E-business Adoption by Micro and Small Enterprises: Comparative Analysis of e-Leadership Strategies
E-Leadership Key Elements

- E-Business is a powerful business tool to help SME increase market visibility, improve access to clients, reduce transaction and administrative costs and contribute to their competitiveness.

- The key elements of this leadership involve
  - Development of a long-term, sustainable and scalable e-business vision for at the national and regional levels
  - Development of programs to build awareness that empower businesses and markets to integrate new technologies into their business activities
  - Establishing a legal framework to facilitate the digital economy
  - Creating e-government platforms that facilitate business transactions with public institutions
  - Facilitating mechanisms for financing e-business initiatives
  - Enhancing knowledge, and local content development
  - Supporting e-business technical skills
Australia

- Context
- Program Description
- Program Structure
- Outputs
Context

- There are almost one million Australian small to medium businesses
- They make a significant contribution to the nation's revenue and account for almost 5 million members of the workforce.
- 55 per cent of SMEs versus 85 per cent of large businesses were online in 2000
- Robust and globally recognized regulatory framework for electronic commerce

Sources: Australian Bureau of Statistics, Nielsen / NetRatings, eMarketer and NOIE (National Office for Information Economy) and *Australia Online 1st Qtr 2003 Statistics*
Program Description

- **E-Business vision**
  - Narrow the e-business adoption gap between small and large firms
  - Long term strategy – Announced in 2001
  - Over US$6 million allocated to accelerate e-business adoption by MSME and promoting B2G

- **Participative leadership & Coordinated strategy**
  - Ministerial forum for coordinated policy approaches at national and local government levels
  - NOIE - Australia’s lead Government agency for information economy provides leadership
  - Consults with national and local agencies on matters of common interest
  - Council of Commonwealth, State and Territory ministers responsible for information economy

- **Builds awareness**
  - Identify inhibitors for e-Business adoption by MSME
  - Informs firms on e-business practices to adopting e-business
  - Case studies and Fact sheets on e-business uptake by MSME
  - Web portal that serves as a e-Business guide
  - Influences standards, technology, market forces and regulatory framework

- **Focus on implementation**
  - Focus on results
  - AUD $9.4 million Grant Program (ITOL) to foster collaborative industry based projects to accelerate the adoption of B2B e-commerce solutions
  - Facilitate online access to Government purchasing

- **Benchmarking**
  - Yellow Pages Business Index - *E-Business Report*
Program Structure

Department of Communications, Information Technology and the Arts

NOIE (National Office for the Information Economy)

E-Business Branch
Mr. Ashley Cross, Manager

Creating an E-business culture

Case Studies
E-business adoption by SMEs

Broadband for SME Case Studies and Brochure

Identify barriers to adoption e-business by SMEs

E-businesguide.com

Developing an E-business market

ITOL Grant Program (1996)

• Collaborative industry
• Over $9.4 million allocated to 94 projects across a diverse range of industry.
• Provides funding on a competitive basis using a merit selection process

Sector Facilitation

• Identify critical points for e-commerce adoption sectors
• Work with key businesses to build projects that have an impact on critical points in the value chain
• Key sectors are Financial Services, Health, Transport, Education, Food & Agribusiness, Legal Services, Manufacturing

Promoting an E-business environment

E-Security Case Studies and Guide

• Confidentiality
• Integrity
• Availability

Interoperability for e-business

• Pilot B2B Registry Service and SME Integration Toolkit
• Best Practice Supplier Enablement for e-Catalogue Management
• Supply Chain Proof of Concept

External Users

Mr. Ashley Cross, Manager
Information Technology Online Program  
(ITOL Grant Program)

- **Collaborative B2B E-Commerce solutions**
  - Within and across a wide range of industry sectors, especially by clusters of MSMEs
  - Web portals, Supply chain management, Data warehouse, Security solutions, Industry network (extranet), Applied solutions (online technology to provide solutions to everyday problems, Standards setting, and Training and Research)

