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**G2G INTERACTION MODEL OF INFORMATION SHARING
AMONG LOCAL AGENCIES BASED ON PHENOMENOLOGY
APPROACH: DHI-QAR PROVINCE EMPLOYEES' VIEWPOINTS**

NASSIR JABIR AL-KHAFAJI



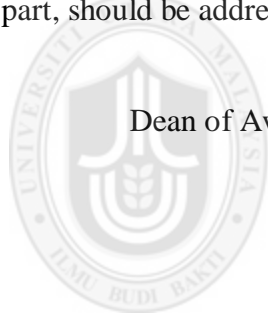
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Abstrak

Pertukaran maklumat secara elektronik telah membantu agensi tempatan meningkatkan produktiviti dan prestasi mereka. Pada masa yang sama, ia memperbaiki proses penggubalan dasar dengan menyediakan perkhidmatan awam yang lebih baik kepada rakyat. Bagaimanapun, terdapat sedikit kajian mengenai faktor yang mempengaruhi interaksi elektronik antara agensi tempatan di negara membangun, termasuk Iraq. Malah, agensi kerajaan biasanya bergantung kepada maklumat yang disediakan oleh agensi kerajaan yang lain, menyebabkan interaksi elektronik sangat penting bagi pengurusan operasi antara organisasi yang berkesan dalam kerajaan. Kajian ini bertujuan untuk menentukan faktor yang menjejaskan interaksi antara agensi tempatan dalam Dhi-Qar, Iraq. Maka, kajian ini mencadangkan satu model interaksi kerajaan-kepada-kerajaan (G2G) antara agensi tempatan dari konteks persekitaran, organisasi, dan teknologi, menggunakan pendekatan *Phenomenological* berasaskan teori *Penyebaran Inovasi dan Pertukaran Sosial*. Pengumpulan data melibatkan dua fasa. Pertama, satu siri temu bual dengan kakitangan e-kerajaan telah dijalankan untuk menemui faktor yang mempengaruhi interaksi G2G di Dhi-Qar, Iraq. Kemudian, satu lagi siri temu bual separa berstruktur dilakukan dengan menumpukan untuk mengeluarkan isu utama yang mempengaruhi interaksi G2G. Data yang dikumpulkan disahkan melalui pemeriksaan triangulasi dan ulasan ahli (*member checking*). Satu kajian kes telah dilakukan untuk mengesahkan dapatan kajian. Kajian ini telah menemukan faktor yang mempengaruhi interaksi elektronik antara agensi tempatan di Dhi-Qar. Faktor tersebut adalah faedah, keserasian, kerumitan, kos, keselamatan maklumat, kepercayaan antara agensi, rintangan dalaman kepada perubahan, kemampuan teknologi maklumat (TM), penggubalan undang-undang, keselamatan fizikal, dan sokongan pengurusan atasan. Berdasarkan semua faktor tersebut satu Model Elektronik Interaksi kerajaan-kepada-kerajaan (G2GIM), dicadangkan. Model ini menyumbang kepada penambahbaikan teori yang telah digunakan dalam kajian ini. Model ini boleh diaplikasikan kepada pelbagai agensi tempatan dalam melaksanakan projek e-kerajaan.

Kata Kunci: E-kerajaan, teori Penyebaran Inovasi, teori Pertukaran Sosial, Kerajaan Tempatan

Abstract

The exchange of information electronically has help local agencies to increase their productivity and performance. At the same time, it improves the process of policy-making by providing better public services to citizens. However, only a few studies that examine the factors influencing the electronic interaction among local agencies in developing countries, including in Iraq. In fact, government agencies usually rely on information provided by other government agencies, making the electronic interactions crucial for effective inter-organizational operations management in the government. This study aims to determine the factors affecting the interaction among local agencies in Dhi-Qar, Iraq. Thus, it proposes a government-to-government (G2G) interaction model among local agencies from the environmental, organizational, and technological contexts, using phenomenological approach based on the Diffusion of Innovation and Social Exchange theories. Data were collected in two phases. First, a series of interviews with local e-government employees were carried out to discover the factors that influence the G2G interaction in Dhi-Qar, Iraq. Later, another series of semi-structured interviews focusing on extracting the main issues that influence G2G interaction was followed. The collected data were validated through triangulation and member checking. A case study was used to confirm the findings. The study has discovered the factors that influence the electronic interaction among local agencies in Dhi-Qar. The factors are benefits, compatibility, complexity, costs, information security, inter-agency trust, internal resistance to change, information technology (IT) capability, legislation, physical security, and top management support. Based on these factors, the government-to-government interaction model (G2GIM) is proposed. This model can be applied to different local agencies in implementing e-government projects.

Keywords: E-government, Diffusion of Innovation theory, Social Exchange theory, Local government

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Table of Content

| | |
|--|-----------|
| Permission to Use | ii |
| Abstrak..... | iii |
| Abstract | iv |
| Acknowledgement | v |
| Table of Content | vi |
| List of Tables..... | xii |
| List of Figures | xiv |
| List of Appendices..... | xix |
| CHAPTER ONE OVERVIEW OF THE STUDY | 1 |
| 1.1 Introduction | 1 |
| 1.2 Background of the study | 1 |
| 1.3 Problem statement..... | 6 |
| 1.4 Research Questions..... | 9 |
| 1.5 Research Objectives..... | 9 |
| 1.6 Scope of the study..... | 10 |
| 1.7 Significance of the study..... | 12 |
| 1.8 Definition of terms..... | 14 |
| 1.9 Organization of thesis | 16 |
| i. Chapter 1: Overview of the study | 16 |
| ii. Chapter 2: Literature review | 16 |
| iii. Chapter 3: Research methodology | 17 |
| iv. Chapter 4: Findings and Analysis | 17 |
| v. Chapter 5: Case Study Validation of the Electronic Interaction Model..... | 17 |
| vi. Chapter 6: Discussions | 17 |
| vii. Chapter 7: Research Insight and Conclusion..... | 17 |
| 1.10 Summary of Chapter One..... | 18 |
| CHAPTER TWO LITERATURE REVIEW..... | 19 |
| 2.1 Introduction | 19 |

| | |
|---|----|
| 2.2 Electronic Government | 20 |
| 2.3 Benefits of e-Government | 22 |
| 2.4 What is Interaction? | 23 |
| 2.5 Types of Interactions in E-Government | 24 |
| 2.5.1 G2G (Government to Government) | 24 |
| 2.5.2 G2C (Government to Citizens) | 25 |
| 2.5.3 G2B (Government to Business) | 26 |
| 2.6 Government-to-Government Interaction..... | 26 |
| 2.7 E-Government in Developing Countries..... | 30 |
| 2.7.1 Implementation of e-Government Developing in Countries: Benefits, Issues and Challenges..... | 33 |
| 2.7.1.1 Benefits of E-government Implementation..... | 33 |
| 2.7.1.2 Issues and Challenges in E-government Implementation..... | 35 |
| 2.8 E-Government in Local Government..... | 36 |
| 2.9 Overview of Iraq | 38 |
| 2.10 E-Government in Iraq | 40 |
| 2.10.1 Benefits of e-Government in Iraq..... | 43 |
| 2.10.2 Challenges of e-Government in Iraq | 44 |
| 2.11 Previous Theoretical Models of Information Sharing between agencies..... | 45 |
| 2.12 Theoretical Foundations for Information Sharing | 73 |
| 2.12.1 Diffusion of Innovations (DOI) Theory | 74 |
| 2.12.2 Social Exchange Theory | 78 |
| 2.13 Theoretical Framework | 85 |
| 2.13.1 Technological Contexts | 88 |
| 2.13.1.1 Costs | 88 |
| 2.13.1.2 Benefits..... | 88 |
| 2.13.1.3 Information Security..... | 89 |
| 2.13.1.4 Compatibility | 90 |
| 2.13.1.5 Complexity..... | 91 |
| 2.13.2 Organizational Contexts | 91 |
| 2.13.2.1 IT Capability | 91 |
| 2.13.2.2 Top management Support..... | 92 |
| 2.13.2.3 Internal resistance to change | 92 |

