TABLE OF CONTENTS

1.0 Introduction 1-1
- 1.1 Introduction 1-1
- 1.2 Background of the Project 1-3
- 1.3 Statement of the Problem and Opportunities 1-4
- 1.4 Conceptual Framework 1-5
  - 1.4.1 Modules, Functions, and Features 1-5
  - 1.4.2 Problems 1-12
  - 1.4.3 Tools and Technologies 1-13
  - 1.4.4 Users 1-14
- 1.5 Research Objectives 1-15
- 1.6 Significance of the Project 1-15
- 1.7 Scope and Limitations of the Project 1-16

2.0 Review of Related Literature 2-1
- 2.1 Review of Related Concepts 2-1
  - 2.1.1 ICT Trends in Business Management 2-1
  - 2.1.2 Project Management 2-6
    - 2.1.2.1 Project 2-6
    - 2.1.2.2 Processes/Phases 2-7
    - 2.1.2.3 Inputs and Outputs 2-9
    - 2.1.2.4 Project Metrics 2-10
    - 2.1.2.6 Tools and Techniques 2-12
  - 2.1.3 Project Management Systems 2-15
    - 2.1.3.2 Benefits of Using Project Management Systems 2-16
- 2.2 Review of Related Systems 2-16
- 2.3 Review of Related Methodologies 2-22

3.0 Methodology 3-1
- 3.1 Description 3-1
- 3.2 Steps and Tools/Techniques/Inputs and Outputs 3-2
  - 3.2.1 Requirements Planning 3-2
  - 3.2.2 User Design 3-3
  - 3.2.3 Construction 3-3
  - 3.2.4 Cutover 3-4
- 3.3 Gantt Chart 3-5

4.0 The Existing System 4-1
- 4.1 Organizational Profile 4-1
- 4.2 Description of the System 4-2
- 4.3 Problem Areas 4-9

5.0 The Proposed System 5-1

5.1 System Description 5-1
5.2 System Objectives 5-2
5.2.1 General Objective 5-2
5.2.2 Specific Objectives 5-2
5.3 System Scope 5-3
5.4 System Feasibility 5-6
6.0 Design 6-1
6.1 Design Strategies 6-1
6.2 Data Specifications 6-2
6.2.1 Entity-Relationship Diagram 6-2
6.2.2 Tables/Files Layout 6-3
6.2.3 Data Coding Standards 6-8
6.3 Screen Specifications 6-10
6.4 Form Specifications 6-19
6.5 Report Specifications 6-21
7.0 System Coding 7-1
7.1 Programming Language 7-1
7.2 Special Purpose Language Tools 7-2
7.3 Programming Standards 7-2
8.0 System Testing 8-1
9.0 System Implementation Plan 9-1
9.1 Personnel Training 9-1
9.2 System Conversion 9-2
9.3 Data Conversion 9-3
10.0 Cost Benefit Analysis 10-1
10.1 Intangible Costs 10-1
10.2 Tangible Costs 10-1
10.3 Intangible Benefits 10-2
10.4 Tangible Benefits 10-2
10.5 Analysis 10-2
11.0 Conclusion and Recommendations 11-1
Appendices
Bibliography
Resource Persons
Personal Vitae

LIST OF TABLES

Table 2-1	Project Management Systems Comparison Table	2-21
Table 2-2	Methodologies Comparison Table	2-27
Table 3-1	Interview Transcripts Table	3-2
Table 5-1	Business Rules	5-1
Table 8-1	User Acceptance Test Results Summary	8-3
Table 8-2	User Acceptance Test Results (Department Head)	8-3
Table 8-3	User Acceptance Test Results (Supervisor)	8-3
Table 8-4	User Acceptance Test Results (Staff)	8-3

LIST OF FIGURES

Figure 1-1	Conceptual Framework	1-5
Figure 2-1	Sample Work Breakdown Structure in Chart Form	2-12
Figure 2-2	Sample Work Breakdown Structure in Tabular Form	2-12
Figure 2-3	Sample Gantt Chart	2-13
Figure 2-4	Sample PERT Chart	2-13
Figure 2-5	Sample RACI Accountability Matrix	2-14
Figure 2-6	Sample Current Period Report	2-14
Figure 2-7	Sample Stoplight Report	2-14
Figure 2-8	Sample Variance Report	2-14
Figure 2-9	Asana: Roadmap	2-17
Figure 2-10	Asana: Dashboard	2-17
Figure 2-11	Asana: Communicating with Team Members	2-17
Figure 2-12	Basecamp: Homescreen	2-17
Figure 2-13	Basecamp: Check-in	2-17
Figure 2-14	Basecamp: File Sharing	2-17
Figure 2-15	Jira: Board	2-18
Figure 2-16	Jira: Release	2-18
Figure 2-17	Jira: Reports	2-18
Figure 2-18	Microsoft Project: Gantt Chart	2-19
Figure 2-19	Smartsheet: Activity Logs	2-19
Figure 2-20	Smartsheet: Task Status	2-19
Figure 2-21	Smartsheet: Report	2-19
Figure 2-22	Smartsheet: Gantt Chart	2-19
Figure 2-23	Trello: Dashboard	2-20
Figure 2-24	Wrike: 3-Pane Layout Interface	2-20
Figure 2-25	Wrike: Gantt Chart	2-20

