





### ขีดความสามารถในการแข่งขันของ ประเทศในเวทีเศรษฐกิจโลก WEF

รศ.ดร.พสุ เดชะรินทร์ คณะพาณิชยศาสตร์และการบัญชี จุฬาลงกรณ์มหาวิทยาลัย

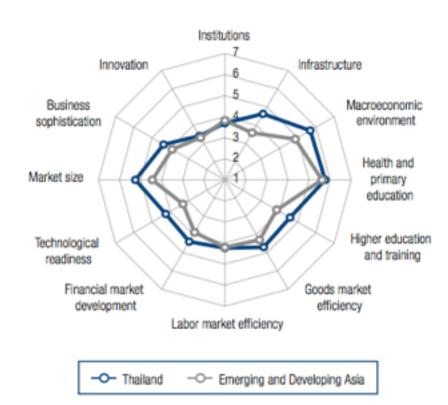






#### **Global Competitiveness Index**

| •  |                                  |
|--|----------------------------------|
|  | Rank Score<br>(out of 140) (1-7) |
| GCI 2015-2016                                | 32 4.6                           |
| GCI 2014-2015 (out of 144)                   | 4.7                              |
| GCI 2013-2014 (out of 148)                   | 4.5                              |
| GCI 2012-2013 (out of 144)                   | 4.5                              |
| Basic requirements (40.0%)                   | 424.9                            |
| 1st pillar: Institutions                     | 823.7                            |
| 2nd pillar: Infrastructure                   | 444.6                            |
| 3rd pillar: Macroeconomic environment        | 5.7                              |
| 4th pillar: Health and primary education     | 5.8                              |
| Efficiency enhancers (50.0%)                 | 384.6                            |
| 5th pillar: Higher education and training    | 564.6                            |
| 6th pillar: Goods market efficiency          | 4.7                              |
| 7th pillar: Labor market efficiency          | 4.2                              |
| 8th pillar: Financial market development     | 4.4                              |
| 9th pillar: Technological readiness          | 584.2                            |
| 10th pillar: Market size                     | 5.2                              |
| Innovation and sophistication factors (10.0% | o)483.9                          |
| 11th pillar: Business sophistication         | 4.4                              |
| 12th pillar: Innovation                      | 573.4                            |



#### Stage of development









### What is Competitiveness?

- WEF define competitiveness as the set of institutions, policies, and factors that determine the level of productivity of a country.
- The level of productivity in turn, sets the level of prosperity that can be reached by an economy.
- WEF identified 12 pillars that drive productivity and competitiveness







- แนวทางในการเก็บข้อมูลของ WEF (GCI: Global Competitiveness Index)
  - เก็บข้อมูลจาก 140 ประเทศทั่ว โลก
  - ข้อมูลจากแบบสอบถาม (EOS: Executive Opinion Survey)
  - ข้อมูลจากหน่วยงานระดับประเทศ เช่น IMF, UNESCO, WHO







- การคำนวณ ค่าดัชนี GCI
  - แบ่งประเทศต่างๆ ทั่วโลกออกเป็น 3 กลุ่ม ตาม GDP per Capita
  - มีตัวชี้วัด 113 ตัว ที่สะท้อนภาพความสามารถในการ แข่งขัน และตัวชี้วัดทั้ง 13 ตัว มีการจัดกลุ่มเป็น 3 กลุ่ม และ มีทั้งหมด 12 ด้าน (Pillars)
  - น้ำหนักของตัวแปร ในด้านสำหรับแต่ละกลุ่มประเทศ จะไม่เท่ากัน







#### **GCI 12 Pillars**

Pillar 1: Institutions

is determined by the legal and administrative framework within which individuals, firms, and governments interact to generate wealth.

Pillar 2: Infrastructure

Extensive and efficient infrastructure is critical for ensuring the effective functioning of the economy.

Pillar 3:
Macroeconomic
environment

The stability of the macroeconomic environment is important For business and for the overall competitiveness of a country.

