

**ISSUES IN IMPLEMENTING ELECTRONIC TENDERING IN  
INDONESIAN'S CONSTRUCTION INDUSTRY**

**RATIH KUSUMAWATI**

**UNIVERSITI TEKNOLOGI MALAYSIA**

ISSUES IN IMPLEMENTING ELECTRONIC TENDERING IN INDONESIAN'S  
CONSTRUCTION INDUSTRY

RATIH KUSUMAWATI

A project report submitted in partial fulfillment of the  
requirements for the award of the degree of  
Master of Science in Construction Contract Management.

Faculty of Built Environment  
Universiti Teknologi Malaysia

AUGUST 2012

*To my beloved parents, grandmothers, brother and sister, and also my fiancée*

***Thank you for your love, support and everything***

## ACKNOWLEDGEMENT

First and foremost, I would like to express my deepest thank to The Almighty Allah S.W.T for giving me the strength, inspiration and patience in completing this project.

I wish to thank to my supervisor, En Norazam Othman for his guidance, advice and suggestions throughout the preparation of my project. I appreciate the time that he had spent to assist me in order to complete my project.

My gratitude and appreciation also goes to Ministry of Public Work Republic Indonesia who give me a scholarship to take Master study on Construction Contract Management at University Teknologi Malaysia (UTM).

My fellow postgraduate students should also be recognized for their support. My sincere appreciation also extends to all my colleagues and others who have provided assistance at various occasions. Their views and tips are useful indeed. Unfortunately, it is not possible to list all of them in this limited space. I am grateful to all my family members.

## **ABSTRACT**

Electronic tendering is actually the advent of Information Communication Technology (ICT) in construction industry, whereby it has brought a broad exploration to the use of web-based technology in tendering process. Electronic tendering, in its simplest form, is described as the electronic publishing, communicating, accessing, receiving and submitting of all tender-related information and documentation via the internet, thereby replacing the traditional paper-based tender processes, and achieving a more efficient and effective business process for all parties involved. Currently, Indonesian's government is increasing efforts to bring all government procurement processes through electronic tendering. Electronic tendering is relatively new approach brought a new perspective in construction industry in Indonesia. Based on Presidential Regulation (Perpres) No.54/2010, by 2012, all government institutions (central and local) must implement e-procurement for partly or whole packages. Undoubtedly, there will be many barriers challenging the successful implementation of electronic tendering system. Therefore, the objective of the study is to determine the possible issues of electronic tendering implementation in Indonesian's government project. To meet that objective, the analysis was done mainly through an extensive literature review of various national and international publications, legislation and court decisions that are relevant with electronic tendering. By analyzing the relevant case law, the issues in implementing electronic tendering are identified. The issues arise in electronic tendering system are not significantly different from paper based tendering system. The issues are relate to whether the tender is considered as conforming or non-conforming in electronic environment.

## ABSTRAK

Elektronik tender merupakan satu perubahan yang dibawa oleh bidang Teknologi Informasi dan Komunikasi (ICT) didalam industry pembinaan. Ianya membawa satu perubahan era baru, dengan mengadaptasi penggunaan teknologi berasaskan web di dalam proses menender. Elektronik tender, dalam bahasa mudahnya, menerangkan tentang proses penawaran tender, komunikasi, memuat turun data, menerima, dan menghantar segala bentuk maklumat (atau dokumen) melalui internet. Elektronik tender bertujuan menggantikan amalan tender tradisional kerana sistem baharu ini menjanjikan proses kerja yang lebih cekap dan berkesan pada semua pihak. Pada masa ini, kerajaan Indonesia meningkatkan usaha untuk membawa semua proses perolehan kerajaan melalui elektronik tender. Elektronik tender merupakan pendekatan baru yang membawa perspektif baru dalam industri pembinaan di Indonesia. Berdasarkan Peraturan Presiden (Perpres) No.54/2010, menjelang 2012, semua institusi kerajaan (pusat dan tempatan) perlu melaksanakan e-perolehan untuk pakej sebahagiannya atau keseluruhannya. Tidak dinafikan, akan ada banyak halangan mencabar kejayaan pelaksanaan sistem elektronik tender. Oleh kerana itu, objektif kajian ini adalah untuk menentukan isu-isu yang mungkin terjadi dalam pelaksanaan elektronik tender pada projek kerajaan Indonesia. Untuk mencapai objektif itu, analisis telah dilakukan terutamanya melalui kajian literatur yang luas penerbitan peringkat kebangsaan dan antarabangsa, undang-undang dan keputusan mahkamah yang berkaitan dengan elektronik tender. Dengan menganalisis undang-undang kes yang berkaitan, isu-isu dalam pelaksanaan tender elektronik dapat dikenal pasti. Isu-isu yang timbul dalam sistem elektronik tender tidak ketara berbeza daripada tender tradisional. Isu-isu berkaitan dengan apakah tender dianggap sebagai mematuhi atau tidak mematuhi dalam elektronik tendering.

