

TABLE OF CONTENTS

| | Page |
|---|-------------|
| Acknowledgement | iii |
| Abstract (English) | iv |
| Abstract (Thai) | vi |
| List of Tables | xiv |
| List of Figures | xvi |
| | |
| Chapter 1 Introduction | 1 |
| 1.1 Significance of the Problem | 1 |
| 1.1.1 The Creative Economy | 1 |
| 1.1.2 Thailand's Creative Economy Strategy | 3 |
| 1.1.3 Northern Thailand Strategy | 4 |
| 1.1.4 Business incubation in Thailand | 5 |
| 1.1.5 University incubation in Thailand | 6 |
| 1.2 Problem Statement | 7 |
| 1.3 Research Objectives | 7 |
| 1.4 Research Questions | 8 |
| 1.5 Novel Contributions to Knowledge | 8 |
| 1.6 Thesis Organization | 9 |
| | |
| Chapter 2 Literature Review | 10 |
| 2.1 Creative Economy | 11 |
| 2.1.1 Creative Industry concept and Model | 12 |
| 2.1.2 The Creative Economy in Developed Countries | 17 |
| 2.1.3 Thailand's Creative Economy | 20 |
| 2.2 Small and Medium Size Enterprises (SMEs) | 22 |

TABLE OF CONTENTS (continued)

| | Page |
|---|-------------|
| 2.2.1 SMEs in developing countries | 28 |
| 2.2.2 The Creative economy and Thai SMEs | 30 |
| 2.3 Business Incubation (BI) | 32 |
| 2.3.1 Modern business incubation | 35 |
| 2.4 University Business Incubations (UBIs) | 37 |
| 2.4.1 Mason Enterprise Center (MEC) | 37 |
| 2.5 University Business Incubation in Thailand | 38 |
| 2.6 Case Study | 41 |
| 2.6.1 2E project | 42 |
| 2.7 Theory and Framework | 44 |
| 2.7.1 Knowledge Management | 44 |
| 2.7.1.1 Hierarchy of data, information, knowledge and wisdom | 46 |
| 2.7.1.2 Distinction among know-what, know-how and know-why | 47 |
| 2.7.1.3 Explicit and Tacit knowledge | 48 |
| 2.7.1.4 Learning and Learning Organization | 49 |
| 2.7.2 Knowledge Sharing and Knowledge Creation | 50 |
| 2.7.2.1 Knowledge Sharing | 50 |
| 2.7.2.2 Types of Knowledge Sharing | 51 |
| 2.7.2.3 Individual Knowledge Sharing | 52 |
| 2.7.2.4 Expert Knowledge Sharing and Communication | 53 |
| 2.7.3 Knowledge Creation | 54 |
| 2.7.4 Knowledge Creation and Incubation Process | 57 |
| 2.7.4.1 Knowledge Management and Global Companies | 58 |

TABLE OF CONTENTS (continued)

| | Page |
|--|-------------|
| 2.7.5 Expert Communication Problems | 59 |
| 2.7.6 Summary | 60 |
| Chapter 3 Research Methodology | 62 |
| 3.1 Research Design | 63 |
| 3.2 Data Collection | 65 |
| 3.2.1 Interview approach | 65 |
| 3.2.2 Literature reviews | 68 |
| 3.2.3 Data collection technique | 68 |
| 3.3 Data Analysis | 69 |
| 3.4 Validation | 70 |
| Chapter 4 Result and Analysis | 72 |
| 4.1 Introduction | 72 |
| 4.2 Report on Data Collection | 72 |
| 4.2.1 SME requirements and limitations in Northern Thailand | 73 |
| 4.2.2 SME Development Toward the Creative Industries: OSMEP Case Study 2010 | 78 |
| 4.2.3 SMEs Development Toward Creative Industry: Case Study OSMEP 2011 | 83 |
| 4.2.3.1 Selection Criteria | 85 |
| 4.2.3.2 Project Participants | 86 |
| 4.2.3.3 Summary of OSME 2011: Incubation Process | 96 |
| 4.3 Initial finding | 103 |

TABLE OF CONTENTS (continued)

| | Page |
|--|-------------|
| 4.3.1 Initial Case Study Observation | 103 |
| 4.3.2 Knowledge Management Strategy | 104 |
| 4.4 Result | 107 |
| 4.4.1 Critical Knowledge Require for Development | 108 |
| 4.4.1.1 Domain Knowledge | 108 |
| 4.4.1.2 Critical Knowledge Analysis | 110 |
| 4.4.2 Knowledge creation process | 113 |
| 4.4.3 Commercialization Success and Expert Contribution and Effort | 118 |
| 4.4.4 Effective Interaction Method in Incubation Process | 122 |
| 4.5 Critical Knowledge Creation Process (KM framework and model for UBI) | 124 |
| 4.5.1 The Critical Knowledge Creation Process in a University Business Incubation Project | 125 |
| 4.5.2 Industry Experts' Knowledge Creation | 127 |
| 4.6 Analysis (KM model) | 127 |
| 4.6.1 Knowledge Management Model for UBIs | 128 |
| 4.6.2 The Critical Business Incubation Process | 134 |
| 4.6.3 Knowledge Management Implementation Framework | 135 |
| 4.6.4 Expert Contribution and Effort | 144 |
| 4.6.5 Summary | 145 |

