Information Management in Asia
- E-Disclosure System Development and Issues-

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Table of Contents

1. Development of Electronic Disclosure System
2. Electronic Disclosure System in Asia
3. Main issues and Implications for Asia
1. Development of E-Disclosure System

1) Centralized E-Disclosure system
   a) US: EDGAR (Electronic Data Gathering, Analysis, and Retrieval)
      ▶ Pilot program started in 1984
      ▶ Launched in full phase in 1996
      ▶ Accepts, stores, and disseminates securities filings in electronic files
      ▶ Dramatically improved the accessibility and ease of the use of the disclosure information
      ▶ Drawback: difficulty in finding relevant data and information
      ▶ Evolving into the next generation system IDEA (Interactive Data Electronic Applications)
      ▶ Adopted XBRL

1) Canada: SEDAR (System for Electronic Document Analysis and Retrieval)
   ▶ Pilot program started in 1993
   ▶ Launched in full phase in 1997
   ▶ Accepts, stores, and disseminates securities filings in electronic files
   ▶ Adopted XBRL 2007

1) Israel: MAGNA (Electronic Fair Disclosure System)
   ▶ Launched in 2003
   ▶ Accepts, stores, and disseminates securities filings in electronic files
   ▶ Adopted XBRL 2008
### 1. Development of E-Disclosure System

#### 2) Decentralized E-Disclosure system
      - Ensure appropriate transparency for investors
      - Rules on disclosure of information (such as deadlines, content, formats, languages etc.)
      - Dissemination of information to the public and the competent authorities, ensuring fast access on a non-discriminatory basis
      - Member State to establish or appoint at least one officially appointed storage mechanism (OAM)
      - Establish interconnection/network of these OAMs across the member States -> One stop shop for end users
      - Liability of issuers regarding disclosed information

#### b) OAMs in Europe
   - OAMs are operating in all Member States, run by the regulator or national stock exchange (business register, official journal etc.)
   - Issuers often use intermediaries or commercial data disseminators to manage their filings to both OAM and other agencies through system-to-system interface
   - Very low volume of end user access through OAMs
   - OAMs supplement and are often integrated with stock exchange and regulatory information filing services and systems, not acting as a replacement repository for regulated information
   - Very limited pan-European integration of OAMs: Connection through ESMA MIFID Database
1. Development of E-Disclosure System

<table>
<thead>
<tr>
<th>Member State</th>
<th>CAM-Operator</th>
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<tbody>
<tr>
<td>Austria</td>
<td>Oesterreichische Wertpapierdepot</td>
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<td>Belgium</td>
<td>Competent Authority</td>
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<td>Bulgaria</td>
<td>Competent Authority</td>
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<td>Cyprus</td>
<td>Stock Exchange</td>
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<td>Czech Republic</td>
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<td>Finland</td>
<td>Stock Exchange</td>
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<td>France</td>
<td>Official Journal</td>
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<td>Germany</td>
<td>Company Register</td>
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<td>Greece</td>
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<td>Slovenia</td>
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<tr>
<td>Switzerland</td>
<td>Stock Exchange</td>
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<td>Sweden</td>
<td>Competent Authority</td>
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<tr>
<td>United Kingdom</td>
<td>ole Group Limited (private entity)</td>
</tr>
</tbody>
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2. Electronic Disclosure System in Asia

1) Korea: DART (Data Analysis and Retrieval)
   - Pilot program started in 1993
   - Launched in full phase in 1999
   - Accepts, stores, and disseminates securities filings in electronic files
   - Adopted XBRL 2007

2) Japan: EDINET (Electronic Disclosure for Investor’s Network)
   - Pilot program started in 1998
   - Launched in full phase in 2004
   - Accepts, stores, and disseminates securities filings in electronic files
   - Adopted XBRL 2008
2. Electronic Disclosure System in Asia

3) Singapore: E-Services
   - Launched in full phase in 2004

4) Hong Kong SAR: HKEXNEWS and ESS (E-submission System)
   - Launched in 2001
   - Accepts, stores, and disseminates securities filings in electronic files

5) Thailand: SET Information System
   - Not fully operational
   - Not mandatory

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2. Electronic Disclosure System in Asia

6) Philippines: ODISY (Online Daily disclosure System)
   - Launched in full phase in 2005
   - Accepts, stores, and disseminates securities filings in electronic files

7) Taiwan: MOPS (Market Observation Post System)
   - Launched in 2002

8) PRC and Malaysia: Electronic filing and disclosure system run by stock exchanges

9) Viet Nam: under the process of building information disclosure system, funded by the Government of Luxembourg
3. Issues and Implications for Asia

1) Issues
   a) Centralized model vs decentralized model
      ✓ Efficiency vs stability
      ✓ Reflecting the financial market development history and circumstances
   b) Regulatory gap
      ✓ Relevant authority with supervisory power
      ✓ Regulated information management and control
   c) IFRS (International Financial Reporting Standard) and XBRL:
      ✓ Standardized information for global investors
      ✓ Potential linkage with other disclosure systems globally
   d) Accessibility of information
      ✓ Investor/end user education
      ✓ Easy data search and processing

2) Implications for Asia’s developing economies

   Efficient and Reliable E-Disclosure System

   - Issuer Needs:
     - Cost efficiency
     - One stop filing
     - Standardization of filing format

   - User Needs:
     - Accessibility
     - Reliability of Data
     - Timeliness
     - Transparency
     - Easy processing of data
     - Cost efficiency
     - Consideration for all user groups

   - Regulator Needs:
     - Reliable data storage
     - Accuracy and reliability
     - Easy and comprehensive access to relevant information
     - Timely

   Sound Infrastructure
   - Security and stability: back-up system, firewall
   - Legal and regulatory framework
   - Internal information control and management
3. Issues and Implications for Asia

2) Implications for Asia’s developing economies
   a) Prerequisites
      ✓ Stock market established and operated stably based on macroeconomic stability, policy credibility and sufficient number of firms
      ✓ IT infrastructure foundation
   b) Meeting the needs of users
      ✓ Issuer, user, and regulator needs
   c) Proper legal and regulatory framework
   d) Security and stability: data back-up, firewall, internal information control and management
   e) Global standard
      ✓ XBRL along with IFRS
      ✓ Network with disclosure systems in other jurisdictions

Thank you.

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