## TABLE OF CONTENTS

CHAPTER	TITLE	PAGE
	<b>DECLARATION</b>	<b>ii</b>
	<b>DEDICATION</b>	<b>iii</b>
	<b>ACKNOWLEDGMENT</b>	<b>iv</b>
	<b>ABSTRACT</b>	<b>v</b>
	<b>ABSTRAK</b>	<b>vi</b>
	<b>TABLE OF CONTENTS</b>	<b>vii</b>
	<b>LIST OF CASES</b>	<b>x</b>
	<b>LIST OF TABLE</b>	<b>xii</b>
	<b>LIST OF FIGURES</b>	<b>xiii</b>
<b>1</b>	<b>INTRODUCTION</b>	
	1.1 Background of Study	1
	1.2 Problem Statement	3
	1.3 Objective of the Study	4
	1.4 Significant of the Study	4
	1.5 Scope of Study	4
	1.6 Thesis Organization	5
<b>2</b>	<b>TENDERING</b>	
	2.1 Introduction	7
	2.2 Project Life Cycle	7
	2.3 Tendering	11
	2.4 Purpose of Tendering	11
	2.5 Types of Tender	12
	2.6 Paper Based (Traditional) Tendering System Process	13

2.6.1	Pre-qualification of Bidders	13
2.6.2	Invitation to Tender	14
2.6.3	Submission of Tender	16
2.6.4	Close of Tender	17
2.6.5	Tender Evaluation	17
2.6.6	Tender Award	19
2.7	Legal Issues in Paper Based (Traditional) Tendering System Process	19
2.8	Electronic Tendering (e-Tendering)	22
2.9	Governing Legislation of Electronic Transaction in Indonesia	25
2.10	The Process of Electronic Tendering System	26
2.10.1	Pre-qualification and Registration	27
2.10.2	Invitation to tender	31
2.10.3	Submission of Tender	32
2.10.4	Close of Tender	34
2.10.5	Tender Evaluation	34
2.10.6	Tender Award	35
<b>3</b>	<b>RESEARCH METHODOLOGY</b>	
3.1	Introduction	36
3.2	Stage 1: Establish area of study, formulate objective and define scope, and research design	38
3.3	Stage 2: Collecting data	38
3.4	Stage 3: Analyzing and interpreting data	41
3.5	Stage 4: Write up	43
<b>4</b>	<b>ANALYSIS: ISSUES IN IMPLEMENTING ELECTRONIC TENDERING</b>	
4.1	Introduction	44
4.2	Case 1: <i>J B Leadbitter &amp; Co Limited v. Devon County Council</i> [2009] EWHC 930 (Ch)	45
4.3	Case 2: <i>All About Rights Law Practice v. The Legal</i>	49



*Services Commission (LSC) [2011] EWHC 964*

4.4	Case 3: <i>Cummins v. Department of Transportation</i> (2004)	51
4.5	Case 4: <i>Glasglow Inc. v Pennsylvania Department of Transportation</i> (2004)	52
4.6	Case 5: <i>Harrow Solicitors and Advocates v. The Legal Services Commission (LSC) [2011]</i>	53
4.7	Case 6: <i>Coco Paving (1990) Inc v. Ontario (Minister of Transportation)</i> (2009)	55
4.8	Case 7: <i>Watterson Construction Co. v. United States</i> 98 Fed. Cl. 84 (2011)	59
4.9	Case 8: <i>Hoole &amp; CO v. The Legal Services Commission (LSC) [2011] EWHC 886</i>	61
4.10	Conclusion	63
<b>5</b>	<b>CONCLUSION AND RECOMMENDATIONS</b>	
5.1	Introduction	64
5.2	Summary of Research Findings	64
5.3	Problem Occurred When Conducting This Study	70
5.4	Recommendations	70
5.5	Further Study	72
5.6	Summary	72
	<b>REFERENCES</b>	<b>73</b>

