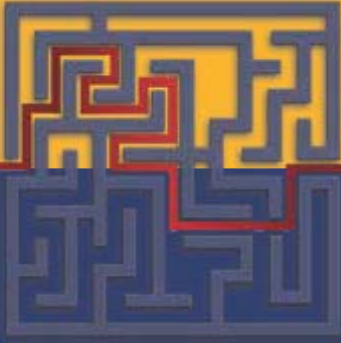


# Improving court efficiency: the Republic of Korea's e-court experience



- Korea was a pioneer in using electronic features to streamline court processes, launching electronic case management in the mid-1980s.
- The electronic case filing system—which allows for electronic filing of civil, commercial, administrative and family-affairs cases and will soon integrate insolvency cases—began operating in 2010, and by June 2013 almost half of civil cases were e-filed.
- E-court solutions in Korea mainly encompass features to help judges, facilitate the filing of cases for litigants and inform the public about case outcomes.
- Savings from the implementation of e-court systems can be substantial and result from a reduction in the use of paper, the time spent in court, the need for storage space, as well as easier archiving of documents and a general streamlining of processes and services.

Fair, speedy trials are essential for small enterprises embroiled in disputes. If business disputes take months or even years for courts to resolve, small firms might not have the financial strength to stay in business that long, regardless of trial outcomes.<sup>1</sup> In such cases justice delayed is justice denied. Though small and medium-size enterprises usually try to avoid going to trial, effective contract enforcement systems matter for them.<sup>2</sup> Efficient courts and enforcement reduce informality, improve access to credit and increase trade.<sup>3</sup>

E-government has been adopted by policy makers around the world to increase efficiency. Korea ranks first in the world on the E-Government Readiness Index, a composite measure of the capacity and willingness of economies to use e-government for development.<sup>4</sup>

An e-court is a suite of services that entails minimum use of paper from the moment a case is filed until its disposal. With e-courts, information is captured and passed on digitally, data exchange is not fragmented and case histories are complete and ready on demand, case management is automated, correspondence is exchanged electronically, fee payments are dealt with through dedicated websites and forms that simplify and streamline court proceedings are available to court users online. In Seoul attorneys and litigants can file lawsuits electronically. Lawsuits are automatically registered through the electronic case filing system, and then assigned to a judge who can access the corresponding files, organize and schedule cases and start processing claims.

## THE COMPUTERIZATION OF KOREAN COURTS

For Korea efforts to achieve well-functioning e-courts started in the late 1970s, when visionary judges sought to create an orderly database of cases flowing through courts. After a group of judges started recording some cases on floppy disks, in 1979 the judiciary contacted the Korea Institute of Science and Technology to study the feasibility of electronic judicial proceedings. Convinced of the benefits of using information technology in courts, judges started creating more advanced databases and developing case management software.

Before word processing software was introduced in the early 1980s, Korean judges faced challenges such as writing judgments by hand and otherwise dealing with a paper-based system. Though some judges lacked basic information technology skills, Korea decided to start streamlining court processes through computerization. Efficient processes, increased transparency and better accessibility sought to increase public trust in the judiciary.

In 1986 the case management system was launched. This platform enabled internal court users such as clerks and judges to search all civil cases in the database. It was not easy to convince court users to change how they worked. But the new system had the potential to help judges deal with their caseloads more efficiently. Korea invested considerable resources in making the system as efficient and user friendly as possible.

A master plan for creating e-courts was then conceived and the case management system expanded and shifted from a client and server system (a centralized server accessible only in specific locations) to a web-based system (accessible through a web browser), allowing external users to search the database of cases. In addition, electronic signatures and digital certificates (for safety) were added to the system and—thanks to a nationwide information network—immediate national data on court activities became available, allowing for better resource allocation in courts.

E-filing of cases ensures better recording and faster processing. In 2010 Korea launched the electronic case filing system, which enables electronic submission, registration, service notification and access to court documents. To implement this system, Korea had to modernize its information technology infrastructure and amend laws and regulations to shift to paperless approaches. The system allows for e-filing of civil, commercial, administrative and family-affairs cases, and will soon integrate insolvency cases. It enables some judges to adjudicate up to 3,000 cases a year, manage up to 400 a month and hear up to 100 pleas a month.<sup>5</sup>

### CHALLENGES WHEN TRANSITIONING TO E-COURTS

The popularity of a new system depends on its user friendliness, and it is sometimes difficult to anticipate the needs of users at the design stage—in this case, if technicians are not familiar with legal proceedings or if judges are not well-versed in information technology. According to a Korean judge, “The users are the heart of any judicial [information technology] system; to develop any such system efficiently you must know what the people want, what they need.”<sup>6</sup> In other words, a step-by-step approach should gradually implement the desired system. Korea did not go paperless immediately; it started with paper-on-demand to allow users to adapt and then moved to a paperless system.