| | |
|--|-----------|
| 2.13.3 Environmental Context | 93 |
| 2.13.3.1 Trust..... | 94 |
| 2.13.3.2 Legislation..... | 95 |
| 2.13.3.3 Physical Security | 96 |
| 2.14 Summary Chapter Two | 98 |
| CHAPTER THREE RESEARCH METHODOLOGY..... | 99 |
| 3.1 Introduction | 99 |
| 3.2 Research Definition | 99 |
| 3.3 Research Design | 101 |
| 3.4 Research Approaches | 103 |
| 3.4.1 Quantitative Research..... | 105 |
| 3.4.2 Qualitative Research..... | 105 |
| 3.4.3 Justification for Adopting Qualitative Research | 107 |
| 3.4.4 Phenomenological Approach and Justification for adopting phenomenological Approach..... | 109 |
| 3.5 Computer Assisted Qualitative Data Analysis Software (CAQDAS) | 113 |
| 3.5.1 QSR-Nvivo | 116 |
| 3.6 Pilot Study | 117 |
| 3.7 Data Collection | 119 |
| 3.7.1 Sampling Approach..... | 121 |
| 3.7.2 The Permissions to Gain Access to Participants and the Permissions to Record | 128 |
| 3.7.3 Research Instrument | 130 |
| 3.7.3.1 Individual Interviews..... | 131 |
| 3.7.3.2 Semi-Structured Interviews | 133 |
| 3.7.4 Design of an Interview Protocol | 134 |
| 3.7.5 Ethical Issues | 135 |
| 3.8 Data Analysis and Interpretation | 136 |
| 3.8.1 Prepare and Organize the Data for Analysis..... | 138 |
| 3.8.1.1 Transcribing Data..... | 139 |
| 3.8.1.2 Translating the data from the interviews | 139 |
| 3.8.2 Explore and Code the Data | 140 |
| 3.8.2.1 Explore the General Sense of the Data..... | 140 |
| 3.8.2.2 Code the Data..... | 140 |

| | |
|---|------------|
| 3.8.3 Use Codes to Build Description and Themes | 141 |
| 3.8.3.1 Themes..... | 142 |
| 3.8.4 Represent and Report Findings | 142 |
| 3.8.4.1 Representing Findings | 142 |
| 3.8.4.2 Reporting Findings | 143 |
| 3.8.5 Interpret Findings | 143 |
| 3.8.6 Validity, Reliability and Generalizability | 144 |
| 3.8.6.1 Triangulation..... | 146 |
| 3.8.6.2 Member Checking | 147 |
| 3.8.6.3 Case Study to Validate Findings | 148 |
| 3.9 Summary of Chapter Three | 149 |
| CHAPTER FOUR FINDINGS AND ANALYSIS | 150 |
| 4.1 Introduction | 150 |
| 4.2 Findings and Analysis | 150 |
| 4.2.1 Research objective 1: to discover the factors that might influence G2G interaction in Iraqi province Dhi-Qar..... | 155 |
| 4.2.1.1 First-round Interviews | 155 |
| 4.2.2 Research Objective 2: to highlight the issues that influence the information sharing among local agencies in Dhi Qar. | 195 |
| 4.2.2.1 Second-round Interviews | 195 |
| 4.2.3 Technological Context..... | 198 |
| 4.2.3.1 Costs | 198 |
| 4.2.3.2 Benefits..... | 201 |
| 4.2.3.3 Compatibility | 204 |
| 4.2.3.4 Complexity..... | 208 |
| 4.2.3.5 Information Security..... | 210 |
| 4.2.4 Organizational Context..... | 212 |
| 4.2.4.1 IT Capability | 213 |
| 4.2.4.2 Top management Support..... | 217 |
| 4.2.4.3 Internal Resistance of Change..... | 221 |
| 4.2.5 Environmental Context..... | 223 |
| 4.2.5.1 Trust..... | 224 |
| 4.2.5.2 Physical Security | 226 |

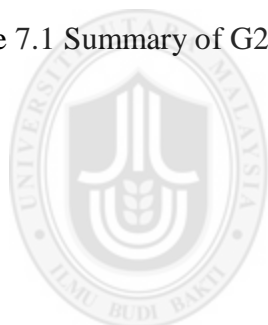
| | |
|---|------------|
| 4.2.5.3 Legislations | 227 |
| 4.3 Summary of Chapter Four | 230 |
| CHAPTER FIVE CASE STUDY VALIDATION OF THE ELECTRONIC INTERACTION MODE..... | 233 |
| 5.1 Introduction | 233 |
| 5.2 IRAQ e-Gov Portal Project (e-Iraq) Case Study | 233 |
| 5.2.1 Citizen Services..... | 235 |
| 5.2.2 Business Services | 236 |
| 5.2.3 Government Services..... | 236 |
| 5.2.4 NGO Services | 236 |
| 5.3 Electronic Interaction Model (EIM) | 236 |
| 5.3.1 Technological Context..... | 237 |
| 5.3.1.1 Costs | 237 |
| 5.3.1.2 Benefits | 238 |
| 5.3.1.3 Compatibility | 240 |
| 5.3.1.4 Complexity..... | 241 |
| 5.3.1.5 Information security | 242 |
| 5.3.2 Organizational Context..... | 243 |
| 5.3.2.1 IT Capability | 243 |
| 5.3.2.2 Top Management Support | 245 |
| 5.3.2.3 Internal Resistances of Change | 246 |
| 5.3.3 Environmental Context..... | 247 |
| 5.3.3.1 Trust..... | 247 |
| 5.3.3.2 Physical Security | 249 |
| 5.3.3.3 Legislations | 250 |
| 5.4 Summary of Chapter Five | 251 |
| CHAPTER SIX DISCUSSIONS | 252 |
| 6.1 Introduction | 252 |
| 6.2 Discussion | 252 |
| 6.2.1 Technological context | 254 |
| 6.2.1.1 Cost..... | 254 |
| 6.2.1.2 Benefits | 256 |

| | |
|--|------------|
| 6.2.1.3 Compatibility | 259 |
| 6.2.1.4 Complexity..... | 262 |
| 6.2.1.5 Information security | 264 |
| 6.2.2 Organizational context..... | 268 |
| 6.2.2.1 IT Capability | 268 |
| 6.2.2.2 Internal resistance to change | 269 |
| 6.2.2.3 Top management support | 271 |
| 6.2.3 Environmental context..... | 273 |
| 6.2.3.1 Trust..... | 273 |
| 6.2.3.2 Physical security..... | 274 |
| 6.2.3.3 Legislation | 275 |
| 6.2.4 Main issues that affect G2G information sharing in Dhi-Qar | 278 |
| 6.3 Summary of Chapter Six | 280 |
| CHAPTER SEVEN RESEARCH INSIGHT AND CONCLUSION | 281 |
| 7.1 Introduction | 281 |
| 7.2 Research Insight..... | 281 |
| 7.3 Theoretical and Practical Contributions..... | 283 |
| 7.3.1 Theoretical Contributions | 283 |
| 7.3.2 Practical Contributions | 286 |
| 7.4 Limitations of the Study..... | 287 |
| 7.5 Suggestions for Future Research | 288 |
| 7.6 Conclusions | 289 |
| REFERENCES | 293 |

List of Tables

| | |
|--|-----|
| Table 2.1 Compare Iraq with other countries in Western Asian | 42 |
| Table 2.2 Summary of study by Dawes (1996)..... | 46 |
| Table 2.3 Benefits and barriers of interagency information sharing | 46 |
| Table 2.4 Summary of study Landsbergen and Wolken (2001) | 49 |
| Table 2.5 Barriers for Information sharing | 51 |
| Table 2.6 Summary of study by Akbulut (2003)..... | 53 |
| Table 2.7 Characteristics that influence, might influence, or have no influence on local agency participation in electronic information sharing with state agencies | 54 |
| Table 2.8 Summary of study by Joia (2004) | 56 |
| Table 2.9 Barriers to G2G projects implementation..... | 58 |
| Table 2.10 Summary of study by Gil-Garcia et al., (2005) | 59 |
| Table 2.11 Summary of study Bekkers by (2005)..... | 63 |
| Table 2.12 Summary of study by Ezz and Themistocleous (2005)..... | 64 |
| Table 2.13 Summary of study by Fan and Zhang (2009) | 66 |
| Table 2.14 Summary of study by Klischewski and Abubakr (2010) | 68 |
| Table 2.15 Summary of study by Bigdeli, Kamal and de Cesare (2013) | 69 |
| Table 2.16 Applied G2G and sharing information in developing countries and developed countries..... | 70 |
| Table 2.17 The factors used in previous studies | 71 |
| Table 2.18 Innovations factors in various contexts | 76 |
| Table 2.19 Social exchange theory related studies..... | 79 |
| Table 3.1 Overview of research design and methodological processes | 102 |
| Table 3.2 Differences between quantitative and qualitative research (Bauer and Gaskell, 2000)..... | 106 |
| Table 3.3 Main Types of Qualitative Research (Creswell, 2013) | 107 |
| Table 3.4 Difference and similarities between qualitative and quantitative in data collection procedures..... | 119 |
| Table 3.5 The sampling Information | 124 |

| | |
|---|-----|
| Table 3.6 The sampling size and strategy | 128 |
| Table 3.7 Forms of Qualitative Data Collection | 131 |
| Table 3.8 Types of Interview (Easterby-Smith et al., 2008)..... | 133 |
| Table 4.1 Summary about the participants and factors in the first group interviews | 193 |
| Table 4.2 Summary of the technological context | 212 |
| Table 4.3 Summary of the organizational context..... | 220 |
| Table 4.4 Summary of the environmental context | 230 |
| Table 4.5 Summarized the extracted factors based on the Technological contexts, Environmental contexts and Organizational contexts. | 231 |
| Table 6.1 Summary of Issues Raised..... | 256 |
| Table 6.2 Recommendations for technological context..... | 266 |
| Table 6.3 Recommendations for organizational context | 272 |
| Table 6.4 Recommendations for environmental context | 278 |
| Table 7.1 Summary of G2G Interaction among local agencies in Dhi-Qar..... | 290 |



