

BORANG PENGESAHAN STATUS TESIS^

JUDUL: ONLINE I.T. TENDER BID PROCESSING SYSTEM

SESI PENGAJIAN: 20052006

Saya _____ KOHILAH A/P MIUNDY
(HURUF BESAR)

mengaku membenarkan tesis (PSM/Sarjana/Doktor Falsafah) ini disimpan di Perpustakaan Fakulti Teknologi Maklumat dan Komunikasi dengan syarat-syarat kegunaan seperti berikut:

1. Tesis adalah hakmilik Kolej Universiti Teknikal Kebangsaan Malaysia.
2. Perpustakaan Fakulti Teknologi Maklumat dan Komunikasi dibenarkan membuat salinan untuk tujuan pengajian sahaja.
3. Perpustakaan Fakulti Teknologi Maklumat dan Komunikasi dibenarkan membuat salinan tesis ini sebagai bahan pertukaran antara institusi pengajian tinggi.
4. ** Sila tandakan (/)

_____ SULIT (Mengandungi maklumat yang berdarjah keselamatan atau kepentingan Malaysia seperti yang termaktub di dalam AKTA RAHSIA RASMI 1972)

_____ TERHAD (Mengandungi maklumat TERHAD yang telah ditentukan oleh organisasi/badan di mana penyelidikan dijalankan)

/ _____ TIDAK TERHAD

Kohilah
(TANDATANGAN PENULIS)

Wilson Wong
(TANDATANGAN PENYELIA)

Alamat tetap : 14, Lorong Tengku Badri

Shah 27, Taman Klang Ria ,

41200 Klang

Nama Penyelia WILSON WONG

Tarikh : 21/10/2005

Tarikh : 17/11/2005

CATATAN: ** Jika tesis ini SULIT atau TERHAD, sila lampirkan surat daripada pihak berkuasa.

^ Tesis dimaksudkan sebagai Laporan Projek Sarjana Muda (PSM)

BORANG PENGESAHAN STATUS TESIS^

JUDUL: **ONLINE I.T. TENDER BID PROCESSING SYSTEM**

SESI PENGAJIAN: **20052006**

Saya _____ **KOHILAH A/P MIUNDY**
(HURUF BESAR)

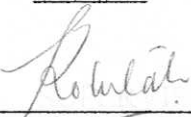
mengaku membenarkan tesis (PSM/Sarjana/Doktor Falsafah) ini disimpan di Perpustakaan Fakulti Teknologi Maklumat dan Komunikasi dengan syarat-syarat kegunaan seperti berikut:

1. Tesis adalah hakmilik Kolej Universiti Teknikal Kebangsaan Malaysia.
2. Perpustakaan Fakulti Teknologi Maklumat dan Komunikasi dibenarkan membuat salinan untuk tujuan pengajian sahaja.
3. Perpustakaan Fakulti Teknologi Maklumat dan Komunikasi dibenarkan membuat salinan tesis ini sebagai bahan pertukaran antara institusi pengajian tinggi.
4. ** Sila tandakan (/)

_____ SULIT (Mengandungi maklumat yang berdarjah keselamatan atau kepentingan Malaysia seperti yang termaktub di dalam AKTA RAHSIA RASMI 1972)

_____ TERHAD (Mengandungi maklumat TERHAD yang telah ditentukan oleh organisasi/badan di mana penyelidikan dijalankan)

/ _____ TIDAK TERHAD



(TANDATANGAN PENULIS)



(TANDATANGAN PENYELIA)

Alamat tetap : 14, Lorong Tengku Badri

Shah 27, Taman Klang Ria ,

41200 Klang

Nama Penyelia **WILSON WONG**

Tarikh : 21/10/2005

Tarikh : 17/11/2005

CATATAN: ** Jika tesis ini SULIT atau TERHAD, sila lampirkan surat daripada pihak berkuasa.

^ Tesis dimaksudkan sebagai Laporan Projek Sarjana Muda (PSM)

QA76.9.D3 .K63 2005



0000038099

Online I.T. tender bid processing system / Kohilah Miundy.


ADMISSION

I admitted that this project title name of

ONLINE I.T. TENDER BID PROCESSING SYSTEM

is written by me and is my own effort and that no part has been plagiarized
without citations.

STUDENT :



(KOHILAH A/P MIUNDY)

Date : 16/11/05

SUPERVISOR :



(WILSON WONG YIK SEN)

Date : 16/11/05

DEDICATION

This project is a special dedication to my beloved parent, as they had put so much efforts on supporting me on my studies. What they have gave are precious and i am really appreciate it. As the completion of this project, thanks for their patience and love towards me that really encourages me. I have been away from home for a period of times because of the project. I really appreciate them for their kindness and understanding for me.

