E-Court: Technology Diffusion in Court Management

Wan Satirah Wan Mohd Saman
Faculty of Information Management
Universiti Teknologi MARA
assatirah@salam.uitm.edu.my

Dr. Abrar Haider
School of Computer and Information Science
University of South Australia
abrar.haider@unisa.edu.au

ABSTRACT

Court workflow automation has been proliferating in justice system of almost all jurisdictions around the world. The reasons, among others, are its efficiency in managing case files, retrieving case information within seconds, the effective integration between organizations and speedy justice dispensation. It allows justice to take place virtually using the advanced technologies electronic case management system (ECMS), electronic filing system, court recording and transcribing, immersive virtual environment for re-creation of crime scene, forensic investigation and so on. This paper divulges a result of a case study conducted in Malaysian court environment which adopts an integrated electronic court management system named E-Court. This qualitative case study focuses on the four main types of applications within E-Court project, namely the Electronic Filing System (EFS), the Case Management System (CMS), the Court Recording and Transcribing (CRT) and the Queue Management System (QMS). Data was collected through interview, survey and document analysis, in the busiest court in the country. The result demonstrates a significant improvement in terms of court workflow management, court information and records management and integration with other agencies. At the same time, a number of technological, operational and people issues arise out of this electronic court implementation.

Keywords

IT implementation, technology diffusion, court administration, electronic court, Malaysia

INTRODUCTION

The information and communication technologies (ICTs) have connected people and businesses around the globe in a way never before envisioned and currently have made its way to the courtrooms (Bhatt 2005, Velicogna 2011). In many parts of the world, ICTs are fast becoming useful in implementing time, case, manpower and cost management strategies within the judicial services. Judges agree that in order to bring about improvements in justice dispensation, ICTs are needed to play the key role (Woolf 2005, Lederer 2005, Velicogna 2011). Courts of law depend on the quality of information relating to the case to be able to do justice to all the parties. In the cases where information and records are not properly managed, the court of law is unable to make an impartial and all inclusive quality decision, thus, depriving the aim of judicial institutions to bestow legal rights to individuals and society (Bhatt 2005). Availability, comprehensiveness and retrievable case related information ensures a speedy justice be delivered to the parties as well as the society as a whole. Records in court system have various dimensions including court proceedings, evidence, and statutory declarations or affidavits. In addition, court records also contain precedents from old cases and even references to the sources of law. This makes information management in general, and record retrieval in particular an intricate task.

Electronic court is not simply digitization or automation, but it involves much wider aspects of IT infrastructure, human capital, regulations, policies and internet penetration in a society. Besides, it is crucial to carry out planning, monitoring and evaluation of the initiatives towards information society in general and e-court service in particular (Ojo, Janowski and Estevez, 2007). It is not a simple effort to achieve a fully electronic court operation - until there is a well-developed capacity to manage electronic court records as legally verifiable evidence of entitlements, contractual obligations, policies, or transactions for as long as they are legally required, mixed media (paper/electronic systems), will be essential (Thurston, 2000).

With the increased level of information literacy and technology awareness among the general public, there are increased demands on government to provide information to citizen around the clock, and increased compression on the courts of law to automate its business processes and judicial services. The pervasiveness of information and communication technologies (ICTs) provides new opportunities for courts around the globe to embrace information and communication technologies at various levels to provide faster, reliable and consistent service to the society. This paper presents a case study on technology implementation in Civil Courts in Malaysia. The discussion is initiated with an introduction to the Malaysian legal system
and attempts made by Malaysian judiciary to implement information and communication technologies. It is followed with a discussion on research methodology and case study result, which is presented in three sub-sections of pre-implementation, implementation initiatives and post-implementation stages. It incorporates discussions on various issues and challenges faced before, during and after the technology adoption. The paper is concluded with a summary of the lessons learnt from records management in civil court in Malaysia and the effectiveness of E-Court initiative undertaken by Malaysian judiciary.