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List of Figures

| | |
|--|-----|
| Figure 2.1: G2G e-Government Services..... | 29 |
| Figure 2.2: Iraq Map..... | 38 |
| Figure 2.3: Iraqi Provinces map | 40 |
| Figure 2.4: Pathway to e-Government in Iraq 2007-2010..... | 43 |
| Figure 2.5: Theoretical model of interagency information sharing..... | 47 |
| Figure 2.6: Extended Theoretical Model of Interagency Information Sharing..... | 52 |
| Figure 2.7: Research Framework: Factors that Influence Local Agency Participation in Electronic Information Sharing with State Agencies | 56 |
| Figure 2.8: Key success factors in G2G endeavors | 57 |
| Figure 2.9: Conceptual Framework for the Barriers to G2G Adoption..... | 65 |
| Figure 2.10: Layered Behavior Model of G2G Information Sharing | 67 |
| Figure 2.11: Diffusion of innovations..... | 75 |
| Figure 2.12: Conceptual Model of G2G Information Sharing or Electronic Interaction Model..... | 87 |
| Figure 3.1: Research Framework | 104 |
| Figure 3.2: The main page for Nvivo 10..... | 117 |
| Figure 3.3: Differences between Random Sampling and Purposeful Sampling | 122 |
| Figure 3.4: The consent form process and Gatekeeper..... | 130 |
| Figure 3.5: The qualitative process of data analysis..... | 138 |
| Figure 4.1: Number of interviewees | 152 |
| Figure 4.2: Data Analysis Process | 155 |
| Figure 4.3: Nine Agencies that Participated in Electronic Interaction | 156 |
| Figure 4.4: Code in Nvivo (First-round Interviews)..... | 157 |
| Figure 4.5: Factors extracted from Participant 1-1..... | 158 |
| Figure 4.6: Number of reference code for Benefits-P1-1 | 158 |
| Figure 4.7: Number of reference code for Trust-P1-1 | 158 |
| Figure 4.8: Number of reference code for legislations-P1-1 | 159 |
| Figure 4.9: Number of reference code for IT capability-P1-1 | 160 |

| | |
|---|-----|
| Figure 4.10: Factors extracted from Participant 1-2..... | 160 |
| Figure 4.11: Number of reference code for Benefits-P1-2 | 161 |
| Figure 4.12: Number of reference code for Legislations -P1-2 | 161 |
| Figure 4.13: Number of reference code for Trust -P1-2 | 162 |
| Figure 4.14: Number of reference code for Information Security -P1-2 | 162 |
| Figure 4.15: Number of reference code for Top Management Support -P1-2..... | 163 |
| Figure 4.16: Factors extracted from Participant 1-3..... | 163 |
| Figure 4.17: Number of reference codes for Cost -P1-3..... | 164 |
| Figure 4.18: Number of reference code for Internal Resistance of Change -P1-3..... | 165 |
| Figure 4.19: Factors extracted from Participant 2-1 | 166 |
| Figure 4.20: Number of reference code for Legislations –P2-1..... | 166 |
| Figure 4.21: Number of reference code for Benefits–P2-1..... | 167 |
| Figure 4.22: Number of reference code for Compatibility –P2-1 | 168 |
| Figure 4.23: Factors extracted from Participant 2-2..... | 169 |
| Figure 4.24: Number of reference code for Internal Resistance of Change –P2-2 | 170 |
| Figure 4.25: Number of reference code for Trust –P2-2 | 171 |
| Figure 4.26: Factors extracted from Participant 3-1..... | 172 |
| Figure 4.27: Number of reference code for IT Capability –P3-1 | 172 |
| Figure 4.28: Factors extracted from Participant 3-2..... | 173 |
| Figure 4.29: Number of reference code for Benefits –P3-2..... | 174 |
| Figure 4.30: Factors extracted from Participant 4-1 | 175 |
| Figure 4.31: Number of reference code for Benefits –P4-1..... | 176 |
| Figure 4.32: Number of reference code for Trust –P4-1 | 177 |
| Figure 4.33: Factors extracted from Participant 4-2..... | 177 |
| Figure 4.34: Number of reference code for Benefits –P4-1..... | 178 |
| Figure 4.35: Factors extracted from Participant 5-1 | 179 |
| Figure 4.36: Number of reference code for Benefits –P5-1..... | 180 |
| Figure 4.37: Number of reference code for IT Capability –P5-1 | 180 |
| Figure 4.38: Factors extracted from Participant 6-1..... | 181 |
| Figure 4.39: Number of reference code for Benefits –P6-1..... | 181 |

| | |
|---|-----|
| Figure 4.40: Number of reference code for IT Capability –P6-1 | 182 |
| Figure 4.41: Factors extracted from Participant 6-2..... | 183 |
| Figure 4.42: Number of reference code for Benefits –P6-2..... | 183 |
| Figure 4.43: Number of reference code for Top Management Support –P6-2 | 184 |
| Figure 4.44: Factors extracted from Participant 7-1 | 184 |
| Figure 4.45: Number of reference code for legislations –P7-1 | 185 |
| Figure 4.46: Factors extracted from Participant 7-2..... | 185 |
| Figure 4.47: Number of reference code for Costs –P7-2 | 186 |
| Figure 4.48: Number of reference code for Benefits –P7-2..... | 186 |
| Figure 4.49: Factors extracted from Participant P8-1 | 187 |
| Figure 4.50: Number of reference code for Benefits –P8-1..... | 188 |
| Figure 4.51: Number of reference code for IT Capability –P8-1 | 188 |
| Figure 4.52: Factors extracted from Participant P8-2..... | 188 |
| Figure 4.53: Number of reference code for Top Management Support –P8-2 | 189 |
| Figure 4.54: Number of reference code for Benefits –P8-2..... | 189 |
| Figure 4.55: Factors extracted from Participant P9-1 | 190 |
| Figure 4.56: Number of reference code for Benefits –P9-1..... | 191 |
| Figure 4.57: Number of reference code for IT Capability –P9-1 | 191 |
| Figure 4.58: Factors extracted from Participant P9-2..... | 191 |
| Figure 4.59: Number of reference code for Top Management Support –P9-1 | 192 |
| Figure 4.60: Factors that affect the electronic interaction among local agencies – gathered in the first-round interview | 194 |
| Figure 4.61: Based on First Group Interviews | 195 |
| Figure 4.62: Interviewees Nvivo Browser (Second Group Interviews) | 196 |
| Figure 4.63: Second stage for the factors that affect the electronic interaction among local agencies | 197 |
| Figure 4.64: Technological context in second-round interview (Nvivo10)..... | 198 |
| Figure 4.66: Cost factor in the second-round interview (Nvivo10) | 199 |
| Figure 4.65: Benefits factor in the second-round interview (Nvivo10)..... | 202 |
| Figure 4.68: Compatibility factor in the second-round interview (Nvivo10) | 204 |