Pillar 4: Health and primary education

A healthy workforce is vital to a country's competitiveness and productivity. Also, the quantity and quality of the basic education received by the population.







#### **GCI 12 Pillars**

Pillar 5: Higher education and training

Quality higher education and training is crucial for economies that want to move up the value chain beyond simple production processes and products.

Pillar 6: Goods market efficiency

Healthy market competition is important in driving market efficiency and business productivity.

Pillar 7: Labor market efficiency

The efficiency and flexibility of the labor market are critical for ensuring that workers are allocated to their most effective use in the economy and provided with incentives to give their best effort in their jobs.

Pillar 8: Financial market development

The central role of a sound and well-functioning financial sector for economic activities.







#### **GCI 12 Pillars**

Pillar 9: Technological readiness measures the agility with which an economy adopts existing technologies to enhance the productivity of its industries, with specific emphasis on its capacity to fully leverage ICTs.

Pillar 10: Market size

The size of the market affects productivity since large markets allow firms to exploit economies of scale.

Pillar 11: Business sophistication

concerns two elements that are intricately linked: the quality of a country's overall business networks and the quality of individual firms' operations and strategies.

Pillar 12: Innovation

focuses on technological innovation







## Global Competitiveness Index and stage of development

- Factor-driven: countries compete based on their factor endowments – unskilled labor and natural resources. Companies compete on the basis of price and sell basic products or commodities.
- Efficiency-driven: develop more efficient production processes and increase product quality because wages have risen and cannot increase prices.
- Innovation-driven: companies must compete by producing new and different goods using the most sophisticated production processes and by innovating new ones.







#### **Stage of Development and Weighted Scores**

|  |                           | STAGE OF DEVELOPMENT                  |                               |                                       |                               |  |
|--|---------------------------|---------------------------------------|-------------------------------|---------------------------------------|-------------------------------|--|
|  | Stage 1:<br>Factor-driven | Transition from<br>stage 1 to stage 2 | Stage 2:<br>Efficiency-driven | Transition from<br>stage 2 to stage 3 | Stage 3:<br>Innovation-driven |  |
| GDP per capita (US\$) thresholds*                | <2,000                    | 2,000-2,999                           | 3,000-8,999                   | 9,000-17,000                          | >17,000                       |  |
| Weight for basic requirements                    | 60%                       | 40-60%                                | 40%                           | 20-40%                                | 20%                           |  |
| Weight for efficiency enhancers                  | 35%                       | 35-50%                                | 50%                           | 50%                                   | 50%                           |  |
| Weight for innovation and sophistication factors | 5%                        | 5-10%                                 | 10%                           | 10-30%                                | 30%                           |  |

Note: See individual country/economy profiles for the exact applied weights.

<sup>\*</sup> For economies with a high dependency on mineral resources, GDP per capita is not the sole criterion for the determination of the stage of development. See text for details.







# Global Competitiveness Index 12 pillars and stage of development

10%

#### Innovation-Driven

Economies

Pillar 11: Business sophistication

Pillar 12: Innovation

50%

#### Efficiency-Driven Economies

Pillar 5: High education and training

Pillar 8: Financial market development

Pillar 6: Goods market efficiency

Pillar 9: Technological readiness

Pillar 7: Labor market efficiency

Pillar 10: Market size

40%

**Factor-Driven Economies** 

Pillar 1: Institutions

Pillar 3: Macroeconomic environment Pillar 2: Infrastructure

Pillar 4: Health and primary education







#### Where is Thailand?

- ประเทศไทยอยู่ใน Development Stage ไหน?
  - GDP per Capita
  - Share of exports of mineral goods in total export

| Stage 1:<br>Factor-driven                              | Transition from stage 1 to stage 2            | Stage 2:<br>Efficiency-<br>driven                          | Transition from stage 2 to stage 3 | Stage 3:<br>Innovation-<br>driven                          |
|--|---|--|------------------------------------|--|
| <ul><li>Cambodia</li><li>Lao</li><li>Myanmar</li></ul> | <ul><li>Philippines</li><li>Vietnam</li></ul> | <ul><li>China</li><li>Indonesia</li><li>Thailand</li></ul> | • Malaysia                         | <ul><li> Japan</li><li> Korea</li><li> Singapore</li></ul> |







