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Institute of e-Government, Waseda University

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[2015 WASEDA – IAC INTERNATIONAL E-GOVERNMENT RANKING SURVEY]

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[The Institute of e-Government at Waseda University, Tokyo in cooperation with the International Academy of CIO (IAC) has released the results of its international e-Government rankings survey for 2015.]

Executive Summary

The Institute of e-Government at Waseda University, Tokyo, in cooperation with the International Academy of CIO (IAC), has released the results of its international e-Government rankings survey for 2015. This research, led by Professor Toshio Obi, Director of the Institute of e-Government, Waseda University, presents the eleventh consecutive year of monitoring and surveying worldwide e-Government development.. The result of the survey is that Singapore was positioned at the first place, followed by the USA in 2nd, Denmark in 3rd, the United Kingdom in 4th and Korea in 5th place. Japan was in 6th, Australia in 7th, Estonia in 8th, Canada in 9th and Norway ranked 10th.

During this one-year survey, research has been conducted through workshops and forums. The team has arranged professional meetings and discussions with a variety of international and national organizations to improve oversight and objectivity. These organizations include the Organization for Economic Co-operation and Development (OECD), Asia Pacific Economic Cooperation (APEC), the International Telecommunications Union (ITU), the World Bank (WB), United Nations DESA, and many other government agencies, think tanks and NGO/NPOs with e-Government responsibilities in their respective countries.

The 2015 ranking marks the eleventh year of the Waseda e-Government Ranking, and the second year of cooperation with International Academy of CIO (<http://cio-japan.waseda.ac.jp/>). To assess and evaluate the details of e-Government preparedness and to align with new trends in e-Government, 9 main indicators and 32 sub-indicators have been evaluated. The 2015 ranking removed Cambodia, Iran and Uzbekistan from the list. These countries were at the bottom of the ranking from 2012 to 2014. In addition, in order to obtain comprehensive findings on the e-Government around the world, five countries are added this year. They are Ireland, Bahrain, Morocco, Costa Rica and Oman. This makes a total of sixty-three surveyed countries compared to sixty-one last year.

In order to obtain the latest and most accurate information, and to assess the relevant data, Waseda University researchers conducted the ranking in cooperation with researchers from partner universities around the world, including George Mason University (USA), United Nations University, Bocconi University (Italy), Turku University (Finland), Peking University (China), Thammasat University (Thailand), De La Salle University (Philippines), Bandung Institute of Technology (Indonesia), National University of Singapore, Federal Academy School of IT Management (Russia),

Czech Technical University (Czech Republic), and main contributor, Waseda University (Japan).

This report contains Chapter 2 [e-Government Indicators], Chapters 3, 4, 5 [e-Government Ranking by Organizations, Populations and Regions] and Chapter 6 [Methodology]. The full text with all 63 countries assessment report [10 years of World e-Government Rankings] will be published by IOS Press (www.iospress.nl), Amsterdam in September, 2015.

An analysis of the eleven years of the Waseda – IAC e-Government Rankings Survey indicates the following eight interesting aspects:

- (1) There is lack of ICT human resources development in capacity building, especially e-leaders such as CIO
- (2) Enough finance/funding for e-Government projects is the key for success
- (3) Citizen-engagement as digital inclusion in e-Government initiatives should be more encouraged
- (4) Various applications for online service over the world are progressing in developed countries
- (5) More attention must be paid to local e-Government issues as well as linkage between central and local governments
- (6) The best practices for M-government in developing countries may increase active participation in developing countries with high usage of mobile devices
- (7) Open Government/Open Data should be implemented and shared with big data
- (8) Digital gap has become wider among developing countries in terms of accessibility, usability and affordability

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I. Total Ranking 2015

The 2015 ranking marks Singapore's return to first place, scoring 0.22 points higher than the USA, which was in second place in the 2015 ranking. Denmark was 3rd, followed by the UK in 4th. Compared to last year, Korea slipped from 3rd to 5th this year. Japan also slipped to 6th from last year's 5th. Australia jumped two slots ahead and was 7th this year. Estonia and Canada also slipped slightly from their positions last year and were 8th and 9th place respectively. There were no significant member changes in the top ten, except that Norway replaced Sweden and tied for 10th place. This was the first time Norway in the top ten list during the eleven years of the e-Government ranking.

This year's ranking added five new countries: Bahrain, Costa Rica, Iceland, Morocco, and Oman. In this group, Iceland earned a good position of 19th, while Oman and Bahrain ranked in the middle at 40th and 44th, respectively. Both Morocco and Costa Rica were placed at the bottom in the total ranking. A big change in the middle group of the ranking is China, which slipped from 10th last year to 49th this year.

No	Total Rankings	Score	No	Total Rankings	Score	No	Total Rankings	Score
1	Singapore	93.80	22	Thailand	67.31	43	Brunei	51.06
2	USA	93.58	23	Israel	65.80	44	Bahrain	50.50
3	Denmark	91.25	24	HK SAR	65.24	45	Brazil	50.37
4	UK	90.17	25	Malaysia	64.87	46	Argentina	50.32
5	Korea	89.39	26	Portugal	63.93	47	Colombia	49.36
6	Japan	87.77	27	Czech Republic	63.48	48	South Africa	49.30
7	Australia	86.30	28	Italy	61.30	49	China	48.36
8	Estonia	84.87	29	Indonesia	60.11	50	Kazakhstan	47.73
9	Canada	81.45	30	UAE	58.10	51	Saudi Arabia	47.48
10	Norway	79.63	31	Poland	57.30	52	Peru	46.21
11	Sweden	77.95	32	Spain	57.12	53	Tunisia	45.87
12	Austria	77.26	33	Vietnam	57.03	54	Venezuela	44.65
13	New Zealand	76.66	34	Russia	56.56	55	Uruguay	44.01
14	Finland	76.49	35	India	56.42	56	Morocco	43.13
15	Germany	76.46	36	Macau SAR	56.27	57	Pakistan	42.94
16	France	73.39	37	Chile	53.49	58	Costa Rica	42.06
17	Chinese Taipei	72.76	38	Mexico	53.41	59	Georgia	40.73
18	Belgium	71.69	39	Romania	53.11	60	Nigeria	38.37
19	Iceland	69.73	40	Oman	51.60	61	Fiji	37.54
20	Netherlands	69.53	41	Philippines	51.47	62	Egypt	37.19
21	Switzerland	69.17	42	Turkey	51.31	63	Kenya	32.91

Table 1: Waseda – IAC e-Government Total Ranking 2015

Indonesia had a big jump and was 29th compared to 32nd last year. Thailand led the ASEAN countries (except Singapore which is consistently at the top). Thailand has a good position in the middle of the total ranking at 22nd, followed by Malaysia at 25th.

The bottom tier of this ranking consists of familiar names from last year, such as Nigeria, Fiji, Egypt and Kenya. In this group, Nigeria is the country that has had the biggest regression and fell to tied for 60th compared with 45th last year. Egypt also slipped from 56th last year to 62nd this year. Kenya ranked at the bottom of the total ranking.

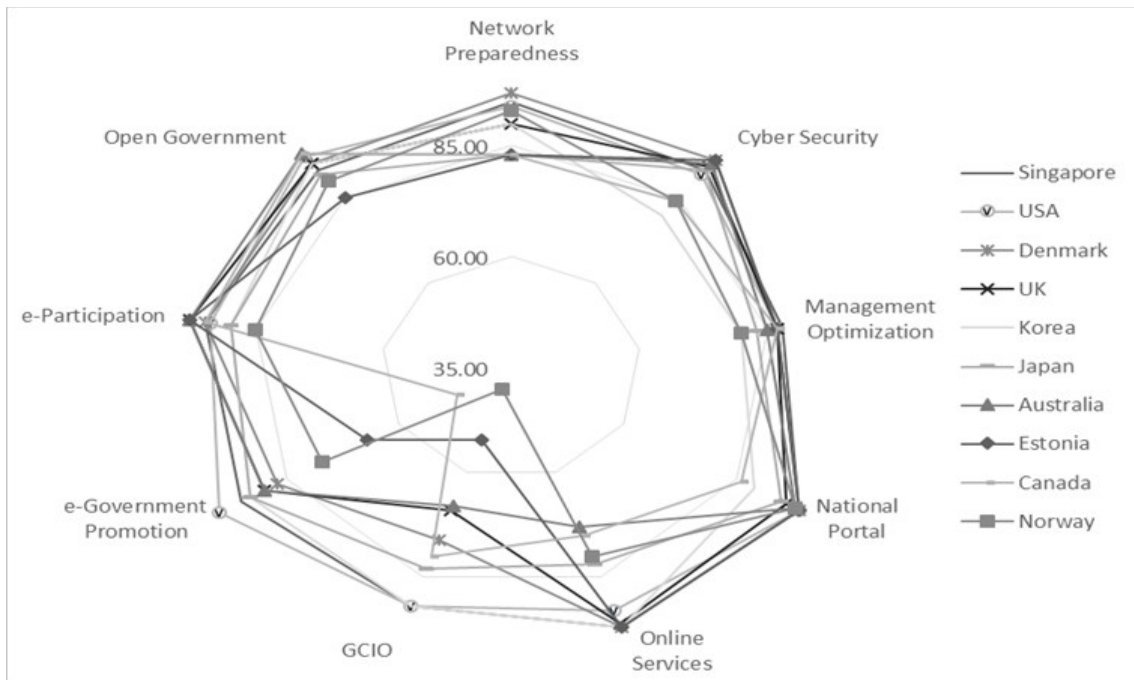


Figure 1: Waseda-IAC Top 10 e-Government Ranking

Norway, Canada, and Estonia are the lowest on the GCIO indicator among the top ten countries. The fact that they have centralized their e-Government projects may contribute to this position on the GCIO Indicator.

Figure 2 [e-Government Development Matrix] indicates the positive relationship between network infrastructure and online public services. It is reported that the countries with nice network infrastructure can extend to deploy online public services easily.

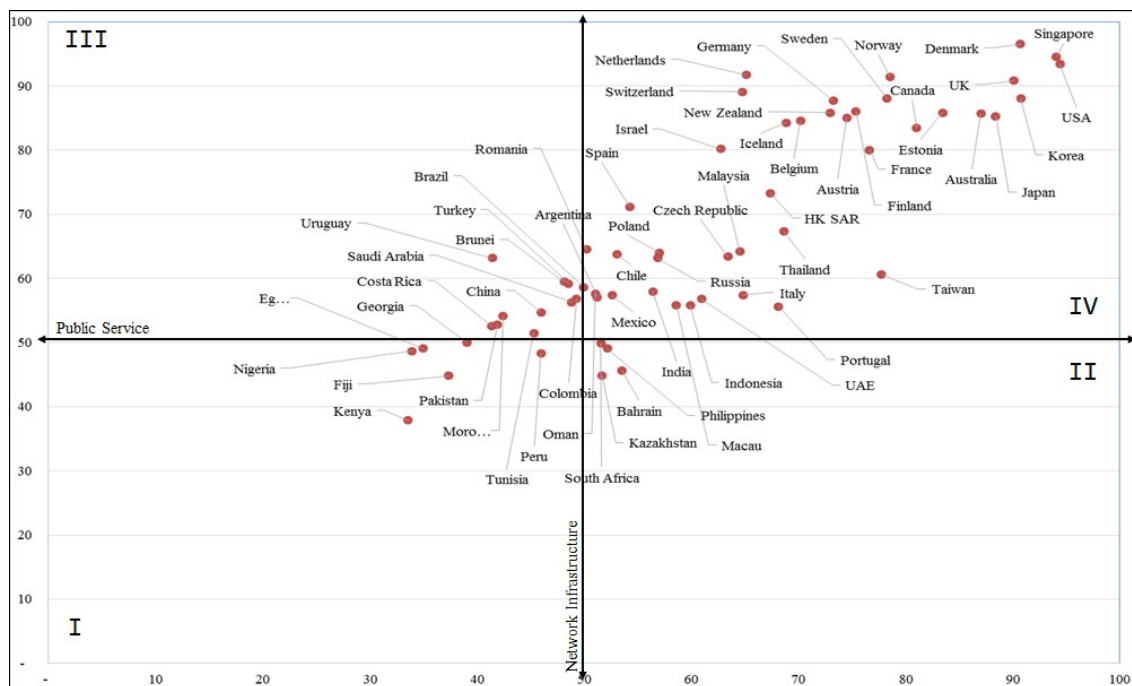


Figure 2: e-Government Development Matrix

II. e-Government Ranking by Indicators

The Waseda – IAC e-Government Ranking uses comprehensive benchmarking indicators to accurately assess the latest developments of e-Government in the major countries in ICT section. The 2015 Ranking adopted nine main indicators and 32 sub-indicators. One sub-indicator in Network Preparedness (PC users), has been removed for the 2015 ranking. Based on the new trends in ICT, citizens may use smartphones, tablets and notebooks, in addition to PCs, to connect with government and make transactions. Therefore, the number of PC users is not necessary for e-Government development evaluation. Table 2 below shows all 9 indicators and 32 sub-indicators.