Despite the system’s sophistication, Korea has a long way to go in changing the mindset of lawyers and court users. Among Korea’s 50 million inhabitants are about 12,500 lawyers, 40% of whom

are registered with the system—but only 20%, or approximately 2,500 attorneys use it regularly. In 2012 lawyers filed just over a third of the nearly 1 million cases electronically. Every month more attorneys are using the new system, attracted by its convenience, including:

- 24/7 access to registries and court documents.
- Easier, faster access to information that no longer requires a trip to court.
- Increased transparency because litigants can also access the system.
- Document security, guaranteed by a high-tech information technology system.

Convincing users to transition to e-filing requires training and adjustment on both sides of the electronic platform. It might also require financial incentives. For example, Korea recently cut court fees by 10% for lawyers who use e-filing. An electronic docket viewer that allows lawyers to manage multiple lawsuits in different jurisdictions was also implemented.

Another challenge was to secure funding to maintain and enhance the system. Korea invested about \$20 million in developing the e-court system, and about as much will be needed to integrate new features by 2015. Maintenance fees and data preservation cost about \$30 million a year. In 2012, of the \$1.8 billion budget for the

Korean judiciary, \$180 million went to information and communication technology.

The return on investment from computerizing the judiciary cannot be quantified in a single way. Research on courts in the U.S. state of New York found that reducing the need to travel to a courthouse and eliminating the requirement to serve the opposing party could save \$75–95 for each document.<sup>7</sup> Given the number of cases e-filed per year, the savings are significant. E-courts can also help level the playing field between small and large law firms, especially because small firms have fewer staff and benefit more from not having to visit courthouses.<sup>8</sup>

### FUNCTIONS OF THE E-COURT SYSTEM

Approaches to e-courts vary by economy depending on the priorities of the judiciary. The tools available to court users in Korea have regularly expanded (table 9.1). The system now mainly encompasses features dedicated to help judges (case management system and judge support system), facilitate the filing of cases for litigants (e-filing) and inform the public (publication of cases).

In the two months after the launch of the e-filing system for civil cases approximately 5% were filed electronically. This

TABLE 9.1 Korea’s courts have a range of features and support systems

Case Management System		E-courts System	
		ECF	E-Courtroom
<ul style="list-style-type: none"> <li>• Docket System</li> <li>• Case Allocation System</li> <li>• Case Filing System</li> <li>• Calendaring System</li> <li>• Service System</li> <li>• Payment System</li> <li>• Deposit System</li> <li>• Case Files Archiving</li> <li>• Common Service System</li> </ul>		<ul style="list-style-type: none"> <li>• Electronic Money Claim</li> <li>• Electronic Entrusting</li> <li>• Electronic Property Inquiry</li> </ul>	<ul style="list-style-type: none"> <li>• Standard E-Courtroom</li> <li>• Audio Video Recording, Video-Conferencing</li> </ul>
Judge Support System		Public Information Service	
<ul style="list-style-type: none"> <li>• Case Workflow System</li> <li>• Groupware</li> <li>• Decision Support System</li> <li>• Law Search</li> </ul>		<ul style="list-style-type: none"> <li>• Court Homepage</li> <li>• Case Information</li> <li>• Certificate Issuance</li> <li>• Law Search</li> <li>• Self Help Center</li> </ul>	
Information Exchange			

Note: ECF means Electronic Case Filing.  
Source: Presentation from the Supreme Court of the Republic of Korea.

number almost decupled in 18 months (figure 9.1). In fact, two years later, in June 2013, that share had soared to more than 45%.