### ิข้อมูลที่ใช้ในการคำนวณ Global Competitiveness Index

- 70% มาจาก EOS (Primary data)
  - แบบสำรวจความคิดเห็นของผู้บริหาร หรือ Executive Opinion Survey (EOS)
  - เก็บข้อมูลจากกลุ่มตัวอย่างตามแนวทางของ WEF
- 30% มาจาก Secondary data จากองค์กรระหว่างประเทศ เช่น World Bank, WTO, IMF, UNESCO
- ข้อมูลจาก EOS ที่นำมาใช้ จะเป็นการถัวเฉลี่ยข้อมูลปีปัจจุบันและปีที่ผ่าน มา

#### (Weighted Average)

- สำหรับปี 2015 จะใช้ข้อมูลของปี 2015 และ 2014 มาถัวเฉลี่ยถ่วงน้ำหนัก
- น้ำหนักปี 2015 = 56.1%
- น้ำหนักปี 2014 = 43.9







### แนวทางและวิธีการในการเก็บข้อมูล EOS

- เพื่อให้เป็นมาตรฐานเดียวกันทั่วโลก
- เป้าหมายที่ทาง WEF ต้องการคือ
  - ต้องการอย่างน้อย 80 responses ต่อประเทศ
  - ผู้ตอบต้องเป็น CEO หรือผู้บริหารระดับสูง (top 5) ขององค์กรเอกชนที่อยู่ใน
     ประเทศไทย โดยอาจเป็นบริษัทข้ามชาติก็ได้ แต่ผู้ตอบจะตอบจากมุมมองของประเทศ เท่านั้น
  - สัดส่วนของบริษัทในกลุ่มตัวอย่างต้องสอดคล้องกับสัดส่วน GDP ของประเทศ เช่น ประเทศไทย แบ่งเป็นภาคการเกษตร 12% ภาคอุตสาหกรรม 42.5% และภาคบริการ 45.5%
  - กลุ่มตัวอย่างต้องประกอบด้วยบริษัทขนาดเล็ก (พนักงาน 20-500 คน) และขนาดใหญ่
     (พนักงานมากกว่า 500 คน) ในสัดส่วนที่เท่ากัน คือ 50:50
  - นอกจากนี้ ครึ่งหนึ่ง (50%) ของกลุ่มตัวอย่างต้องเป็น repeat respondents หรือผู้ที่เคย ตอบแบบสอบถามในปีที่แล้ว ส่วนอีกครึ่งหนึ่งจะเป็นการสุ่มเลือกผู้ที่ยังไม่เคยตอบ แบบสอบถามมาก่อน







### วิธีการเลือกตัวอย่าง

- Stratified sampling procedure including randomization หรือการ เลือกตัวอย่างแบบแบ่งชั้นภูมิและการสุ่มตัวอย่างแบบง่าย
- กล่าวคือ CBS ต้องกำหนด sample frame หรือกรอบของกลุ่ม ตัวอย่าง ส่งไปให้ทาง WEF อนุมัติก่อน
- จากนั้น CBS จะใช้วิธีการสุ่มตัวอย่างแบบง่ายในการเลือกบริษัทที่จะ เป็นผู้ตอบแบบสอบถามในแต่ละกลุ่ม (เช่นกลุ่มบริษัทขนาดเล็กในภาค บริการ)
- สำหรับฐานข้อมูลที่ใช้ เป็นฐานข้อมูลบริษัทที่จดทะเบียนในประเทศไทย บริษัทที่จดทะเบียนในตลาดหลักทรัพย์ และฐานข้อมูลจาก WEF
- สำหรับในปี 2015 CBS ได้รับแบบสอบถามที่สมบูรณ์คืนมาจาก 110 บริษัท