## LIST OF CASES

<b>CASES</b>	<b>PAGE</b>
<i>All About Rights Law Practice v. The Legal Services Commission (LSC)</i> [2011] EWHC 964	39,42,44,49,66
<i>Blackpool and Fylde Aero Club v Blackpool Borough Council</i> [1990] 1 WLR	20
<i>Coco Paving (1990) Inc v. Ontario (Minister of Transportation)</i> (2009)	39,42,44,55,68
<i>Cummins v. Department of Transportation</i> (2004)	40,42,44,51,66
<i>Glasgow Inc. v Pennsylvania Department of Transportation</i> (2004)	40,42,44,52,67
<i>Harrow Solicitors and Advocates v. The Legal Services Commission (LSC)</i> [2011] EWHC 1087	39,42,44,53,67
<i>Hoole &amp; CO v. The Legal Services Commission (LSC)</i> [2011] EWHC 886	39,43,44,61,69
<i>Hughes Aircraft Systems International v Airservices Australia</i> (1997) 146 ALR 1	21

<i>J B Leadbitter &amp; Co Limited v. Devon County Council</i> [2009] EWHC 930 (Ch)	39,41,44,45,60,66
<i>Smith Bros &amp; Wilson (BC) Ltd v British Columbia Hydro &amp; Power Authority</i> (1997) 30 BCLR (3d) 334	21
<i>Watterson Construction Co. v. United States</i> , 98 Fed. Cl. 84 (2011)	40,42,44,59,68

**LIST OF TABLES**

<b>TABLE NO.</b>	<b>TITLE</b>	<b>PAGE</b>
2.1	Types of Tender	12
2.2	Summary of Electronic Tender Application between Countries	24
2.3	Electronic Tendering Process	27
3.1	Summary of Search Results through Lexis Nexis and Other Courts	40
3.2	List of Cases Relating to Electronic Tendering	41
5.1	Summary of Research Findings	66

**LIST OF FIGURES**

<b>FIGURE NO.</b>	<b>TITLE</b>	<b>PAGE</b>
2.1	Step-1 Registration Process in Electronic Tendering System	28
2.2	Step-2 Registration Process in Electronic Tendering System	28
2.3	Step-3 Registration Process in Electronic Tendering System	29
2.4	Step-4 Registration Process in Electronic Tendering System	29
2.5	Step-5 Registration Process in Electronic Tendering System	30
2.6	Tenderers views tender advertisement and notice	32
2.7	Submission of Tender Document ( <i>upload</i> )	33
2.8	Record of Submission of Tender Document	34
2.9	Result of Tender Evaluation	35
Flowchart 3.1	Research Methodology	37

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Background of the Study**

According to Christensen (2003), nowadays, the methods of practice of all business and industries have been changes due to the advancement in the information and communication technology (ICT). One of the industries that have been impacted by these changes is construction industry. The use of ICT in the construction industry is shifting a paradigm from traditional paper based system into digitally based information exchange. The main purposes of using ICT in the construction industry are to reduce project time, to increase profit levels, to improve operational efficiency of an organization, and to improve quality (Gunasekaran, 2001).

One of the aspects in the construction industry process where information technology is useful is the tendering. The shifting of tendering process from traditional paper based system into electronic environment can improve the secure access of information during the tendering process (Davila et al, 2002).

The increasing use of electronic tendering is caused by several factors such as the ability of the system to exchange the information and document in the large numbers among the parties involved in tendering process, the process of the submission of tender document is relatively faster, and the system is relatively easy to use (Dawson et al, 2006).

The technology that facilitates electronic tendering is relatively new and challenging. At present, the use of this system is relatively different among the countries. Electronic tendering, in its simplest form, is described as (NT Government 2000, NSW Department of Commerce 2003):

*“The electronic publishing, communicating, accessing, receiving and submitting of all tender-related information and documentation via the internet, thereby replacing the traditional paper-based tender processes, and achieving a more efficient and effective business process for all parties involved”.*

In Indonesia, electronic tendering is customarily referred to as electronic procurement. It can be seen from the definition of electronic procurement in the Rules of Ministry of Public Works number 207/PRT/M/2005 regarding The Procedures of Electronic Procurement in Government’s Construction Services that stated electronic procurement is an electronic process of tendering process based on web network using IT facilities. It needs to be clarified that e-procurement is much more comprehensive than e-tendering. E-procurement includes many other modules such as contract management and order management, which are equally if not more significant than e-tendering. For seamless procurement operations, the e-procurement system has to be integrated with inventory management, budgeting, treasury, and payment gateways.