TABLE OF CONTENTS (continued)

| | Page |
|--|-------------|
| Chapter 5 Conclusion and Discussion | 146 |
| 5.1 Research Summary | 146 |
| 5.2 Discussion and Conclusions | 146 |
| 5.2.1 Incubation Processes in a UBI Project | 149 |
| 5.2.2 Knowledge Creation Processes in a UBI Project | 151 |
| 5.2.3 Critical Process that Affects the Project Outcome | 153 |
| 5.2.4 Knowledge Management Model and Framework of Thai UBI | 156 |
| 5.2.5 The Strategy for UBI | 162 |
| 5.3 Discussion on Northern Thais' Handicraft SMEs and Creative Industry | 164 |
| 5.4 Discussion on Critical Knowledge Creation process and UBI | 165 |
| 5.5 Discussion on Enabling Expert Contribution and Effort | 165 |
| 5.6 Knowledge Management for UBI | 167 |
| 5.7 Research Limitation | 168 |
| 5.8 Future Works | 169 |
| 5.9 Conclusion | 169 |
| References | 170 |
| Appendices | 180 |

TABLE OF CONTENTS (continued)

| | Page |
|---|-------------|
| Appendix A Evaluation Information of 15 business participants in Creative Building for Northern SMEs 2010 | 181 |
| Appendix B Observation activities: Meeting of project committee | 182 |
| Appendix C Observation: Selection process (documents and activities) | 185 |
| Appendix D Lists of the interviewees (from Creative Building SMEs Northern) | 190 |
| Appendix E Information from interview with 12 participants (2 project staffs and 10 businesses) | 193 |
| Appendix F Project Plan and Key Indicator agree with OSMEP | 195 |
| Appendix G Analysis tables: Incubation process: Product Plan | 196 |
| Appendix H Commercialization Outcome | 200 |
| Appendix I Summary and analysis of management strategy for university business incubation project | 201 |
| Appendix J Analysis of knowledge management process, objectives and key activities for university Business Incubation model | 202 |

Curriculum Vitae**204**

LIST OF TABLES

| Tables | Page |
|--|------|
| 2.1 Classification of the Creative Industries (UNCTAD, 2008) | 14 |
| 2.2 Failure Rate of UK SMEs, 1990-95 (OECD, 2002) | 23 |
| 2.3 Established Government Training Programs by Countries (OECD, 2000) | 23 |
| 3.1 Research Design | 63 |
| 3.2 Interviewees' Characteristics and role in the UBI project | 66 |
| 4.1 CTBA Member classification | 74 |
| 4.2 Type of Member in CTBA workshop meeting | 75 |
| 4.3 Results of Product Commercialization in 82 the OSMEP 2010 Project | 82 |
| 4.4 Participants' Profiles in the OSMEP 2011 Project | 87 |
| 4.5 OSMEP 2011 Project Participant Classification | 89 |
| 4.6 OSMEP 2011 Project: Expert Participants | 91 |
| 4.7 OSMEP 2011 Project: Industry Expert Activities | 92 |
| 4.8 OSMEP 2011 Project: Project Manager Activities | 94 |
| 4.9 OSMEP 2011 Project: Project Staff Activities | 95 |
| 4.10 Examples of useful knowledge from experts, as indicated by incubates | 97 |
| 4.11 Strategic Framework for Northern Thai SMEs | 106 |
| 4.12 A Knowledge Management Strategy for SMEs' Development | 107 |
| 4.13 Critical Knowledge Analysis Criteria | 111 |
| 4.14 Critical Knowledge Analysis for SMEs | 112 |
| 4.15 Expert Involvement and Commercialization Success | 120 |

LIST OF TABLES (continued)

| Tables | Page |
|---|-------------|
| 4.16 Previous and New Knowledge/Skills from the Project | 121 |
| 4.17 Problems and suggestions from OSMEP 2011 project operation | 122 |
| 4.18 Effective Interaction during the Incubation Process | 123 |
| 4.19 KM Implementation framework | 135 |
| 5.1 Knowledge Management Framework for Thai UBI Project | 158 |
| 5.2. Applied Behavior Analysis of Experts (Pavlov et al., n.d.) | 166 |

LIST OF FIGURES

| Figure | Page |
|---|-------------|
| 1.1 Cooperation requirements in the university business incubation process | 6 |
| 2.2 The UNCTAD classification of creative industries (UNCTAD, 2010) | 16 |
| 2.2 Cooperation requirements in the UBI process of Northern Thai SMEs | 41 |
| 2.3 Knowledge Creation Process (Nonaka and Takeuchi, 1995) | 55 |
| 2.4 Industries and Universities knowledge Creation (adopted from Nonaka and Takeuchi, 1995) | 61 |
| 4.1 The business incubation process in the Northern Region of Thailand | 80 |
| 4.2 The OSMEP 2011 Operation Process | 84 |
| 4.3. Application of the SECI model in the University NPD process | 114 |
| 4.4. Critical Processes for the University NPD | 126 |
| 4.5 Business Strategy and KM strategy for Creative Economy Development of Thai SMEs | 129 |
| 4.6. UBI Processes Related to Thai SMEs and Creative Economy Development | 130 |
| 4.7. UBI Knowledge Management Model for Thai SMEs and Creative Economy Development. (Adopted from Nonaka and Takeuchi, 1995) | 132 |
| 4.8. UBI Process and Knowledge Conversion Process for Thai SMEs and Creative Economy Development | 133 |
| 5.1. The business incubation process as it relates to the creative economy in the Northern Region of Thailand | 150 |
| 5.2. Knowledge Creation Process in a UBI Project. | 152 |

LIST OF FIGURES (continued)

| Figure | Page |
|--|-------------|
| 5.3. Effect of Critical process on project outcome | 154 |
| 5.4. Knowledge Management Model for Thai UBIs | 157 |
| 5.5 Thai UBI Strategy Toward the Creative Economy | 163 |