- **Seed Funding**
  - Grant recipients are a multi-partner alliances (Consortia)
  - Consortia are made up of a wide range of industry sectors especially by clusters of MSME (63% between private sector)
  - Consortia obtain funds from partner organizations that cover from 21% to 40% of the total project cost
  - Over US$7 million allocated to more than eighty projects
  - Grants ranged from US$3,500 to US$145,000

- **Success Factors**
  - 148% increase in grant applications received from 60 in Round 3 to 149 in Round 6
  - Raising awareness and understanding of e-Commerce
  - Key players in the industry for which the B2B e-commerce solution is being proposed

Source: The following data is based on an analysis of the 67 ITOL projects funded in the first five years only of the program’s operation, i.e., during fiscal years 1996 to 2001. NOIE, Forging and Managing Online Collaboration: The ITOL Experience. School of Information Systems Footscray Campus, Victoria University and Macquarie Graduate School of Management, Macquarie University. Both universities analyzed the Grant Program using quantitative and qualitative methods including organization studies, interviews with ITOL and NOIE personnel, analysis of ITOL project files, a survey sent to all 67 ITOL grant recipients with a response rate of 52%
Outputs

**Quantitative**
- **PCs** - 91 per cent of micro and small businesses
- **Internet Access** - 81 per cent in 2003 versus 5 per cent in 1995
- **Website** - 36 per cent of small business and 15 per cent of very small business in 2003 versus per cent in 2000
- **E-purchases (**) - 47 per cent in 2003 versus 11 per cent in 2000
- **E-sales (**) - 32 per cent in 2003 versus 7 per cent in 2000
- **Return on Investment (**) - Over 50% for 22 per cent of business
- **E-Commerce Revenues -** AUD $11.3 billion revenue

**Qualitative**
- Increasing awareness among small businesses
- Pilot - tested innovative e-commerce models
- Real case studies of small businesses in Australia
- Main e-selling at the local level—same city or town (76 per cent versus 46 overseas)
- Main e-selling is done to other small business in the same city or town (49 per cent)
- Major concerns about e-commerce among MSME is e-security (42 per cent)
- 46 per cent believe Industry Associations are an important source of information or advice

Source: Yellow Pages Business Index, May 2003

(*) E-purchases – Pay for services and/or good over the Internet / E-Sales – Receive payments over the Internet

(*) ROI – Base: Recovered initial investment from e-commerce strategy
Canada

- Context
- Program Description
- Program Structure
- Outputs
Context

- Small and Medium Enterprises
  - Deliver 60% of Canada’s economic output
  - Generate 80% of national employment
  - Offer 85% of new jobs

- Good investment climate

- Advanced infrastructure

- Highly educated and IT literate workforce

- e-Commerce adoption and use continues to lag behind Canada’s principal trading partner, the United States
Program Description

- **E-Business Vision**
  - Lag of e-business adoption by SME have long term effects that undermine Canada’s efforts to create a more innovative and competitive national economy
  - Long-term strategy – Announced in 2002 with the establishment of the Canadian e-Business Initiative
  - $US 500,000 / year (70% Federal Government / 30% CeBI members)

- **Participative leadership**
  - Public-private sector partnership focused on productivity, leadership and innovation
  - Over 40 business, government and academic leaders from across Canada
  - Two co-chairs, with a two-year mandate, and selected by the Executive Committee
  - Executive committee is the strategic body comprised of the co-chairs, the team captains and a representative of the secretariat.
  - Work occurs through product-driven teams

- **Product-Driven Teams**
  - Awareness - e-Business engagement and Online Privacy and Security
  - Implementation – e-Business Transformation
  - Environment – e-Business Investment Climate and Branding

- **Benchmarking**
  - Net Impact Study Canada, SME Experience
  - Annual summit hosted by the CeBI co-chairs and the Minister of Industry to release Canada’s e-Report Card, which will assess the state of e-business in Canada and set future priorities for the initiative
  - Annual e-Business Leadership Awards Gala to review the results of CeBI initiatives to-date and evaluate effectiveness in addressing the e-business information needs of SMEs.
Program Structure

Industry Canada

Electronic Commerce Secretariat
Mr. Richard Simpson, General Director

Canadian E-business Initiative (CeBI) Secretariat
Full-time Employees (3 people)

