



Electronic Court Records Management: A Case Study

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Abstract

Records management is the key success factor in judicial system. Systematic, efficient and organised records management system provides comprehensive information for courts to guarantee unbiased decision. Transparent information system and good records management indirectly hinder the misuse of power or corruption, case postponement and delayed decision. It also reflects the good image of judiciary system and upholds the rights of individual and society at large. A major reform has taken place in the administration of justice in both Civil and Shariah Courts systems in Malaysia. This paper unfolds the implementation of electronic records management systems (ERMS) in Malaysian courts. It discusses the literature review, background in Malaysian judiciary system and e-Court as well as E-Shariah implementation, research design and methods, preliminary findings, issues and challenges as well as conclusion and recommendations.

Keywords: Records management, Court administration, Electronic records management system

Introduction

The explosion of sophisticated information and communication technologies (ICTs) creates new opportunities as well as challenges for the whole service delivery systems, particularly to fulfil the ever increasing demand of citizens who are mostly having high level of information technology (IT) literacy and advanced in knowledge and awareness of their rights. To remain competitive, government record must progress in line with IT advancement, without compromising the existing strict government principles and regulations set through acts and policies. Records that capture various information serve as important institutional memory and central to efficient public service machinery.

In Malaysia, dual judiciary systems are employed side by side as provided by Article 121(1A) of the Federal Constitution, and both had their own set of electronic systems laid down under different project. The Conventional i.e. the Civil Court System under their own initiative, established the electronic courts systems consisting of e-Filing Systems (EFS), Case Management System(CMS), Queue Management System (QMS) and Court Recording and Transcribing (CRT). These systems were successfully piloted in Kuala Lumpur High Court, pioneered by the New Commercial Court (NCC) which was launched on the 1st September 2009 as a test bed before its full implementation to the other courts and throughout the nation. The second judiciary system, the Shariah Courts, has its own case

management system named Sistem Pengurusan Kes Mahkamah Syariah (SPKMS) or Shariah Court Case Management System. This system forms a part of the E-Shariah project, one of the seven pilot projects of E-Government application in Malaysia. The other applications under E-Shariah project are Syarie lawyer Management System, Office Automation System, Library Management System and E-Shariah Portal.

The following sections cover the literature review, background of Malaysian judiciary system and e-Court implementation, research design and methods, preliminary findings, issues and challenges as well as conclusion and recommendations.

Literature Review

The efficiency of service delivery sets the benchmark for public service excellence. Effective records management system guarantees the accountability and integrity of an organisation that provides services to the public at large and serves as strategic resource for government administration (Hassan 2007). A reliable and accurate case file system is fundamental to the effectiveness of day-to-day court operations and fairness of judicial decisions. The maintenance of case records directly affects the timeliness and integrity of case processing. There is a pressing need for a clear definition of legal framework (Johare 2007). Experience by countries in international Records Management Trust (IRMT) research (ITRM 2004) proved that for a system to work with authority, trustworthy and reliability, it needs a strong legal framework of its own.

Gouanou & Marsh (2004) alleged that in order to minimize the risks and costs of regulatory and legal non-compliance, litigation, discovery, business inefficiency and failure, organizations need to remove the human element by automating records management via technology. This transformation means removing freedom of choice; enforcing electronic record creation,

indexation; classification, naming conventions (thesaurus and taxonomies), creation and preservation of meta-data, minimizing duplicate records by creating a central information repository which will also facilitate knowledge and content management, systematically archiving and tracking records and amendments, applying retention schedules to purge redundant ones, but preserving their access logs, audit trails and meta-data. The major issues in implementing electronic records in organizations are regarding access, security and interoperability (Manaf & Ismail 2010; Ojo, Janowski & Estevez 2009). Interoperability refers to the ability of different IT systems and software applications to communicate to exchange data among them accurately, effectively and especially to use the information that has been exchanged (Ataullah 2008). According to the Legal & Regulatory Compliance in Information Management (LRCIM) Forum (IDC, 2004), organizations of all kinds must take a holistic, proactive approach to managing their information assets. Achieving regulatory and legal compliance has also rapidly become a technological problem. However, this means that failure to get it right is invariably more expensive, and can be disastrous.