MALAYSIAN LEGAL SYSTEM

The present Malaysian legal system was shaped by the blend of Islamic and British legal systems, as well as Malay customary laws. Although the British were not the only power that came to the land, they left behind a lasting legacy. Apart from Britain, the Portuguese, Dutch and Japanese had each come onto the Malayan scene. The British occupied Malaya during the late eighteenth century to the early nineteenth century. When the country was occupied by Japan from 1942 to 1945, the British were out of Malaya. After World War II, the British returned to Malaya and formed the Federation of Malaya in 1948. Malaya then became independent in 1957 and later was formed into the state of Malaysia in 1963 (Aun 2007; Sherif 2010). During the British occupation, English laws were imposed upon the people, although at that time a legal order was already in place in Malaya. As a result, until today, Malaysia has two legal systems standing side by side, firstly the Civil legal system based on English Common Law and statutes, and secondly the Shariah legal system rooted from the Islamic Law. The Civil law system, however, is more widely recognized and become the mainstream legal system. Its jurisdiction encompassing all matter, civil and criminal, except on the personal and family matters which fall under the jurisdiction of the Shariah Court by virtue of schedule 1 of Malaysian Federal Constitution. Since English occupation since 1824, the English Common law and Equity was introduced and implemented in Malaysia. Until today, most of the Malaysian laws are based on English law statutes. The Civil court is placed under the administration of Federal government and the Shariah Court is under the administration of States government (Aun 2007; Bari 2007).

Recently, both Civil and Shariah judiciary systems administration have moved forward by adopting technologies for expedience and smooth performance in delivering justice. Traditionally in Malaysian judiciary, whether Civil or Shariah, cases have taken long time to decide. The backlog of cases is being scorned by the society. It took years for a case to settle due to a number of reasons. Among various other reasons such as limited number of judges and court officials, high volume of cases, poor infrastructure in place, limited financial resources and so on. The most significant reason was the unavailability of complete information relating to the case as and when required (Annual Report 2007/2008). Since the late 1980s, Malaysia’s judiciary faced nearly two difficult decades in which its reputation for probity and speedy delivery of decisions declined dramatically. In late 2008, with the appointment of a new Chief Justice, it began a reform program aimed in particular at the second problem, through a delay and backlog reduction exercise, and indirectly, at the first, by more careful monitoring of judges’ productivity. While corruption does not appear to be the major complaint of court users, the reform program also worked to target and eliminate what does occur. Common complaints were generally politicization of appointments and decisions, corruption, inefficiency, delays, disorganization, inadequate and usually unreliable performance statistics or even counts of pending cases, arbitrary and often unpredictable decisions as well as handling of filings, disorganized filing “systems”, and a generally poor public image (Abdullah 2012; Bernama 2012). These complaints had been building over the 20 years following the “judicial crisis” in part in response to concerns about external interference and in part as a result of the growing demand for quicker and better quality responses.

Prior to 2008, there had been some attempts to reverse this situation, but they did not prosper. There were a few important legal changes, such as the 2000 introduction of pre-trial case management into the Rules of the High Court. This move was intended to take control of the progress of a case out of the hands of the attorneys and give it to the court, thereby reducing a good deal of unnecessary delay. Unfortunately, it appeared not to have had much immediate impact. The minimal impact was not for lack of trying. During the period between 2002 and 2005, the courts made a first step at improving their efficiency, however, there was a reform program than a series of pilot efforts, many of them based on practices the judges had seen in other countries during visits and international seminars. They included a first effort at automation beyond the use of computers as simple word processors. In Sabah and Sarawak, a firm was hired with local funds to design an automated case management system, which after being applied in 11 pilot courtrooms was abandoned as a “failure.” The experience is not unusual in court automation and it is likely that the failure was as much the result of minimal support from the Judiciary itself as of any flaws in the system. In any event, the software continues to be used in some courts to this day pending installation of that developed under one of the two (Formis and SAINS) contracts now in force for Western and Eastern Malaysia, respectively.