Executive Committee - 9 members
Advisory Board - 40 members
Teams - 100-150 members

Canadian Business Service Centers Secretariat

E-Business Service Centers

Student Connections

EBiz.enable.com
900,000 users

E-Business Suppliers Team

E-Talent Issues for SMEs

Benchmarking & Metrics
Investment Climate
Branding

Projections Discussions Currently ongoing on creation of new teams

Objective: $5 million to develop e-Corps at the National level with 500 SMEs

Industry Association Team

E-Corps

Approximately 60 CBSCs
20,000-30,000 SMEs

$500,000/year
70% Federal
30% CeBI Members

$500,000/25% SME
75% Federal
Government – 50 Interns & 50 SMEs

Industry Association Team

Online Privacy & Security
E-Business Engagement

Cebi.com

Approximately 60 CBSCs
20,000-30,000 SMEs

$4-5 million/year
50,000 SMEs

$500,000/year
70% Federal
30% CeBI Members

$500,000 (25% SME
75% Federal
Government – 50 Interns & 50 SMEs

$4-5 million/year
50,000 SMEs

12
Business Service Centers

- **Structure**
  - Cooperative arrangement among 37 federal business departments, provincial, territorial governments and, in some cases, the private sector, associations, academic and research communities
  - A National Secretariat, located in Ottawa, is responsible for supporting the Canada Business Service Centers and maintaining the technical network, information databases and products.

- **Outreach**
  - 13 CBSCs around the country with approximately 500,000 SMEs using the services
  - 74% of the users are start-up or potential businesses

- **Funding**
  - Combination of several Canadian government agencies
  - $75 million over five years (from 1999–2000 to 2003–04) renewed for the following five years

- **Services**
  - Available by telephone, fax, mail, e-mail, on the Web, and in person. All free of charge
  - Key CBSC products include:
    - The Business Start-Up Assistant—Web site guide to start a business
    - Interactive Business Planner—Online Small business planning software to prepare a business plan
    - Online Small Business Workshop—Web-based workshop that provides techniques and information for developing a business idea, starting, marketing and financing a new venture and improving an existing small business
    - Info-Guides—Brief overviews describing different topics (e.g., exporting, electronic commerce).
    - Business Information System (BIS)—Database 1 000 documents that describe business related programs, services and selected regulations of the government of Canada.
Outputs

- **Quantitative Outputs**
  - 50.2% currently using or implementing internet business solutions (approximately 1 million SMEs in Canada)
  - Revenues increased by 7%
  - Costs of good s decreased by 9.5%
  - Sales, general and administrative sales costs decreased by 7.5%
  - Internet Access – 63 per cent in 2000 versus 73 per cent in 2002

- **Strategic Enhancement**
  - **e-Business Skills Supply**
    - 22% of MSMEs that adopted any type of e-business solution cannot find people with the technical skills to help them
    - 40 per cent of adopters and 45 per cent of non-adopters point to employee training as a barrier to e-business
    - The CeBI is addressing this issue through Case Studies, Research and Statistics
  - **e-Corps (2002)** - 50 internship pilot project for graduates to intern for four-month period
  - **e-Corps (2004)** – US$ 5 million from Federal Government for 500 internships at the country level

- **Privacy and Security Practices**
  - Canadian bankers association, Canadian chamber of commerce and local chambers, and the Canadian Institute of Chartered Accountants (CICA) launched initiative to address the privacy and security gap.

- **Uncertainty about Return on Investment**
  - Lack of affordable and scalable e-business products and services.
  - Commercial attempts to engage MSMEs in e-business through e-marketplaces or digital exchanges such as Procuron Inc. that have made only moderate progress.
  - Cooperation among IBS vendors, industry associations, and industry leaders can help accelerate e-business adoption

Financial Impact of e-Business on Revenue

<table>
<thead>
<tr>
<th>Sector</th>
<th>% Increase So Far</th>
<th>% Further Increase Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Sector</td>
<td>10.2%</td>
<td>2.9% 13.1%</td>
</tr>
<tr>
<td>Com/ISP</td>
<td>14.6%</td>
<td>1.2% 15.8%</td>
</tr>
<tr>
<td>Retail/Wholesale</td>
<td>4.4%</td>
<td>5.2% 9.5%</td>
</tr>
<tr>
<td>Financial Services</td>
<td>12.7%</td>
<td>9.4% 22.1%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>5.6%</td>
<td>7.9% 13.5%</td>
</tr>
</tbody>
</table>

Note: Average % Increase So Far is based on reports from firms who are currently using IBS. % Increase Expected is based on reports from a larger number of firms who will be completing implementations within 3 years.