Indicators	Sub-indicators
1. Network Preparedness/Infrastructure	1-1 Internet Users
	1-2 Broadband Subscribers
	1-3 Mobile Cellular Subscribers
2. Management Optimization/ Efficiency	2-1 Optimization Awareness
	2-2 Integrated Enterprise Architecture
	2-3 Administrative and Budgetary Systems
3. Online Services / Functioning Applications	3-1 E-Procurement
	3-2 E-Tax Systems
	3-3 E-Custom Systems
	3-4 E-Health System
	3-5 One-stop service

4. National Portal/Homepage	4-1 Navigation
	4-2 Interactivity
	4-3 Interface
	4-4 Technical Aspects
5. Government CIO	5-1 GCIO Presence
	5-2 GCIO Mandate
	5-3 CIO Organizations
	5-4 CIO Development Programs
6. e-Government Promotion	6-1 Legal Mechanism
	6-2 Enabling Mechanism
	6-3 Support Mechanism
	6-4 Assessment Mechanism
7. E-Participation/Digital Inclusion	7-1 E-Information Mechanisms
	7-2 Consultation
	7-3 Decision-Making
8. Open Government	8-1 Legal Framework
	8-2 Society
	8-3 Organization
9. Cyber Security	9-1 Legal Framework
	9-2 Cyber Crime Countermeasure
	9-3 Internet Security Organization

Table 2: The Main Indicators and Sub-Indicators

This research not only evaluates the development of websites and ICT deployment in governments, but also looks into real operations, such as management optimization, internal processes, online services, and new trends in e-Government development and the relationship between governments and their stakeholders. The top ten e-Government rankings by indicators are listed in table 3 below:

Network Preparedness		Management Optimization		Online Services		National Portal	
No	Country	No	Country	No	Country	No	Country
1	Netherlands	1	Singapore	1	Denmark	1	Denmark
1	Denmark	2	Canada	1	Estonia	2	Estonia
3	Singapore	2	Denmark	1	Korea	2	Singapore
4	USA	2	Estonia	1	Singapore	2	USA
5	Iceland	2	Netherlands	5	Iceland	5	Australia
5	Norway	2	Switzerland	6	UK	5	Norway
5	Switzerland	2	UK	7	Finland	7	France
8	Finland	2	USA	8	Austria	8	UK
9	France	9	Australia	8	USA	9	Japan
10	Korea	10	France	10	Switzerland	10	Sweden

GCIO		e-Government Promotion		E-Participation		Open Government	
No	Country	No	Country	No	Country	No	Country

1	Singapore	1	Sweden	1	Australia	1	Australia
1	Korea	1	USA	1	Estonia	1	Canada
1	USA	3	Singapore	1	UK	3	USA
4	Japan	4	Korea	4	Canada	4	Denmark
5	Canada	5	Japan	4	Denmark	4	Germany
6	Denmark	6	Australia	4	France	4	Korea
6	New Zealand	6	UK	4	Singapore	4	UK
8	HK SAR	8	Denmark	8	USA	8	Singapore
9	UK	9	Chinese Taipei	9	Israel	9	Japan
10	Thailand	10	Italy	10	Japan	10	Austria

Cyber Security					
No	Country	No	Country	No	Country
1	Denmark	5	UK	8	Germany
1	Estonia	6	Singapore	8	USA
1	New Zealand	6	Japan	11	Canada
4	Australia	8	Austria	11	Norway

Table 3: Top 10 Countries on 9 Individual Indicators

1. Network Preparedness/Digital Infrastructure

Network preparedness is the basic infrastructure foundation for effective e-Government implementation. Network infrastructure is being enhanced in many countries and is recognized as an integral important tool to connect citizens and enterprises to governments. In developing countries, the numbers of internet users, broadband subscribers and mobile cellular subscribers, in particular, continue to rise.

The importance of infrastructure for e-Government development is no longer limited to providing service for to Internet users, mobile subscribers or the number of broadband connections. It is also closely related to the development of ICT and the integration trends between local and national governments. We recognize that the foundation for the development of e-Government in a country depends on its network backbone system and its capability to connect all bureau and departments together via the core Government Backbone Network.

The ability to connect local governments and central governments, and among local governments is also the trend in the development of ICT infrastructure. The ability to share data and synchronize between agencies and government departments are considered common in most developed countries. Based on the new trends in ICT and e-Government development, especially at the time when the platform moves to cloud computing and the number of smartphones rises daily, mobile broadband becomes one

of the key network preparedness factors. Effective broadband access stimulates citizens to use such services and encourages the deployment of new services.

Denmark and Netherlands are tied for first in the 2015 ranking on network preparedness. In Denmark, information infrastructure is well developed and readily available, especial for Internet with broadband connections. In 2010, the Danish government introduced digital signatures as standard user IDs and passwords for citizens to use during online operations, such as banking, and government website logins. The Danish government also launched e-procurement, e-authentication, e-passport and e-payment very early. In Netherlands, the backbone of the e-Government architecture is the Netherlands Government Reference Architecture (NORA 3.0). All government parties have endorsed NORA. Through NORA, they can coordinate developments within their own organizations.

2. Management Optimization

Management optimization reflects the utilization of ICT for improving government business processes and internal processes (back office in each organization). Based on this survey, we found that most of top ten countries in this indicator ranking have full scores. It means that management optimization is very important indicator on e-Government development, because it is related to the optimization awareness, enterprise architecture and also the administrative management system.

The Waseda – IAC e-Government Ranking considers “Management Optimization” as a critical business function that underpins the operational, financial, accounting and strategic planning of business, social, health and administrative affairs within the country. European countries did very well in this indicator, with 6 countries on the top 10 list. Compared to last year, Singapore had a big jump and was first, followed by seven countries in the second place.

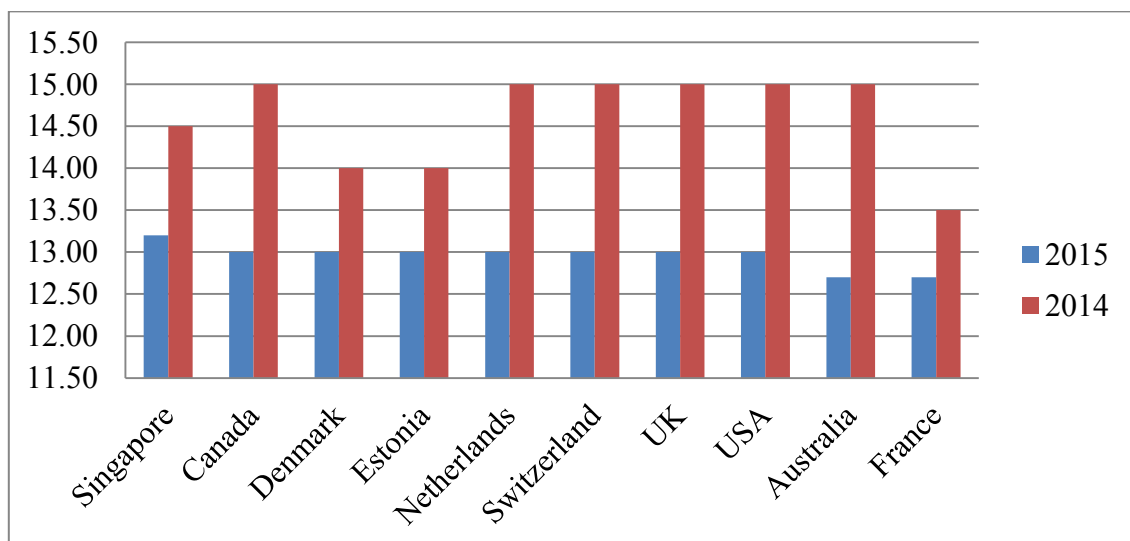


Figure 3: Top 10 Management Optimization 2014-2015

3. Online Services/ Applications

There are many definitions of e-service as services provided by organizations, companies or individuals based on an Internet connection. The concept of e-service has been used by researchers from the beginning of 2000. Generally speaking, e-service operation is one where all or part of the interaction between the service provider and the customer is conducted through the Internet and an e-service has a “front-end” Web-based systems and “back-end” information systems.

In this survey, online services refer to the systems of e-procurement, e-tax, e-customs, e-health and one-stop service. The most recent trends show that some governments in developing countries have shifted to user-oriented strategies and developed one-stop service portals. They are also planning to gradually expand and enhance integrated service delivery.

In general, there are no significant gaps in online service delivery among countries in the top 10 list. This year witnesses the enhancement of online service delivery for most top 10 countries, with the exception of Estonia, Singapore and Korea, which scored a little bit lower than last year. Iceland, for the first year being monitored by the ranking system, stood in the 5th position of e-service delivery ranking.

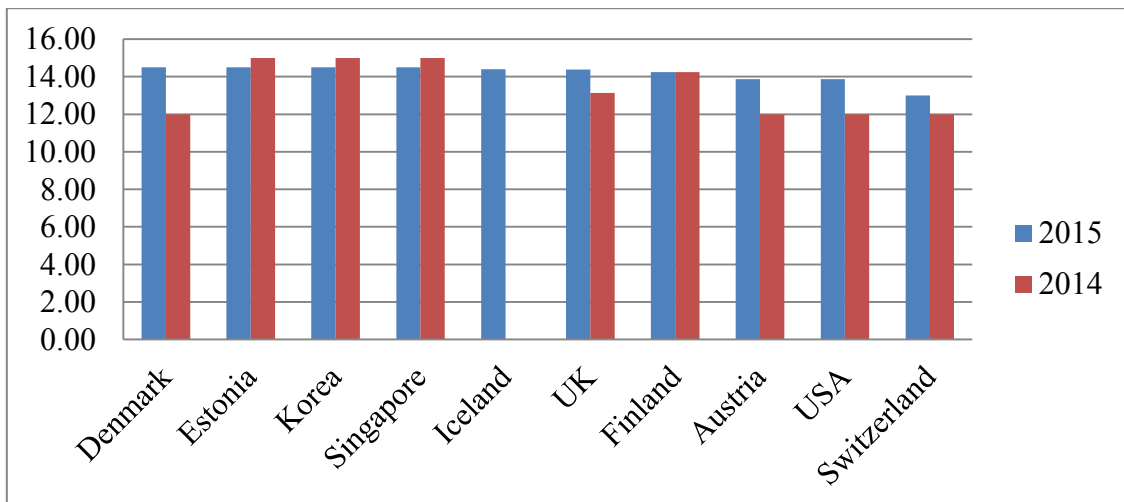


Figure 4: Top 10 Online Service 2014-2015

4. National Portal/ Homepage

National portal or one-stop service is the foundation of e-Government and a basic interface for stakeholders to access government in an electronic way. In public sector, this means that the government makes all services via one portal; in e-Government one-stop service is integrating all services and making them accessible via one gateway. National portal offers many benefits to users for public services—from citizens and businesses to the public administrators themselves—including faster, cheaper and superior services. Throughout eleven years of ranking, we noted that the national portal

helps to reduce costs, improves perceptions of government efficiency on the part of citizens and also delivering benefits for both customers and government.