In October 2008, Chief Justice Zaki met with other superior court members, to discuss a reform program. Events moved rapidly, and by late 2008, he had convinced the Prime Minister to put money into the effort, securing RM 69 million (US$ 23 million) for an automation program. While a contract was let in mid-2009, the Chief Justice and his team had already gone
ICTs in Malaysian Judicial System

Malaysian court organization and procedures follow common law practices. Cases in all courts except Federal Court and Court of Appeal are usually heard by a single judge. Appeals from the subordinate courts are heard by High Courts, in addition to their normal workload of original jurisdiction cases, while those from High Court go to the Court of Appeal, which like the Federal Court does operate in panels. The total number of judges is low i.e. 681 filled positions out of 813 authorized positions of judges. However, the Judicial and Legal Service staff assigned to courtroom positions also does some processing of cases (World Bank report). When this group is included, the judge-to-population rises from 1.5 to 2.4 per 100,000 inhabitants (total Malaysian population is 28 million). Moreover, the state courts (Shariah and traditional) as well as system of administrative tribunals take up some demands. Given the increasing number of court cases registered every year, the judiciary is facing pressing challenges to provide efficient service delivery. Moreover, the increase demands of the public need to be catered. Any shortcomings resulted from the poor management in the courts may lead to the question of integrity of the judiciary and government. The large quantity of records and lack of human resource gives the utmost challenge to the court officials to handle case management effectively (Hamzah 2010).

Given such a situation, the need for effective records management system is mounting. There is also a pressing need for a clear definition of legal framework (Johare 2007). Experience by countries in international Records Management Trust (IRMT) research (IRMT 2004) proved that for a system to work with authority, trustworthy and reliability, it needs a strong legal framework of its own. Effective records management system guarantees the accountability and integrity of a court 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. Gouanou & Marsh (2004) posit that in order to minimize the risks and costs of regulatory and legal non-compliance, litigation, discovery, business inefficiency and failure, courts need to remove the human element by automating records management via the 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 courts are regarding access, security and interoperability (Ojo, Janowski & Estevez 2009; Manaf & Ismail 2010). Interoperability refers
to is the ability of different IT systems and software applications to communicate with each other to exchange data between them accurately and effectively (Ataullah 2008). Courts 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) revealed several key issues identified by legal and judicial record case studies are (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 CASE STUDY

E-Court was put in place to replace the manual system of all civil courts operation. Before E-Court come into operation, all business processes from case registration to case disposal were performed manually. It is not surprising that the system was replete in inefficiency and ineptitude. With the increased number of cases being registered, the delay in case management became more critical. A single case takes years to be settled, resulting in hardship for the parties involved. The major reason for this delay has been the unavailability of complete information as and when required. In certain cases not only the information is incomplete but had been tempered with as well. With the introduction of e-Court, the government aim to reduce the time taken to settle a case and to manage each case and related information more efficiently and systematically (Hamid 2010).

Pre Implementation

The issues faced before E-Court initiative could be divided into 3 categories i.e. workflow related issues, people issues and administrative issues.

Workflow related issues

This category describes the issues related to actual workflow of the courts. These issues posed the major hindrances or obstacles in way of completing the process efficiently. There are a number of different dimensions of the problem in this category which are described below:

- One particular case is possible to be registered in different jurisdictions, because there is no mechanism to check the redundancies in case registration. This situation results in overlapping of case proceedings as well as court orders for the same case. Thus, complicates the enforcement of court orders. In many instances, none of the orders could be enforced.
- Case backlog and postponement. No control mechanism for measuring the progress of a case. Due to this problem, case management has been inefficient, which is results a case backlog. At the same time, if the case was postponed, its rescheduling was not done properly, added up to the case backlog. As a result of this, court registrar had enormous problem in allocating caseloads to different jurists and it all resulted in delaying the overall process.
- Time taken for case registration is very long because court staff needs to type all information manually. It involve repetitions of work when the same information need to be recorded in different documents
- Movement and circulation of physical files could not be controlled systematically. The whereabouts of a particular file could not be traced easily since lack of mechanism to do it. This sometimes leads to missing files, done either by purpose or not. This situation also facilitates corruption.
- Certain type of cases took a very long time for disposal due to different reasons- inadequate documentations, lawyers purposely delay cases, inability to acquire certain information from other government departments etc. Such cases will be put aside until the problem resolved. Sometimes, the case is abandoned permanently due to the lack of any kind of reminders or when the judge in charge is moved to other court.
- There are a number of instances where cases are postponed without proper traceable records. Cases that fall under this category will probably be abandoned permanently, or parties to the case will need to reinvent the wheel, register the case as a new case.
Unnecessary delay in case decision resulted due to limited usage of technology. There is no reminder system that can alert the judges of case postponements. This situation leads to the increase number of case backlog from time to time.