Secondly, i would like to give my appreciation to Mr Wilson Wong Yik Sen for being my supportive supervisor. He gave me a lots of guidaince and directions from the beginning of the project planning until the completion of the project. Encouragements and supports are greatly given by her as a supervisor to ensures that i can complete this project in proper. I am very thankful to have Mr Wilson Wong Yik Sen as my guide and light to my path to complete this project.

ACKNOWLEDGEMENT

The completion of this Projek Sarjana Muda (PSM) I report is successfully done as a result of the contribution of many parties. Here I would like to express my greatest gratitude to those who had helped me, directly or indirectly, in accomplishing this report.

First of all, I would like to appreciate Puan Safiza Suhana Kamal Bahrin, my supervisor of the PSM I. She had helped me without ceasing in guiding me through the documentation needs and also updates me about the information on this. She had shown me plenty of skills and knowledge in how to develop an online application. With her advice, comments and guidance, I am able to accomplish the report within the given time.

An endeavor like this would not have been possible without the blessings of my parents. It is because of their dedication and support that I have been able to study in KUTKM. First at all, I would like to take this opportunity to express my sincere gratitude to those individuals who take the time, interest and effort to make this final project a successful one.

Special thanks to Mr Wilson Wong Yik Sen for willing to be my advisor to consult me as research is being conducted. I am grateful for his time and attention he always had for me during every discussion. Thanks again for his unselfish attitude in sharing opinion, thoughts and references.

Not to be forgotten are the communities PSM 1 and PSM II for kind guidance, excellent and informative briefing. I would like to thank Lecturer who letting me struggle out with handful of knowledge and experience.

At last, I would like to thank all of the people who have directly or indirectly helped me in our effects. For those people I about to omit, I apologize now.

However, special thanks must go to my families who support me throughout this time. Not to be left out are my friends for their valuable opinion and solution that contribute to development of project.

Last but not least, I would like to thanks KUTKM for giving me this opportunity to do final project.

This book is a collection of articles, essays, and reports that have been compiled and published in a single volume. It is a comprehensive resource for students and researchers in the field of computer science and information technology. The book covers a wide range of topics, including the fundamentals of computer science, the development of software systems, and the application of computer science in various domains. The book is written in a clear and concise style, making it easy to read and understand. It is a valuable resource for anyone interested in the field of computer science and information technology.

ABSTRACT

This thesis is divided into two parts; there are PSM 1 and PSM 2. PSM 1 was carried out in special semester for 8 weeks, while PSM 2 is done along semester 7. The system that I'm working on is Online I.T. Tender Bid Processing System which is a web application. The study aims to bring out the changes, development and better improvement to the current I.T. Tendering process through the effective use of the computer technology in the terms information management to provide both value and service to attract more bidders to apply the tenders. Online I.T. Tender Bid Processing System provides facilities for the management and the bidders. Online I.T. Tender Bid Processing System will proposed value-based service provider to help them generate the desired itinerary. Besides, this system will help the companies to give out tender in a fair way. Based on a use-case driven Structured Systems Analysis and Design Methodology (SSADM) development methodology, a prototype Online I.T. Tender Bid Processing System is built. The prototype incorporates multimedia elements and provides a value-added service to the user based on the characteristic of the users. The system is develop based on three-tier technology which is using Internet Information Server (IIS) as the server, Active Server Page (ASP) scripting and Microsoft Access as the database.

ABSTRAK

Perlaksanaan projek Online I.T. Tender Bid Processing System dibahagikan ke dua fasa. Fasa pertama iaitu PSM 1 and PSM 2. PSM 1 dijalankan semasa semester khas selama 8 minggu manakala PSM 2 dilaksanakan sepanjang semester 7. Sistem yang dibangunkan ialah Online I.T. Tender Bid Processing System yang merupakan satu aplikasi web. Projek ini bertujuan untuk mengkaji dan mengemukan cadangan bagi meningkatkan kecekapan pengurusan atau tawaran I.T. Tender yang sedia ada. Sistem ini memberikan kemudahan kepada beberapa pihak iaitu pihak syarikat untuk melelong tender dengan cara yang adil dan Kontraktor/Pembekal yang inginkan tender tersebut. Sistem ini akan memudahkan proses Kontraktor/Pembekal yang ingin menerima lelongan tender tersebut. Metodologi pembangunan SSDAM yang menggunakan pendekatan guna-kes digunakan dalam pembangunan prototaip Online I.T. Tender Bid Processing System. Prototaip yang dibangunkan tersebut menggunakan unsur-unsur multimedia dan sistem bantuan keputusan untuk memberi perkhidmatan Kontraktor/Pembekal yang berpotensi untuk mendapatkan maklumat yang diinginkan. Pengguna akan berupaya menghasilkan satu proses perniagaan yang selaras dengan era teknologi terkini. Sistem ini dibangunkan berdasarkan kepada teknologi tiga lapisan iaitu IIS sebagai pelayan dan ASP sebagai bahasa pengaturcaraan dan Microsoft Access sebagai pangkalan data.