Many nations around the world have integrated all services into one portal (national portal or one-stop service). In the public sector, one-stop service is one of the most promising concepts of service delivery in public administration. One-stop government consists of the full integration of public services from a user’s vantage point. This integration occurs mostly in the front-end interface where public services are provided according to users’ needs and preferences, while back-end processes are by-and-large left unchanged. Applying one-stop service can offer many benefits to users of public services—from citizens to businesses, and to the public administrators themselves—including faster, cheaper and superior services. However, implementation of one-stop government service in its ‘true’ sense requires interoperability and integration between back-end systems and the front-office side, as well as the full integration of service delivery processes.

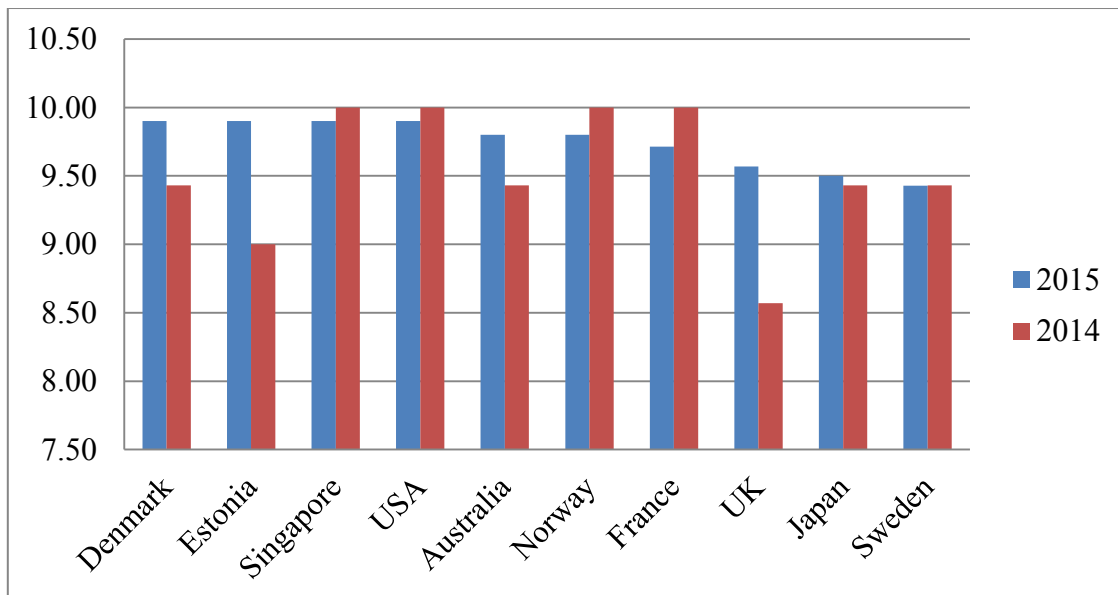


Figure 5: Top 10 National Portal 2014-2015

Under this indicator, Norway, Australia, Estonia and UK have made a significant improvement in their national portals this year. Denmark ranked first place followed by Estonia, Singapore and USA.

5. Government Chief Information Officer (GCIO)

The GCIO is prioritized by many governments as one of the key factors in the success of an e-Government implementation. With this in mind, the Waseda – IAC ranking has included a set of CIO sub-indicators since the first e-Government ranking in 2005. As awareness of the essential role of the CIO has increased, most surveyed countries have now established CIOs (or equivalent titles) responsible for

e-Government activities. They also have programs for CIO development, bodies for supporting CIO and a framework for CIO functions.

CIOs are now expected to achieve quantum-leap efficiencies, possess previously unheard-of capabilities, create information out of disparate data sets, and provide citizen services that are so fast, accurate, and user-friendly that the public’s trust in government achieves record heights. In the public sector, government CIO plays a very important role and has been recognized worldwide. The CIO is expected to align management strategy with ICT investment in order to achieve a balance between business strategy, organizational reform, and management reform; hence, the Government CIO is considered by many governments to be one of the key factors in the success of e-Government implementation.

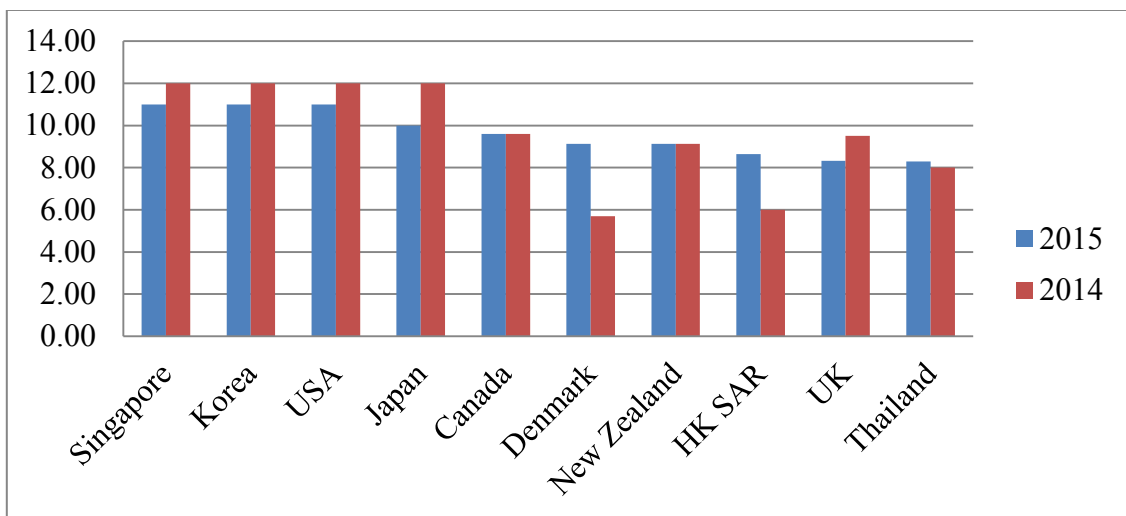


Figure 6: Top 10 Government CIO 2014 – 2015

Striving to improve GCIO quality, Denmark and HK SAR have been rewarded for their efforts with 6th and 9th positions in the top 10 respectively. Despite of scoring a lower score than the previous year, Singapore, Korea, USA, Canada and Japan are still the leaders in this indicator and their positions remain largely unchanged, with Korea surpassing USA to take the 2nd position behind Singapore.

6. e-Government Promotion

The e-Government promotion indicator is evaluated by using a comprehensive list of parameters which judge the degree of development in each sector as well as the current status of e-Government promotion. This ranking includes activities supporting the implementation of e-Government such as legal frameworks and mechanisms (law, legislations, plans, policies and strategies). In other words, these activities are carried out by the government in order to support the development of e-services and in-house operations.

There is little changes in the composition of the top 10 countries regarding e-Government promotion activities, except in the case of Denmark, which has made a significant improvement in promoting e-Government - 8.67 for 2015 in comparison with 5.33 as of the previous year – resulting in Denmark’s 8th place in the 2015 e-Government Promotion ranking. By scoring full marks in this indicator, Sweden and USA secured their positions at 1st and 2nd respectively.

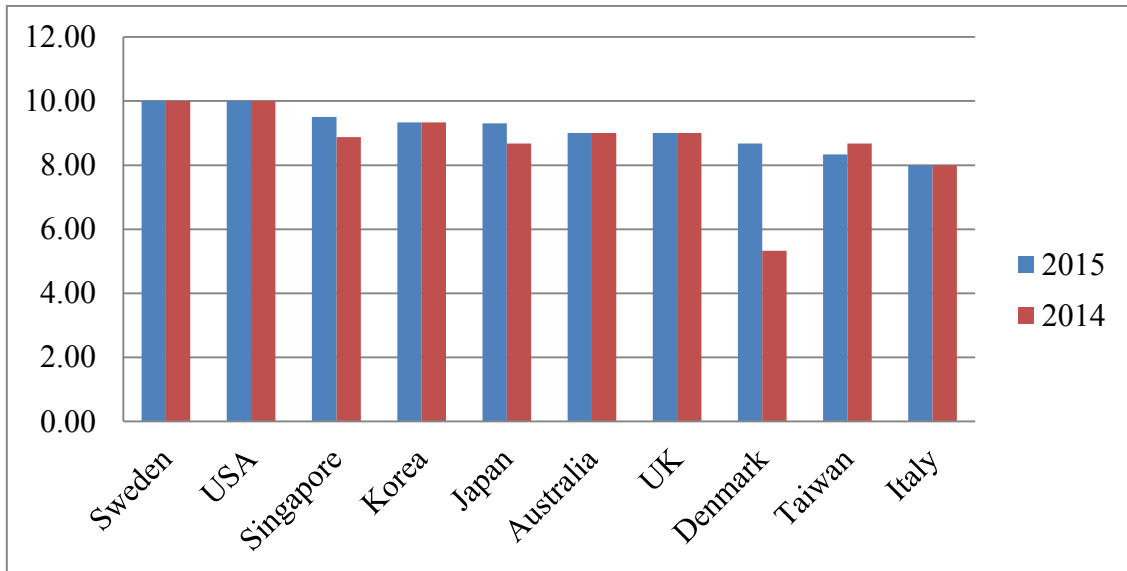


Figure 7: Top 10 e-Government Promotion 2014 – 2015

7. E-Participation/ Digital Inclusion

The use of Web 2.0 technologies in e-Government applications (otherwise known as Government 2.0) is on the rise. E-participation is a term referring to ICT-supported participation in governance processes including decision-making and policy-making.

An e-participation indicator is used to take into account the “demand” side of e-Government as well as to see to what degree people are using e-Government platforms especially in the light of Government 2.0. In this indicator, Waseda e-Government ranking uses e-information, interactive and e-decision making processes as sub-indicators.

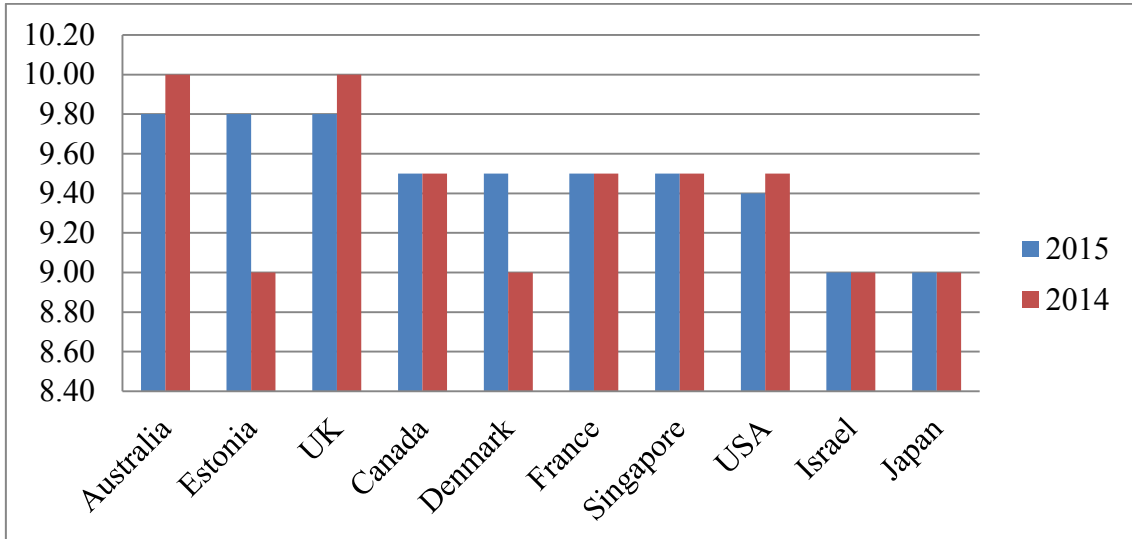


Figure 8: Top 10 E-Participation 2014 – 2015

In figure 8: Australia, Estonia and UK shared the top position, in which Estonia has made a significant enhancement in e-participation by increasing its rank from 9th in 2014 to 2nd in 2015. The similar effort could be witnessed in the case of Denmark which moved from 9th position in 2014 to 2nd in 2015, surpassing Singapore and USA.