| | |
|--|-----|
| Figure 4.67: Complexity factor in the second-round interview (Nvivo10) | 208 |
| Figure 4.69: Information security factor in the second-round interview (Nvivo10) | 210 |
| Figure 4.70: Organizational context in the second-round interview (Nvivo10) | 213 |
| Figure 4.71: IT capability factor in the second-round interview (Nvivo10)..... | 213 |
| Figure 4.73: Top management support factor in the second interview (Nvivo10) | 217 |
| Figure 4.72: Internal resistance of change factor in the second-round interview (Nvivo10)..... | 221 |
| Figure 4.74: Environmental context in the second-round interview (Nvivo10) | 223 |
| Figure 4.75: Trust factor in the second-round interview (Nvivo10) | 224 |
| Figure 4.76: Physical security factor in Second Group of Interviews (Nvivo10) | 226 |
| Figure 4.77: Legislations factor in the second-round interview (Nvivo10)..... | 228 |
| Figure 5.1: E-Iraq Portal Project | 234 |
| Figure 5.2: Proposed Electronic Interaction Model (NVIVO Results) | 237 |
| Figure 6.1: Electronic Interaction Model..... | 253 |
| Figure 6.2: Previous studies dealing with cost as a factor in the process of interaction | 255 |
| Figure 6.3: Previous studies dealing with the benefits as a factor in the process of interaction..... | 259 |
| Figure 6.4: Previous studies dealing with the compatibility as a factor in the process of .. interaction | 261 |
| Figure 6.5: Previous studies dealing with the complexity as a factor in the process of interaction | 263 |
| Figure 6.6: Previous studies dealing with the information security as a factor in the process of interaction..... | 265 |
| Figure 6.7: Previous studies dealing with IT capability as a factor in the process of interaction | 269 |
| Figure 6.8: Previous studies dealing with the resistance to change as a factor in the process of interaction..... | 270 |
| Figure 6.9: Previous studies dealing with the top management as a factor in the process of interaction | 271 |

| | |
|---|-----|
| Figure 6.10: Previous studies dealing with the trust as a factor in the process of interaction | 274 |
| Figure 6.11: Previous studies dealing with the legislation as a factor in the process of interaction | 276 |
| Figure 6.12: The main issues that affect G2G information sharing in the Iraqi province of Dhi-Qar | 279 |



List of Appendices

| | |
|---|-----|
| APPENDIX A: Request For Research Data Collections | 335 |
| APPENDIX B: Request For Interview with participant | 336 |
| APPENDIX C: First and Section Session of Interviews | 338 |
| APPENDIX D: Translation Letter..... | 341 |
| APPENDIX E: Member Checking | 342 |
| APPENDIX J: Nvivo Report..... | 348 |



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CHAPTER ONE

OVERVIEW OF THE STUDY

1.1 Introduction

Technological advancement has allowed governments to respond to the demands of its citizens electronically, in an environment called electronic government (e-Government). E-Government is the use of technologies (e.g. wide area networks, the Internet, and mobile computing) by government agencies to transform relationships with citizens, businesses, and other branches of government (Haque & Pathrannarakul, 2013). These technologies provide citizens with better government services, improve interactions with business and industry, empower citizens by providing access to information, and manage a more efficient government (Wang & Hou, 2010a). With the utilization of information and communication technology (ICT), it promises accurate and agile transactions and delivery of services and information to businesses, citizens, and government agencies. Also, e-Government can contribute towards the enhancement of democracy, efficiently. In regards to that, this chapter discusses the context that leads to the necessity for this study by elaborating the background, problem to be solved, questions to be answered, objectives to be achieved, scope, and significance of this study. The chapter ends by describing the structure and sequence of the thesis.

1.2 Background of the study

ICT is one of the building blocks of modern society (Doran, Lott & Doran, 2014; Khasawneh & Ibrahim, 2008) that has a key role in the social, economic, cultural, and

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APPENDIX A



Awang Had Salleh Graduate School of Arts and Sciences
UUM College of Arts and Sciences
Universiti Utara Malaysia
06010 UUM Sintok
Kedah Darul Aman, Malaysia
Tel: (604) 928 5865/5954
Fax: (604) 928 4997
<http://ahsgs.uum.edu.my>

Awang Had Salleh Graduate School of Arts and Sciences
UUM College of Arts and Sciences

"KEDAH SEJAHTERA"

UUM/CAS/AHSGS/4-3/26
23 May 2012

Nassir Jabir Farhan Al-Khafaji (93456)
Room 101, Block H, DPP Maybank
Universiti Utara Malaysia

Dear Sir/Madam

DATA COLLECTION FOR PROJECT PAPER/ THESIS

This is to certify that **Mr. Nassir Jabir Farhan Al-Khafaji (matric number: 93456)** is a full-time graduate student in Doctor of Philosophy (Information Technology) at UUM College of Arts and Sciences.

He needs to do his field study and data collection for his project paper/thesis in order to fulfill the partial requirements of his graduate studies.

We sincerely hope that your organization will be able to assist him in the data collection and the distribution of the questionnaires for his research.

Thank you.

"ILMU BUDI BAKTI"

Yours sincerely

ABD. RAHMAN MOHD. ISA

Assistant Registrar
for Dean

Awang Had Salleh Graduate School of Arts and Sciences
UUM College of Arts and Sciences
Universiti Utara Malaysia

c.c - UUM/CAS/AHSGS/93456

This is to certify that the signature
appears on this document/Certificate/
Passage Certificate/Birth Certificate is that of
Mr. **NASSIR JABIR FARHAN AL-KHAFAJI** who is
from **University Utara Malaysia**.



Mohd Farriq Osman
Executive Officer
Consular Division
Ministry of Foreign Affairs
Putrajaya Malaysia

18 SEP 2012



The Eminent Management University

APPENDIX B

بسم الله الرحمن الرحيم

السيد ----- المحترم

تحية طيبة ...

م / طلب مقابلة

يرجى التفضل بالموافقة على اجراء مقابلة مع سيادتكم حول موضوع (تبادل المعلومات بين الدوائر احد تطبيقات الحكومة الالكترونيه ذي قار / العراق) لكوني طالب دكتوراه في قسم الحاسبات في جامعة اوتارا الماليزية . هذه الدراسة تعمل على التحقق وكثشاف العوامل التي قد تاتر على عملية تبادل المعلومات بين الدوائر في محافظة ذي قار . هذه المقابلة سوف تساعد على الحصول على المعلومات حول تبادل البيانات او المعلومات بين الدوائر . الناتج من هذا البحث او حصيلة هذا البحث قد تادي الى منفعة الى الدوائر والمحافظة بصورة عامة لمعرفة العوامل التي قد تادي الى فشل او تقلل عملية تبادل المعلومات بالطرق الالكترونيه . دون مساعدتكم ودعمكم في هذا البحث لن يكتمل ولان يرى النور . وتاكّد أن جميع المعلومات المقدمة هنا هي لأغراض أكاديمية.

السيد ناصر جابر فرحان الخفاجي، وهو طالب دكتوراه في مجال تكنولوجيا المعلومات في جامعة أوتارا ماليزيا (UUM) / ماليزيا. ويشرف على هذا البحث من قبل:

- (1) Dr. Abdul Jaleel Kehinde Shittu abdjalcel@uum.edu.my
- (2) Prof Madya Dr. Wan Rozaini Sheikh Osman. rozai174@uum.edu.my

شكرا جزيلاً لمساعدتي لتحقيق أهداف هذه الدراسة التي هي مهمة جدا في الكشف عن القضايا المصيرية للحكومة الإلكترونية في محافظة ذي قار. لا تتردد في الاتصال بي في +60-1116556123 أو nassirfarhan@yahoo.com أو 93456@student.uum.edu.my إذا كانت هناك حاجة أي معلومات إضافية.

ولكم الامر مع التقدير

بسم الله الرحمن الرحيم

م ا الى من يهمه الامر

نؤيدلكم ان السيد ----- قد أجرى مقابلة مع السيد ----- بخصوص جمع
بيانات حول تبادل المعلومات (تفاعل بين الدوائر احد انواع الحكومة الالكترونيه) بعد ان تم المداولة من خلال طرح الاسئلة
الموجهه من قبل طالب الدكتوراه وتمت المناقشة على مرحلتين جميع الاسئلة بصورة مفصلة .

الوقت :

تاريخ اول مقابلة :

الوقت :

تاريخ ثاني مقابلة :



اسم مدير الدائرة

UUM
مع التقدير
Universiti Utara Malaysia

ايميل مدير الدائرة او الدفتر

APPENDIX C

First Session of Interviews

1. Biography of the interviewees (First Section: First Part)

- 1.1 Please, can you briefly introduce yourself?
- 1.2 How long you have been working in the agency?
- 1.3 Can you share with me your experience in this agency?

2. General Questions (Second Section: First Part)

- 2.1 Will you please give some information about the project (electronic interaction among local agencies)?
- 2.2 What is the purpose of this project (the electronic interaction among local agencies)?
- 2.3 How many employees are there in this project (the electronic interaction among local agencies)?
- 2.4 When did the project start?
- 2.5 Why did you change from traditional to the digital (electronic) applications?
- 2.6 At the moment, do you exchange the information among the agencies?
- 2.7 What types of information do you exchange among the governmental agencies?
- 2.8 What is the information exchange percentage among agencies involved in this project (electronic interaction among local agencies)?
- 2.9 What is the type of interaction (electronic information sharing) among agencies?
- 2.10 What are the factors that affect the process of the electronic interaction among local agencies?
- 2.11 What are the main factors that affect the process of electronic interaction among the local agencies?
- 2.12 Is there a noticeable improvement in the process of information exchange at the moment?
- 2.13 Regarding Dhi-Qar Province, do you think the agencies are prepared to interact electronically? Why?