CHAPTER 1	INTRODUCTION	1
1.1	Project background	1
1.2	Problem Statement	2
1.3	Objective	2
1.4	Scope	6
1.5	Project Significance	6
1.6	Conclusion	8
CHAPTER 2	LITERATURE REVIEW AND RESEARCH METHODOLOGY	9
2.1	Introduction	9
2.2	Research Methodology	9

TABLE OF CONTENTS

CHAPTER	SUBJECT	PAGE
	TESIS APPROVAL STATUS FORM	
	ADMISSION	ii
	DEDICATION	iii
	ACKNOWLEDGEMENTS	iv
	ABSTRACT	v
	ABSTRAK	vi
	TABLE OF CONTENTS	vii
	LIST OF TABLES	xii
	LIST OF FIGURES	xiii
	LIST OF ATTACHMENTS	xv
CHAPTER I	INTRODUCTION	
	1.1 Project Background	1
	1.2 Problem Statement	2
	1.3 Objective	3
	1.4 Scopes	5
	1.5 Project Significance	6
	1.6 Conclusion	6
CHAPTER II	LITERATURE REVIEW AND PROJECT METHODOLOGY	
	2.1 Introduction	7
	2.2 Fact and Finding	9

2.3	Project Methodology	11
	2.3.1 System development Life Cycle	12
	(SDLC)	
	2.3.1.1 Phase 1: System Planning	13
	2.3.1.2 Phase 2: System Analysis	14
	2.3.1.3 Phase 3: System Design	14
	2.3.1.4 Phase 4: System Development	16
	2.3.1.5 Phase 5: Testing and	16
	Debugging	
	2.3.1.5 Phase 6: Implementation and	17
	Evaluation	
	2.3.2 Three-Tier Technology	17
2.4	Project Requirements	21
	2.4.1 Software Requirement	21
	2.4.2 Hardware Requirement	21
2.5	Project Schedule and Milestones	22
2.6	Conclusion	23

CHAPTER III ANALYSIS

3.1	Introduction	24
3.2	Problem Analysis	25
	3.2.1 Reviewing of Existing System	25
	3.2.2 Comparison of the technology used	31
	3.2.3 Comparison of system features	31
	3.2.4 Comparison of the Implementation Tools	32
3.3	Requirement Analysis	33
	3.3.1 Improvement of the current system	33
	3.3.2 Proposed System Analysis	33
	3.3.3 Context Diagram	36
	3.3.4 User Requirements	37

	3.3.5 Software requirements	38
	3.3.6 Hardware requirements	42
3.4	Conclusion	45
CHAPTER IV DESIGN		
4.1	Introduction	46
4.2	Raw Data	47
	4.2.1 Interview	47
	4.2.2 Observation	48
	4.2.3 Internet	48
	4.2.4 Defining user needs	49
	4.2.5 Clarifying Business Objectives	49
4.3	System Architecture	49
	4.3.1 Flow Chart of Registration	52
	4.3.2 Flow Chart of User Login	54
	4.3.3 Flow Chart of Search Tender	56
	4.3.4 Flow Chart of Admin / Activators Login	57
	4.3.5 Flow Chart of Admin / Activators Main Menu	58
	4.3.6 Flow Chart of Create Tender Menu	59
	4.3.7 Flow Chart of Upload Tender for Admin / Activators	61
	4.3.8 Flow Chart of View Tender Menu	63
	4.3.9 Flow Chart of View Users / Respondents	64
	4.3.10 Flow Chart of Tender Evaluation	65
4.4	Package Diagrams	66
	4.4.1 Preliminary Design	68
	4.4.2 User Interface Design	69
	4.4.2.1 Navigation Design	86
	4.4.2.2 Navigation Flow	87
	4.4.2.3 Input and Output Design	89