8. Open Government Data

Providing Open Government Data is fast becoming a major political objective and commitment in many countries. The motivation of supporting economic growth and improving public services, as well as to promoting government transparency and accountability make it an attractive policy objective. While many governments are rushing to launch political initiatives and online portals, the majority have yet to demonstrate the full benefits of open government data and to make the necessary preparations to realize those benefits.

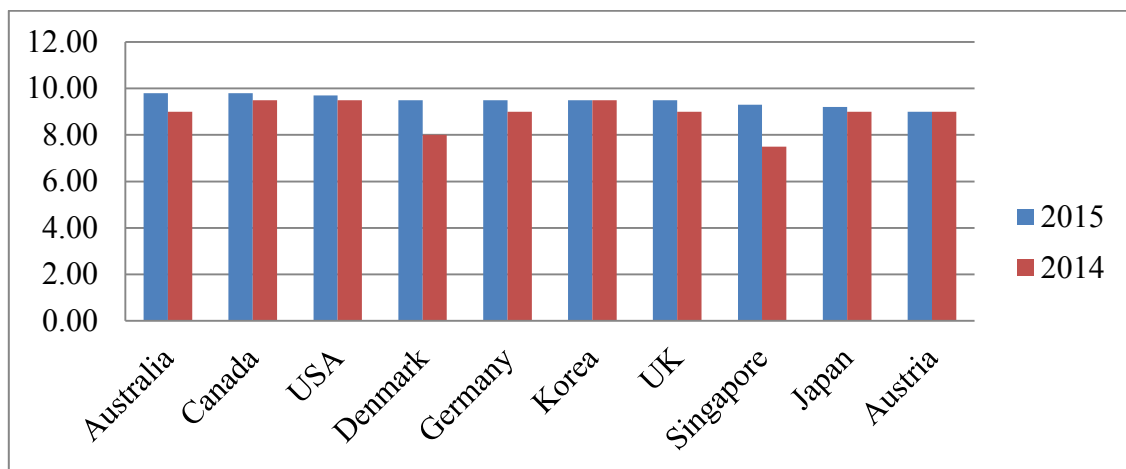


Figure 9: Top 10 Open Government Data 2014 - 2015

The evidence of Open Data reviewed for this indicator included the examination of whether the e-Government application provides RSS Feed, Web API Service or something substantially similar.

Australia moved up four slots to acquire the top position in Open Government, while Singapore by increased its position from 18th last year to 8th in 2015. Similarly, Denmark moved to 4th from last year's 14th.

9. Cyber Security

The security measures associated with individual e-Government systems are relatively similar to many e-commerce solutions. However, the span of control of e-Government and its unique impact on its user base requires a network that is greater than the sum of each individual system. e-Government faces the same challenges as e-business in the private sector, but the stakes are often higher.

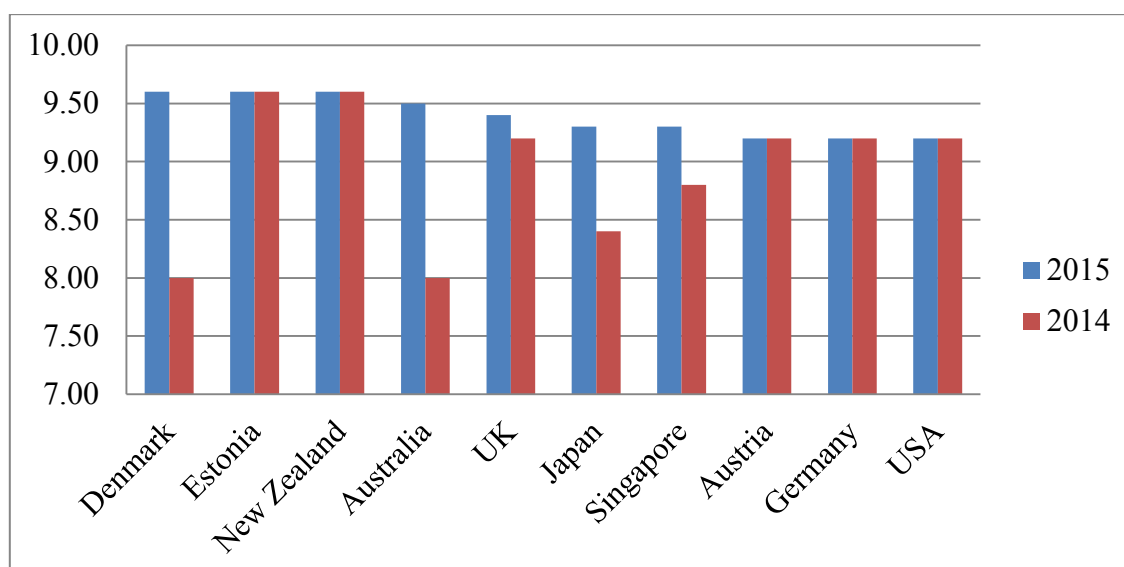


Figure 10: Top 10 Cyber Security 2014 - 2015

Denmark, Australia, and Japan found themselves in the top 10 (1st, 2nd and 4th place, respectively), thanks to their tremendous improvements in national cyber security score comparing with last year. Estonia, New Zealand demonstrated their stability in cybersecurity by sharing the 1st position with Denmark.

III. E-Government Ranking by Organizations

1. Ranking of APEC Economies

APEC Economies			APEC Economies			APEC Economies		
No	Economies	Score	No	Economies	Score	No	Economies	Score
1	Singapore	93.80	8	Chinese Taipei	72.76	15	Chile	53.49

2	USA	93.58	9	Thailand	67.31	16	Mexico	53.41
3	Korea	89.39	10	HK SAR	65.24	17	Philippines	51.47
4	Japan	87.77	11	Malaysia	64.87	18	Brunei	51.06
5	Australia	86.30	12	Indonesia	60.11	19	China	48.36
6	Canada	81.45	13	Vietnam	57.03	20	Peru	46.21
7	New Zealand	76.66	14	Russia	56.56			

Table 4: e-Government Ranking in APEC Economies

This is the fourth consecutive year of monitoring and surveying the development of e-Government APEC Economies, OECD countries, and ASEAN countries. APEC Economies includes 21 economy members of which the Waseda - IAC e-Government ranking covers 20 APEC members. Leading in this group is Singapore, where government objectives are to fulfill the needs of their users and achieve maximum value for the taxpayer in 2015 and focus on the productivity and effectiveness improvement through the use of ICT. The top six countries in this group are also countries in the top ten in overall ranking.

There is no significant change compared to last year, except that China has slipped down from 16th place to 19th place in this year's ranking, while Chile jumped from 19th place in last year's ranking to 15th place. In the 2015 e-Government ranking, Chile is one of the top countries in Latin America in terms of Internet access.

Compared to last year, Peru has the same position at 20th place, but its total score this year is higher than last year. Peru is still at the early stages of having an integrated e-Government Figure 11 below shows the top 10 APEC Economies for e-Government ranking.

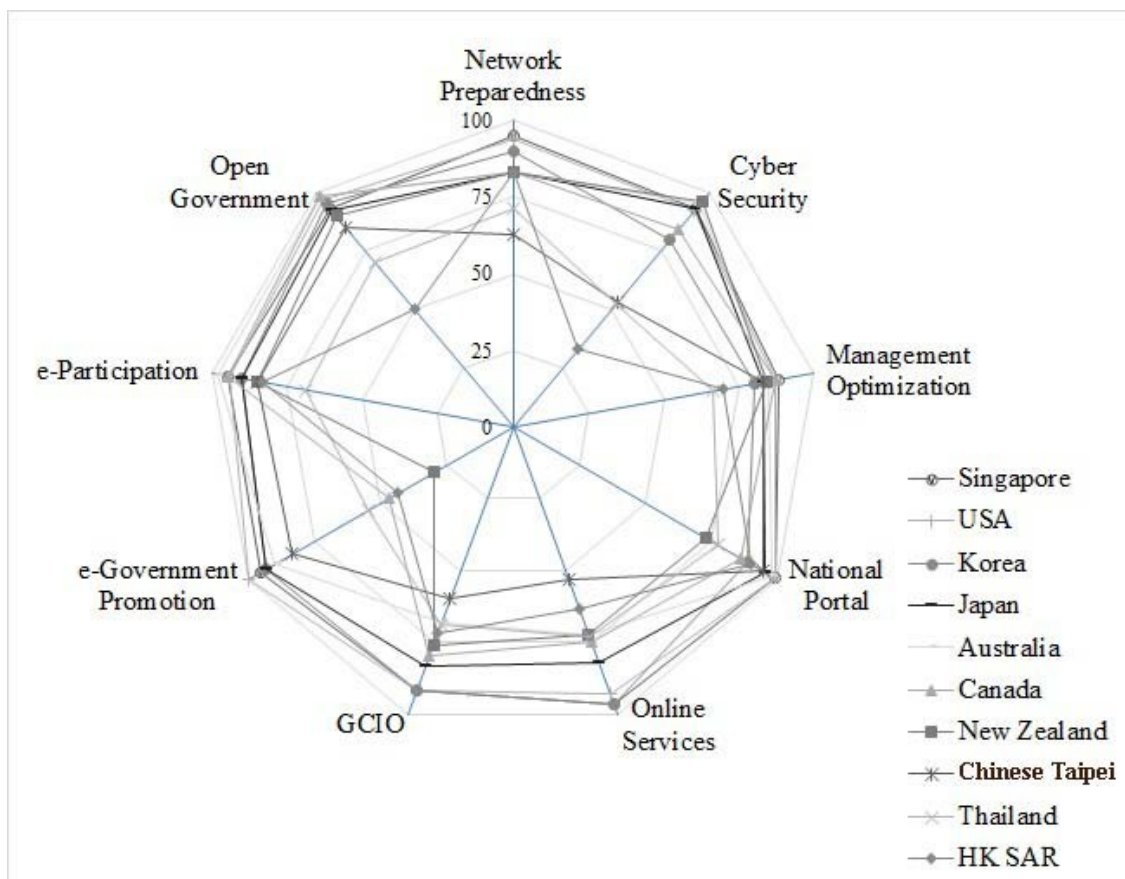


Figure 11: Top 10 APEC Economies

2. Ranking of OECD Countries

OECD Countries			OECD Countries			OECD Countries		
No	Country	Score	No	Country	Score	No	Country	Score
1	USA	93.58	11	Austria	77.26	21	Portugal	63.93
2	Denmark	91.52	12	New Zealand	76.66	22	Czech Republic	63.48
3	UK	90.17	13	Finland	76.49	23	Italy	61.30
4	Korea	89.39	14	Germany	76.46	24	Poland	57.30
5	Japan	87.77	15	France	73.39	25	Spain	57.12
6	Australia	86.30	16	Belgium	71.69	26	Chile	53.49
7	Estonia	84.87	17	Iceland	69.73	27	Mexico	53.41
8	Canada	81.45	18	Netherlands	69.53	28	Turkey	51.31
9	Norway	79.63	19	Switzerland	69.17			
10	Sweden	77.95	20	Israel	65.80			

Table 5: e-Government Ranking in OECD Countries

The 2015 ranking added Iceland as a new country. As Iceland is a member of OECD, the addition increases the number of OECD countries to 28 in Waseda-IAC ranking. Most of the countries in the top ten of this group are also amongst the top ranked countries in the overall world ranking. The leaders of group are the USA, Denmark, UK, Korea and Japan. They tied for 1st, 2nd, 3rd, 4th, and 5th place respectively, followed by Australia at 6th, Estonia at 7th and Canada at 8th. Two last countries in the top ten are Norway and Sweden, both are Nordic countries.

At the top of the top ten OECD countries, Denmark took a big jump forward, from last year's 10th place to 2nd place. Denmark has come a long way since it took the decision to establish a modern, robust digital infrastructure for the public sector. As part of its efforts on countering the digital divide, Denmark is promoting the enhanced accessibility of its public websites. In the area of ICT and aging, Denmark has established drop-in centers for the elderly to learn new ICT skills.