Figure 2-26	Wrike: Report	2-20
Figure 2-27	Zoho Projects: Tasks	2-21
Figure 2-28	Zoho Projects: Gantt Chart	2-21
Figure 2-29	Zoho Projects: Reports using Zoho Report	2-21
Figure 2-30	Dynamic Systems Development Method Framework	2-23
Figure 2-31	Extreme Programming Framework (Overview)	2-23
Figure 2-32	Extreme Programming Framework (Iteration)	2-23
Figure 2-33	Extreme Programming Framework (Development)	2-23
Figure 2-34	Extreme Programming Framework (Collective Code Ownership)	2-23
Figure 2-35	Feature-driven Development Model	2-25
Figure 2-36	Scrum Methodology Framework	2-27
Figure 3-1	RAD Methodology Framework	3-2
Figure 3-2	Non-Disclosure Agreement (Gonzaga)	3-2
Figure 3-3	Non-Disclosure Agreement (Inomata)	3-2
Figure 3-4	Non-Disclosure Agreement (Isidoro)	3-2
Figure 3-5	Non-Disclosure Agreement (Socco)	3-2
Figure 3-6	Certificate of Interview (Manuel M. Cabacaba Jr.)	3-2
Figure 3-7	Certificate of Interview (Dhenmark E. Arquiza)	3-2
Figure 3-8	Certificate of Interview (Neil Bryan Angel)	3-2
Figure 3-9	Certificate of Interview (Patricia Barron)	3-2
Figure 3-10	Certificate of Interview (Alexandra Huang)	3-2
Figure 3-11	Certificate of Interview (Shy Rocco)	3-2
Figure 3-12	Certificate of Interview (Mark Sabroso)	3-2
Figure 3-13	Certificate of Interview (Jiggy Villamin)	3-2
Figure 3-14	Certificate of Interview (Glenn Peregrin)	3-2
Figure 3-15	Certificate of Interview (Noel Tiongco)	3-2
Figure 3-16	Gantt Chart	3-5
Figure 4-1	Organizational Chart	4-2
Figure 4-2	BPMN of Existing Project Management Process	4-4
Figure 4-3	BPMN of Existing Store Opening Project Process	4-6
Figure 4-4	BPMN of Existing New Product Launch Project Process	4-6
Figure 4-5	BPMN of Existing Promotion Launch Project Process	4-7
Figure 4-6	BPMN of Existing System Development Project Process	4-8
Figure 4-7	BPMN of Existing Onboarding Project Process	4-8
Figure 4-8	BPMN of Existing Offboarding Project Process	4-9
Figure 4-9	Ishikawa Diagram	4-10
Figure 4-10	Capital Expenditure	4-6
Figure 4-11	Onboarding Checklist	4-8
Figure 4-12	Pre-Employment Requirements Checklist	4-8

Figure 4-13	Onboarding Checklist (MIS)	4-8
Figure 4-14	Onboarding Checklist (Admin)	4-8
Figure 4-15	Onboarding Checklist (Finance)	4-8
Figure 4-16	Employee Roster	4-10
Figure 4-17	POS Migration Gantt Chart	4-11
Figure 4-18	Balanced Scorecard (MIS)	4-11
Figure 4-19	POS Permit	4-12
Figure 5-1	BPMN of Proposed Project Management Process	5-1
Figure 5-2	BPMN of Proposed Store Opening Project Process	5-1
Figure 5-3	BPMN of Proposed New Product Launch Project Process	5-1
Figure 5-4	BPMN of Proposed Promotion Launch Project Process	5-1
Figure 5-5	BPMN of Proposed System Development Project Process	5-1
Figure 5-6	BPMN of Proposed Onboarding Project Process	5-1
Figure 5-7	BPMN of Proposed Offboarding Project Process	5-1
Figure 5-8	Functional Decomposition Diagram (FDD)	5-2
Figure 5-9	Feasibility Survey	5-6
Figure 6-1	Entity-Relationship Diagram (ERD)	6-2
Figure 6-2	Department Performance Report	6-22
Figure 6-3	Project Status Report	6-22
Figure 6-4	Project Progress Report	6-22
Figure 6-5	Project Summary Report	6-22
Figure 6-6	Project Performance Report	6-22
Figure 6-7	Team Performance Report	6-23
Figure 6-8	Employee Performance Report	6-23
Figure 8-1	User Acceptance Test Form (Executive)	8-3
Figure 8-2	User Acceptance Test Form (Department Head)	8-3
Figure 8-3	User Acceptance Test Form (Supervisor)	8-3
Figure 8-4	User Acceptance Test Form (Staff)	8-3
Figure 8-5	User Acceptance Test Form (Answered)	8-3
Figure 9-1	Sample Project Template	9-3
Figure 10-1	Cost Benefit Analysis Computation	10-3

LIST OF APPENDICES

Appendix A. Conceptual Framework
Appendix B. Project Management Tools and Techniques
Appendix C. Review of Related Systems
Appendix D. Agile Methodology Frameworks
Appendix E. Gantt Chart
Appendix F. Organizational Chart
Appendix G. BPMN of Existing Processes
Appendix H. Ishikawa Diagram
Appendix I. Interview Transcripts
Appendix J. Certificates of Interview
Appendix K. Sample Reports of Taters Enterprises, Inc.
Appendix L. Non-Disclosure Agreement
Appendix M. Research Ethics Form
Appendix N. BPMN of Proposed Processes
Appendix O. Functional Decomposition Diagram
Appendix P. Feasibility Survey
Appendix Q. Entity-Relationship Diagram
Appendix R. System Generated Reports
Appendix S. Case Scenario
Appendix T. Business Rules
Appendix U. Test Cases
Appendix V. User Acceptance Test
Appendix W. Sample Project Template
Appendix X. Cost Benefit Analysis