4.4.2.4	User / Respondents Registration	90
4.4.2.5	User / Respondents Submission Form	92
4.4.2.6	Admin / Activators Login	93
4.4.2.7	Admin / Activators Upload Tender	93
4.5	Database Design	95
4.5.1	Logical Design	95
4.5.1.1	Entity Relation Diagram (ERD)	95
4.5.2	Physical Design	97
4.6	Conclusion	65

CHAPTER V IMPLEMENTATION

5.1	Introduction	101
5.2	Software Development Environment Setup	101
5.2.1	Software needed	102
5.2.2	Online I.T Tender Bid Processing System Operation execution	102
5.2.3	Database management system	102
5.2.4	Server –side programming language	103
5.2.5	Client-side Programming Language	105
5.3	Software Configuration Management	107
5.3.1	Configuration Environment Setup	107
5.3.2	Version Control Procedure	110
5.4	Security	111
5.5	Implementation Status	112
5.6	Conclusion	114

CHAPTER VI TESTING

6.1	Introduction	115
6.2	Test Plan	117
6.2.1	Test Organization	117

6.2.2	Test Environment	118
6.2.3	Test Schedule	118
6.3	Test Strategy	119
6.3.1	Classes of Test	120
6.4	Test Design	122
6.4.1	Test Description	123
6.4.2	Test Data	125
6.5	Test Result and Analysis	127
6.6	Conclusion	133
CHAPTER VII PROJECT CONCLUSION		
7.1	Observation on weaknesses and Strengths	134
7.2	Propositions for Improvement	135
7.3	Contribution	136
7.4	Conclusion	137
REFERENCES		138
APPENDIXES		140
6.1	Positioning module	141
6.2	Search module	142
6.3	Test Case Result For Login Module	143
6.4	Test Case Result For Registration Module	144
6.5	Test Case Result For Upload Module	145
6.6	Test Case Result For Download Module	146
6.7	Test Case Result For New Book	147
6.8	Test Case Result For Search Module	148

LIST OF TABLES

TABLES	TITLE	PAGE
3.1	The Technology used and their purpose	26
4.1	User / Respondents Registration	97
4.2	Tender Files	99
4.3	User / Respondents Submission Form	99
4.4	Admin / Activators Login	99
6.1	Test schedule of Online I.T. Tender Bid Processing System	119
6.2	Test description for each module	123
6.3	Login module	125
6.4	Registration module	125
6.5	Upload module	125
6.6	Evaluation module	126
6.7	Search module	126
6.8	Test Case Result For Login Module	127
6.9	Test Case Result For Registration Module	128
6.10	Test Case Result For Upload Module	129
6.11	Test Case Result For Evaluation Module	130
6.12	Test Case Result For View Module	131
6.13	Test Case Result For Search Module	132

LIST OF FIGURES

FIGURES	TITLE	PAGE
2.1	SDLC Flow of the project	13
2.2	Three tier distributed client/server architecture depiction	18
3.1	Flow of Pre-Tender Process	27
3.2	Flow of Tender Process (Part 1 of 3)	28
3.2	Flow of Tender Process (Part 2 of 3)	29
3.2	Flow of Tender Process (Part 3 of 3)	30
3.3	Flow of the Online Tender Processing System	35
3.4	Context Diagram Level 0	36
3.5	DFD Level 1	37
4.1	Online IT Tender Bid Processing Architecture	52
4.2	User / Respondents Registration Flow	53
4.3	User / Respondents Login Flow	55
4.4	User / Respondents Search Flow	56
4.5	Admin / Activators Login Flow	57
4.6	Main Menu for Admin / Activators	58
4.7	Create Tender Menu for Admin / Activators	60
4.8	Upload Tender Menu for Admin / Activators	62
4.9	View Tender Menu for Admin / Activators	63
4.10	View Users / Respondents Menu for Admin / Activators	64
4.11	Admin / Activators Menu for Admin / Activators	65
4.12	Testing Diagram illustrate system architecture	66

