamese to Ms Mai Thi Hoang Yen, who will pass them on to the above mentioned committee, at the following address: the Academic Manager of the joint project of Saigon Technology University and Troy University, USA; Room A204, Building A, 180 Cao Lo St., Ward 4, Dist. 8, Ho Chi Minh City; Tel: +84 8 6263 0792; email: mthyen@troyhcmc.edu.vn.

I would like to express my deepest gratitude to you on behalf of Monash University, Australia, and Open University, Ho Chi Minh City for your contribution to this research.

Sincerely yours,

[redacted]

Trung Quang Nguyen

Certified by supervisor

[redacted]

Professor Julian Teicher
Director of Graduate School of Business

Faculty of Business and Economics
Faculty Office
PO Box 197, Caulfield East VC 3145, Australia
Building S. Caulfield Campus
26 Sir John Monash Drive, Caulfield East
Telephone +61 3 9903 1324 Facsimile +61 3 9903 1301
www.monash.edu.au
ABN 12 377 614 012

TRƯỜNG ĐẠI HỌC MONASH

26 Tháng Hai 2009

Kính gởi Quý Ông Bà

Đề tài nghiên cứu:
CÁC MÔ HÌNH QUẢN TRỊ HÀNH CHÍNH VÀ CÁC SÁNG KIẾN SỬ DỤNG HỆ THỐNG ĐIỆN TỬ TRONG GUỒNG MÁY CHÍNH QUYỀN: CHỨNG CỨ TỪ VIỆT NAM

Tôi tên Nguyễn Quang Trung, nghiên cứu sinh văn bằng Tiến sĩ tại trường Đại học Monash, Úc châu. Tôi đồng thời là giảng viên khoa Quản Trị Kinh Doanh của trường Đại học Open University tại Thành phố Hồ Chí Minh, Việt Nam.

Nay tôi viết thư này nhằm giải thích cùng Quý vị mục tiêu cuộc nghiên cứu của tôi và xin quý vị vui lòng cho phép tôi được thu nhập dữ kiện cho đề tài nghiên cứu sinh này. Cuộc nghiên cứu được giáo sư Julian Teicher và Tiến sỹ Bob Smith của trường Đại học Monash tại Úc châu hướng dẫn. Mục tiêu chính của cuộc nghiên cứu là để tìm hiểu xem những yếu tố quan trọng của việc phát triển hệ thống điện tử trong guồng máy chính quyền được quản lý như thế nào tại Việt Nam, và việc áp dụng hệ thống điện tử trong guồng máy chính quyền này đóng góp như thế nào trong mô hình quản trị hành chính hiện đại. Muốn tìm hiểu thêm chi tiết, xin liên lạc với giáo sư Julian Teicher qua địa chỉ email: julian.teicher@buseco.monash.edu.au hoặc qua điện thoại số: +64.3.99034586

Tôi sẽ thực hiện tiến trình phỏng vấn với nhân viên ở các ngạch bậc khác nhau tại quý cơ quan, quý vị giám đốc hoặc phó giám đốc, các chuyên viên phụ trách kỹ thuật điện tử và các nhân viên, về quan điểm của họ đối với việc áp dụng hệ thống điện tử trong guồng máy chính quyền tại quý cơ quan. Kính mong Quý vị vui lòng cho phép tôi tiến hành công cuộc phỏng vấn này.

Vào bất cứ giai đoạn nào trong quá trình phỏng vấn, người tham dự phỏng vấn đều có thể quyết định tham gia hay không. Các dữ kiện sẽ được thu thập bằng hình thức ghi chép. Kết quả phỏng vấn sẽ được kiểm tra lại với người tham dự trước khi các kết quả này được mang ra sử dụng. Những tài liệu thu thập chỉ được phép sử dụng theo đúng mục tiêu của cuộc nghiên cứu và sẽ được hoàn toàn bảo mật.

The translator gives no warranty as to the authenticity or otherwise of the original document. Any correction to the translation not authorized by the translator renders this document void.

Cụ thể hơn, những tài liệu ghi chép sẽ được bảo quản trong vòng năm năm và sau đó sẽ được tiêu hủy, và chỉ những người thực hiện nghiên cứu này mới có quyền tiếp cận chúng. Trong trường hợp người tham gia phỏng vấn muốn nhận một bản tóm lược về kết quả của cuộc nghiên cứu, họ có thể yêu cầu nghiên cứu sinh cung cấp qua một trong các địa chỉ email sau: quangtrung.nguyen@buseco.moash.edu.au hoặc trung.nq@ou.edu.vn .