Second Session of Interviews

3. QUESTIONS ON THE TECHNOLOGICAL FACTORS

3.1 Costs

- 3.1.1 Do you think the project (electronic interaction among local agencies) will be completed as it is scheduled? (If yes, why? And if no, why?)
- 3.1.2 Do you have additional costs for the information exchange project among the local agencies in Dhi-Qar Province?

3.2 Benefits

- 3.2.1 What are benefits of this project (electronic interaction among the local agencies)?
- 3.2.2 What are the ways do you think that, the interaction among local agencies will provide benefits to other agencies at local, state and federal level?

3.3 Compatibility

- 3.3.1 Was it easy to integrate this system with the current computer systems?
- 3.3.2 Is this project Compatible with the need of your agency?

3.4 Complexity

- 3.4.1 Do you think that the electronic interaction among agencies is an easy process?
- 3.4.2 Do you think that the electronic interaction among agencies easy/difficult concept?
- 3.4.3 Do you think it is difficult to apply this project across all agencies of Dhi-Qar Province?

3.5 Information Security

- 3.5.1 Do you think that Information Security is very important in this project (The Information sharing among local agencies)?
- 3.5.2 Are there threats do you expect that may lead to the failure of the project? (If yes, what kind are these threats?)
- 3.5.3 Can you tell me, how do you take care of the security of the information in the process of the information sharing among the local agencies in Dhi-Qar Province?

4. QUESTIONS ON THE ORGANIZATIONAL FACTORS

4.1 IT Capability

- 4.1.1 How many Operations are performed electronically among the agencies?
(Alternative Question: Do you expect that operations among agencies will be good, if yes, why? And if not, why?)
- 4.1.2 What is the level of computer literacy among the employees?
- 4.1.3 How many IT employees there are in your agency?
- 4.1.4 Does your agency have any professional IT manager?

4.2 Top Management Support

- 4.2.1 What is the attitude of the top management in Dhi-Qar government towards the project implementation?
- 4.2.2 Can you tell me if there is any motivation from the Top management to implement the project (electronic interaction among local agencies)?

4.3 Internal Resistances to Change

- 4.3.1 Have you recorded any resistance from the employees?
- 4.3.2 What motivate the employees to use the project application?

5. QUESTIONS ON ENVIRONMENTAL FACTORS

5.1 Legislations

- 5.1.1 Are there any legislations for the electronic interaction among the local agencies (if No, so why did not you create any legislation as the project started 2004)?



5.2 Physical Security

- 5.2.1 Can you tell me how many offices are involved in this project?
- 5.2.2 Can you tell me what the specific physical security requirements to fulfil are?
- 5.2.3 Can you explain to me, is the server under a control system?

5.3 Trust

- 5.3.1 Briefly please, how are the relationships among the local agencies in Dhi-Qar Province?
- 5.3.2 Can you tell me how do you create trust among the local agencies?

APPENDIX D

| | | |
|--|--|-------------------------------|
|  Asian EFL Academy  | | |
| CERTIFICATE OF THESIS EDITING & PROOFREADING | | |
| Document Title (INTERACTION FACTORS THAT EFFECT ON E-GOVERNMENT IN LOCAL GOVERNMENT) | | |
| Job Performed | | |
| (A) Editing-proofreading | | |
| (B) Style editing and formatting | | |
| Proofreading request made by : | NASSIR JARBIR FARHAN (Passport No. G2208252) | 06 October 2013 |
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APPENDIX E

وفقا للمقابلات التي اجريت مع عدد من الموظفين في محافظة ذي قار، الذين لديهم علاقة مباشرة مع عملية التفاعل الإلكترونية (الحكومة الإلكترونية). تبين النتائج التالية الموضح في الجدول ادناه:

| Factors | Agree اتفق | Not Agree لا اتفق |
|---|---------------|----------------------|
| Technological Context | | |
| Benefits <ul style="list-style-type: none"> Lack of perceived benefits of the electronic interaction between local agencies, and lack of awareness of the potential benefits of the process of interaction. قلة الفوائد التي يمكن الحصول عليها من عملية التفاعل الإلكتروني (نقص الحكومة الإلكترونية أو تبادل المعلومات الإلكتروني) بين الوكالات المحلية (نقص بين الدوائر في محافظة ذي قار)، وكذلك هناك قلة وعي من الفوائد المحتملة في عملية التفاعل الإلكتروني بين الوكالات المحلية (الحكومة الإلكترونية). | | |
| Costs <ul style="list-style-type: none"> Agencies involved in the process of electronic interaction has budgetary constraints, and the process of the electronic interaction between local agencies cause additional costs to the agency associated with maintenance, support and training of staff. الوكالات المشاركة في عملية التفاعل الإلكتروني (الحكومة الإلكترونية) لديها قيود الميزانية (نقص لديها مبالغ قليلة مخصصة للحكومة الإلكترونية)، وعملية التفاعل الإلكتروني بين الوكالات المحلية (نقص الحكومة الإلكترونية) بين الدوائر في محافظة ذي قار) تسبب تكاليف إضافية لوكالة المرتبطة بالصيانة والدعم والتدريب للموظفين (نقص أن هناك مصاريف اضافية عند الاستمرار بالحكومة الإلكترونية). | | |
| Compatibility <ul style="list-style-type: none"> Not consistent with the needs of the local agencies involved in the process of electronic interaction and objectives. لا تتفق مع احتياجات الوكالات المحلية المشاركة في عملية التفاعل الإلكتروني وأهدافها (نقص أن الحكومة الإلكترونية الآن لا تلبي احتياجات الدوائر في محافظة ذي قار) Not compatible with existing systems previously. غير متوافق مع الأنظمة الموجودة سابقا (أي أن الأنظمة المستخدمة بالحكومة الإلكترونية (وهو نظام لنكس) غير متطابق مع الأنظمة الموجودة حاليا (وهو الويندوز)) Requires the distribution of tasks (Data entry process). يتطلب توزيع المهام (عملية إدخال البيانات) (نقص تتطلب طاقه هائلة لإدخال جميع الوثائق والمعاملات الورقية إلى الحاسوب) Required training for all staff on the new system. مطلوب تدريب لجميع الموظفين على النظام الجديد (وهو نظام لنكس المستخدم في الحكومة الإلكترونية). | | |
| Complexity <ul style="list-style-type: none"> Difficulty in using the new system, and difficult to accept the concept of the electronic interaction between agencies صعوبة في استخدام النظام الجديد (وهو نظام لنكس)، ويصعب قبول مفهوم التفاعل الإلكتروني بين وكالات المحلية في محافظة ذي قار | | |
| Information Security <ul style="list-style-type: none"> Fear of the process of sending information by electronic means between local agencies. الخوف من عملية إرسال المعلومات عن طريق الوسائل الإلكترونية بين الوكالات المحلية (بين دوائر محافظة ذي قار). Requires protection devices as well as software used in the process of electronic interaction between local agencies يتطلب أجهزة الحماية فضلا عن البرمجيات المستخدمة في عملية التفاعل الإلكتروني بين الوكالات المحلية. | | |