(*) IBS (Internet Business Solutions)
Jordan

- Context
- Program Description
- Program Structure
- Intermediate Results
Program Description

- **e-Business Vision**
  - National initiative to assist MSMEs in realizing the potential benefits of e-business
  - Formation of skilled managers and operation staff
  - Electronic Business Development Activities (EBDA)

- **Participative Leadership and Private sector lead**
  - EU Commission Delegation & Amman Chamber of Industry initiative 2000
  - Electronic Commerce Center: technical, training and consulting services
  - Self-sustainable

- **E-commerce Awareness & Dissemination**
  - Web Portal – Practical information on implementing e-commerce, project initiative and EU policy regarding information society
  - EBDA publication
  - Case Studies
  - Best Practicing models

  - Train over 5,000 businesses
  - Customized and user-oriented education and training
  - Courses conducted weekly morning and afternoon training sessions at ACI and EBDA Nodes.
  - Five module presentations covering the: (1) E-commerce overview (2) E-Strategy (3) E-Planning (4) E-Implantation (5) E-Organizational Impact

- **E-commerce Business Training Program: training-of-trainers**
  - Business Qualification Program
    - EBDA Trainers
    - Conducted by European consultants
    - Performed in three phases
    - Training demonstrates the latest e-Commerce innovations within two streams:
      - Supporting Management Tools
      - Supporting IT Tools
Program Structure

Amman Chamber of Industry and Commerce

E-Commerce Center
(responsible for EBDA projects)

Dissemination
Awareness
Business Qualification Program

EU Commission Delegation

Network of E-commerce Centers

Partnerships

- Jordan Export Development & Commercial Centers Corporation
- Information Technology Association of Jordan
- Amman Chamber of Commerce
- Jordan Insurance Federation
- Business Professional Women Association
- The Association of Banks in Jordan
- Jordan Engineering Association
- Jordan Armed Forces
- Ministry of Information and Communication Technology

www.ebda.jo

Jordan Chamber of Commerce
Business Associations
New Zealand

- Context
- Program Description
- Program Structure
- Intermediate Results
Context

- 84.2% of enterprises employ 5 or less employees
- 96.4% of enterprises employ 19 or fewer
- MSMEs account for more than 40 per cent of total employment
- Contribute to over 27 and 40 per cent of total output
- Between 33 and 37 per cent of MSMEs do not see the benefits of e-business

Source: Industry and Regional Development Branch
Ministry of Economic Development, June 2002
Program Description

- **E-Business Vision**
  - Capitalize New Zealand’s competitive advantages in the digital economy
  - Support enterprise through innovation
  - Foster e-commerce skills

- **Participative Leadership**
  - Ministry of Economic Development – E-commerce Action Team Network
  - Government, Industry and Business Leaders, Education Sector and Maori Indigenous Communities

- **Building Awareness & Training**
  - Enterprise Awards Scheme for e-business category
  - Six regional e-Commerce conferences
  - Web portals and e-Business Guides (8,000 copies distributed in 2000)
  -Revision of ICT curriculum in schools
  - IT skills to those disadvantage in the labour market (Partnership with Ministry of Social Development)
  - 8-module e-commerce training programme aimed at MSMEs
  - Foster e-commerce capability within the exporting industry (NZTE)
  - Rural businesses Education Activities Programme (REAP)

- **Implementation**
  - NZ Venture Investment Fund $100 million
  - Co-investing with the private sector in seed-state and start-up
  - NZ businesses based on technology
  - Develop linkages with industry sector and professional associations
  - E-Business Development Grants – Ministry of Trade and Enterprise