Organizations today not only have to comply with regulations, but also have to maintain a balance between operational record keeping requirements, minimizing liability of storing private information and customer privacy preferences (Ataullah 2008). International Records Management Trust (IRMT, 2004) reveals several key issues identified by legal and judicial record case studies: (1) the need to raise the status and priority of recordkeeping ; (2) the need to allocate greater resources to supporting recordkeeping infrastructure, for example, storage facilities and equipment (for paper and electronic records); (3) the need to develop records management policies and standards, for example, in relation to access to and long-term preservation of paper and electronic records; (4) the recognition that

computerized case management systems have the capacity to improve case flow management and access to information, but the danger of regarding computerization as a means of solving all management, resource and information problems; (5) the need for an information strategy and business case, based on the requirements of all key stakeholders, before embarking on the computerization of case administration; (6) the value of pilot computerization projects to build confidence and capacity and (7) the importance of standardized formats and templates for common documents.

The biggest challenge when organizations set to move forward by embracing IT in its administration is to retrain the people. For a court registry, the lack of experts who know both registry office and information management standards becomes the first hurdle in implementing change. IRMT (2004) pointed out a number of issues identified by legal and judicial record case studies with respect to people aspect: (1) the need for consistent and authoritative instructions on the preservation or destruction of court case records (both paper and electronic); (2) the importance of having a high level 'champion' within the courts to promote good practice in records and information management ; (3) the need for professionally trained records managers within judiciaries; (4) the need for formal training and training materials in judicial records and information management and (5) the importance of having expert advice and guidance available to those with responsibility for records and information management in the courts. Academic institutions of higher learning have played a significant role in delivering educational and training programmes on Electronic Records management (ERM) in developed countries, such as Australia, Canada, Europe, UK and USA (Johare 2007). The InterPARES project based in the University of British Columbia (UBC) brings together archivists from universities and archival institutions, along with computer and information scientists and engineers from around the world in a

concerted effort to define the archival requirements for authenticity on the basis of archival science and diplomatics (Duranti 2009, Johare 2007).

Records managers have the skills and methodologies to manage the lifecycle of records of all kinds, but they have to rely on information technology (IT) colleagues and vendors to provide the tools with which to do it. The task of the records manager, in collaboration with their IT colleagues, is to define the record-keeping and technical requirements and to make the right purchase. However, that task is complicated by the fact that technologies (and the threats to them) are still rapidly evolving (Gouanou & Marsh 2004). A number of countries around the world have already embarked in electronic courts implementation, introducing various types of electronic applications. Saman & Haider (2010) identified a number of electronic court applications and services being implemented in a few countries, summarises as follows:

1. United States
 - 1.1. Public Access to Court Electronic Records
 - 1.2. PACER Case Locator
 - 1.3. PACER Fee Waiver
2. Australia
 - 2.1. eSearch - for public to search cases
 - 2.2. eFiling - electronic document lodgment
 - 2.3. eCourtroom - virtual courtroom for pre-trial matters
 - 2.4. eCase Administration - for legal practitioners and parties to communicate with court chamber staff securely
 - 2.5. Commonwealth Courts Portal
3. Singapore
 - 3.1. eAlternative Dispute Resolution (e@dr)
 - 3.2. eJustice Judges' Corridor