Về thời gian phỏng vấn, mỗi cuộc phỏng vấn sẽ kéo dài khoảng một giờ. Tôi xin đảm bảo rằng việc phỏng vấn sẽ không ảnh hưởng đến công việc của người tham gia vì chúng sẽ được thực hiện ngoài giờ làm việc.

Nếu quý vị có bất kỳ phàn nàn nào về cách thức tiến hành công cuộc nghiên cứu này, xin vui lòng liên lạc với Ủy Ban Đặc Trách về Đạo đức trong các Nghiên cứu Liên quan đến Nhân sinh qua địa chỉ sau đây: Executive Officer, Human Research Ethics Building 3E, Research Office Monash University VIC 3800 Tel: +61 3 9905 2052 Fax: +61 3 9905 1420.

Quý vị cũng có thể đề đạt những phàn nàn của mình (nếu có) về cuộc nghiên cứu này bằng tiếng Việt đến Bà Mai Thị Hoàng Yến, Bà sẽ chuyển đến cho Ủy ban nói trên, qua địa chỉ: Trưởng Giáo vụ của dự án liên kết giữa Đại học Công nghệ Sài gòn và Đại học Troy, Hoa Kỳ, Phòng A.204, Khu A, 180 Đường Cao Lỗ, Phường 4, Quận 8, Thành phố HCM; Tel: +84 8 6263 0792; email: mthyen@troyhcmc.edu.vn.

Đại diện cho Trường Đại học Monash và Trường Đại học Open University, tôi xin bày tỏ lòng biết ơn chân thành đến Quý vị về những đóng góp cho công cuộc nghiên cứu này.

Trân trọng,
(Ký tên)
Nguyễn Quang Trung

Chứng nhận của Giám Thị
(Ký tên)
Giáo sư Julian Teicher
Giám Đốc Khoa Kinh Doanh Hậu Đại Học

NATIONAL ACCREDITATION AUTHORITY FOR TRANSLATORS AND INTERPRETERS
NAATI No. 34089
MY TIEN LAM
TRANSLATOR
VIETNAMESE <-> ENGLISH
[redacted]

The translator gives no warranty as to the authenticity or otherwise of the original document. Any correction to the translation not authorized by the translator renders this document void.

APPENDIX H

(Confirmation Letter of Research Participation in Government Agencies and certified copies of the Vietnamese translation)

UBND TỈNH ĐẮKLẮK
SỞ KẾ HOẠCH VÀ ĐẦU TƯ

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập – Tự do – Hạnh phúc

Buôn Ma Thuột, ngày 29 tháng 7 năm 2009

GIẤY XÁC NHẬN

Sở Kế hoạch và Đầu tư tỉnh ĐắkLắk xác nhận Ông: Nguyễn Quang Trung, Giảng viên Trường Đại học Mở Tp.HCM, nghiên cứu sinh tại Đại học Monash, Úc.

Có nghiên cứu thực tế về ứng dụng công nghệ thông tin và truyền thông tại Sở Kế hoạch và Đầu tư tỉnh ĐắkLắk từ tháng 4 năm 2009 đến tháng 6 năm 2009./.

GIÁM ĐỐC [redacted]

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
SỞ KẾ HOẠCH VÀ ĐẦU TƯ
TỈNH ĐẮK LẮK

Trần Hiếu

BẢN DỊCH

PEOPLE'S COMMITTEE OF DAKLAK PROVINCE
Department of Planning and Investment

SOCIALIST REPUBLIC OF VIETNAM
Independence - Freedom - Happiness

Buon Ma Thuot, July 29th 2009

CONFIRMATION

DakLak Province Department of Planning and Investment hereby confirm that
Mr. **NGUYỄN QUANG TRUNG**
Lecturer of Ho Chi Minh City Open University and Postgraduate at Monash University, Australia
did the fieldwork and collected data in the field of application of information and communication technology at DakLak Province Department of Planning and Investment from April 2009 to June 2009

Director
(signed and sealed)
TRAN HIEU

I, Hoàng Thị Thanh Tâm, I.C. No.: 023667501, issued on October 16th 1998 by Police of Ho Chi Minh City, undertake that this is true and correct translation from the attached original in Vietnamese.