### ประเทศไทย เทียบกับ อดีต







### คะแนนของประเทศไทย ในปัจจุบัน เทียบกับ ในอดีต

|      | อันดับ | คะแนน (1-7) |
|------|--------|-------------|
| 2015 | 32     | 4.6         |
| 2014 | 31     | 4.7         |
| 2013 | 37     | 4.5         |
| 2012 | 38     | 4.5         |





### **Thailand**



#### **Comparing scores and ranks**

|   | Rank              |           |           | Score             |           |           |
|---|-------------------|-----------|-----------|-------------------|-----------|-----------|
|   | Change            | 2015-2016 | 2014-2015 | Change            | 2015-2016 | 2014-2015 |
| GCI   | 1                 | 32        | 31        | 1                 | 4.6       | 4.7       |
| 1 <sup>st</sup> pillar: Institution                   | 1                 | 82        | 84        | $\Leftrightarrow$ | 3.7       | 3.7       |
| 2 <sup>nd</sup> pillar: Infrastructure                | 1                 | 44        | 48        | $\Leftrightarrow$ | 4.6       | 4.6       |
| 3 <sup>rd</sup> pillar: Macroeconomic environment     | 1                 | 27        | 19        | 1                 | 5.7       | 6.0       |
| 4 <sup>th</sup> pillar: Health and primary education  | 1                 | 67        | 66        | $\Leftrightarrow$ | 5.8       | 5.8       |
| 5 <sup>th</sup> pillar: Higher education and training | 1                 | 56        | 59        | $\Leftrightarrow$ | 4.6       | 4.6       |
| 6 <sup>th</sup> pillar: Goods market<br>efficiency    | $\Leftrightarrow$ | 30        | 30        | $\Leftrightarrow$ | 4.7       | 4.7       |





### **Thailand**



#### **Comparing scores and ranks**

|   | Rank   |           | Score     |                   |           |           |
|---|--------|-----------|-----------|-------------------|-----------|-----------|
|   | Change | 2015-2016 | 2014-2015 | Change            | 2015-2016 | 2014-2015 |
| 7 <sup>th</sup> pillar: Labor market efficiency     | 1      | 67        | 66        | $\Leftrightarrow$ | 4.2       | 4.2       |
| 8 <sup>th</sup> pillar: Financial market efficiency | 1      | 39        | 34        | 1                 | 4.4       | 4.6       |
| 9 <sup>th</sup> pillar: Technological readiness     | 1      | 58        | 65        | 1                 | 4.2       | 3.9       |
| 10 <sup>th</sup> pillar: Market size                | 1      | 18        | 22        | 1                 | 5.2       | 5.1       |
| 11 <sup>th</sup> pillar: Business sophistication    | 1      | 35        | 41        | $\Leftrightarrow$ | 4.4       | 4.4       |
| 12 <sup>th</sup> pillar: Innovation                 | 1      | 57        | 67        | 1                 | 3.4       | 3.3       |







- Pillar ที่คะแนนในปี 2015 ตกลง จากปี 2014
  - Macroeconomic environment
    - 3.01 Government budget balance, % GDP (-0.2 —> -1.8)
    - 3.05 Country credit rating (63.5 —> 58.3)
  - Financial market development
    - 8.08 Legal rights index (5 —> 3)







#### The most problematic factors of doing business?

| 2015                                      | 2014  | 2013                                  |
|---|---|---------------------------------------|
| Government instability / coups (18.1)     | Corruption (21.4)                               | Corruption (20.2)                     |
| Corruption (12.5)                         | Government instability / coups (21)             | Government instability / coups (16.5) |
| Inefficient government bureaucracy (12.3) | Inefficient<br>government<br>bureaucracy (12.7) | Policy instability (13.5)             |