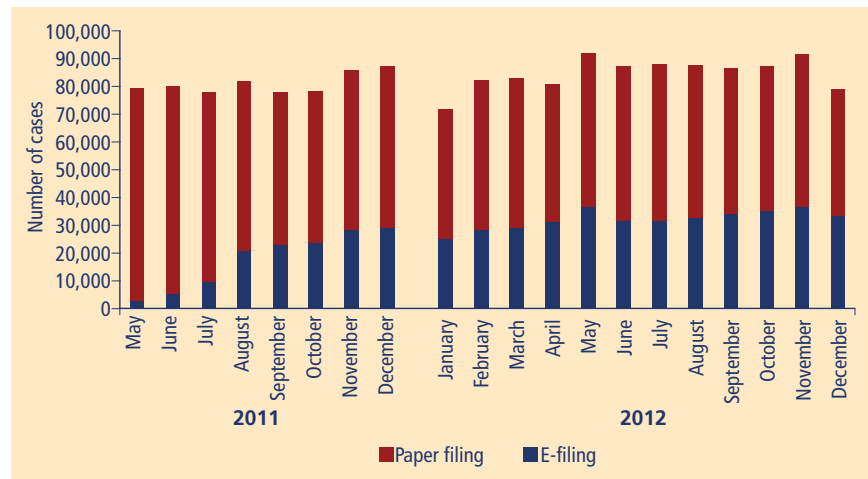
To further streamline procedures, a system facilitates payment of all submission fees electronically using credit card or wire transfers at the time of filing. In addition, users are notified by e-mail or text message of any submission of additional documents by the opposing party. And after the case allocation system assigns cases, the designated judge and the attorneys can view all their cases online, including PDFs of all documents filed in a given lawsuit.

Online help centers featuring frequently asked questions and tools for pro se litigants were also created to allow the public to get fast answers on questions about the Supreme Court and its processes.<sup>9</sup> One of the most important components of these help centers is the self-represented litigation homepage, which provides information and templates needed to file a case and respond to claims of counterparties without the help of a certified lawyer.

For judges, the support system includes four main features:

- The case management system, which allows judges to organize their work based on the status of procedures and to separately manage cases for which special measures are needed.
- “My case history,” which allows judges to track cases they have disposed and the final determination of the cases.
- A scheduling system to organize cases by day, week or month that is integrated with the court registry.
- A writing support system with features such as automatic document formatting, multiple judgment editing in small cases and collaborative decision writing in panel cases. This system automatically creates a draft of the final judgment after the relevant case and desired template have been selected. Once completed, judges enter a digital signature and register the decision in a searchable database of judgments.

**FIGURE 9.1** Civil cases filed under Korea’s e-litigation system jumped between May 2011 and December 2012



Note: Refers to first instance cases.

Source: Supreme Court of the Republic of Korea database.

## BENEFITS OF E-COURTS

Research in the United States has found that more than 80% of judges consider e-filing superior to paper-based filing.<sup>10</sup> E-courts make claim processing faster, more reliable and convenient, minimize courthouse visits and reduce record storage and reproduction costs.

### Cost and space savings

The implementation of Korea’s e-court system resulted in savings of \$221 per e-filing.<sup>11</sup> These savings result from a reduction in the use of paper, the time spent in court, cheaper service of process, lower transportation costs, easier archiving of documents, and easier payment of fees.

In terms of space savings, in 2008 in Chicago, Illinois a paper document filing took up to 5 days for a circuit court clerk to process, whereas e-filing took just 4 seconds.<sup>12</sup> And given that courthouses are expensive storage spaces, eliminating several miles of archives can save a lot of money. A courthouse can cost \$300 or more per square foot to construct, and maintenance can be expensive too.<sup>13</sup> In the United States it costs \$360,000 to build and \$18,000 a year to heat, cool and maintain a 20 by 60 foot file room—assuming a low maintenance cost of 5%.

By comparison, a 150 gigabyte hard drive costs less than \$100 and has storage capacity equivalent to 70 filing cabinets. That many filing cabinets, with the floor space required, cost \$22,000.<sup>14</sup> The U.S. National Center for State Courts offers tools to estimate savings from e-courts.<sup>15</sup>

### Security

Computerized court systems also make archives more secure. Risks such as document loss, files being stolen and archive destruction can be significantly reduced or eliminated. E-filing minimizes the costs of these risks, especially because paper documents can be misfiled or stolen. Though it is possible to recreate court files from litigant copies, this approach is inefficient.