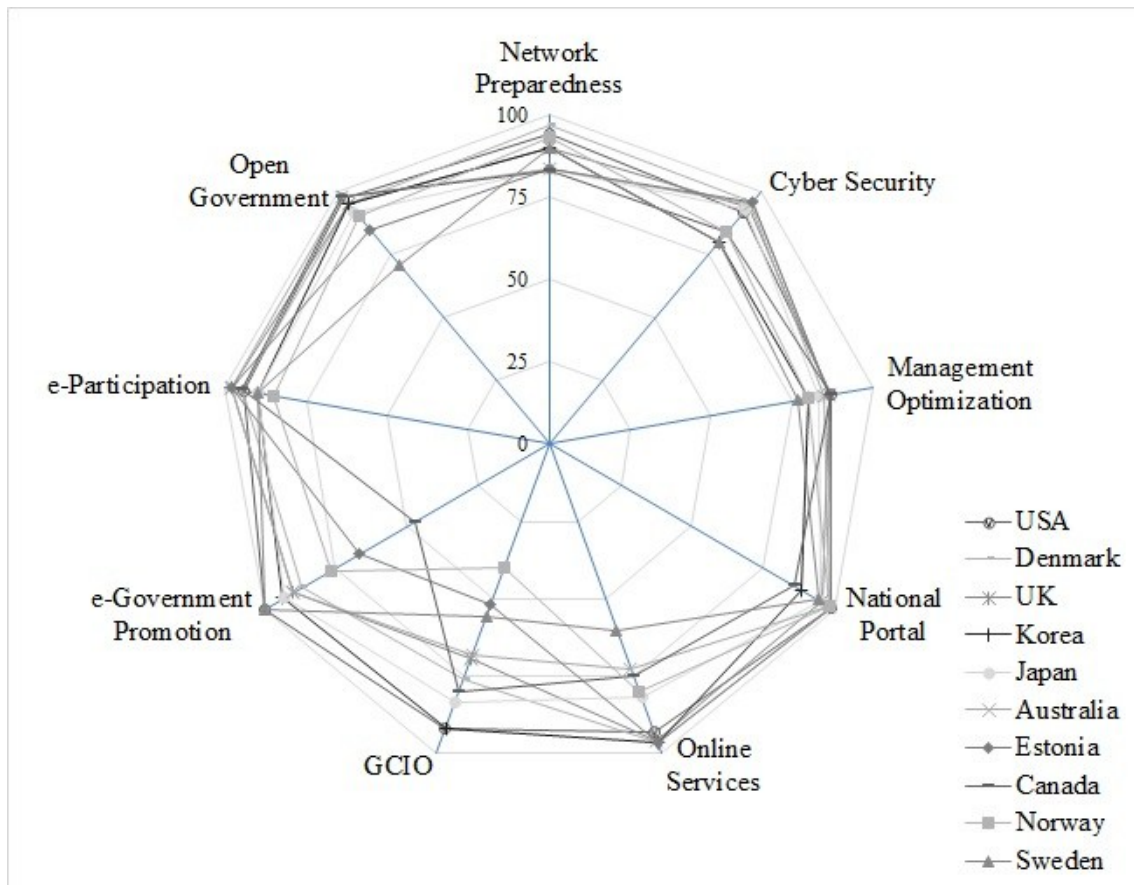


Figure 12: Top 10 OECD Countries

In the bottom of this group, Chile, Mexico and Turkey are all developing countries. Compared to last year, Chile ranked in higher place moving to 26th while Mexico slipped down to 27th place. Despite actions already taken in Turkey, citizens still encounter shortage of enabling services and a lack of e-inclusion which is a barrier to

achieving an information society. Therefore, for the 2015 ranking, Turkey ranked at the bottom among OECD countries. Figure 12 shows the top 10 countries in this group.

IV. E-Government Ranking by the Size of Population and GDP

1. Ranking in Big Population Countries (higher than 100 million)

Big Population Countries			Big Population Countries			Big Population Countries		
No	Country	Score	No	Country	Score	No	Country	Score
1	USA	93.58	5	India	56.42	9	China	48.36
2	Japan	87.77	6	Mexico	53.41	10	Pakistan	42.94
3	Indonesia	60.11	7	Philippines	51.47	11	Nigeria	38.37
4	Russia	56.56	8	Brazil	50.37			

Table 6: e-Government Ranking in Big Population Countries

In 2015, Waseda-IAC e-Government Ranking continues to include a ranking by the size of population and GDP. Waseda-IAC selected the countries whose populations are greater than 100 million. Most countries with a big population often have large geographic areas as well. Therefore, these countries face many unique developmental challenges in e-Government, such as building a nationwide broadband network, and delivering e-services to all citizens. There are eleven countries in this group.

The leaders of this group are USA, Japan, and Indonesia. They are ranked 1st, 2nd and 3rd place respectively. The USA is very mature in in e-Government and the US government is committed to delivering public services. USA's objectives are to fulfill the needs of their users and achieve maximum value for the money of the taxpayers. Currently, the focus is shifted to the productivity and effectiveness improvement by using ICT.

The U.S. government has steadily made efforts to expand the utilization of online services as a main part of the e-Government initiative since 1999. In 2005, online applications at the national level covered 96% of all the administrative procedures. The use of this online application was 70% in 2014. To enhance e-Government, the government is making a new action plan to improve online applications for the further promotion of their use.

China, Pakistan and Nigeria are ranked at the bottom of this group. They came at 9th, 10th and 11th place. In China, several plans for the Information and Communication Technology (ICT) development have been proposed and some have been implemented already to improve service delivery through utilization of e-Government. Due to its big population and great regional differences, China lacks the information technology and

education system further advance the development of e-Government. However, it is obvious that China has been making efforts tremendously to improve e-Government services.

Pakistan is one of the emerging countries in the world which is trying to make a difference in its way of implementing e-Government. The Pakistani government believes that information technology is a vital tool to accelerate economic growth and provide efficient governance and human resource development. The Pakistani government focuses on enhancing government operations by implementing e-Government Strategy. The Government has approved the e-Government Strategy and Plan for implementation across all organizations of government. Pakistan still has challenges in implementing authentication for full e-Government services, rollout of broadband, community and citizen engagement, digital divide and digital inclusion projects, creation and use of digital content data repositories, and the lack of ICT.

Nigeria is a developing country with a rapidly developing telecommunications market. Internet users and mobile users are increasing. The Government has many strategies and plans to develop and improve e-services to citizens, and there is much evidence to show that e-services like e-payment, e-health, e-voting are developing in this country. But if the Nigerian government would like to spread e-services to citizens more, they must have a specific plan to improve these services through a national portal. Nigeria still needs to improve on its ICT services and telecommunication systems. All Nigerian states now have some form of mobile coverage, however, there are still millions of Nigerians with limited or no access to ICT services due to lack of network infrastructure.

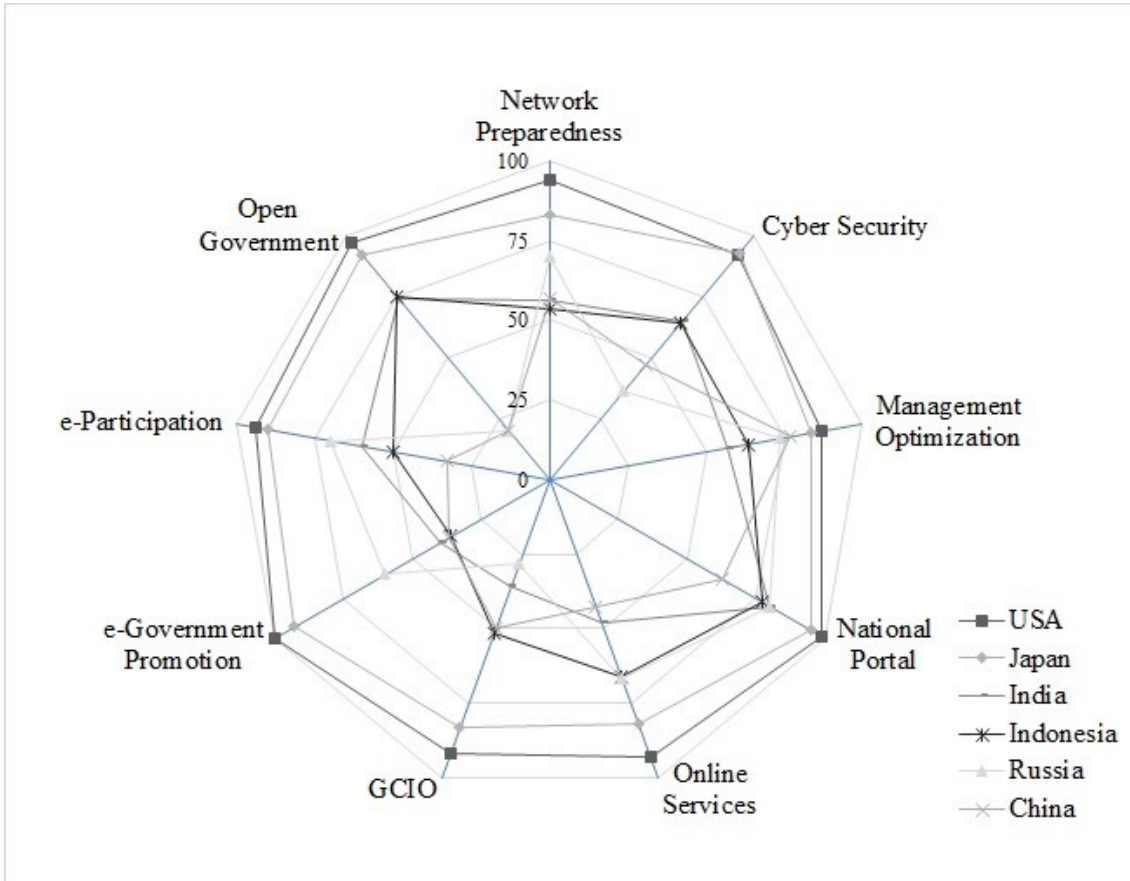


Figure 13: Top 10 Big Population Countries in e-Government

Among the large population countries, US and Japan are the most advanced in e-Government development. They have a good position in all indicators.

2. Ranking in Small Population Countries (Less than 10 million)

Small Population Countries			Small Population Countries			Small Population Countries		
No	Country	Score	No	Country	Score	No	Country	Score
1	Singapore	93.80	8	Finland	76.49	15	Oman	51.60
2	Denmark	91.58	9	Iceland	69.73	16	Brunei	51.06
3	Estonia	84.87	10	Switzerland	69.17	17	Bahrain	50.50
4	Norway	79.63	11	Israel	65.80	18	Uruguay	44.01
5	Sweden	77.95	12	HK SAR	65.24	19	Costa Rica	42.06
6	Austria	77.26	13	UAE	58.10	20	Fiji	37.54
7	New Zealand	76.66	14	Macau	56.27			

Table 7: e-Government Ranking in Small Population Countries

The 2015 ranking selected twenty countries in the Small Population group compared to only ten countries last year. This group consists of countries with a population less than 10 million citizens. Half of top ten countries are developed

countries and half are developing countries. Leading in this group is Singapore, followed by Denmark in 2nd and Estonia in 3rd place. Nordic countries are major players in the top ten of this group. In the bottom of this group are Uruguay, Costa Rica and Fiji. They ranked for 18th, 19th and 20th place respectively.

Singapore has implemented e-Government successfully and effectively. Singapore is an excellent case study for best practices for other countries to learn and apply. Singapore as a so called a city-state has few local government divisions. In order to monitor and manage its e-Government development better, the Singapore government has chosen a centralized approach. The government also owns the entire central ICT infrastructure, and manages all services and policies affecting citizens. Thanks to this centralized infrastructure, all e-services provided by the government can utilize the same security, electronic payment, and data exchange mechanisms. Therefore, many countries with small populations can apply this “Singapore” model to implement e-Government rapidly and effectively.