# Change in Rank of Countries in ASEAN +3



| Country     | Change            | Rank      |           |           |
|-------------|-------------------|-----------|-----------|-----------|
| Change      | Change            | 2015-2016 | 2014-2015 | 2013-2014 |
| Singapore   | $\Leftrightarrow$ | 2         | 2         | 2         |
| Japan       | $\Leftrightarrow$ | 6         | 6         | 9         |
| Malaysia    | 1                 | 18        | 20        | 24        |
| Korea       | $\Leftrightarrow$ | <b>26</b> | 26        | 25        |
| China       | $\Leftrightarrow$ | 28        | 28        | 29        |
| Thailand    | 1                 | <b>32</b> | 31        | <i>37</i> |
| Indonesia   | 1                 | <i>37</i> | 34        | <i>38</i> |
| Philippines | 1                 | 47        | 52        | 59        |
| Vietnam     | 1                 | 56        | 68        | 70        |
| Laos        | 1                 | 83        | <i>93</i> | <b>81</b> |
| Cambodia    | 1                 | 90        | 95        | 88        |
| Myanmar     | 1                 | 131       | 134       | 139       |







### ใน GCI ประเทศไทยเป็นอันดับ 6 ใน ASEAN + 3

เมื่อเทียบกับ ASEAN + 3 แล้ว ประเทศไทยเด่นในด้านใด และ ยังมี โอกาสในการพัฒนาในด้านใด?









### คะแนนด้านการศึกษาของปีต่างๆ

|                                       | 2013 | 2014 | 2015 |
|---------------------------------------|------|------|------|
| Quality of education system           | 3.57 | 3.45 | 3.58 |
| Quality of primary education          | 3.64 | 3.57 | 3.53 |
| Quality of math and science education | 3.98 | 3.89 | 3.94 |
| Quality of vocational training        | NA.  | NA.  | 3.85 |
| Internet access in schools            | 4.40 | 4.56 | 4.64 |







In your country, how well does the education system meet the needs of a competitive economy? (1 = not well at all, 7 = extremely well)

| Country     | Quality of Education | Rank |
|-------------|----------------------|------|
| Singapore   | 5.85                 | 1    |
| Japan       | 4.55                 | 3    |
| Malaysia    | 5.44                 | 2    |
| Korea       | 3.70                 | 8    |
| China       | 3.92                 | 6    |
| Thailand    | 3.58                 | 9    |
| Indonesia   | 4.29                 | 5    |
| Philippines | 4.47                 | 4    |
| Vietnam     | 3.53                 | 10   |
| Laos        | 3.76                 | 7    |
| Cambodia    | 3.15                 | 11   |
| Myanmar     | 2.55                 | 12   |







In your country, how do you assess the following: a. Quality of primary schools? (1 = Extremely poor - among the worst in the world, 7 = Excellent - among the best in the world)

| Country     | Quality of Primary Education | Rank |
|-------------|------------------------------|------|
| Singapore   | 6.10                         | 1    |
| Japan       | 5.77                         | 2    |
| Malaysia    | 5.33                         | 3    |
| Korea       | 4.70                         | 4    |
| China       | 4.24                         | 5    |
| Thailand    | 3.53                         | 9    |
| Indonesia   | 4.22                         | 6    |
| Philippines | 4.12                         | 7    |
| Vietnam     | 3.71                         | 8    |
| Laos        | 3.34                         | 10   |
| Cambodia    | 2.92                         | 11   |
| Myanmar     | 2.39                         | 12   |







In your country, how do you assess the following: b. Quality of math and science education? (1 = Extremely poor - among the worst in the world,

7 = Excellent - among the best in the world) Quality of Math and Science Rank Country Education 6.36 Singapore 1 5.35 Japan Malaysia 5.29 3 Korea 4.81 4 5 China 4.42 **Thailand** 3.94 9 Indonesia 4.37 6 4.13 8 **Philippines** 4.16 7 Vietnam 3.62 10 Laos Cambodia 11 3.15 Myanmar 2.77 12