People Issues

- Lack of training for certain expert areas such as records management and ICTs provided for courts staff. This due a number of reasons like lack of deficiency in training needs analysis and heavy existing workloads.
- Lack of professional and support staff, lack of appropriately trained staff and record room, typing.
- Low level of ICT skills among lawyers and court staff hinders court to embrace ICTs in their administration. It will be a waste when a court spend a lot on ICT that is not used by its staff and customers.
- Inadequate number of judges and overall court staff as compared to the number of cases.
- Every submission should begin with an abstract of no more than 150 words, followed by a set of keywords. The abstract should be a concise statement of the problem, approach, and conclusions of the work described. It should clearly state the paper's contribution to the field.

Administrative Issues

- Duration for case mention, scheduling, distribution and adjudication process is normally too long due to the abovementioned issues and weaknesses, especially when the courts take traditional approach in managing cases, without the adoption of any technology based operation and administration process.
- Recording and printing of case decision and court order are not properly administered. Lack of proper facilities force the court to take recording in hand writing and the documents to be distributed to clients need to be typed and printed. This involves redundancy of work.

E-Court Initiative

The first attempt of E-Court project was taken in 2002 but it was a failure, reasons being the problem of change management (reluctance of judges to use the technology), leadership (no enforcement order from the top management), network facility problem, budget limitation etc). At the second attempt in 2009, a strong leadership and exertion become the main factor of it successful implementation. The government allocated a special budget for this project. Under the E-Court project, various applications such as Electronic Filing System (EFS), Queue Management System (QMS), Case Management System (CMS), Court Recording and Transcribing (CRT) and video conferencing.

E-Court is regarded as one of Malaysian Electronic Government project under the responsibility of Legal Affairs Division (BHEU) of Prime Minister’s Department, with the Federal Court Chief Registrar’s office as the implementing agency. BHEU plays the monitoring role over the implementation E-Court project, as well as managing the financial and physical provision for its development. The overall project is divided into four phases as outlined in Court’s ICT Strategic Plan (ISP) dated July 4, 2003, with respect to all courts throughout Malaysia. E-Court began to be developed on September 27, 2004 by a third party supplier, Solsis (Malaysia) Pte. Ltd., while KPMG was appointed as the consultant. E-Court has been implemented on a pilot basis in 11 courts and was transferred to the Judiciary for full implementation on Jan 11, 2009. For implementation in Peninsular Malaysia, the project had been awarded to Formis Network Pte. Ltd. From December 4, 2009 until December 3, 2010. The scope of the project involved are installation of Court Recording & Transcription System (CRT), development of Case Management System, development of E-Filing System (EFS), enhancement of network infrastructure, implementation of Data Center and Data Recovery Center (DRC) and provision of Office Automation and ICT Training to Courts’ staff. This project was approved by the Ministry of Finance to be extended for 3 months until March 31, 2011. The development and implementation of E-Court project in East Malaysia (Sabah and Sarawak) was awarded to Sarawak Information System Pte. Ltd. The scope of this project is the same as in West Malaysia and was completed December 28, 2010 (EGCOM Annual Report 2010). This study only covers the development and implementation of E-Court in West Malaysia only.

E-Court 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. The four applications in the civil court electronic systems are: (1) Electronic Filing System (EFS), (2) Case Management System (CMS), (3) Queue Management System (QMS), and (4) Court Recording and Transcribing (CRT).
The following illustration explains the overall view of how the systems interact with each other within the case management process:

![Figure 1. E-Court System (Interpares 2012)](image)

With the implementation of E-Court, an electronic network and communication between courts are established. The technologies in place in courts under the E-Court project consists of four modules as follows:

**E-Filing system (EFS)**

Electronic Filing System (EFS) generally allows for case filing via the internet, where legal firms file their case online through submission of applications or summons. Court will then issue the case number online, and all further document submissions to be made online. EFS is in fact the most complex system to be fully implemented. It is the creation of an automated case management information system with its various modules. The first module installed but still handled partly manually, registers the initial civil filing, enters the pertinent information into an electronic database, assigns a case number, and adds scanned copies of the accompanying documents. It also calculates fees and once these are paid (in the same building), issues a writ of summons for delivery by the attorney (or if s/he wishes by the court for an additional fee). The initial version, which required manual transfer of the relevant data to the court database, is already being replaced with “internet filing” which provides forms to the filer from which data can be extracted automatically. It was reported that 40 firms were already using this method, although it was introduced between the initial fieldwork in January and requires several additional steps to be taken by any potential user (e.g. registration of digital signature). EFS allows electronic payment of court fees and submission of documents online.

One of the few problems observed is that the EFS will continue to use the older method for assigning case numbers, meaning that cases do not receive a unique number, i.e one that is not shared by any other case ever registered anywhere in the court system. Currently, numbers are unique to each intake center but not system wide. The current system involves three numbers – one for the year, one for the issue or category of case as provided in the court manual (e.g. violent crime, uncontested divorce, civil interlocutory appeal), and a sequential number apparently corresponding only to the year (not the second issue-specific figure). A better, but no more complicated system would feature the year, the court or intake office, and the
sequential number, based on both. A fourth figure, corresponding to the general matter (Civil, Family, Commercial, Criminal, etc) could be added, but unless incorporated in the numerical sequence, is really not necessary. It might, however, help in organizing the e-archive. With this new computerized system in place, summonses are filed by a lawyer or individual through the online e-Filing System. All the necessary documents are prepared in softcopy and submitted online. Figure 2 shows the electronic filing process.

![Figure 2: Electronic filing process](image)

The e-Filing Portal is a one-stop portal for the legal community to gain access to all its needs ranging from registration of cases, filing of case documents, retrieval of service document right down to searching of case files and information including case schedules. Previously lawyers have to call the registrar for the status of their case filing. Now the e-Filing portal will send notification of any case filing status to the lawyers' email immediately upon successful registration in the e-Filing System. E-Filing was developed following from the need to improve efficiency both for the legal community and the judiciary. E-Filing allows concurrent access to case documents, 24 Hours, 7 days a week from anywhere without queuing. It consists of interactive alerts, notifications and e-mails. Once filed, the case will be managed under the Case Management System application. Queue management system 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 case management system.

**Queue Management System**

Queue Management System (QMS) is a system that allow the queuing process of daily court transaction, be made automated when lawyers/counsels register their case number in a kiosk system for daily case management. It is intended to facilitate holding of hearings by registering the arrival of attorneys, on the day the event is scheduled and letting them know where they stand in the queue. Once registered at the court, they can also leave and call in using SMS or texting from their mobile phones to verify the time they must return for the hearing. Attorneys arriving for a case management or chambers matter register at the court building, and when both parties have checked in, the hearing is placed in the next slot in the queue. If one lawyer arrives and the other does not, the former can seek out the registrar to determine how to proceed. Hearings are scheduled for the morning, but previously there was no way of knowing when or whether a hearing would be held owing to the absence of one or both attorneys. This problem has now been resolved. Attorneys interviewed in Kuala Lumpur were not sure how much time this saved them, but did appreciate the transition from the former chaos and the opportunity to do other work while waiting. Although less necessary in smaller courts, the system will be gradually expanded to them, because of the benefits for both staff and lawyers. It eventually can be used for trials as well (where the presence not only of the lawyers, but
also of other parties is required). Similar mechanisms are used in other judicial systems and are often part of a reform program. However, the Malaysian version is especially sophisticated because of the combination of electronic scheduling with the attorney’s registry of their presence. This avoids the problem of “definitive” scheduling of a hearing which will be postponed because one of the lawyers has not appeared.