Fiji has a low ranking among the small population countries. The e-Government program of Fiji is at a stage of designing the infrastructure to provide government services online.

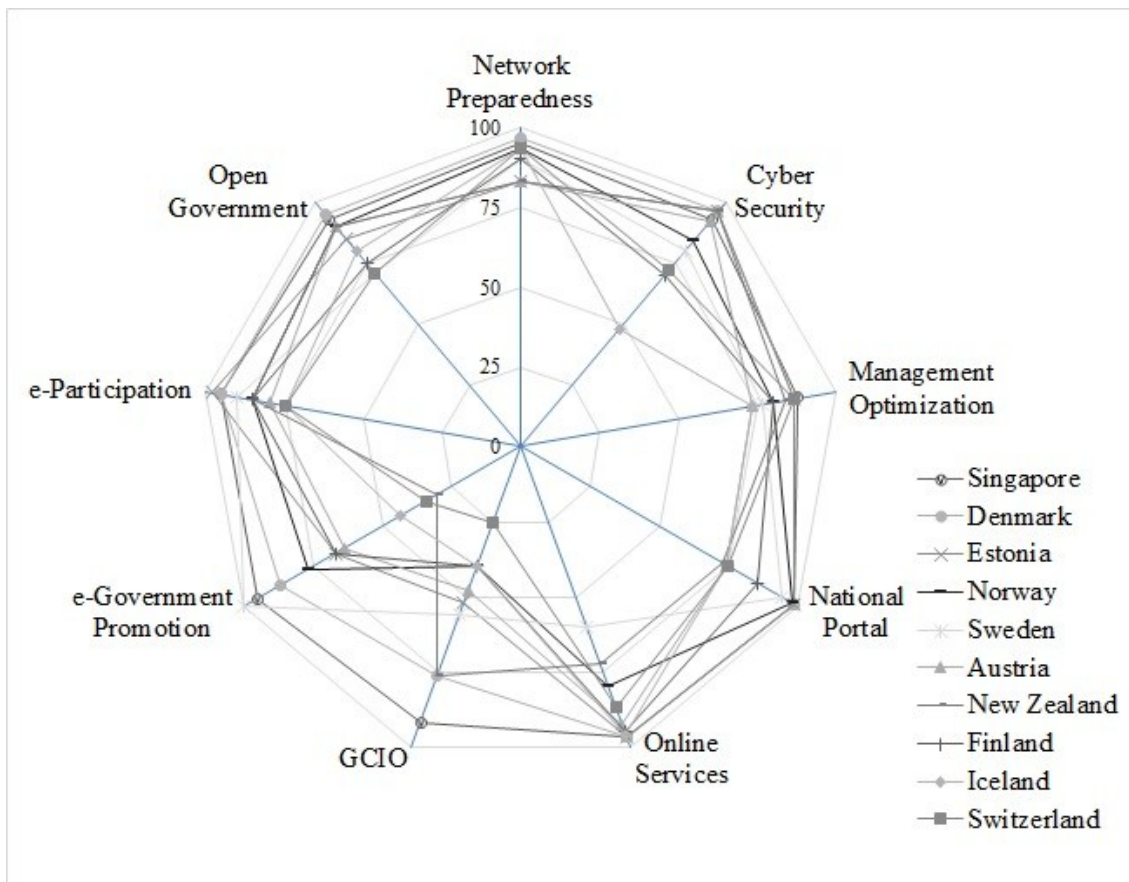


Figure 14: e-Government Ranking in Small Population Countries

3. e-Government Ranking in Top 10 Countries with Highest GDP in World

Highest GDP Group			Highest GDP Group		
No	Country	Score	No	Country	Score
1	USA	93.58	6	France	73.39
2	UK	90.17	7	Italy	61.30
3	Japan	87.77	8	Russia	56.56
4	Canada	81.45	9	Brazil	50.37
5	Germany	76.46	10	China	48.36

Table 8: e-Government Ranking with Highest GDP Group

The USA, China and Japan are the biggest economic powers in the world based on GDP. In terms of e-Government, the USA and Japan are in first and third place, respectively, while China ranked at the bottom, or 10th place. Canada replaced India at 4th place. Three European countries, Germany, France and Italy and ranked for 5th, 6th and 7th place respectively. Russia remained the same at 8th place.

In Russia, maturity of services provided through one-stop portal is not yet uniform among the country's regions, and is expected to be enhanced. The government's goal is for at least 70% of services to be available through the portal by 2018. In addition, e-Health systems are planned to be optimized and integrated expanding the services available through one-stop e-Government portal to include requests of sick-leave certificates, electronic prescriptions and electronic inquiries.

Brazil is still struggling to improve the efficiency of the public policy and services via e-Government. In addition, Brazil is working to improve the efficiency and transparency of the management process by providing citizens access to government information and by providing a means for citizens to participate in some political administrative decisions. Brazil has one of the world's largest populations and geographies and providing e-services to all citizens requires the development of a good infrastructure. The current low awareness of e-Government services is a major barrier in preventing their effective use, and in an obstacle to the assessment of citizens' demand. In High GDP countries, management optimization has gained widespread attention (figure 15)

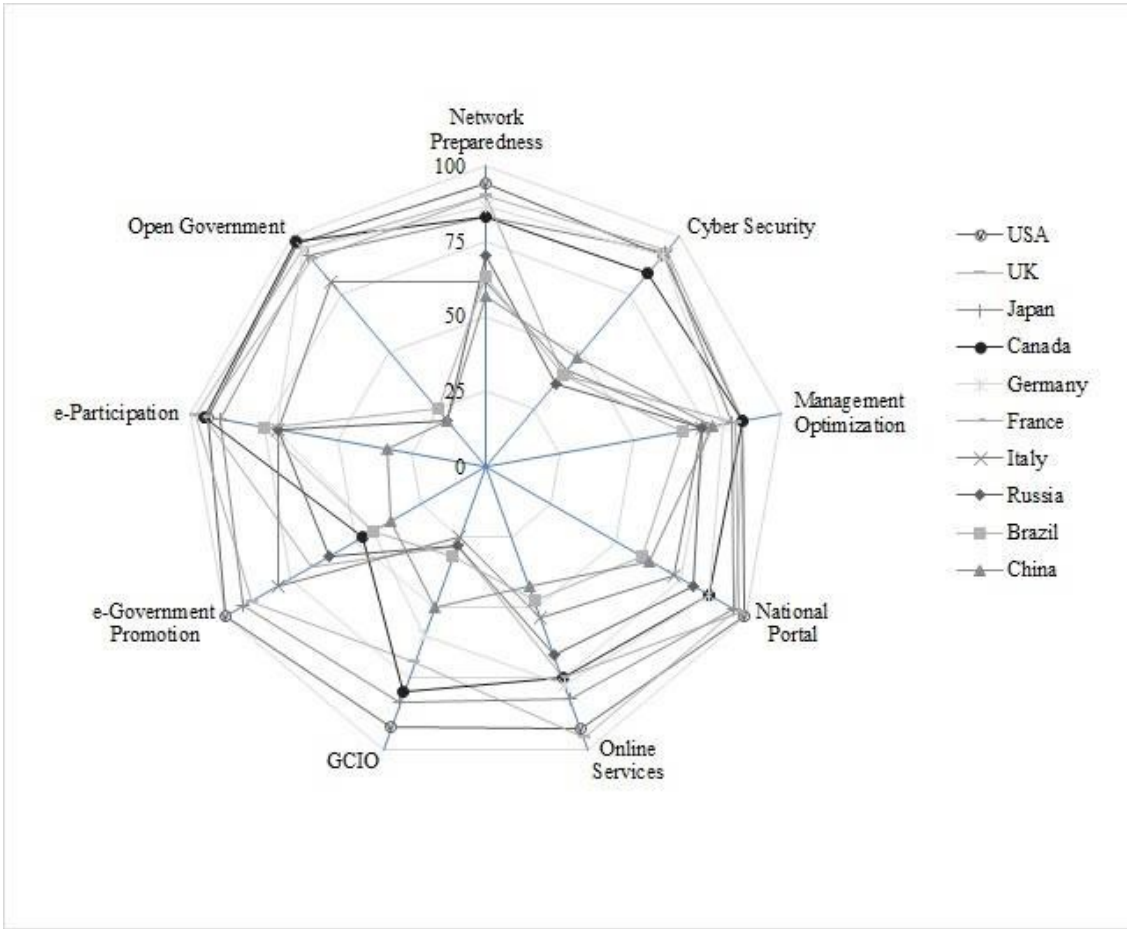


Figure 15: Top 10 e-Government Ranking in Highest GDP Countries

V. e-Government Ranking by Regions

1. Ranking in Asia-Pacific Countries

Asia-Pacific Countries			Asia-Pacific Countries			Asia-Pacific Countries		
No	Country	Score	No	Country	Score	No	Country	Score
1	Singapore	93.80	7	Thailand	67.31	13	Macau	56.27
2	Korea	89.39	8	HK SAR	65.24	14	Philippines	51.47
3	Japan	87.77	9	Malaysia	64.87	15	Brunei	51.06
4	Australia	86.30	10	Indonesia	60.11	16	China	48.36
5	New Zealand	76.66	11	Vietnam	57.03	17	Pakistan	42.94
6	Chinese Taipei	72.76	12	India	56.42	18	Fiji	37.54

Table 9: e-Government Ranking in Asia-Pacific Countries

The Asia region have fifty-two countries and territories, but this year's survey covered only eighteen countries as Cambodia was not included. Compared to last year,

there is no change in the top nine countries. Indonesia and Vietnam moved to higher positions, while India slipped down to 12th. The bottom of this group is Pakistan and Fiji, which have the same positions as last year.

Korea Government has been furthering the development of e-Government towards the Smart e-Government, promoting the usage of public services and active participation anytime and anywhere. Currently, the Ministry of Public Administration and Security (MOPAS) is responsible for national administration, government organizations, personnel management, e-Government and disaster safety. Under the slogan of “Moving toward a smaller and more efficient government”, MOPAS actively supports local government in terms of local administration, finance, and regional development for the promotion of greater local autonomy. In order to perform those strategies, the Korean government needs to establish an agenda based on the prediction of social and technical changes, and analysis of future needs. Several challenges could be identified for Korea’s e-Government initiatives, including digital divide, internet addiction, and cyber ethics.