- 3.3. Justice Online (JOL)- a global forum and virtual think-tank for judges
 - 3.4. Electronic Filing System (EFS) - includes:
 - 3.4.1. Electronic Filing Service
 - 3.4.2. Electronic Extract Service
 - 3.4.3. Electronic Service of Documents Facility
 - 3.4.4. Electronic Information Service
 - 3.5. Small Claims Tribunals - Electronic Filing System (SCT-EFS)-forum for the resolution of small claims
 - 3.6. Automated Traffic Offence Management System (ATOMS): an eService which allows the public to enquire on their Traffic Police, Urban Redevelopment Authority, Land Transport Authority and Housing Development Board court fines, plead guilty to the offences and make payment electronically
4. Canada
- 4.1. E-Filing- available in English and French that allows a party or the party's legal representative to file documents electronically with the Federal Court via a secure, Internet-based system, in all areas of the Court's jurisdiction.
 - 4.2. Electronic Legal Service- Electronic legal service allows a party or the party's legal representative to serve documents electronically pursuant to Rule 147 of the Federal Courts Rules
5. United Kingdom
- 5.1. Money Claim Online for small claim
 - 5.2. Payment of fine online
 - 5.3. Possession Claim Online (PCOL): aims at managing property ownership claims online when tenants fail to pay rent
 - 5.4. XHIBIT: provide information case hearing
6. India
- 6.1. E-Filing, includes:
 - 6.1.1. Case filing via internet
 - 6.1.2. Payment of court fees online by credit or debit card
 - 6.1.3. Online case registration
 - 6.1.4. Online document delivery
 - 6.1.5. Serve notice via e-mail
 - 6.2. Online dispute resolution mechanism (ODRM)
- Experts from the United States, Europe, Australia and Singapore, inspired by court quality models used in a number of international communities, formed a Consortium with the goal to take necessary steps to achieve court excellence. The Consortium concluded that the most effective way to achieve this goal was to develop a framework called "International Framework for Court Excellence". The Framework assesses a court's performance against seven areas of excellence and provides guidance for courts to improve their performance. It utilizes recognized organizational improvement methodologies while reflecting the special issues that courts face (National Center for States Courts 2009). The Framework also incorporates case studies, court performance improvement processes and a range of available tools to measure court performance and development. The Consortium regularly revises the Framework to reflect new systems and initiatives directed at improving how courts deliver services. It represents a process for an all-encompassing approach to achieving court excellence rather than simply addressing limited aspects of court activity. As a result, it applies to all courts and is equally effective for large urban courts and smaller rural or remote courts (National Center for States Courts 2009).The signatories representing the International Consortium for Court Excellence include: (1) The Australasian Institute of Judicial Administration (AIJA), (2) U.S. Federal Judicial Center, (3) U.S.

National Center for State Courts (NCSC), (4) The Subordinate Courts of Singapore, (5) The European Commission for the Efficiency of Justice (CEPEJ), (6) Spring Singapore and (7) The World Bank.

Malaysian Judiciary and Electronic Implementation

The Federal Constitution of Malaysia sets the doctrine of separation of power between the federal government and state government. The judicial authority of Civil matters is vested into the Federal government and Shariah matters to the 14 state governments (schedule 1 of Federal Constitution) . The conventional, civil legal system is based on the English common law and Civil law statutes. The state governments have their own version of Shariah Family Law enactments.

The Civil and Shariah court systems, having their own distinct jurisdiction, consist of different set of hierarchy of courts. For Civil Court system, it consists of two categories of courts, the Superior Courts and the Subordinate Courts. The Superior courts consist of the Federal Court as the apex court, followed by Court of Appeal and High Court. The Subordinate Courts consist of Sessions Court, Magistrate Court, Court for Children, Special Court and Customary Court (Federal Constitution (2006), Hamzah & Bulan (2006)

Today, both Court systems have their own electronic court records management system in place. For the Civil Court, e-Courts project was established with the aims to: (1) allow on-line case filing to achieve paperless office; (2) save storage space and human resource; (3) allow immediate access to documents during trial; and (4) avoid document counterfeit. In the implementation of e-Court systems, the Civil courts resort to a turnkey project, with the advice of KPMG Company, and outsource a third party company named Formis Berhad to run the system. For E-Shariah project, the Shariah courts, the system was administered in house with the help of Malaysian Administration and

Modernisation Planning Unit (MAMPU). The four applications in the civil court electronic systems are: (1) Electronic Filing System (EFS), (2) Case Management System (CMS), (3) Queue Management System and (4) Court Recording and Transcribing (CRT).