**Case Management System (CMS)**

Case Management System (CMS) is a system that allows cases be managed electronically, without physical files. For cases that need for a full trial, the preparation for the trial date, including the submission of relevant documents needs to be made through this application. Some other cases that need not to be heard before judges are managed by the Deputy Director using this system and decisions made are recorded immediately in the presence of lawyer of both parties (plaintiff and defendant). Some of the most important measures of CMS have been the tightening up, through the issuance of court directives of timeframes for lawyers’ provision of documents essential to decisions on both affidavit and full trial cases. This has been the crux of the case management process and the effort to prepare cases for their hearing by judges. Additionally, courts, through their managing judge units have taken a more systematic approach to 1) assigning cases to judges; 2) scheduling hearings and other events (which lawyers ignore at the risk of a case being struck out or suffering a default judgment); and 3) setting and tracking performance targets. CMS provides opportunities for electronic workspace, access control and administration for security purposes, audit trail and activity log, document verification and authentication, document forgery detection as well as public key infrastructure and digital seal.

**Court Recording and Transcribing (CRT)**

Court Recording and Transcribing (CRT) is a smart system to record the whole process of hearing before judges in the open court, so that the whole court proceeding can be stored in audio video format for reference and long term preservation. This application also allows for automated transcription be made easily. One special feature of CRT in Malaysian Court is the use of audio video recording of its full trial proceeding, which is not been practiced in most other countries, including Singapore. This type of recording offers more advantages, such as it allows experts to review the facial expression of the witnesses or the accused while they are giving their testimony. Since the recording is regarded as public document, lawyers can have a copy of the recording to bring back to their office. If there is any complaint or dissatisfaction on part of the lawyers, they cannot make such complaint anymore alleging misunderstanding occurred during the trial. Figure 3 depicts how CRT operates in which audio-video recording is used during the court hearing, at the same time facilitates the transcript of the court proceedings. It provides live streaming over network, 5-track recording, voice activated video switching, multi-user logging of trial, single/multi-user transcribing, real-time segmentation for remote transcription, enhanced microphones, redundant recordings, and public/private modes.

![Figure 3. Court Recording and Transcribing System](image-url)
This audio video recording system allows the proceeding to be recorded fully in audio video format, saved and can 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, each one facing to the judge, the witness, the plaintiff counsel and defendant counselor.

Audio and Video conferencing

The use of audio conferencing and audio video conferencing in Case A is quite extensive. Audio conferencing is used during case management process when one or both lawyers representing a plaintiff and defendant could not come to the court for the case management session. The Deputy Registrar of Court who manages one particular case will make a cost free call to both parties from the court system, and the three parties will discuss the matter relating the case. Audio conferencing is only used for a simple transaction for example to get an agreement on a hearing date or next case management date. It is not used for complex and extensive discussions between them. On the other hand, video conference is normally used for a full hearing session presided by a judge in the open court.

Electronic legal database

With ECMS in place in Case A, the entire case files with their details are automatically captured. This information forms an electronic legal database for cases within Malaysia. IT provides an easy and quick reference point judges and legal practitioners when they need to refer to previous cases. However, for civil courts, since the databases are maintained according to court’s locations, a judge can only retrieve cases handled in his location only. Although all the entire information kept in location’s databases, they are back up in the Federal Court’s office. This means all the cases from all locations in Malaysia are available in Federal Court in Putrajaya. However they are not shared with other courts in other locations. It will be an excellent step if an effort been taken to integrate all the cases’ information in a properly maintained database and make it accessible by all courts in other locations.

Data exchange

Data exchange is a powerful mechanism to maintain social justice. Effective exchange of information is crucial for effective law enforcement. Information exchange between the police, the public prosecutions office, the courts and the prison are crucial for effective criminal law enforcement, especially for execution of sentences and other court orders. The computerization of these streams of information leads to a higher accuracy of the information and a higher speediness. The police report, proof, judgment etc. can be made available electronically to the next service in the chain. For the prosecutions service it is important to know where a suspect is being detained or to know his address accurately. In Case A, data exchange with other agencies like police, prison and immigration is still minimal. There is no comprehensive integrated system maintained by all the agencies together. Every agency maintained their own system and share certain limited information with other agencies. If other agencies need more, they have to request case by case.

Post Implementation

E-Court initiative has open up new avenue for court workflow as well as records management in Malaysian Civil courts. Although there are a number of benefits which hinge upon a few administrative issues, yet there are significant benefits that the use of technology has brought to civil courts.