| Organizational Context | | |
|--|--|--|
| IT Capability <ul style="list-style-type: none"> IT skills among the staff of limited local agencies, as well as the agencies lack the infrastructure for electronic interaction between local agencies. مهارات تكنولوجيا المعلومات بين موظفي الوكالات المحلية محدودة (بين موظفي الدوائر الحكومية في محافظة ذي قار)، فضلا عن بعض الوكالات تقتصر إلى البنية التحتية الإلكترونية للتفاعل بين الوكالات المحلية. | | |
| Internal Resistance of Change <ul style="list-style-type: none"> Resistance by a number of directors of local agencies to use modern technology in the process of sending data between local agencies. المقاومة من جانب عدد من مدراء الوكالات المحلية (دوائر محافظة ذي قار) لاستخدام التكنولوجيا الحديثة في عملية إرسال البيانات بالطرق الإلكترونية بين الوكالات المحلية. | | |
| Top management Support <ul style="list-style-type: none"> Lack of interest in and support of the managers of some of the agencies of the electronic interaction process; for some reason the limited resources available to the agencies, and the lack of support from the province to the participating agencies the process of electronic interaction. عدم الاهتمام والدعم من مديري بعض الوكالات من عملية التفاعل الإلكترونية (أو الحكومة الإلكترونية)؛ بسبب محدودية الموارد المتاحة للوكالات (عدم وجود أموال إضافية للدوائر)، وعدم وجود دعم من المحافظة إلى الوكالات المشاركة في عملية التفاعل الإلكتروني. There is no incentive for employees to use modern technology. لا يوجد هناك أي حافز للموظفين لاستخدام التكنولوجيا الحديثة. | | |
| Environmental Context | | |
| Trust <ul style="list-style-type: none"> Problems of relations between local agencies, and the lack of trust between local agencies. مشاكل العلاقات بين الوكالات المحلية (وجود مشاكل بين بعض الدوائر في محافظة ذي قار)، وعدم وجود الثقة بين الوكالات المحلية. | | |
| Physical Security <ul style="list-style-type: none"> Lack of protection devices to prevent any external risk on devices used in the process of electronic interaction among local agencies. عدم وجود أجهزة حماية لمنع أي خطر خارجي على الأجهزة المستخدمة في عملية التفاعل الإلكتروني بين الوكالات المحلية. Change places servers frequently result in damage to the devices as well as the constant interruptions. تغيير أماكن الخوادم يؤدي في كثير من الأحيان في الأضرار التي لحقت الأجهزة فضلا عن الانقطاع المستمر للكهرباء. | | |
| Legislations <ul style="list-style-type: none"> The lack of legislation that support the process of the electronic interaction between local agencies, and obliges agencies to use electronic methods to send information. عدم وجود التشريعات التي تدعم عملية التفاعل الإلكتروني بين الوكالات المحلية (عدم وجود قوانين لتبادل الإلكتروني بين الدوائر المحلية في محافظة ذي قار)، وتلزم الوكالات على استخدام الوسائل الإلكترونية لإرسال المعلومات. | | |

ونرجوا من سيادتكم المشاركة في الجزء الأخير من هذه الدراسة، والتي هي مختصة بالتحقق من النتائج النهائية. مخرجات هذا البحث أو نتائج هذا البحث قد يؤدي إلى الفائدة التي تعود على الوكالات المحلية و كذلك محافظة ذي قار بشكل عام، لمعرفة العوامل التي قد تؤدي إلى فشل أو تقليل تبادل المعلومات بالوسائل الالكترونية. دون مساعدتكم ودعمكم في هذا البحث لن يكتمل. وتأكد من أن جميع المعلومات المقدمة هنا هي للأغراض الأكاديمية.

يمكنك كتابة اي تعليق هنا " يمكنك استخدام اللغة العربية



UUM
Universiti Utara Malaysia

ختم أو توقيع

مع التقدير

الاسم:

التاريخ:

APPENDIX J (Nvivo Report)

| Aggregate | Classification | Coverage | Number Of Coding References | Reference Number | Coded By Initials | |
|-----------|----------------|----------|-----------------------------|------------------|-------------------|--|
|-----------|----------------|----------|-----------------------------|------------------|-------------------|--|

Node

Nodes\\First Group Interviews\\BENEFITS

Document

Internals\\First Group Interviews\\Participant 1-1

| | | | | |
|----|--------|---|---|---|
| No | 0.2302 | 6 | | |
| | | | 1 | 1 |

Therefore, we are doing our best to overcome these obstacles by applying the modern exchange information and providing computers which will reduce efforts on the employees and will facilitate the citizens' interests and interactions, moreover, the idea of the e-government will compel the citizens themselves to use the modern technologies and as a result the society will progress. In addition, the project will help in making-decision process.

2 1

Actually, the electronic interaction is very important at the present time for Dhi Qar province because of the increasing number of the population especially after 2003, in addition a large number of the people of marshes are now moving to the city so the local agencies have witnessed increase in the number of the visitors.

3 1

The project will facilitate the communication with the remote local agencies in the province which cannot be reached in bad weather.

4 1

The electronic interaction facilitates the work among the local agencies and reduces efforts on employees.

5 1

but most of the exchange information is between the local agencies and the <Agency Name>

6 1

I think the benefits of the project should be identified for both the employees and the managers of the local agencies by the directorate of <Agency Name> so that a large number of the local agencies in the province participate without any rejections.

Internals\\First Group Interviews\\Participant 1-2

| | | | | |
|----|--------|---|---|---|
| No | 0.2571 | 7 | | |
| | | | 1 | 1 |

The electronic interaction is the essential application of the e-government. Actually this project aims to use the electronic interaction to facilitate the interaction among the local agencies so that modern technologies replace the traditional means which in return will save time and efforts. This will contribute in the development of Iraq

| Aggregate | Classification | Coverage | Number Of Coding References | Reference Number | Coded By Initials |
|-----------|----------------|----------|-----------------------------|------------------|-------------------|
|-----------|----------------|----------|-----------------------------|------------------|-------------------|

2 1

In fact, there are other benefits that we may gain as employees at the e-government in programming and computer engineering.

3 1

The main purpose after the project is to follow the progress the modern countries witness and to facilitate the local agencies works and interactions with less time and less efforts, and this what every country aims at.

4 1

Actually, the traditional means are stressful and slow comparing with the modern technology means. Moreover, the modern technologies will save time and reduce effort therefore the employees will feel comfortable to process all of the interactions for the citizens and for the other agencies with safety and confidentiality.

5 1

Regarding Dhi Qar <Agency Name>, we actually check the names of the [REDACTED]. This is a system that used in 2003 through which salaries for [REDACTED] individuals are distributed where the local agencies send the names of their employees regularly so that we check it constantly lest they receive any other salaries from any other agency.

6 1

I think the percentage among only the involved local agencies does not exceed 20%.

7 1

Actually, some local agencies do not know the main purpose after the electronic interaction project for both the province and the agency.

Internals\\First Group Interviews\\Participant 1-3

No 0.1481 4

1 1

I think, first these employees have to be educated on the project and on how this project will benefit the country and will contribute in reducing the corruption and costs and it will offer accurate information.

2 1

Unfortunately, some local agencies are not aware that this project will help them in accessing the information easily.

3 1

The electronic means specifically the electronic interaction among the local agencies will reduce the waste of money that paid to buy the copy paper documents. Moreover, it will help on future plans in reducing unemployment rate that spread in the province as a result of the administrative corruption and nepotism. However, the e-government is considered an important component to build the modern countries, because without the e-government applications, where the project is a part of it, it would very difficult to provide equal services to the citizens when using the traditional means.

4 1

still, some managers insist on using the traditional means, however, I think when they know the benefits of the electronic interaction they will change their minds.

| Aggregate | Classification | Coverage | Number Of Coding References | Reference Number | Coded By Initials | Modified On |
|-----------|----------------|----------|-----------------------------|------------------|-------------------|-------------|
|-----------|----------------|----------|-----------------------------|------------------|-------------------|-------------|

Internals\\First Group Interviews\\Participant 2-1

| | | | | |
|----|--------|---|---|---|
| No | 0.1315 | 4 | 1 | 1 |
|----|--------|---|---|---|

Regarding the directorate of <Agency Name> in Dhi-Qar, the purpose is to make the interactions of the agency in a continuation process with the other local agencies through spreading the knowledge about the official books and administrative legislations. More significantly, the purpose focuses on creating a real communication between the directorate of <Agency Name> and [REDACTED] in the province by using recent means through which [REDACTED] will be able to register and fill the application forms electronically

| | |
|---|---|
| 2 | 1 |
|---|---|

Therefore, I believe that the level of information exchange among some participated agencies which involve in the project since it was founded is 3%. This percentage may collapse the project because an employee or an administrator will feel that this project is just a waste of money.

| | |
|---|---|
| 3 | 1 |
|---|---|

we strive to educate the other agencies of the interaction benefits because of the importance it can bring to Dhi Qar province agencies and their employees. Dhi- Qar directorate <Agency Name> is considered one of the main service agencies that can benefit of the information exchange because other agencies of Dhi-Qar need to document the certificates and to certify the certificates for applicants who will work in their agencies.

| | |
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| 4 | 1 |
|---|---|

the lack of awareness about the usefulness of the information exchange, or e-government in the directorate <Agency Name> of Dhi Qar, this obstacle is also important.

Internals\\First Group Interviews\\Participant 2-2

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|----|--------|---|---|---|
| No | 0.0737 | 2 | 1 | 1 |
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The project will provide a great contribution to Dhi Qar directorate of <Agency Name> because it is the [REDACTED] directorate in Dhi-Qar province. Therefore, the employees find difficulty to achieve the work because of the large number of the clients who come to the agency. Hence, this contributes in the delay of the completion of the citizens' interests. However, this project provides a good service for the citizens and will reduce overcrowded at the directorate and will also provide the best services for the other agencies.

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| 2 | 1 |
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Frankly, at the moment I find no benefits out of this project (the e-government) because most of the available applications cannot be used by the unqualified employees.