In a typical standard operating procedure of a civil case, summons will be filed by a lawyer or by an individual or public through the online e-Filing System (EFS). All the necessary documents are prepared in softcopy and submitted online. A payment of fees is done via internet banking. Once filed, the case will be managed under the Case Management System (CMS) application. Queue Management System (QMS) is in operation when case is being heard or mentioned by the judicial officers. If the case needs to be heard by the judge, a trial date will be scheduled in CMS. In the courtroom, when trial proceeds, the Court Recording & Transcribing System (CRT) is in operation. This audio video recording system allows the proceeding to be recorded fully in audio video format, saved and retrieved when needed; such as to make a report or case summary. For the purpose of CRT recording, every courtroom is equipped with 4 units of voice auto detect camera, with each one facing the judge, the witness, the plaintiff counsel and defendant counsel. All the systems have their own workflow in facilitating case management.

E-Shariah is one of the seven pilot projects under the electronic Government application in Malaysia. The RM39 million project started July 2002 and was completed by September 2005 (Rosimah 2010). E-Shariah is a web communication system connecting 102 Shariah courts in Malaysia incorporating various electronic services with the aim to increase efficiency and effectiveness of Shariah courts processes. E-Shariah consists of five modules (Malaysian Shariah Judiciary Department 2005):

1. Shariah Court Case Management System (SPKMS)
2. Shariah Lawyers Management System

3. Office Automation
4. Library Management System
5. E-Shariah Portal – contains a lot of information online, online services, forms downloading etc. Arabic and English version of the site is under construction.

E-Shariah is executed to replace the manual system of all Shariah courts operation. Before E-Shariah came into operation, all work processes from case registration to case disposal were performed manually. This resulted in inefficiency and ineptitude. With the increasing number of Shariah cases registered from time to time, the delay in case management became more critical. A single case takes months, even years to be settled, resulting in hardships for the parties involved. With the introduction of E-Shariah, more cases are disposed timely, and case management is executed more efficiently and systematically (Hamid 2010). Online services include civil case pre-registration, case status checking, Faraid calculation, forms download, Syarie lawyer search, Syarie lawyer information, Sulh service and Shariah legal references. Currently the systems are updated from e- Shariah Version 1 to E-Shariah Version 2.

Research Design

Research Objectives and Questions

The research aims to: (1) Explore the implementation of electronic court records management in Malaysian Courts; (2) Analyse the requirements, policies and procedures for managing electronic court records; and (3) Establish a framework and assessment criteria guideline for a legally complied electronic court records management system.

Research Significance and Contributions

In Malaysia, the public sector is facing pressing challenges to provide efficient service delivery. In recent years, a number of legal and judicial issues and crises in

Malaysia have been brought to the attention of the public, especially by the mainstream newspapers. The issues are, among others, the long delay of cases, the attitude of lawyers, the shortage of judges, the absence of written judgment by judges, which sometimes deny the right of appeal to the accused, or generally deny certain rights of the public at large. Moreover, the increased demands of the public need to be catered for. Any shortcomings resulting from the poor management in public service delivery may lead to the question of integrity of the public sector as well as the issue of survival, respect and vigor of Malaysia a nation.

This study is expected to offer favorable contributions to the body of knowledge for academics and practitioners. In its theoretical contribution, the study is expected to identify critical dimensions or factors in electronic court records management. Practically, the research is projected for the enhancement of overall quality of judiciary administration by increasing integrity, efficiency and effectiveness. For court's policy makers, this research can promote an improvement in the judicial corporate administration as well as building an excellent service and reputation of the judiciary.