Indonesia has embarked on implementing electronic tendering in 2003 since the government promulgated Presidential Degree No. 80 Year 2003 concerning the Guidance of Government Procurement. However, the process of implementation is only Copy to Internet (CTI) and only implemented in Jakarta. CTI system is used only from principal to tenderers. The system includes uploading invitation to tender, uploading the tender documents to a website, from which tenderers can download the tender documents, and disclosure of the result of prequalification and the result of successful tender (the winner). The tenderers still submit their tender document manually (on paper), and the communication between principal and tenderers is carried out by traditional methods.

Nowadays, electronic tendering in Indonesia is developing, especially in some central and regional/local government offices. The enactment of the Presidential Regulation number 54/2010 in August 2010 has brought the significant changes to the public procurement system. The changes, among others, is makes electronic tendering of all goods and services mandatory as of 2012

## **1.2 Problem Statement**

Over the past decades, the construction industry has been transformed by the rapid pace of technological advancement. For communication these days, ICT plays an important role in the exchange of documents and information. The use of ICT in the business sector has been encouraged many government to take the advantages of the efficiencies and transparencies offered by electronic business systems and establish electronic tendering systems for procuring numerous building, services and sale of goods contracts.

Moreover, through greater use of information technology, the government expects to create an efficient administration by providing better and faster service to the people, thus bringing a distinctive change from traditional practice (Ibrahim and Goh, 1998).

Currently, Indonesian's government is increasing efforts to bring all government procurement processes through electronic tendering. Electronic tendering (e-procurement) is relatively new approach brought a new perspective in construction industry in Indonesia. Based on Presidential Regulation (Perpres) No.54/2010, by 2012, all government institutions (central and local) must implement e-procurement for partly or whole packages.

Undoubtedly, there will be many barriers challenging the successful implementation of electronic tendering system. As defined by Du et al (2007):



*“Moving from a paper based system tendering into a totally electronic tendering system in the government setup raises new challenges for the legal integrity of the tendering process. Such challenges include how information within the documents such as identity of the parties can be authenticated, how the integrity and confidentiality of documents created and transmitted electronically can be preserved, and how the security of the system through which the parties are communicating can be ensured”.*

In order to effectively deal with the challenges, it is vital that the nature of challenges are well-understood, and that the means to address the challenges are analyzed and discussed. These challenges can be discussed from disputed case law from other countries that have already implemented electronic tendering.

### **1.3 Objective of the Study**

The objective to be achieved in this study is to determine the possible issues of electronic tendering implementation in Indonesian’s government project.

### **1.4 Significant of the Study**

The significant of this research is that it can be used as an input for the Indonesian’s government to conduct any strategies needed to perform an optimal electronic tendering system implementation

### **1.5 Scope of the Study**

While conducting this study, the author looked at relevant research papers, articles, books, journals and court cases on the process of the electronic tendering

implementation. The court cases restricted to recent cases from 2002 until 2012 and not limited to Malaysian cases only.

## **1.6 Thesis Organization**

This study is composed of five chapters as follow:

### **Chapter 1: Introduction**

Chapter 1 is presented the introduction which is including background of the study, problem statement, objective of the study, scope of the study, significant of the study, and thesis organization.

### **Chapter 2: Tendering**

Chapter 2 describes the general principals and the process of tendering, particularly in the paper based method also the process of electronic tendering. This chapter review and integrate the nature process also the procedure that required to carrying out tendering process. Each of the tendering components will be discussed in depth, and this will be importance chapter prior to carry out the analysis of the research.

### **Chapter 3: Research Methodology**

This chapter concentrates on the methodologies used to carry out this study.

### **Chapter 4: Data Analysis**

This chapter is focusing on the court cases review and analyze the results from the judicial decisions as reported in law reports which concerning the issue in implementing electronic tendering.

## **Chapter 5: Conclusion and Recommendation**

This last chapter comprises of the discussion on findings of the data collected conclusion and recommendation. The findings and analysis, conclusion and recommendation are utilized in order to answer the objectives of the research.