- **Enable Regulatory Environment**
  - Crimes Amendment Bill
  - Telecommunications Bill
  - Electronic Transactions Bill
  - New Zealand Model Code for Consumer Protection in Electronic Commerce (can be adopted by businesses or used in self-regulatory codes of practice)
  - Center for Critical Infrastructure Protection
  - Intellectual Property Laws (Copyright Act)
Program Structure

Ministry of Economic Development

E-commerce Action Team (ECAT) Secretariat (operative March 2001)

E-Commerce Adoption by SMEs Private Sector, Chair

Identify targets & Monitoring Achievements

Coordinate government and private sector efforts

Consultancy to the Government

Research

Linkages with industry sectors professional associations

Biz.org.nz

External Users

Reports every six months on progress

Appointed by the Minister for Information Technology

Six-Quarter Action Plan (Issues for that Sector and Plan for Action to achieve a particular objective)

Regional and Sector based ECATs

The team is drawn from and itself forms the ECAT network
1. Central and local government
2. Industry and Business Leaders
3. Education Sector
4. Indigenous Maori Communities

ECAT Network Members

- Business NZ
- Federated Farmers of New Zealand
- Information Technology
- Association of New Zealand
- Institute of Chartered Accountants of New Zealand
- Local Government New Zealand
- New Zealand Bankers’ Association
- New Zealand Council of Trade Unions
- New Zealand Law Society
- Telecommunications Users
- Association of New Zealand
- Tourism Industry Association New Zealand
- Wellington Regional Chamber of Commerce (informally representing all chambers)
Grant Scheme

- Entrepreneurs, start-ups and individual businesses
- Apply for a grant of up to $20,000
- Advanced management or technology-based training
- Up to a maximum NZTE contribution of $3,000 per applicant per year.
- Grant can be used to employ specialised advice and expertise on well-defined projects or concepts that lead towards enhanced capability, profitability and international competitiveness.
- Grants are offered on a 50:50 reimbursement basis. They can be used for a wide variety of activity, but some costs considered to be normal operational expenses will not be covered.

Business needs to demonstrate.....

- Why the training is required
- What the training will assist with
- How is this training is important for the future commercial success of the business
- How the training will impact on the business and other staff members
Outputs

New Zealand - 2000

Factors Inhibiting e-business Adoption

Connectivity vs. Usability

Number of Companies

0 200 400 600 800 1000 1200

Computer Website Website takes orders Website receives payments
Korea

- Context
- Program Description
- Program Structure
- Intermediate Results
Context

- Severe economic downturn as a result of the late 90’s Financial Crisis
- Limited e-Business Resources for MSMEs
- Rate success stories for e-business adoption by SMEs
- 99 per cent of 2.8 million MSMEs experience difficulty in implementing IT
- Internet Usage in 2001
  - 25 per cent MSME between 1-5 employees
  - 57.9 per cent between 5-9 employees
- No plans to use the Internet in 2001
  - 65 per cent of MSME between 1-5
  - 36 between 5-9 employees
Program Description

- **E-Business Vision**
  - Respond to the Asian Financial Crisis
  - Counter effects of the recession and to overcome the crisis
  - Necessary steps to reform the country providing long-term, indirect assistance
  - Increase ICT productivity to create new businesses and jobs
  - Form a digitization market for MSMEs
  - Cyber Korea 21 – Announced in 1999
  - ASP-based e-Business Project for MSMEs - 2001-2005
    - IT Training Support US$ 10 million / US$84,63/company
    - Business Model Development Support US$ 1.7 million / US$425,000/model
    - ASP Solution Development Support US$ 2.5 million / US$425,000/technology
    - Cyber IT Technical Support US$ 425,000
    - Project Management, Promotion, etc US$ 850,000 (Guidebook, publishing, etc)
    - TOTAL US$ 15.5 million

- **Participative Initiative**
  - Ministry of Information and Communication (MIC)
  - Ministry of Commerce, Industry, and Energy (MOCIE)
  - Small and Medium Business Administration (SMBA)
  - National Computerization Agency

- **Implementation**
  - 1st Phase - Infrastructure
  - 2nd Phase – e-Commerce Awareness and promotion
  - 3rd Phase – Industry Digitization