Tôi, Hoàng Thị Thanh Tâm, CMND số 023667501 cấp ngày 16/10/1998 tại Công An Thành Phố Hồ Chí Minh, cam đoan đã dịch chính xác văn bản từ tiếng Việt sang tiếng Anh.

Translator - Người dịch

[redacted]

Hoàng Thị Thanh Tâm

This is to certify that Ms. Hoàng Thị Thanh Tâm, I.C. No.: 023667501, issued on October 16th 1998 by Police of Ho Chi Minh City, signed her name in my presence.

Chứng thực bà Hoàng Thị Thanh Tâm, CMND số 023667501 cấp ngày 16/10/1998 tại Công An Thành Phố Hồ Chí Minh, đã ký tên trước mặt tôi.
Số chứng thực : 20961
Quyển số : 7B SCT/CK
Tại Quận 1, ngày 27/08/2009

Vice Head of Justice Department of District 1
Phó Trưởng Phòng Tư Pháp Quận 1

[redacted]

BÙI THỊ THANH PHƯƠNG

UBND TỈNH ĐẮK LẮK
SỞ THÔNG TIN VÀ TRUYỀN THÔNG

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập – Tự do – Hạnh phúc

GIẤY XÁC NHẬN

Sở Thông tin và Truyền thông tỉnh Đắk Lắk xác nhận:

ông Nguyễn Quang Trung, giảng viên Trường Đại học Mở Thành phố Hồ Chí Minh, nghiên cứu sinh tại Đại học Monash, Úc

có nghiên cứu thực tế về ứng dụng công nghệ thông tin và truyền thông tại đơn vị.

Đắk Lắk, ngày 28 tháng 7 năm 2009

KT. GIÁM ĐỐC
PHÓ GIÁM ĐỐC

[redacted]

Trần Trung Hiển

BẢN DỊCH

PEOPLE'S COMMITTEE OF DAK LAK PROVINCE
Department of Information and Communications

SOCIALIST REPUBLIC OF VIETNAM
Independence - Freedom - Happiness

CONFIRMATION

Dak Lak Department of Information and Communications hereby confirm that
Mr. **NGUYỄN QUANG TRUNG**
Lecturer of Ho Chi Minh City Open University and Postgraduate at Monash University, Australia
has done the fieldwork and collected data in the field of application of information and communication technology at the Unit

Dak Lak, July 28th 2009
For Director
Deputy Director
(signed and sealed)
TRAN TRUNG HIEN

I, Hoàng Thị Thanh Tâm, I.C. No.: 023667501, issued on October 16th 1998 by Police of Ho Chi Minh City, undertake that this is true and correct translation from the attached original in Vietnamese.

Tôi, Hoàng Thị Thanh Tâm, CMND số 023667501 cấp ngày 16/10/1998 tại Công An Thành Phố Hồ Chí Minh, cam đoan đã dịch chính xác văn bản từ tiếng Việt sang tiếng Anh.

Translator - Người dịch

[redacted]

Hoàng Thị Thanh Tâm

This is to certify that Ms. Hoàng Thị Thanh Tâm, I.C. No.: 023667501, issued on October 16th 1998 by Police of Ho Chi Minh City, signed her name in my presence.

Chứng thực bà Hoàng Thị Thanh Tâm, CMND số 023667501 cấp ngày 16/10/1998 tại Công An Thành Phố Hồ Chí Minh, đã ký tên trước mặt tôi.
Số chứng thực : 20961
Quyển số : 7B SCT/CK
Tại Quận 1, ngày 27/08/2009
Vice Head of Justice Department of District 1
Phó Trưởng Phòng Tư Pháp Quận 1

PHÒNG TƯ PHÁP

[redacted]

BÙI THỊ THANH PHƯƠNG

UBND THÀNH PHỐ HỒ CHÍ MINH
SỞ KẾ HOẠCH VÀ ĐẦU TƯ

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc

TP. Hồ Chí Minh, ngày 3 tháng 8 năm 2009

GIẤY XÁC NHẬN

Sở Kế hoạch và Đầu tư Thành phố Hồ Chí Minh xác nhận:

Ông Nguyễn Quang Trung, giảng viên Trường Đại học Mở Tp.HCM, nghiên cứu sinh tại Đại học Monash, Úc,

có nghiên cứu thực tế về ứng dụng công nghệ thông tin và truyền thông tại đơn vị.