In your country, how do you assess the following: d. Quality of vocational training? (1 = Extremely poor - among the worst in the world, 7 = Excellent - among the best in the world)

| Country     | Quality of Vocational Training | Rank |
|-------------|--------------------------------|------|
| Singapore   | 5.77                           | 1    |
| Japan       | 4.69                           | 3    |
| Malaysia    | 5.21                           | 2    |
| Korea       | 3.72                           | 9    |
| China       | 3.90                           | 6    |
| Thailand    | 3.85                           | 7    |
| Indonesia   | 4.22                           | 5    |
| Philippines | 4.50                           | 4    |
| Vietnam     | 3.57                           | 10   |
| Laos        | 3.77                           | 8    |
| Cambodia    | 3.16                           | 11   |
| Myanmar     | 2.76                           | 12   |







In your country, to what extent is the internet used in schools for learning purposes? (1 = Not at all, 7 = To a great extent)

| Country     | Internet access in school | Rank |
|-------------|---------------------------|------|
| Singapore   | 6.34                      | 1    |
| Japan       | 5.04                      | 4    |
| Malaysia    | 5.52                      | 3    |
| Korea       | 5.81                      | 2    |
| China       | 4.78                      | 6    |
| Thailand    | 4.64                      | 7    |
| Indonesia   | 4.83                      | 5    |
| Philippines | 4.49                      | 9    |
| Vietnam     | 4.55                      | 8    |
| Laos        | 3.57                      | 10   |
| Cambodia    | 3.50                      | 11   |
| Myanmar     | 2.33                      | 12   |







### ด้าน ICT

### คะแนนด้าน ICT ของปีต่างๆ

|  | 2013 | 2014 | 2015 |
|--|------|------|------|
| Availability of latest technology              | 4.86 | 4.75 | 4.73 |
| ICT and access to basic services               | 3.94 | 4.16 | 4.37 |
| ICT and business model creations               | 4.44 | 4.67 | 4.82 |
| ICT use for B2B transactions                   | 4.82 | 4.94 | 4.98 |
| Internet use for B2C transactions              | 4.87 | 4.94 | 5.05 |
| ICT and new organisational models              | 3.98 | 4.16 | 4.39 |
| Extent of virtual social networks use          | 5.91 | 6.17 | 6.30 |
| Government strategy for ICT                    | 3.59 | 3.49 | 3.89 |
| ICT and government productivity                | 4.07 | 3.83 | 3.97 |
| Laws relating to ICT                           | 3.70 | 3.51 | 3.59 |
| Success of government's efforts to promote ICT | 3.99 | 3.85 | 3.81 |







### In your country, to what extent are the latest technologies available? (1 = not at all, 7 = to a great extent)

| Country     | Availability of latest technology | Rank |
|-------------|-----------------------------------|------|
| Singapore   | 6.20                              | 1    |
| Japan       | 6.16                              | 2    |
| Malaysia    | 5.71                              | 3    |
| Korea       | 5.64                              | 4    |
| China       | 4.30                              | 8    |
| Thailand    | 4.73                              | 6    |
| Indonesia   | 4.81                              | 5    |
| Philippines | 4.60                              | 7    |
| Vietnam     | 3.99                              | 10   |
| Laos        | 3.94                              | 11   |
| Cambodia    | 4.19                              | 9    |
| Myanmar     | 2.75                              | 12   |







In your country, to what extent do ICTs enable access for all individuals to basic services (e.g. health, education, financial services, etc)? (1 = Not at all, 7 = To a great extent)

| Country     | ICT and access to basic services | Rank |
|-------------|----------------------------------|------|
| Singapore   | 6.18                             | 1    |
| Japan       | 5.39                             | 4    |
| Malaysia    | 5.55                             | 3    |
| Korea       | 5.72                             | 2    |
| China       | 4.64                             | 5    |
| Thailand    | 4.37                             | 7    |
| Indonesia   | 4.38                             | 6    |
| Philippines | 3.94                             | 9    |
| Vietnam     | 4.19                             | 8    |
| Laos        | 3.89                             | 10   |
| Cambodia    | 3.33                             | 11   |
| Myanmar     | 2.98                             | 12   |