Research Methods

This research is undertaken through an exploratory case study. Qualitative and quantitative data were collected through interviews, surveys, observation and document review. The preliminary findings show that the implementation of electronic records management system in both Civil and Shariah judiciary systems lead to a tremendous improvement to the case management, resulting in efficient service delivery to the public at large. The following section will discuss the preliminary findings of the case study. The interview questions consist of 21 semi- structured questions, while the survey consists of 52 questions. The case study is carried out in Kuala Lumpur, Putrajaya and Selangor.

Preliminary Findings and Discussion

All the system has been tested using the IT infrastructure in Kuala Lumpur Court Complex (KLCC). The world's second largest court complex consists of 30 courtrooms for the High Courts, 21 for the Sessions Courts and 26 for the Magistrates' Courts. KLCC was chosen as a test-bed because its volume of cases are far huge than any other courts nationwide. This is due to the fact that Kuala Lumpur is the centre of business and trade in Malaysia. As a result of this systems application, the number of case disposal increased tremendously.

The implementation of e-Court is pioneered by the Kuala Lumpur New Commercial Court (NCC). It was established on 1st September 2009 resulting from the court management review meeting headed by the Chief Justice of Malaysia. The objective is to ensure the increased number of commercial case disposals. A specific aim was put forward, i.e. new registered cases to be disposed within 9 months. Upon establishment, only two courtrooms were opened for trial to test whether the aim can be achieved with the help of full running electronic systems in place. The two new courtrooms were named NCC1 and NCC2. The results are as follows:

Table 1: Case Registration and Disposal

Month	Cases Registration	Case Disposal after 9 Months	Balance of Case after 9 Months	Percentage of Disposal
Sept 2009	289	285 (June 2010)	4	98.6
Oct 2009	389	384 (July 2010)	5	98.7
Nov 2009	328	324 (Aug 2010)	4	98.7

It is evidenced that the aim to dispose new cases within 9 months from the date of registration, was almost 100%. Achieved. With this achievement, more courtrooms were opened subsequently. After one year of its establishment, by September 2010, the courtrooms were increased to 6 rooms with 6 high court judges, 13 officers and 18 support staff. The registration of cases is now using 'pairing system'. Case registration is rotated for every 4 months between the three pairs, NCC1 & 2, NCC3 & 4 and NCC5 & 6. In general, the objective of the establishment of the New Commercial Court to dispose all new registered cases within 9 months was successfully achieved. The increase of case disposal rate is tremendous, as compared to pre-NCC establishment. As a result of NCC's successful implementation,

two more new types of court were launched, the New Civil Court (NCvC) and the Admiralty Court, on 30th September 2010. The existence of the new courts has strengthened the judiciary institution through effective service delivery by court to its customers.

On the other hand, under the Shariah judicial administration, E-Shariah was implemented successfully. After few years of its application, obvious improvements were enjoyed by the customer, where 58% of the cases are disposed in less than one month. This contributes to the overall performance of Shariah courts efficiency. The following table compares the situation of pre and post implementation of E-Shariah in the Shariah courts:

Table 2: Dimensions of Pre and Post E-Shariah Implementation

Dimensions	Pre-implementation	Post-implementation
Case management	Case management less efficient	Case management is very efficient, increase productivity and work vigor
Time	Registration and management of cases manually was time consuming, no one-stop service centre	Registration of new case takes approximately 2 minutes, case management is efficient.
Case overlap	Case overlapping could not be easily traced manually	Case overlapping can be tracked easily
Statistics	Generating statistics manually was time consuming and difficult, sometimes erred, may lead to improper decision making	Statistics are generated promptly, facilitate excellent, unerring and timely decision making
Case postponement /delay	No automatic reminder about case postponement and delay	Automatic reminder of case postponement,
Work process	Work processes were not consistent between courts in different states	E-Shariah permits the uniformity of court procedures, work processes and forms.
Case backlog	Difficulty in managing, verifying and checking the case status manually leading to backlog cases	No more backlog cases because all cases are being taken care of and reminded of.
Customer friendliness	Different work process among states caused difficulty and bias to customers	Uniformed court procedures and work processes ensure fairness to customers
Information security	Information security was compromised	Information security is guaranteed