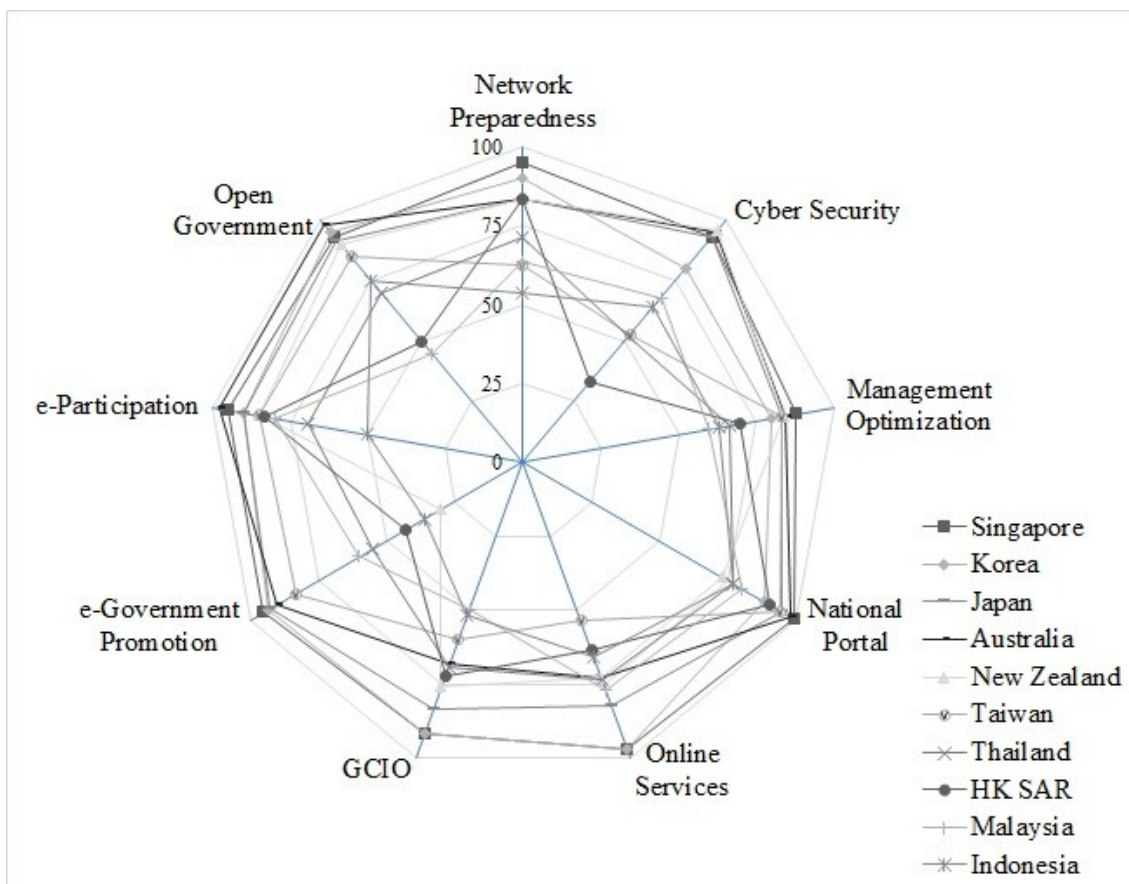


Figure 16: Top 10 e-Governments Ranking in Asia-Pacific Countries

2. Ranking in Americas Countries

Americas Countries	Americas Countries	Americas Countries
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No	Country	Score	No	Country	Score	No	Country	Score
1	USA	93.58	5	Brazil	50.37	9	Venezuela	44.65
2	Canada	81.45	6	Argentina	50.32	10	Uruguay	44.01
3	Chile	53.49	7	Colombia	49.36	11	Costa Rica	42.06
4	Mexico	53.41	8	Peru	46.21			

Table 10: e-Government Ranking in Americas Countries

The 2015 ranking welcomes a new comer, Costa Rica. This makes the total number of surveyed countries in Americas eleven. Ranked 2nd place in overall ranking, USA leads all countries in this group at 1st place, followed by Canada, Chile, Mexico and Brazil. Venezuela, Uruguay and Costa Rica stood at the bottom of this group and ranked for 9th, 10th, and 11th.

In 2014, the Canadian government launched Digital Canada 150 which has the objective to take the full advantage of digital opportunity for Canadians. It is expected that by 2017, the 150th anniversary of the country, Canada will accentuate five digital pillars; connecting Canadians, protecting Canadians, economic opportunities, digital government, and Canadian content. E-Government implementation is advanced in Canada with most of e-services being not just informational but also transactional. With the continuation of support from the government, Canada is likely will continue to be one of the world's leaders of e-Government. By introducing the Digital Canada 150, Canada has shifted its e-Government to the digital government.

The Costa Rican government's most recent e-Government strategy, the Digital Government Master Plan 2011-2014, has now drawn to a close with some notable achievements. At the time of unveiling, it was intended to be the first phase of a two-phase process. Costa Rica has yet to announce their new e-Government plan, but it is likely to have parallel goals. Costa Rica will continue to focus on improving the foundation they built over the past decade, and providing more efficient, user-friendly e-services to citizens and businesses.

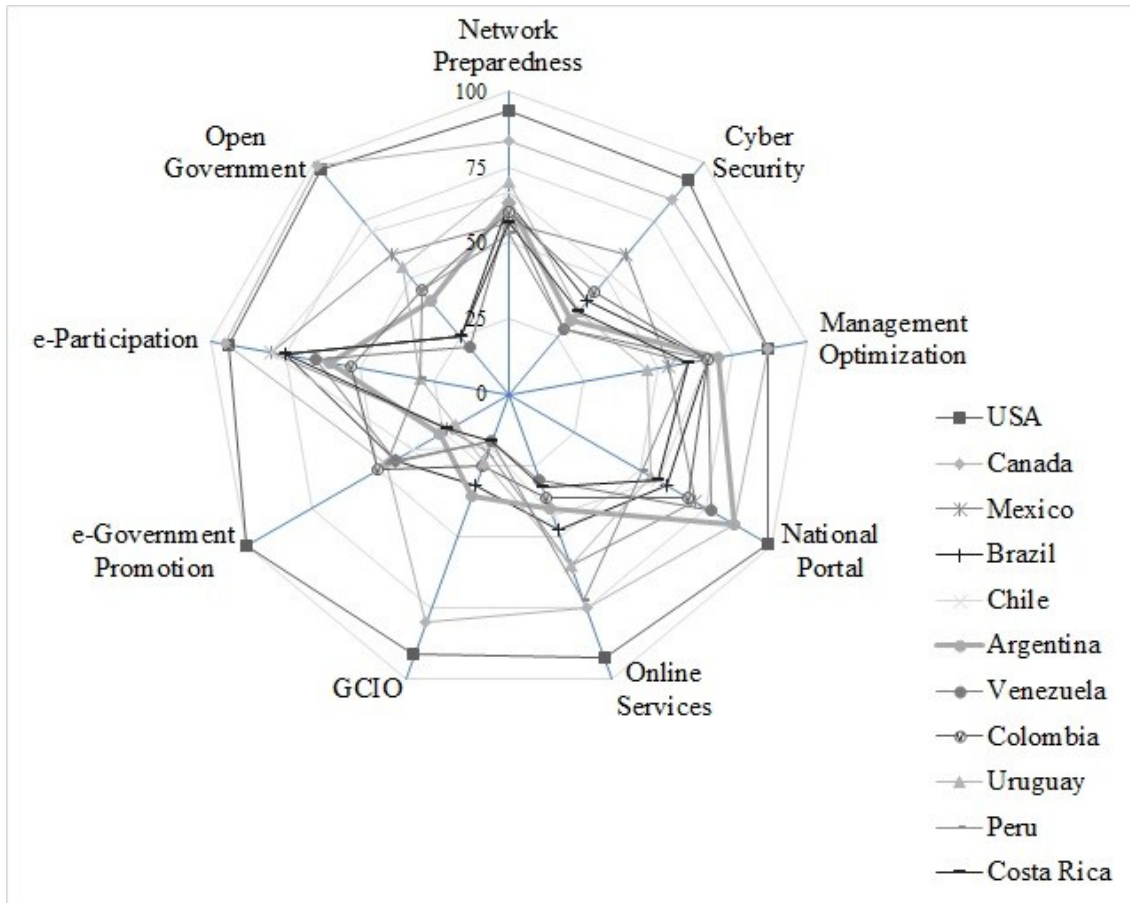


Figure 17: Top 10 e-Government Ranking in Americas Countries

3. Ranking in European Countries

EU Countries			EU Countries			EU Countries		
No	Country	Score	No	Country	Score	No	Country	Score
1	Denmark	91.52	8	Germany	76.46	15	Czech Republic	63.48
2	UK	90.17	9	France	73.39	16	Italy	61.30
3	Estonia	84.87	10	Belgium	71.69	17	Poland	57.30
4	Norway	79.63	11	Iceland	69.73	18	Spain	57.12
5	Sweden	77.95	12	Netherlands	69.53	19	Romania	53.11
6	Austria	77.26	13	Switzerland	69.17			
7	Finland	76.49	14	Portugal	63.93			

Table 11: e-Government Ranking in European Countries

This region has been vanguard for information technology and telecommunications infrastructure, particularly in the Nordic countries. Europe is largely made up of developed countries with high per-capita incomes and a wealth of human resources. With regards to e-Government development, EU countries are encouraged to deploy

advanced technologies, institute better governance and e-services while simultaneously pursuing greater transparency, efficiency and inclusion.

Compared to last year, Denmark replaced UK at first place, followed by UK and Estonia ranked at 2nd, and 3rd respectively. Finland slipped four steps and tied at 7th. Despite being included in the ranking for the first time this year, Iceland got a high position and tied in middle of this group. Italy also slipped 4 steps and ranked for 16th place. At the bottom is Romania, which has not changed position compared to last year.

The UK is very mature in the development of e-Government. Its government is committed to improving public services. The UK's objectives are to fulfill the needs of their users and achieve maximum value for the taxpayers. Currently, the focus is shifted to the productivity and effectiveness improvement by using ICT. A new strategy was set up in March 2011 to implement this idea.

Italy recently launched an advance mobile application for people with rheumatoid arthritis, called the Rheumatoid Arthritis App. The Italian government also has a goal of implementing electronic health records in all of Italy's autonomous regions and provinces, with digital prescriptions introduced in the country subsequently. Furthermore, in a country burdened by paperwork, the new decree opens up the possibility of registering births and deaths, and payments to public administrations online, through a simplified system.

Since the beginning of the decade, Romania has passed fundamental ICT-related laws, planned and implemented the first steps towards an Informational Society, but there is still much for improvement. Romania has the advantage of good ICT infrastructure in place and mature IT workforce. The e-Romania project has yet to be implemented. Local e-Government initiatives are underway in several regions, but there are big differences among regions. A government oversight board would be necessary. E-participation also needs to be enhanced.

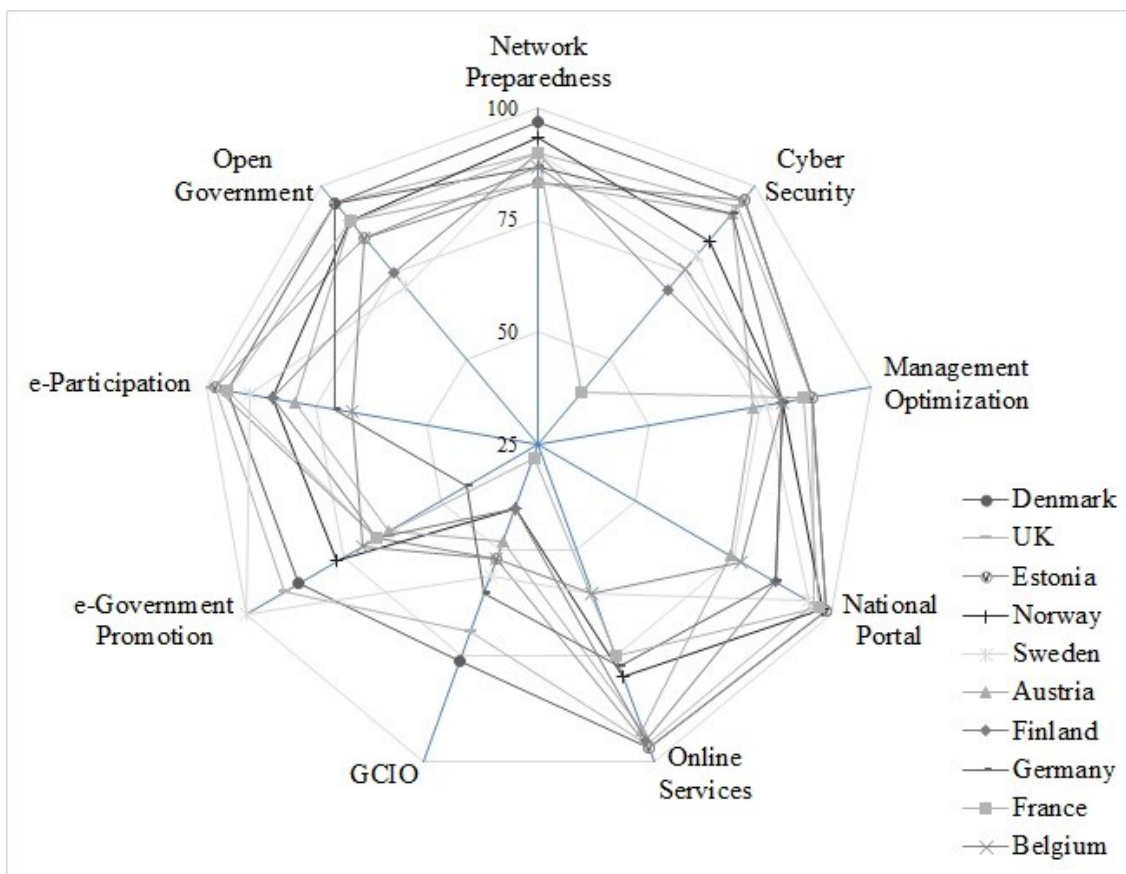


Figure 18: Top 10 e-Governments Ranking in European Countries

4. Ranking in Africa, Middle East and CIS Countries

Africa, Middle East & CIS			Africa, Middle East & CIS			Africa, Middle East & CIS		
No	Country	Score	No	Country	Score	No	Country	Score
1	Israel	65.80	6	Bahrain	50.50	11	Morocco	43.13
2	UAE	58.10	7	South Africa	49.30	12	Georgia	40.73
3	Russia	56.56	8	Kazakhstan	47.73	13	Nigeria	38.37
4	Oman	51.60	9	Saudi Arabia	47.48	14	Egypt	37.19
5	Turkey	51.31	10	Tunisia	45.87	15	Kenya	32.91

Table 12: e-Government Ranking in Africa, Middle East and CIS Countries

This group includes countries from Africa, Middle East and CIS. While three countries, Bahrain, Oman, and Morocco, were added to the ranking in 2015, Uzbekistan and Iran have been removed. As a result, this group consists of fifteen countries. Israel positioned 1st, followed by UAE in 2nd and Russia in 3rd. The bottom of this group is also the same countries in the overall ranking. They are Nigeria, Egypt and Kenya.