In your country, to what extent do ICTs enable new business models? (1 = Not at all, 7 = To a great extent)

| Country     | ICT and business model creations | Rank |
|-------------|----------------------------------|------|
| Singapore   | 5.77                             | 1    |
| Japan       | 5.31                             | 4    |
| Malaysia    | 5.62                             | 2    |
| Korea       | 5.49                             | 3    |
| China       | 4.72                             | 7    |
| Thailand    | 4.82                             | 5    |
| Indonesia   | 4.76                             | 6    |
| Philippines | 4.62                             | 8    |
| Vietnam     | 4.46                             | 9    |
| Laos        | 3.99                             | 11   |
| Cambodia    | 4.41                             | 10   |
| Myanmar     | 3.23                             | 12   |







In your country, to what extent do businesses use ICTs for transactions with other businesses? (1 = Not at all, 7 = To a great extent)

| Country     | ICT use for B2B transactions | Rank |
|-------------|------------------------------|------|
| Singapore   | 5.82                         | 2    |
| Japan       | 6.06                         | 1    |
| Malaysia    | 5.66                         | 3    |
| Korea       | 5.32                         | 4    |
| China       | 4.88                         | 8    |
| Thailand    | 4.98                         | 5    |
| Indonesia   | 4.94                         | 6    |
| Philippines | 4.85                         | 9    |
| Vietnam     | 4.93                         | 7    |
| Laos        | 4.31                         | 11   |
| Cambodia    | 4.52                         | 10   |
| Myanmar     | 3.25                         | 12   |







In your country, to what extent do businesses use the internet for selling their goods and services to consumers? (1 = Not at all, 7 = To a great extent)

| Country     | Internet use for B2C transactions | Rank |
|-------------|-----------------------------------|------|
| Singapore   | 5.52                              | 4    |
| Japan       | 5.95                              | 1    |
| Malaysia    | 5.88                              | 2    |
| Korea       | 5.78                              | 3    |
| China       | 5.28                              | 6    |
| Thailand    | 5.05                              | 7    |
| Indonesia   | 5.39                              | 5    |
| Philippines | 4.77                              | 9    |
| Vietnam     | 4.85                              | 8    |
| Laos        | 4.02                              | 10   |
| Cambodia    | 4.00                              | 11   |
| Myanmar     | 3.31                              | 12   |







In your country, to what extent do ICTs enable new organisational models (e.g. virtual teams, remote working, telecommuting) within companies? (1 = Not at all, 7 = To a great extent)

| Country     | ICT and new organisational models | Rank |
|-------------|-----------------------------------|------|
| Singapore   | 5.47                              | 2    |
| Japan       | 4.72                              | 5    |
| Malaysia    | 5.58                              | 1    |
| Korea       | 4.88                              | 3    |
| China       | 4.74                              | 4    |
| Thailand    | 4.39                              | 8    |
| Indonesia   | 4.59                              | 6    |
| Philippines | 4.43                              | 7    |
| Vietnam     | 4.20                              | 10   |
| Laos        | 3.70                              | 11   |
| Cambodia    | 4.23                              | 9    |
| Myanmar     | 2.98                              | 12   |







In your country, how widely are virtual social networks used (e.g. Facebook, Twitter, LinkedIn)? (1 = Not at all used, 7 = Used extensively)

| Country     | Extent of virtual social networks use | Rank |
|-------------|---------------------------------------|------|
| Singapore   | 6.39                                  | 1    |
| Japan       | 5.88                                  | 7    |
| Malaysia    | 6.17                                  | 3    |
| Korea       | 5.90                                  | 6    |
| China       | 4.72                                  | 12   |
| Thailand    | 6.30                                  | 2    |
| Indonesia   | 5.95                                  | 5    |
| Philippines | 6.11                                  | 4    |
| Vietnam     | 5.40                                  | 8    |
| Laos        | 4.79                                  | 11   |
| Cambodia    | 5.39                                  | 9    |
| Myanmar     | 4.83                                  | 10   |