## REFERENCES

- Aqua Group. (1999). *Tenders and Contracts for Building*. London: Blackwell Science Ltd.
- Christensen, S., Duncan, W. & Low, R. (2003). *The Statute of Frauds in the Digital Age – Maintaining the Integrity of Signatures*. E Law – Murdoch University.
- Christensen, S. and Duncan, W. (2006). *Maintaining the Integrity of Electronic Tendering : Reflections on the Capacity of Australian Legal*.
- Davila, A et al. (2002). *Moving Procurement Systems to The Internet: The Adoption and Use of E-procurement Technology Models*. Available at [www.olin.wustl.edu/workingpapers/](http://www.olin.wustl.edu/workingpapers/). last retrieved on 2 July 2012.
- Du, Rong et al. (2007). *Secure Electronic Tendering*. PhD Thesis. Queensland University of Technology.
- Duncan et al. (2006). *Toward Secure and Legal E-Tendering*. Available at [http://www.itcon.org/data/works/att/2006\\_7.content.06035.pdf](http://www.itcon.org/data/works/att/2006_7.content.06035.pdf). last retrieve on 2 July 2012.
- Dawson et al. (2006). *E-Tendering: Security and Legal Issues*. Available at <http://eprints.qut.edu.au/7522/1/7522.pdf>. last retrieve on 2 July 2012.
- Gunasekaran. (2001). *A Model for Investment Justification in Information Technology Projects*. International Journal of Information Management 21 (5): 349-364.

- Halaris, C. (2003). An Integrated System Supporting Virtual Consortia in the Construction Sector. *Journal of Organizational Computing and Electronic Commerce*. Volume 13, page 243-265.
- Harkett et al. (2006). *Tender and Contract for Building*. London : Blackwell Publishing
- Ibrahim Ariff, and Goh, C.C.(1998). *Multimedia Super Coridor: What the MSC is All About and How It Benefits Malaysians and the Rest of the World*. Kuala Lumpur : Leeds Publications.
- Kong, Ann T and Gray, Jason M. (2006). Problems with Traditional Procurement in the Malaysian Construction Industry. *Building Educators Association Annual Conference*. 12-24 July 2006. University of Technology, Sidney.
- Lou, E & Alsagoff, S.A. (2006). *Lines, Chains and Other (Resraint) Devices: Revisiting Porter's Value Chain with A Malaysian Case Study in The Implementation of Electronic Tendering for the Construction Industry*, 10<sup>th</sup> Pasific Association of Quantity Surveyors Congress, Singapore (21-24 May, 2006).
- M, Harkett., I, Robinson & G, Statham. (2006). *The Aqua Group, Tender and Contract for Building (2<sup>nd</sup> Edition)*. Blackwell Publishing.
- MERX. "MERX"; available online at <http://www.merx.com/>.
- NSW Department of Commerce. (2003). *Welcome to the etendering System Help Page*. New South Wales Department of Commerce.
- OUT-LAW News, *Council rejection of bungled electronic tender was fair, says High Court*, 2009 Available at: <http://www.out-law.com/page-1001>. last retrieve on 2 July 2012

- Parker. (2007). *Contract Law Directions*. New York: Oxford University Press.
- Rosmayati, M. (2010). Decision Support Systems (DSS) in Construction Tendering Processes. Available at: <http://www.ijcsi.org/papers/7-2-1-35-45.pdf>. last retrieve on 2 July 2012.
- Shapiro, Nancy. (2008). *Electronic Tendering-Welcome To The 21<sup>st</sup> Century*. Available at [http://www.kmlaw.ca/upload/ELECTRONIC\\_TENDERING\\_revised\\_Dec\\_051-MiscPub.pdf](http://www.kmlaw.ca/upload/ELECTRONIC_TENDERING_revised_Dec_051-MiscPub.pdf). last retrieve on 2 July 2012.
- Singh, Ir. Harban. (2007). *Engineering and Construction Contract Management (Pre-Contract Award Practice)*. Singapore: LexisNexis
- Smith, Vincent Powell. (1990). *An Engineering Contract Dictionary*. UK: Legal Studies and Services Ltd.
- The Perils of E-Tendering*, Building Disputes Tribunal. Available at: <http://www.buildingdisputes tribunal.co.nz/site/buildingdisputes/files/BuildLaw/Issue/ThePerilsofE.Tendering.pdf>. last retrieve on 2 July 2012
- Tindsley, Geoff. (2008). *E-Tendering Process Within Construction: A UK Perspective*. Built Environment Division Research Group.
- Uher and Davenport. (2002). *Essentials of Construction Project Management*. Sidney: University of New South Wales Press Ltd.
- UN Procurement Manual. (2011). Procurement Manual. Available at <http://www.un.org/Depts/ptd/pdf/pmrev6.pdf>