Issues and Challenges

From the case study, specific issues and challenges are identified as the following:

1. Legal Mandate

The legal mandate for electronic court records management is not CRT first introduced. Criminal Court was in the first instance unable to implement the ERMS in its criminal cases given the provision of the Criminal Procedure Code to the effect that recording evidence must be in magistrate's handwriting. The Criminal Procedure Code (Revised 1999) Act 593, section 266 provided: "In summon cases tried before a magistrate, the magistrate shall, as the

examination of each witness proceeds, make a note of a substance of what the witness deposes, and such note shall be written by the magistrate with his own hand in legible handwriting and shall form part of the record." The problem is now resolved when the new Act (Act 1350(2009) section 272C & 272D under Chapter 25 was amended to the effect that gave permission to allow court proceeding by mechanical means.

2. Lack of Human Resource

In court administration, the large quantity of records and lack of human resource give the utmost challenge to the court officials to handle case management effectively (Hashim 2010). Given such a situation, the need for

effective records management system is mounting. It drove the Chief Justice to solicit certain budget from the cabinet to establish the system, which was subsequently granted. For the past decades, the civil court faced the severe situation when the records were being taken care of by the senior judicial members themselves who were already burdened with their heavy legal matters workload. In Shariah Court system, the problem is less severe because the central body for Shariah court, the JKSM, has established a new department known as "Records Section" that deals with matters related to records management. A proposal for the post of Records Manager in government agencies has been discussed and passed in the cabinet, but never been implemented until today. Furthermore, court should be empowered to recruit its own staff to fit its needs rather than just continue receiving staff designated by the Public Service Department.

3. Inadequate Documentation

Apparently due to the lack of staff for records management in Civil Court systems, an official validated court records management policy is not available. Circulars and practice directions are not properly compiled. They mainly rely on contract with third party.

Conclusion and Recommendation

The management of court records through electronic means leads to a great impact on the government and citizens as a whole. It preserves the memory of a nation's civilization in judicial matters. The tremendous increase of case disposal rate after the electronic system implementation in both civil and Shariah courts proves great improvement and excellent achievement in judicial service delivery in Malaysia. Malaysian experience has been referred to and modeled upon by many countries aiming to achieve the same level of success in their electronic courts management. However, the room for improvements is still very wide to

be embarked upon; to arrive at more excellent achievements.

The following recommendation is proposed:

1. Creation of a formal court records policy outlining clear rules procedures of court records management, paper and electronic. It should spell policies on all aspects of court records management throughout their life cycle encompassing records processes from creation to disposal of case files, storage space, type of media, preservation of information, records security and safety, backup systems, tracking and tracing systems, audit trail, disaster recovery plan audit, long term preservation training and so on. Records retention schedule should be part of the policy itself.
2. Reinforcement of related legal provisions such as Criminal Procedure Code and Evidence Act to be made before the first implementation of the electronic system itself.
3. Professional records manager should be employed in courts
4. Collaboration with the National Archives so that records management issues can be solved more easily.
5. Court records management framework that conform with the legal requirements, in line with international standards, should be developed through a comprehensive research work.

References

Amran, M. (2007, November). 'Implementation: The Experience of Malaysian Judiciary Department,' Records Management Convention, Putrajaya: national Archives of Malaysia.