To what extent does the government have a clear implementation plan for utilising ICTs to improve your country's overall competitiveness? (1 = Not at all - there is no plan, 7 = To a great extent - there is a clear plan)

| Country     | Government strategy for ICT | Rank |
|-------------|-----------------------------|------|
| Singapore   | 5.93                        | 1    |
| Japan       | 4.94                        | 3    |
| Malaysia    | 5.58                        | 2    |
| Korea       | 4.88                        | 4    |
| China       | 4.69                        | 5    |
| Thailand    | 3.89                        | 10   |
| Indonesia   | 4.39                        | 6    |
| Philippines | 3.98                        | 8    |
| Vietnam     | 4.30                        | 7    |
| Laos        | 3.93                        | 9    |
| Cambodia    | 3.54                        | 11   |
| Myanmar     | 2.92                        | 12   |







In your country, to what extent does the use of ICTs by the government improve the quality of government services to the population? (1 = Not at all, 7 = To a great extent)

| Country     | ICT and Government productivity | Rank |
|-------------|---------------------------------|------|
| Singapore   | 6.06                            | 1    |
| Japan       | 4.68                            | 4    |
| Malaysia    | 5.58                            | 2    |
| Korea       | 5.32                            | 3    |
| China       | 4.52                            | 5    |
| Thailand    | 3.97                            | 8    |
| Indonesia   | 4.17                            | 6    |
| Philippines | 3.88                            | 9    |
| Vietnam     | 4.08                            | 7    |
| Laos        | 3.78                            | 10   |
| Cambodia    | 3.17                            | 11   |
| Myanmar     | 2.76                            | 12   |







How developed are your country's laws relating to the use of ICTs (e.g. e-commerce, digital signatures, consumer protection)? (1 = Not developed at all, 7 = Extremely well developed)

| Country     | Laws relating to ICT | Rank |
|-------------|----------------------|------|
| Singapore   | 5.72                 | 1    |
| Japan       | 4.84                 | 4    |
| Malaysia    | 5.41                 | 2    |
| Korea       | 5.07                 | 3    |
| China       | 4.24                 | 5    |
| Thailand    | 3.59                 | 9    |
| Indonesia   | 4.12                 | 6    |
| Philippines | 3.72                 | 8    |
| Vietnam     | 3.88                 | 7    |
| Laos        | 3.36                 | 10   |
| Cambodia    | 3.13                 | 11   |
| Myanmar     | 2.48                 | 12   |







### In your country, how successful is the government in promoting the use of ICTs? (1 = Not successful at all, 7 = Extremely successful)

| Country     | Success of government's efforts to promote ICT | Rank |
|-------------|--|------|
| Singapore   | 5.89   | 1    |
| Japan       | 4.71   | 4    |
| Malaysia    | 5.79   | 2    |
| Korea       | 5.20   | 3    |
| China       | 4.52   | 5    |
| Thailand    | 3.81   | 10   |
| Indonesia   | 4.27   | 6    |
| Philippines | 4.02   | 9    |
| Vietnam     | 4.15   | 7    |
| Laos        | 4.05   | 8    |
| Cambodia    | 3.57   | 11   |
| Myanmar     | 2.99   | 12   |

### ICT's ranking in ASEAN + 3

|  | 2015 |
|--|------|
| Availability of latest technology              | 6    |
| ICT and access to basic services               | 7    |
| ICT and business model creations               | 5    |
| ICT use for B2B transactions                   | 5    |
| Internet use for B2C transactions              | 7    |
| ICT and new organisational models              | 8    |
| Extent of virtual social networks use          | 2    |
| Government strategy for ICT                    | 10   |
| ICT and government productivity                | 8    |
| Laws relating to ICT                           | 9    |
| Success of government's efforts to promote ICT | 10   |







#### คณะทำงาน

- รศ.ดร.พสุ เดชะรินทร์
- รศ.ดร.ธีรยุส วัฒนาศุภโชค
- ผศ.ดร.สิริอร เศรษฐมานิต
- ผศ.ดร.ณัฐพล อัสสะรัตน์
- ดร.พัชรา โพธิ์ไพฑูรย์
- ดร.นัท กุลวานิช







# ขอบพระคุณครับ