TL.GIÁM ĐỐC
KT. CHÁNH VĂN PHÒNG
PHÓ CHÁNH VĂN PHÒNG [redacted]

Trần Thị Việt Hà

BẢN DỊCH

PEOPLE'S COMMITTEE OF HO CHI MINH CITY
Department of Planning and Investment

SOCIALIST REPUBLIC OF VIETNAM
Independence - Freedom - Happiness

Ho Chi Minh City, August 3rd 2009

CONFIRMATION

Ho Chi Minh City Department of Planning and Investment hereby confirm that
Mr. **NGUYỄN QUANG TRUNG**
Lecturer of Ho Chi Minh City Open University and Postgraduate at Monash University, Australia
has done the fieldwork and collected data in the field of application of information and communication technology at the Unit

By order of Director
For Head of the Office
Vice Head
(signed and sealed)
TRAN THI VIET HA

I, Hoàng Thị Thanh Tâm, I.C. No.: 023667501, issued on October 16th 1998 by Police of Ho Chi Minh City, undertake that this is true and correct translation from the attached original in Vietnamese.

Tôi, Hoàng Thị Thanh Tâm, CMND số 023667501 cấp ngày 16/10/1998 tại Công An Thành Phố Hồ Chí Minh, cam đoan đã dịch chính xác văn bản từ tiếng Việt sang tiếng Anh.

Translator - Người dịch

[redacted]

Hoàng Thị Thanh Tâm

This is to certify that Ms. Hoàng Thị Thanh Tâm, I.C. No.: 023667501, issued on October 16th 1998 by Police of Ho Chi Minh City, signed her name in my presence.

Chứng thực bà Hoàng Thị Thanh Tâm, CMND số 023667501 cấp ngày 16/10/1998 tại Công An Thành Phố Hồ Chí Minh, đã ký tên trước mặt tôi.
Số chứng thực : 20961
Quyển số : 7B SCT/CK
Tại Quận 1, ngày 27/08/2009

Vice Head of Justice Department of District 1
Phó Trưởng Phòng Tư Pháp Quận 1

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
PHÒNG TƯ PHÁP
QUẬN 1 - TP HỒ CHÍ MINH

[redacted]

BÙI THỊ THANH PHƯƠNG

ỦY BAN NHÂN DÂN
THÀNH PHỐ HỒ CHÍ MINH
SỞ THÔNG TIN VÀ TRUYỀN THÔNG

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc

TP. Hồ Chí Minh, ngày 05 tháng 8 năm 2009

GIẤY XÁC NHẬN

Xác nhận ông : Nguyễn Quang Trung - Quốc tịch: Việt Nam.

Hiện là giảng viên Trường Đại học Mở TPHCM, nghiên cứu sinh tại Đại học Monash, Úc.

Đã tham gia thực tập/ làm việc tại: Sở Thông tin và Truyền thông TPHCM.

Từ ngày 01/7/2009 đến 01/8/2009.

Loại hình thực tập/làm việc: nghiên cứu thực tế về ứng dụng công nghệ thông tin và truyền thông tại Sở Thông tin và Truyền thông TPHCM.

TPHCM, ngày 05 tháng 8 năm 2009
KT. THỦ TRƯỞNG ĐƠN VỊ
PHÓ GIÁM ĐỐC

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
SỞ THÔNG TIN VÀ TRUYỀN THÔNG
THÀNH PHỐ HỒ CHÍ MINH

[redacted]

Nguyễn Anh Tuấn

CỘNG HÒA XÃ HỘI CHỦ
PHÒNG
TƯ PHÁ
QUẬN 1 - TP.HỒ C

BẢN DỊCH

PEOPLE'S COMMITTEE OF HO CHI MINH CITY
Department of Information and Communications

SOCIALIST REPUBLIC OF VIETNAM
Independence - Freedom - Happiness

Ho Chi Minh City, August 5th 2009

CONFIRMATION

This is to confirm that Mr. **NGUYỄN QUANG TRUNG** - Nationality: Vietnamese
Currently a lecturer of HCMC Open University and Postgraduate at Monash University, Australia
did the fieldwork and collected data at HCMC Department of Information and Communications
from July 1st 2009 to August 1st 2009
Form of practice: doing the fieldwork and collecting data at HCMC Department of Information and Communications

HCMC, August 5th 2009
For Head of the Unit
Deputy Director
(signed and sealed)
NGUYEN ANH TUAN

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Tại Quận 1, ngày 27/08/2009

Vice Head of Justice Department of District 1
Phó Trưởng Phòng Tư Pháp Quận 1

[redacted]

BÙI THỊ THANH PHƯƠNG