Azmi, T. S. (2008). 'Speech of Chief Justice of Malaysia at Dinner Hosted by Sabah Law Association,'

- Duranti, L. (2009). 'From Digital Diplomats to Digital Records Forensics,' *Archivaria* 68: 39-66.
- Goh, E. (2005). 'InterPARES 2 Project-Case Study 21 Final Report: The Electronic Filing System (EFS) of the Supreme Court of Singapore,' Retrieved October 5, 2010 from http://interpares.org.rws/display_file.cfm?doc=ip2_cs21_final_report.pdf
- Hamid, S. A. (2010). 'Personal Communication,' October 11, 2010.
- Hasan, K. (2007). 'Court Records Management in Malaysia. Personal Communication,' June 10, 2010.
- Hassan, S. (2007, November 5). 'Speech by Secretary General,' Malaysia. Records Management Convention, Putrajaya: National Archives of Malaysia.
- Isa, A. M. (2009). Pengurusan Teras Kecekapan Dan Ketelusan Organisasi Tinta: Pengadaptasian Teknologi Dalam Penyebaran Maklumat. Bil 18. 40-49.
- Ismail, I. (2006, Feb 13). 'Faster Processes with E-Shariah,' *New Straits Times*.
- Malaysian Shariah Judiciary Department (2005). 'E-Shariah Implementation Synopsis,'
- Motsaathebe, L. & Mnjama, N. (2009). "The Management of High Court Records in Botswana," *Records Management Journal*, 19(3), 173 - 189.
- Mnjama, N. & Wamukoya, J. (2007). "E-government and Records Management: An Assessment Tool for e-Records Readiness in Government," *The Electronic Library*, 25(3), 274 - 284.
- National Center for Court Excellence (2009). 'Court Tools (brochure),' Retrieved October 5, 2010 from http://www.ncsconline.org/D_Research/CourtTools/tcmp_courttools.html
- National Center for Court Excellence (2009). 'International Consortium for Court 2010 from <http://www.courtexcellence.com/pdf/IFCE-Brochure.pdf>. Excellence (brochure)," Retrieved October 5,
- National Center for Court Excellence (2009). "International Framework for Court Excellence," Retrieved October 5, 2010 from <http://www.courtexcellence.com/pdf/IFCE-Framework-v12.pdf>.
- National Center for Court Excellence (2009). 'Measure 6: Reliability and Integrity of Case Files (brochure),' Retrieved October 5, 2010 from http://www.ncsconline.org/D_Research/CourtTools/Images/courttools_measure6.Pdf
- Rahmah, (2008). 'Records Management Reform in Malaysian Court of Appeal,'
- Roper, M. (1999). 'Managing Legal Records: Managing Public Sector Records- A Study Programme,' London: International Records Management Trust. Retrieved September 12, 2010, from <http://www.irmt.org/educationTrainmaterials.html>
- Rosimah, (2010). 'Personal Communication,' October 10, 2010
- Saman, W. S. & Haider, A. (2010), 'Towards the Court Records Management Reform,' In Proceedings of the National Conference on Shariah and Law, Kuala Lumpur, November 2-3, 2010
- Shariah Judiciary Department of Malaysia (2005). 'Synopsis of E-Shariah Implementation History,' Percetakan Nasional Malaysia Berhad, Kuala Lumpur.
- Sidek Hassan, (November 5, 2007). 'Opening Speech,' Records Management Convention, Putrajaya
- Smith, T. J. & Miller, R. D. (2007). Electronic Records Management: New Obligations, New Tools. Community Banker. Retrieved

October 5, 2010 from
http://www.klgates.com/files/publication/d89fdaf9-751a-41fc-a1a2-5da5da3b24551cb/presentation/PublicationAttachment/51b3bed1-05b3-44416-8b59-61b1-61b161a8d7bb/article_smith_miller_0607.pdf

Spratt, C. (2007). 'Electronic Access to Court Records,' News Media and the Law. Reporters Committee for Freedom of the

Press. Retrieved October 5,2010, from <http://www.highbeam.com/doc/1P3-13043971.html>.

Sultan, H. (2010). 'Personal Communication,' October 1, 2010

Thurston, A. & Cain, P. (1995). The Management of Public Sector Records Project: Managing the Records Lifecycle. Information Development, 11(4), 198-205.