Internals\\First Group Interviews\\Participant 3-1

| | | | | |
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| No | 0.0538 | 1 | 1 | 1 |
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the project has been politicized and has become an electoral benefit rather than to be a benefit for the local agencies because non-qualified individuals are employed in the e-government applications which led to the delay of the project due to factors such as the cost and lack of expertise and awareness of the benefits of the project.

Internals\\First Group Interviews\\Participant 3-2

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| No | 0.2647 | 5 | 1 | 1 |
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The purpose of the project is mainly to reform and to develop the province. Therefore, if this project is achieved successfully it would be a great step that performed by Dhi Qar province towards progress and serving the citizens. So this project is to organize the work of the local agencies and to reduce corruption as well.

Reports\\Coding Summary By Node Report (2)

| Aggregate | Classification | Coverage | Number Of Coding References | Reference Number | Coded By Initials | |
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2 1

At the present time, there is no exchange of information among the other agencies in the province that is due to several reasons including the large number of the local agencies that have not been involved in the interaction.

3 1

<Agency Name> of Dhi Qar requested the province not to include the [REDACTED] within a project that does not contain a large number of employees; moreover, it requested more employees to be appointed to enter the information. In fact, I think there are no benefits from the project and that Dhi Qar <Agency Name> will continue with the ways that suit its interests.

4 1

In fact I don't feel any improvement in the interaction between the agencies, in contrary, the opposite is now happening, there is a decrease compared with the previous years.

5 1

Actually, a number of letters have been already sent to a number of local agencies at the beginning of the project. A few numbers of these local agencies responded reluctantly, but the other have not responded yet. These letters are about the participation in this project. However, there are no restrictions compelling the managers to participate in this project. So I think it will take time until all local agencies be ready to participate. In addition, there should be a kind of education about the importance and the benefits of the e-government applications since this project is a part of it.

Internals\\First Group Interviews\\Participant 4-1

No 0.1888 4

1 1

Unfortunately, this project seems as slow as turtles in movement. It is progressing very slowly. Just imagine starting from 2004 until now we are only discussing the factors led to the delay or may stop the project completely if the top management and the project's supervisors continue to neglect this project (the electronic interaction among the local agencies in Dhi Qar province).

2 1

As you know, Dhi Qar directorate of <Agency Name> is one of the important service agencies in the province. However, because of the increase number of the population, the explosions happen in the country and the pollution it is necessary to find other means to control [REDACTED]. Therefore, this project implemented with a very low rate of information exchange among the local agencies where some information exchanged between Dhi Qar directorate of <Agency Name> and some the other local agencies such as the directorate of <Agency Name> and the <Agency

3 1

Unfortunately, the directorate of < Agency Name> refused to exchange the information because they only want to receive the information of the other agencies, consequently, there would not be any kind of benefits the other agencies to find.

4 1

think it is even difficult to force the current involved agencies to apply the applications because the benefits of this project are not identified clearly to most of the local agencies.

Internals\\First Group Interviews\\participant 4-2

No 0.1042 3

1 1

The main purpose of the electronic interaction among the local agencies in Dhi Qar province is to reduce the effort on the citizens and the employees as well, in addition to offer a good services to the citizens by using the modern electronic means.

2 1

However, there is a difficulty to accept the electronic interaction among the local agencies in Dhi Qar province. Regarding the vague possible benefits of the process, Dhi Qar <Agency Name> hesitated to continue in this project. This will obstacle the work and applying it in all of the local agencies in the province.

| Aggregate | Classification | Coverage | Number Of Coding References | Reference Number | Coded By Initials | |
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3 1

In fact, there are many factors. For example, some departments' managers do not accept the project because they are not aware of the benefits the project will bring for Dhi Qar < Agency Name>.

Internals\\First Group Interviews\\participant 5-1

No 0.2033 4

1 1

The main purpose of the electronic interaction among the local agencies is to reduce effort and time; moreover, it is also to eliminate the traditional means (documents) procedures which waste much money in copy papers and inks. In addition, the electronic interaction will create confidentiality for the information exchange. More importantly, the electronic interaction will eliminate corruption. These are the most expected requirements from this project to fulfill.

2 1

Generally, the e-government will benefit the citizens and the government respectively. In fact, this project is a form or a part of the e-government. Unfortunately, the province authorities are unaware of the benefits the project will bring to the province and to Iraq in general. The project will make a great step of changing from the traditional means (the documents) which waste effort and time to the most easily, safe electronic means which reduce costs. Frankly, at the beginning of the project there will be more costs, but there will be good results when the information exchange starts.

3 1

Actually there is no clear vision to apply the electronic interaction by the electronic means.

4 1

Moreover, it is also due to the unknown benefits the project may offer to Dhi Qar province.

Internals\\First Group Interviews\\Participant 6-1

No 0.1745 5

1 1

One important application is exchanging the information among the local agencies. We are doing our best in order to help the citizens; instead of going to every single agency, their procedures would be available and would be easily processed electronically. More importantly, the project will save time and effort and will reduce the financial and administrative corruption so that in the future the citizens will be able to process any local agency and pay the electricity and water bills from their houses through the portal. The portal will contain a page for complains and interactions.

2 1

The main reason behind this project is to benefit the citizens through processing all of their procedures from one local agency rather than they visit all of them.

3 1

Iraq is trying to pace development in modern sciences where most of the countries recently use the modern technologies to serve their own citizens and to save time and costs on one hand and to reduce efforts on their employees on the other where the traditional means (the use of pen and paper) in paying invoices, job applications and issuing passports are almost disappeared. Therefore, we are trying to get rid of this boring routine to development same like other countries as well as to reduce the financial and administrative corruption. According to the United Nation's report on the most corrupted countries in the world, Iraq is listed as one of these corrupted countries.

4 1

in addition the traditional means waste much money, time and efforts. Regarding Dhi Qar province, the population is in increase so the traditional means do not suit the needs of the local agencies hence the current project is considered to be a step forward, but there are so many factors that may obstacle the project.

| Aggregate | Classification | Coverage | Number Of Coding References | Reference Number | Coded By Initials |
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5 1

Besides, the information that sent between the <Agency Name> and the other agencies in order to know about the tenders, since most of these information are considered to be services and contain confidential details that must be secret in the process of the information exchange as well as there are important information that should never be delayed in the information exchange process between the general directorate for <Agency Name> and the other local agencies and that the traditional means may delay and hinder the work

Internals\\First Group Interviews\\Participant 6-2

No 0.1248 3

1 1

Moreover, one more benefit for the e-government is that it will help in securing the information which is a priority that Iraq needs at the moment. Therefore, we are in need for more promotion and education for this project. In addition, the project will symbolize the trend to good governance; I mean transparency, integrity, democracy and electronic election in addition the information exchange will help in the census, through which budgets are allocated for each province, which is facing political obstacles and maintaining stability and security in the province.

2 1

Moreover, the project will reduce the traditional means among the local agencies where most of them are still using the traditional routine means. For example, they send a certain individual from one agency to another to certify a particular document or to pay the invoices.

3 1

Because of the unstable political and administrative situation in Iraq, conflicts arise and, consequently, these conflicts will negatively affect the construction process in Iraq and Dhi Qar province in particular. The available employees at the project are not aware of the importance of what this project may offer for the province and for the citizens in general

Internals\\First Group Interviews\\Participant 7-1

No 0.2717 4

1 1

Anyhow, the interaction exchange, as a part of the e-government, is already applied but it is limited to several agencies because of the lack of education and awareness of the importance of the electronic interaction among the agencies.

2 1

The traditional means of corresponding information among the agencies are not sufficient at the present time because the number of the employees in the province is huge; moreover, the number of the local agencies in the province is increased. Consequently, the use of the traditional means makes it difficult for the agencies because of the accumulated documents. Therefore, it is of necessity to convert all these documents into a smaller accurate process that saves time and effort. Thus, this electronic interaction will benefit the directorate <Agency Name> in Dhi Qar province, consequently, we accept the project

3 1

Just imagine the situation that we are using the documents for more than 40 years and these documents are kept in stores belong to the offices. Therefore, there is a large amount of documents in all agencies and ministries that occupy vast space in addition that they can be damaged while all these documents can be converted electronically in a CD or a hard desk. Moreover, as I stated earlier, that the modern technology facilitates the work no matter if the size is huge or small and provide accurate services for the citizens and this is what the government tries to fulfill.