4.13	Database Architecture	68
4.14	Respondents Login Interface	71
4.15	Tender Display Interface	72
4.16	View Tender Interface	73
4.17	Apply Tender Interface	74
4.18	Tender Submitted Interface	75
4.19	Registration Interface	76
4.20	Registration Interface	77
4.21	Registration Successful Interface	78
4.22	Activators Login Interface	79
4.23	Activators Main Interface	80
4.24	Activators Main Interface	81
4.25	Upload Tender Interface	82
4.26	View Tender Interface	83
4.27	View Respondents Information Interface	84
4.28	View Chart Interface	85
4.29	View Chart Interface	86
4.30	Hierarchy of Online IT Tender Bid Processing System	87
4.31	Entity Relationship Diagram	96
5.1	Deployment Diagram	107
5.2	Add/Remove Programs window	108
5.3	Windows Component Wizard	109
5.4	Configuration of components	109
5.5	Prompt window	110
5.6	Completion of installation	110

CHAPTER 1

INTRODUCTION

1.1 Project Background

Online I.T. Tender Bid Processing System is a web-based application. This system handles all the issue related with processing of I.T. Tenders. The issues include the tender, supply tender documentation, receive filled-in tender bids, process the tender bids, maintain evaluations of bids and award the work order based on the requirement of the user organization. All these issues can be handled online paving a way to ease the tender processing system.

The business nature for I.T. Tender process is firstly advertising the tender on media sources as example newspapers so the information can be reached to the tenders. Then, the tenders will prepare the documents that are been required according to the requirement that been stated in the advertisement.

Once it has been done, the tenders will send in their applications to the respective person. This documents are pile up and then evaluate them according to the requirement that been stated earlier. From the evaluation and discuss that been done among the committee member the best tenders are then chosen. The successful tender will be informed officially, then the related document and produces are then been discuss together with the tender.

Thus, to develop an Online I.T. Tender Bid Processing System which handles and process automatically all of the tender bid processing like preparation of documentation, advertising, process and evaluate the bids and maintaining communication with the bidders online and etc.

1.2 Problem Statement

To develop an Online I.T. Tender Bid Processing System which handles and process automatically all of the tender bid processing like preparation of documentation, advertising, process and evaluate the bids and maintaining communication with the bidders online and etc.

This also causes time constraint as the existing system is conducted manually and cost of advertising in the media. The manually tendering uses technology such as printers, fax machine, telephone, projectors, copier and scanner to produce the documents to be distributor to the customers and spread the tendering information.

The tendering processing starts with the bidders filling up a form provided by the center or office. The filled up form will be a long way process to obtain all the requirement information that been requested. Then, the form which is submitted will be processed by the staffs and the relevant actions will be taken accordingly. At times, the center or office is flooded with calls and bidders from those who wish to know the updated inform on tendering and some impatient to know their result of application.

Furthermore, the documentations are submitted manually on paper form. This process form will be kept in a file for future reference. There is a great possibility for the records to get lost, damaged or mixed up. Due to this, the reference process becomes very tedious.

Customers must describe us as innovative, open and proactive and our culture is dynamic and fast moving; flexibility and responsiveness are key success factors in all of our job roles. Personal development is encouraged and there is a strong sporting theme within the business

1.3 Objective

1. To study and analyze the existing tender processing system in detail.

Analyze the characteristics of e-business for electronic tendering and bidding in the construction sector by examining the chain of the business process and reviewing the pros and cons of existing system.

2. To design the application to replace the existing manual tender processing system with a computerized system.

Analyze the differences and similarities of manual and computerized tender systems to convert the manual tender process to a computerized system

3. To develop a prototype application.

This is to provide an efficient management system for the entire tendering process which is able to provide everything and handle in the safest, easiest, fastest way.

4. Test the prototype, refine and extend its features.

The value of `prototype` is the object to be used as the prototype. Slots will have been set consistently with the arguments, but the construction does *not* use the class definition to test validity of the contents (it hardly can, since the prototype object is usually supplied to create the definition).

5. Develop the robust the activities.

It is important that appropriate and robust communication be maintained regardless of the learning setting of the current and future needs are considered

6. Make the application with all features acting dynamics.

A dynamic Web Application is an Internet-based application that uses a Web browser to allow users to interact with program logic on the Web server. The program logic on the Web server is code that executes based on the users' requests, and can take a number of formats, running within the Web server process or, more typically, in an external process. Often, this code utilizes a special interface to extract data from a database server.

7. Do testing on the application

Testing is essential. Software development has the advantage here, in that systematic testing can find ahead of time if an application does what is expected of it and does not do what is not expected of it. In the real world, this isn't a burden, it's a boon.

8. Pack the application.

To be a suite of engines and applications which enables owners, developers and procurement personnel to create, advertise and manage Tender and Procurement Notices in an fast, efficient and secure environment.