The implementation of E-Court was pioneered by the Kuala Lumpur New Commercial Court (NCC). It was established on 1st September 2009 resulted 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>
<thead>
<tr>
<th>Month</th>
<th>Cases Registration</th>
<th>Case Disposal after 9 Months</th>
<th>Balance of Case after 9 Months</th>
<th>Percentage of Disposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept 2009</td>
<td>289</td>
<td>285 (June 2010)</td>
<td>4</td>
<td>98.6</td>
</tr>
<tr>
<td>Oct 2009</td>
<td>389</td>
<td>384 (July 2010)</td>
<td>5</td>
<td>98.7</td>
</tr>
<tr>
<td>Nov 2009</td>
<td>328</td>
<td>324 (Aug 2010)</td>
<td>4</td>
<td>98.7</td>
</tr>
</tbody>
</table>

Table 1. NCC Case Registration and Disposal Rate

It is evidenced that the aim to dispose new cases within 9 months from the date of registration, was achieved almost 100%. 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, with 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.

The E-Court approach towards standardization is that the courts are going to standardize all the manual processes first because that will provide them with the grounds to integrate those processes with the system. In the first step, all manuals and work procedures, and policies have been standardized for the entire country. The next step was to make the entire different jurisdiction conform to these manuals, procedures and policies through the directions from the Federal government. Other post implementation observation brings to these findings:

*Case settlement rate*

The overall case settlement rate is significantly higher than the settlement rate before E-Court implementation. One of the judge interviewed by the researcher said “It gave a new image to the judicial institution in Malaysia, which was previously labelled as slow and inefficient. Yes we were slow before, because we were left behind in terms of technology adoption, where there is no specific system that can improve our operational process. Every judge or courtroom was doing its own way. With the introduction of E-Court, the awareness and interest of staff, officials and judges in using ICT is improved. Provision of emails and internet to staff allow them to become more productive and efficient for example judges could refer to legal resources such as legal text in Arabic language via internet. It also allows them to access latest information online.”

*Coordination time/ time saving*

E-Court has become a coordination mechanism that can save a lot of courts time which was previously wasted on rework involved at the time of registration and management of cases. Today, finding the status of the case and retrieving of case records is made easily through the system.

*Case delay/postponement*

To avoid any delay in case disposal, the system is capable of sending reminder email to the registrars and judges who handle cases when a particular cases is still deferred after certain stipulated time. This automatic reminder of delayed cases leaves less room for any dropout of cases heard in courts which was always previously overlooked.

*Work process (Automatic case distribution among judges)*

Work process are becoming significantly efficient with the use of case management system. A respondent said “When cases are registered, they will be automatically scheduled and distributed between judges.” This allow for fair workload of judges in terms of number of cases they handle.

*Case backlog*

Referring to the above fact, there is no more problem in managing and verifying the case status manually. As a result, there is no more backlog of cases because cases are assigned accordingly between jurist, to ensure fair workload.

*Information security*
The use of ICTs guarantees the security of information more than before. This is because only the authorised persons to a particular case will be able to have access to it, while the case is still in hearing process. The use of E-Government smart card and digital signature leaves a very slim chance for those who do not involve in the case processing to interfere in anyway. Previously, the physical files could not guarantee it is always in the safe hand since they need to be carried around physically.

**Trust in the system**

The use of information and communication technologies has brought transparency to the judiciary system in Malaysia. This transparency brings back the trust of people to the judiciary.

**CONCLUSION**

The Malaysian Judiciary has been putting its utmost effort to achieve efficiency in justice dispensation to the citizen through the use of information technology. Case disposal statistics shows that this effort is worth taking. However, there are still many issues and challenges that need to be tackled. In terms of technology adoption, the biggest challenge for courts to move forward is in human resource issues. For a court registry, the lack of expertise who knows both registry office and information management standards becomes the first hurdle in implementing change. In summary, E-Court initiative has significantly improved court workflow as well as records management in Malaysia, where most of the core businesses of courts are automated and many advanced technologies are applied and in place. However it needs to be acknowledged that the major challenges of E-Court are to introduce standardization, practice, technology and strategy.

**REFERENCES**


E-Shariah Implementation Synopsis (2005), Malaysian Shariah Judiciary Department, Percetakan Nasional Malaysia Berhad, Kuala Lumpur.