Electronic storage reduces these risks. For instance, an e-filing system can improve file security and confidentiality by making it easier to restrict access to case files or documents sealed by court order. In addition, electronic files can be encrypted, providing additional security.<sup>16</sup>

### Transparency

E-courts can also enhance transparency. By making judicial decisions more transparent, more trade and investment is likely, fostering economic growth.<sup>17</sup> Publishing the cases rendered in a jurisdiction

allows attorneys and court users to better understand case law and increases legal predictability. Making decisions available to the public online also helps make judges more accountable because anyone can comment on and assess the quality of decisions. In the United States case information, including docket sheets and filed documents, are provided online for viewing and downloading by attorneys and the public at any time from locations other than the courthouse.

In some countries e-filing systems can also fight corruption. If formal procedures are streamlined and attorneys are no longer required to file claims in person, there is less traffic in courthouses—reducing opportunities for bribery.<sup>18</sup>

### Access to justice

E-court services significantly extend the availability of justice, as with a 24/7 system for filing, registration and auctions.<sup>19</sup> Moreover, providing remote access to judges makes the system convenient and efficient. Most systems employ extensive security to mitigate tampering with the integrity of files. Singapore's system, in addition to providing full remote access to judges, has a "pack and go" feature that allows court files to be transferred to CD-ROMs or USB memory devices for offline use.

E-courts can also aid cases where geographic distance makes it difficult for parties to attend, making videoconferencing a pragmatic solution. While some trials last only about 30 minutes, advocates often must spend a lot of time traveling. Thus videoconferencing saves time and money. In the United States, it was estimated that about \$900 could be saved per trial by not having to pay for transport fares, accommodations and related allowances. In other economies poor infrastructure makes it difficult to travel between cities, justifying an investment in such information technology.

### SHARING GOOD PRACTICES THROUGH PEER LEARNING

According to *Doing Business*, in Seoul resolving a standard contract enforcement dispute takes 230 days, 33 procedures

and costs 10% of the claim—making Korea the runner-up in *Doing Business's* ease of enforcing contracts ranking. By contrast, it takes 400 days, 36 procedures and 29% of the value of the claim in Vietnam; 842 days, 37 procedures and 26% of the value of the claim in the Philippines and 622 days, 38 procedures and 35% of the value of the claim globally. Contract enforcement is faster in economies with e-filing (figure 9.2).

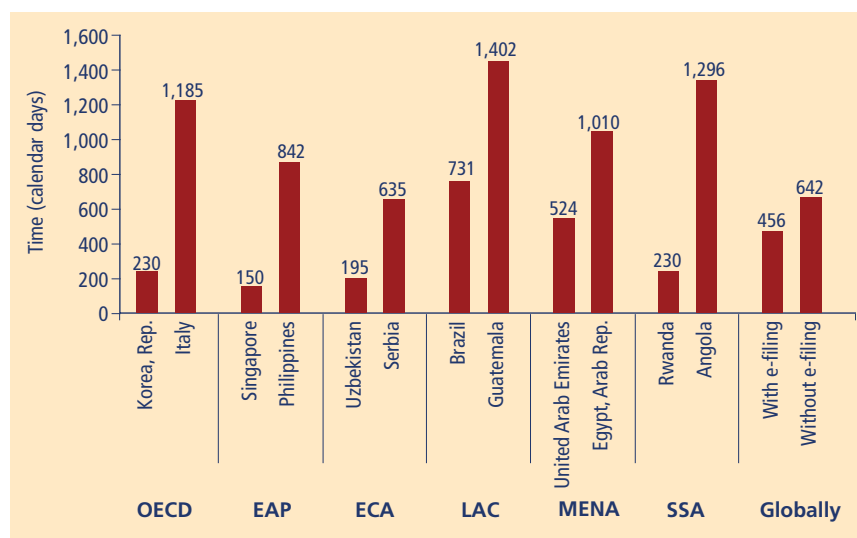
Concerns about budget and technology limitations are among the most common reasons for not implementing e-court features.<sup>20</sup> That should not prevent less developed economies from looking into e-courts. E-courts can be implemented with donor assistance, and reforms can be inspired by peer learning from leading economies.