1.4 Scopes

The system purely web base and named as “Online I.T. Tender Bid Processing System”. A tender is an offer to do work or supply goods at a fixed price. Getting goods or services is also known as 'procurement'. When Online I.T. Tender Bid Processing System puts out a tender or invites bids this means companies asking the public for price offers to do work or supply goods. System, then evaluates who to choose based on the prices offered and the nature of the person or company making the tender.

The Online I.T. Tender Bid Processing System is designed to ensure that the work to be done for companies is given out in a fair way. There are a number of policies known as 'procurement policies' which guide company on how to make decisions on which tender to accept. Although price is very important in the decision on which tender or bid to accept, it is not the only factor taken into account.

Once the company accepts a tender, it is binding on both parties. This means that the person or company that won the tender has to provide the goods or services in the manner agreed to and at the price offered, and company must pay the agreed price at the agreed time. In other words, once accepted, a tender is a binding contract. The successful bidder will be informed through emails.

An Online I.T. Tender Bid Processing System is develop which able to handles and process automatically all of the tender bid processing like preparation of documentation, advertising, process and evaluate the bids and maintaining communication with the bidders online and etc. System handles or controls the document, receive bids and evaluate them. These users may be called as ‘Activators’. The firms or organization and respond and submit users may be called as ‘Respondents’.

On whole, the Online I.T. Tender Bid Processing System has an attractive and interactive interface. The approach used is to enable all level of users use the system without any complexity.

1.5 Project Significance

Tender activity is one of the important activities in the business world. Most of the tender activities are taking place manually and sometimes using static computerization techniques. Advertisements, download of tender document are being handled by some organization online. But the complete process includes evaluation is being rarely handled online. To facilitate the complete activity of tender bid system, the proposed project has been design. It handles

- i. Online advertisement or communicators.
- ii. Online submission
- iii. Processing tender bids
- iv. Evaluation of all received bids online.
- v. Search for tender are expiring from 2 to 5 days

1.6 Conclusion

The proposed application will allow the users to draft the tender bid document, make it available on the user's web site, allow respondent organization to fill and submit the bid documents, check the details, compare with criteria items, update the respondents on the further course of action, maintain the database on strengths and capabilities of respondent bidders, weigh them and finalizing the selected bidder and awarding the work to the bidder. The system does not consider further works of monitoring the progress of thus awarded.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

A literature review is an evaluative report of information found in the literature related to the selected area of study. The review should describe, summarize, evaluate and clarify the literature. It should give a theoretical base for the research and help author determine the nature of the research. Works which are irrelevant should be discarded and those which are peripheral should be looked at critically. A literature review is more than the search for information. All works included in the review must be read, evaluated and analyzed, but relationships between the literatures must also be identified and articulated, in relation to the field of research [1].

The proposed project was inspired to replace the existing manual system that the organization was using throughout these few years. So, various data can be collected from the existing system as requirements for the new system to be developed. These data could determine the criteria of the new system, which is more efficient than the current one. A web-based online system would replace the existing system, as it would save time and cost, increase the real time reporting system in the future.

Evaluation on the current system has been undergone so that its weaknesses can be identified. These weaknesses would be the main requirements for the new system to be developed. It also will be treated as problems for the new system and

solutions will be provided to solve it. Problem solving would be the main aims of the new system to be carried out.

The observations that had been done on the current system help to provide the user behaviors and the work procedures for the current system. This could help to increase the standard of the working procedures for the new online system. The working procedures help to increase the efficiency of the new online system. Policies and standard of procedures would be enforced so that the new online system would be more effective.

Users' feedbacks about the current system and suggestions towards the new online system had been collected. As it would be the users requirements that could help the new online system to be developed according to the users and organization needs. Suggestions from the users could help the new online system to include new functionalities so that it could be more effective than ever before. A user-friendly system would be developed according to the users suggestions.

The previous research could help the development process of the new online system as it could be used as a guideline and measurement tool. It could help the new online system to be developed in a much more time saving path where some unnecessary processes maybe skipped and less time could be used for the new online system to be accomplished. It also helps to identify the goals and targets to be met for the new online system as the researches my already identified it before.

Through observed of the current need of the market. Nowadays, almost everything is done via web. Thus, research from books and the Internet on what is the most suitable application to be developed. As such, found that e-tender is a good and approachable system. Previous researches helped to understand the concept better. From the Internet, found some requirements to develop the system besides gathering valuable information on tendering. Besides that, gathered useful information from reference books which we borrowed from the library too. Other than reliable information, previous researches also boost my confidence to develop this project since the relevant resources are provided by the Internet and books.