- **Benchmarking**
  - B2C statistics collected through a monthly survey (NSO Cyber Shopping Mall survey)
  - Over 2,500 online shopping malls in Korea 2002 up by 412 a year earlier
Program Evolution

First Phase 1996 – 2000
Creating Infrastructure for Industry Digitization
Building the information infrastructure and promoting a digital culture among SMEs

- Information sharing system and facilitating e-commerce
- Major projects include (1) E-commerce support center (ECRC); (2) Digital incubators; (3) SMEs’ e-commerce shopping malls (e-marketplace) (4) SME database

Second Phase 2000
Promoting e-Commerce

- Realigned relevant laws for promoting SME digitization
- Nurtured IT and the IT workforce
- Built the basis for online trade
- Promoted e-commerce in the public and industrial sectors.
- Major projects include (1) Digital Industry Complex; (2) Special Zone for SME Digitization (3) Promoting ASP for SME (4) Pilot Consulting of SMEs’ ERP

Third Phase 2001-2005
Industry Digitization
The Government is now offering a more detailed and wider assistance for SME digitization

- Building industry-specific networks as well as an information network, headed mainly by the leading digital SMEs so as to create an environment where SMEs can digitize themselves.
- Small Enterprises Networking Project aimed at helping small companies (with less than 50 employees) to catch up in IT
- ASP-based e-Business Project for SMEs

28
**Program Structure**

*ASP-based e-Business Project for SMEs*

Ministry of Information and Communication (MIC) & the National Computerization Agency (NCA) selects three consortiums to provide SMEs with the specific infrastructure and services (PCs, high-speed Internet Access, online-tax return application and industry specific services) as well as the necessary training. These are provided at a minimal cost.

**NCA:** National Computerization Agency  
**SMBA:** Small and Medium Business Administration  
**MIC:** Ministry of Information and Communication  
**KFSB:** Korean Federation of Small and Medium Enterprises  
**ITR:** IT Research & Consulting  
**CNK:** Commerce Net Korea  
**KITA:** Korean IT Industry Promotion Agency  
**KIPC:** Korean Information Promotion Committee

**Small Enterprises Networking Project**

- **Bizmeka.com**  
  KT Consortium  
  E-Portal Business Service that provides diverse solutions, contents, training, and consulting services at an affordable price for SMEs

- **Multibiz**  
  Thrunet Consortium  
  Broadband environment. All our services are delivered at a fixed fee so you do not need to be concerned about the length of time you are online.

- **BizFos.co.kr**  
  Hanaro Consortium  
  Consortium Services

**bizonet.or.kr**  
External Users
# Program Structure

## Services provided by Consortiums

<table>
<thead>
<tr>
<th>Category</th>
<th>Basic IT Services</th>
<th>Specialized Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thrunet Consortium (35 companies)</td>
<td>Groupware, Personal Information, Accounting, Integrated Account Management, Digital Tax Receipt, Office SW, etc.</td>
<td>Video Rental System, Restaurant Management System, Image Compression and Transmission service for Printing and Publishing, Small and Medium Hospital Management System</td>
</tr>
</tbody>
</table>

## Collaborative e-Business Implementation

- Traditional industries are at the core of the national economy
- Korea provides the foundation for SME take-off by creating new IT markets
- Collaborative development structure between traditional core industries, SMEs and IT industries
Strategy

Implementation of e-Business Structure based on Broadband Network

Introduction of e-Business based on networks such as ASP
Expansion of new business models
Creation of innovative value chains with the traditional industrial structure
Alleviation of cost burdens for implementing e-Business

Provision of Integrated IT Services appropriate for Small Businesses

Provision of quality IT services such as training and contents according to circumstances of MSMEs
Elimination of problems caused by lack of professional knowledge and personnel

Creation of Synergy Effects through Consortium of IT Companies

Provision of quality IT services by integrating outstanding technologies and diverse services of IT companies
Maximizing synergy effects between consortiums, IT companies and MSMEs

Implementation of a developmental structure integrating traditional and IT industries