4 1

As a manger for the <Agency Name>, I agree on the applications of the project, but the problem is that some of the local agencies do not know that the connection of all the agencies to the network will facilitate the work among the agencies and the province. This is considered as a contribution to the agencies and a better way for them than using the traditional means.

| Aggregate | Classification | Coverage | Number Of Coding References | Reference Number | Coded By Initials |
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Internals\\First Group Interviews\\Participant 7-2

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| No | 0.3046 | 5 | | | |
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In fact, the real benefit behind the application is to convert all the available documents at the local agencies to computers and deal

2 1

In fact, the electronic interaction among the local agencies will facilitate the process of inquiry about the information sent from the province. Moreover, it will contribute even statistically. In addition, the project will save the information for a long time without any damage. This was the main reason that encouraged the <Agency Name> to be one of the participants in this project. In fact, we do not care if other agencies could get the information we have or not.

3 1

The only motivation that encouraged the <Agency Name> to contribute in this project is that electronic interaction is extremely effortless and interesting process; in addition, the information will be available at any time whenever I need it, therefore, the shift to the digital means will put an end to the huge documents.

4 1

Regarding Dhi Qar <Agency Name>, the province depends on it too much because it supplies all the other local agencies as well as the electric [REDACTED] such as petrol or diesel. The supply process is implemented based on the information that sent by the province, the <Agency Name> or other local agencies. Therefore, applying the electronic interaction will make the work more accurate and will reduce the corruption; moreover, it will create transparency where the [REDACTED], the local agencies processed and the date of the delivery will be known to the province through the electronic interaction which the directorate of the communication will provide. Thus, this will protect the <Agency Name> of any suspicious in case of robbery.

5 1

I think if the local agencies realize the benefits of the project for them and for the province, I they will prepare to participate.

Internals\\First Group Interviews\\Participant 8-1

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|----|--------|---|---|---|--|
| No | 0.2250 | 4 | | | |
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However, <agency Name> offers administrative support for the local agencies in the province. The project is provided with additional servers in addition to some other computers connected with them. This project will help the managers to get precise information on one hand and will reduce time and effort on the citizens and getting good services on the other.

2 1

Let me add something, this project will eliminate the administrative corruption where there are cases of corruption in some local agencies, for example, in the process of entering the information into computers, some case of corruption regarding the salaries was revealed and that the salaries under false names were received by one employee at the agency.

3 1

the modern means work can be achieved very fast with less cost. In addition, the information remain completely secret as well as to keep up with the other countries that near Iraq such as Bahrain, Jordan and United Arab of Emirates which are considered to be advanced countries in applying the e-government and its applications.

4 1

There are many important factors. For example, the lack of qualified individuals in the local agencies, the absence of lawful legislation and some of the local agencies do not have the tendency to participate in the project though they can. Moreover, some individuals do not trust the project. They think this project will change the agency and will not bring any financial benefits to the local agency. In addition, other local agencies are not enough aware of the project.

| Aggregate | Classification | Coverage | Number Of Coding References | Reference Number | Coded By Initials | Modified On |
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2 1

Actually managers should motivate their employees. For example, if the managers are well aware of the benefits the project may bring into the agency, they will encourage the employees to have training-courses and to participate in the interaction. Similarly, if the managers, there are many of them, are not aware of the importance of the project, I think the motivation will be weak.

Nodes\\Second Group Interviews\\Organizational Context\\IT Capability

Document

Internals\\Second Group Interview\\Participant 1-1

No 0.0843 4

1 1

I have mentioned in the previous interview that the percentage of the information exchange is exceeding 25%. Actually, this percentage is good comparing with the percentage in any other local agencies.

2 1

I think all of the employees are fond and have enough experience on using the computers, therefore, they will feel comfortable when they use computers.

3 1

There are around 7 experienced employees with higher certificates that qualifying them for the project applications and, if necessary; they can design the applications by themselves.

4 1

Certainly Mr. [REDACTED] is a good candidate for this position for his expertise in administrative applications because he had several training courses in the field of e-government applications in some different countries in the world.

Internals\\Second Group Interview\\Participant 1-2

No 0.0674 4

1 1

As I mentioned earlier, 20% percent of the electronic interaction process among the local agencies is recently happening in Dhi Qar province.

2 1

There are enough number of the qualified employees in computer skills in the province and they feel comfortable with these applications, however, the number differs from one agency to another based on the knowledge and skills among the employees.

3 1

There are around 7 individuals between engineers and technicians, in addition to the manager Mr. [REDACTED].

4 1

I think Mr. [REDACTED], the manager of the e-government in Dhi Qar province is well-qualified and he has enough experience on the e-government applications because he was trained well in Italy, turkey and Jordan.

| Aggregate | Classification | Coverage | Number Of Coding References | Reference Number | Coded By Initials | Modified On |
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Internals\\Second Group Interview\\Participant 1-3

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| No | 0.0703 | 4 | | | | |
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There are a large number of interaction operations and correspondences that are applied now. In fact some agencies are still using the traditional means; however, others use the electronic interaction and the number is in increase.

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In [REDACTED], there is enough number of employees who are familiar with computers. Certainly, there is still a need to train them, but I think the recent number is enough.

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There are around 7 individuals between engineers and technicians. According to my experience, I think the number is sufficient and to give training opportunities for others in the province.

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As I told you earlier, in [REDACTED] there are enough experienced employees on the e-government applications. I am here the responsible manager for the information.

Internals\\Second Group Interview\\Participant 2-1

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| No | 0.0951 | 4 | | | | |
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Regarding Dhi-Qar province, there is electronic exchange among the [REDACTED] and the [REDACTED] and the [REDACTED] of Dhi-Qar. But for the rest of the agency, there seems no motivation to use the interactional exchange due to many reasons. However, the interaction exchange does not exceed 3%.

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Regarding the [REDACTED] in Dhi Qar, there is a good number of employees who can use the computer skillfully. In addition, there are computer courses to educate them to use some electronic applications such as documents management systems. Moreover, there are some employees who find it difficult to use computer, therefore, they resort to the use of documents. This kind of employees includes a number of managers. They are regarded as an obstacle to the progress of the province.

| | |
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| 3 | 1 |
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There are a few numbers of them in Dhi Qar [REDACTED]. I cannot determine the exact number, but they are less than what the directorate of education needs.

| | |
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| 4 | 1 |
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In Dhi Qar [REDACTED], there is a section which is specialized in educational maintenance applications and simple applications. As for the e-government, the number does not exceed three individuals and I am the person who is supervising the project in Dhi Qar [REDACTED] with the help of qualified professors.

Internals\\Second Group Interview\\Participant 2-2

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|----|--------|---|--|---|---|--|
| No | 0.0777 | 4 | | | | |
| | | | | 1 | 1 | |

Regarding Dhi Qar [REDACTED], which is the first contributor in this project, the rate of information exchange is 2%. Regarding the other agencies involved in the project, I think the interaction exchange is less.

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| 2 | 1 |
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A few months ago all the employees of [REDACTED] were tested in their ability to use simple applications of the computers. The result showed that the majority of them face difficulties to adapt with these applications though they are very simple applications in comparison with the e-government and the systems it uses.

| Aggregate | Classification | Coverage | Number Of Coding References | Reference Number | Coded By Initials | Modified On |
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3 1

The number of the employees does not exceed 12%. This number is actually not enough to process all the needs of the [REDACTED]. Therefore, we requested the authorities to provide us with some employees. Unfortunately, the request is still in process since a year ago.

4 1

Absolutely, especially at the computer center at Dhi-Qar [REDACTED] where there are two experienced individuals in the e-government applications.

Internals\\Second Group Interview\\Participant 3-1

No 0.0728 4

1 1

The operations that exchanged by electronically do not exceed 2%, this does not include all the participating local agencies. Some local agencies do not interact when the information is exchanged electronically and prefer traditional means in the process of information exchange.

2 1

There are several well-qualified employees, but unfortunately some of the professors cannot use the computers especially professors of history and science.

3 1

There are a small number of the employees. Actually I do not know the real number of the computer technology's professors and technicians.

4 1

In Dhi Qar [REDACTED] there is a computer center and it is the responsible for e-government and there is a well-qualified manger as well as professor [REDACTED] and professor [REDACTED].

Internals\\Second Group Interview\\Participant 3-2

No 0.0904 4

1 1

The percentage does not exceed 1%. This is only about the processes among the [REDACTED] and the [REDACTED].

2 1

It depends on the type of the local agencies. However, there are agencies who still use the traditional means as a result the number of the employees who use computers is low, an example is the directorate of tax where the employees who can use computers is very low.

3 1

There is a good and enough number of the employees. However, the problem is not with the number of the employees rather it is about training them where a number of them are sent outside Iraq for training on the application of the e-government, moreover, most of these employees have no experience in the computer skills and because they were selected inappropriately.

4 1

I am the responsible director of the computer center in [REDACTED].







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