Malaysia, with an income per capita half that of Korea's, has been implementing an ambitious upgrade of the computerization of its courts. In late 2008, with the appointment of a new chief justice, Malaysia initiated reforms targeting judicial delays and court backlogs that included two information technology contracts totaling \$43 million. The program introduced court recording and transcription

equipment and launched an e-filing system and electronic case management system that automated manual processes, provided courts with registries of case filings and events and introduced modules to handle e-filing, schedule hearings and the like. The new equipment is expected to expedite hearings and reduce back-office processing.<sup>21</sup>

Rwanda and Tanzania, two countries with income per capita below \$1,000, have also started computerizing their courts. Tanzania's project received funds from several donors and provided the judiciary with modern information technology—including computers and digital court recording equipment—and training for judges and staff. Computerization has had many benefits, such as improving the quality of research by judges.<sup>22</sup> Rwanda's Strategic Plan of the Supreme Court has recruited new court officers well trained in the use of information technology. Thanks to donor funds, the country now has an e-filing system, electronic records management system and legal information portal.<sup>23</sup> According to data collected for *Doing Business 2014*, Rwanda and Tanzania are top performers in Sub-Saharan Africa in the ease of enforcing contracts ranking.

FIGURE 9.2 Globally, contract enforcement is faster in economies with e-filing



Note: OECD = OECD high income; EAP = East Asia and the Pacific; ECA = Europe and Central Asia; LAC = Latin America and the Caribbean; MENA = Middle East and North Africa; SSA = Sub-Saharan Africa.

Source: *Doing Business* database.

Through its involvement in the Asia-Pacific Economic Cooperation forum, Korea has helped improve the region's business regulations.<sup>24</sup> Korea, named a "champion" in judicial reform by APEC, has invested significant resources to help countries such as Indonesia, Peru, the Philippines and Thailand improve contract enforcement. A Korean delegation visited partner economies in 2011 to review systems and procedures for enforcing contracts and proposed reforms based on its experience in expediting court proceedings. In addition, peer-learning events were held to focus on improving such systems. Together these events attracted more than 200 participants, including judges, attorneys, professors and government officials. In addition, in 2011 the Korean government brought together legal experts and high-level policy makers to discuss the future of those economies' systems for enforcing contracts.

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## LESSONS

Experiences with e-courts in Korea and elsewhere show that:

- The system must be user friendly and adapt in response to comments from users; a thorough needs analysis is required.
- The information technology budget

should take into account costs of data preservation and system maintenance.

- Users should receive adequate training.
- Cases covering various subject matter should be integrated.
- Systems in other economies can offer useful guidance.

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## NOTES

This case study was written by Julien Vilquin and Erica Bosio.

1. Kingston 2000; *Doing Business 2012*, enforcing contracts chapter.
2. Kingston (2000) found that only about 20% of the responding small and medium-size enterprises using courts to defend their patents actually went to trial.
3. Dabla-Norris and Inchauste Comboni 2008; Safavian and Sharma (2007), in a study on Eastern Europe, found that in economies with slower courts, firms tend to have less bank financing for new investments. Duval and Utoktham (2009) found that simplifying contract enforcement procedures increases bilateral trade.
4. UNDESA 2012.
5. Interview with Korean Judge Hoshin Won, who has been active in promoting e-courts.
6. Ibid.
7. Pfau 2011. A conservative estimate for New York, with \$40 in savings for each document and 4 million cases filed electronically each year, would save the private sector and government hundreds of millions of dollars a year.
8. Pfau 2011.
9. Pro se legal representation means advocating on one's behalf rather than being represented by a lawyer.
10. The National Judicial College, Judicial Survey: Electronic Filing in U.S. State Trial Courts.
11. This amount is the result of calculations provided to the *Doing Business* team by the Supreme Court of Korea.
12. Chicago Bar Association Task Force on Green Courts Initiative for the Circuit Court of Green County 2008.
13. Ibid.
14. McMillan, Pettijohn and Berg 2012.
15. National Center for State Courts 2013. <http://www.ncsc.org/information-and-resources/budget-resource-center/calculators.aspx>.
16. McMillan 2010.
17. Hayo and Voigt 2008.
18. Djankov, La Porta and others 2003.
19. Horowitz and Zorza 2006; Mapp 2008.
20. The National Judicial College, Judicial Survey: Electronic Filing in U.S. State Trial Courts.
21. World Bank 2011a.
22. Ramadhani 2010.
23. International Records Management Trust 2011.
24. See the case study on APEC economies in World Bank Group (2012).