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and Iran have been removed. As a result, this group consists of fifteen countries. Israel positioned 1st, followed by UAE in 2nd and Russia in 3rd. The bottom of this group is also the same countries in the overall ranking. They are Nigeria, Egypt and Kenya.

The development of e-Government in Egypt has progressed hand in hand with Egyptian efforts to establish public sector reforms and encourage the development of the information society. These two trends constitute important existing drivers for e-Government. Following the uprisings that culminated in the revolution and led to the ongoing transition process, a third e-Government driver has emerged centered on the needs of the citizens and the civil society. The development of e-Government in Egypt has progressed hand in hand with Egyptian efforts to establish public sector reforms and encourage the development of the information society. These two trends constitute important existing drivers for e-Government. Following the uprisings that culminated in the revolution and led to the ongoing transition process, a third e-Government driver has emerged centered on the needs of the citizens and the civil society.

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Kenya as well as other developing countries is undertaking e-Government with the assistance of other countries and international organizations. The Kenya e-Government master plan was developed by South Korea's National IT Promotional Agency (NIPA) and the Kenya ICT Authority, and is anchored in the constitution of Kenya. In Kenya, there is no GCIO and e-services are still in development.

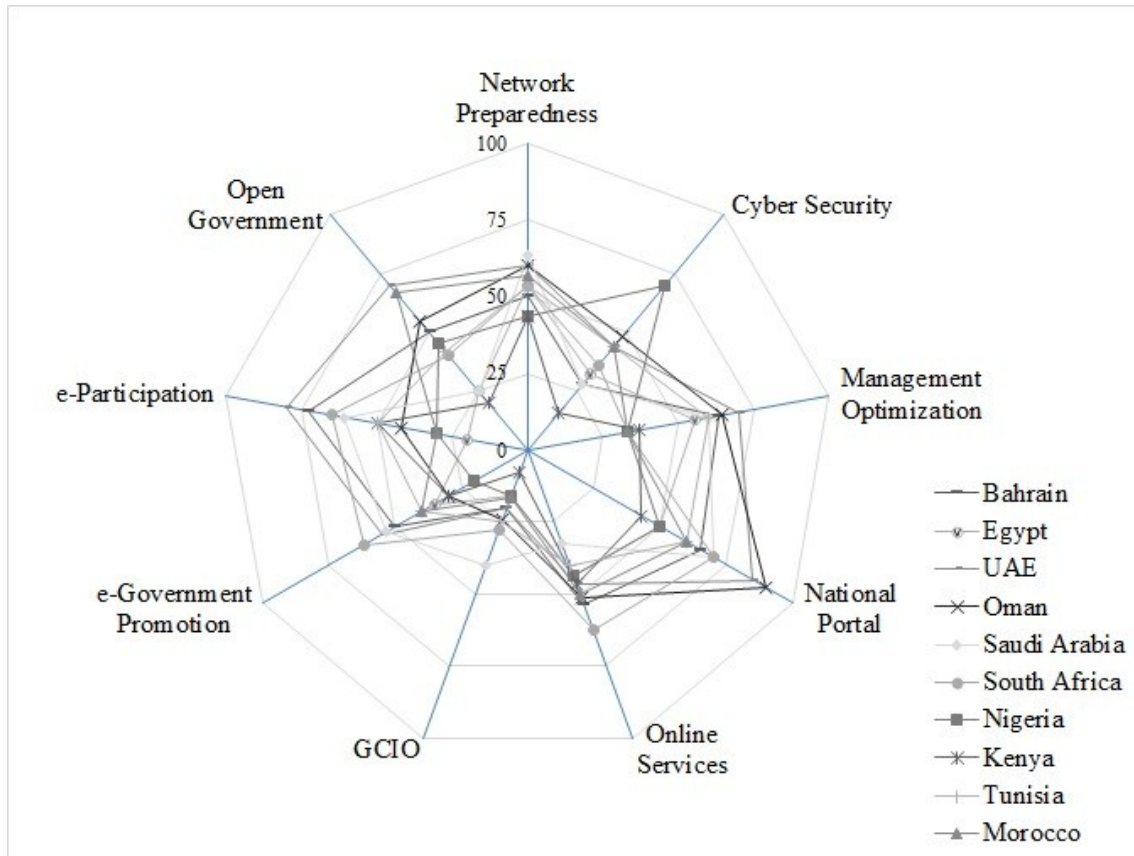


Figure 19: Top 10 e-Government Ranking in Africa, Middle-East and CIS Countries

VI. Methodology

The Waseda – IAC e-Government Ranking Survey evaluates the application of ICT in administration and leadership of each government. It also provides a unique perspective to assess the development of e-Government from a sampling of countries across the globe, thereby enriching the existing literature on e-Government studies. The objective of the ranking is (1) to share best practices among participating countries, (2) to show the progress of e-Government development in a country, (3) to identify trends in e-Government development, and (4) to be a valued resource and cited report by researchers and scholars.

As a base for evaluation, the Waseda – IAC e-Government Ranking survey uses 9 major indicators and 32 sub-indicators in the public sector, as well as the relationship between governments and their stakeholders. The indicators include: (1) Network Preparedness; (2) Management Optimization; (3) Online Service; (4) National Portal/Homepage; (5) Government Chief Information Officer; (6) e-Government Promotion; (7) E-Participation/ Digital Inclusion; (8) Open Government/ Data and (9) Cyber Security. To obtain and evaluate data, the survey is based on the following flowchart:

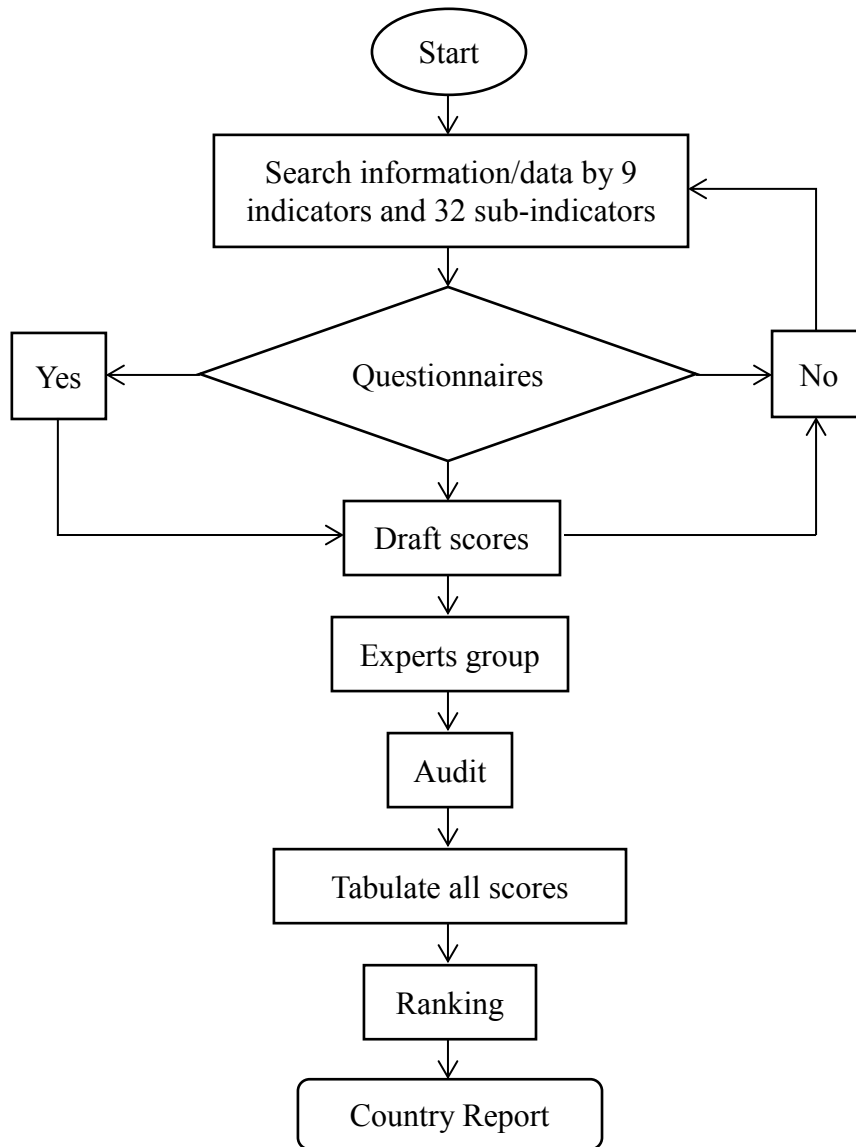


Figure 20: Processes Diagram

In addition to the research team of Waseda Institute of e-Government, eleven prominent academia from eleven world class universities in eleven countries under the umbrella of IAC have also served as global expert for advising and monitoring the survey.

To evaluate the research framework, check and review the methodology, indicators and targeted countries as well as monitoring 63 country reports for the 2015 edition, two global expert meetings were hosted by Waseda Institute of e-Government and IAC in Singapore in June 2014 and in Guimaraes, Portugal in October 2014. Also, Researchers have participated in many international meetings, workshops and forums in Bangkok, Jakarta, Brussels, Geneva, New York and Paris as well as Tokyo in 2014/15.

Mathematically, the statistics of the Waseda – IAC e-Government Ranking is a weighted average of the nine indicators scores. The scores are based on the table below:

No	Indicators	Raw score	Max raw score	Max weighted score	Scoring parameters	Final score
1	Network Preparedness	A	30	5%=W1	$W1/30*100 = X1$	$A*X1$
2	Management Optimization	B	15	12%=W2	$W2/15*100 = X2$	$B*X2$
3	Online Service	C	40	15%=W3	$W3/40*100 = X3$	$C*X3$
4	National Portal	D	35	8%=W4	$W4/35*100 = X4$	$D*X4$
5	Government CIO	E	25	12%=W5	$W5/25*100 = X5$	$E*X5$
6	e-Government Promotion	F	30	10%=W6	$W6/30*100 = X6$	$F*X6$
7	E-Participation	G	20	10%=W7	$W7/20*100 = X7$	$G*X7$
8	Open Government	H	20	10%=W8	$W7/20*100 = X8$	$H*X8$
9	Cyber Security	I	25	10%=W9	$W7/20*100 = X9$	$I*X9$
Total score:						Σ

Table 13: Weighted Scores Method

VII. Contributors List (● indicate group leader)

1. List of Global Experts Group

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