Constant provision of IT to 2.93 million SMEs by constructing a structure linking traditional and IT industries
Government support until the market is capable of establishing a foundation for growth on its own.
Outputs

- 118,126 MSMEs registered to get service from the Consortium Network (Jan 2002-Aug 2002)
- 120,000 enterprises conducting business electronically, as a result of the pilot project.
- By 2004 expected 0.5 million small enterprises will be connected to the broadband network and will be able to perform e-Business

Services Registration from the end of February 2002 to the end of April 2002
Outputs

Percent of Korean firms engaging in e-commerce by number of employees, 2001

<table>
<thead>
<tr>
<th>Number of Employees</th>
<th>Korea</th>
<th>5-9</th>
<th>10-49</th>
<th>50-209</th>
<th>300-999</th>
<th>&gt;1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent</td>
<td></td>
<td>8%</td>
<td>10%</td>
<td>11%</td>
<td>13%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Percent of Korean firms with Internet access by number of employees, 2001

<table>
<thead>
<tr>
<th>Number of Employees</th>
<th>Korea</th>
<th>5-9</th>
<th>10-49</th>
<th>50-209</th>
<th>300-999</th>
<th>&gt;1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent</td>
<td></td>
<td>47%</td>
<td>90%</td>
<td>77%</td>
<td>89%</td>
<td>98%</td>
</tr>
</tbody>
</table>

Growth of e-Commerce

1999 2000 2005

US$ billion

7.1 13.4 22.6 144.4

Data Resourced from KIEC

E-business Ratio

Korean Companies’ Interest in B2B e-Commerce has explosively expanded in 2000

6 Major Industries
(Auto, Electronics, Shipbuilding, Steel, Machinery, Textile)

Others

Korea US
4% 6% 2% 3.5%

Source: NSO (National Computerization Agency), The Census on basic characteristics of establishments, Korea 2001
Common attributes to e-Leadership

- National institution for e-business promotion
- Awareness and Dissemination campaigns
- E-government online services
- E-Business Training & Skills
- Participative Leadership
- Influence markets and regulations
- Benchmarking
- Collaborative projects between industries
- Results oriented and sector targeted
References
- Forging and Managing Online Collaboration: The ITOL Experience, *NOIE & MacQuarie University*
- A Strategic Framework for the Information Economy: Identifying priorities for action, *Commonwealth of Australia, Legislative Services, December 1998*
- Broadband for Small Business, *National Office for the Information Economy, NOIE*
- E-commerce: Building the Strategy for New Zealand, *Department of Commerce, 2000*
- The State of e-New Zealand, *David Boles de Boer, Lewis Evans and Bronwyn Howell, September 2000, New Zealand Institute for the Study of Competition and Regulation Inc., September 2000*
- Adoption and Implementation of E-Business in New Zealand: Preliminary Results, *Stephen Bowden, Delwyn Clark, Patricia Corner, Jenny Gibb, Kate Kearins and Kathryn Pavlovich, University of Waikato Management School, March 2001*
- Adoption and Implementation of e-Business in New Zealand: Empirical Results 2001. *The Department of Strategic Management and Leadership at Waikato University*
- E-Commerce: Building the Strategy for New Zealand, 2002
- The State of e-New Zealand – New Zealand Institute for the Study of Competition and Regulation Inc, David Boles de Boer, Lewis Evans and Bronwyn Howell, September 2000
- Canada Business Services Centers, Annual Report 1999-2000, Industry Canada
- Canada Business Services Centers, Annual Report 2000-2001, Industry Canada
- Canada e-Business Initiative – www.ebibi.ca
- Internet Access Technology for SME, Industry Canada, March 2002
- Supporting measures of implementation IT system for Small and Medium Business—*Ministry of Commerce, Industry and Energy, 2001*
- Statistics analysis for e-business situation in Korea—*Korean Institute for Electronic Commerce, 2001*
- National Statistical Office, *Data & Statistics, Korea*
- Broadband Korea: Internet Case Study – *ITU, March 2003*
- Ministry of Information and Communication of Korea
- Bizonet: The ASP Based e-Business Project for Small Business
- Korea Small Business Institute