IPS National Competitiveness Research 2024
Models, Rankings, and Implications

Dong-sung Cho

Chair, IPS

Dilong Huang

Director, IPSNC

Hwy-chang Moon

President, aSSIST University

October 29, 2024

Contents

1. Models--------------------------------Dong-sung Cho

2. Rankings-----------------------------Dilong Huang

3. Implications-------------------------Hwy-chang Moon

Contents

1. Models

- **Three reports by IMD, WEF, IPS**

- Characteristics of IPS Model
  - ➢ Variables: 4 physical factors + 4 human factors
  - ➢ Objectives: To develop national strategy
  - ➢ Scope: Double Diamond
  - ➢ Grouping: 3x3 country groupings
  - ➢ Strategy: Different weights for C & D strategies

Three Reports on National Competitiveness

IMD World Competitiveness Booklet 2023

- Since 1989
- 64 Countries/Regions
- 255 Criteria
- H:S=64%:36%

The Global Competitiveness Report 2019

- Since 1996
- 141 Countries/Regions
- 103 Criteria
- H:S=54%:46%
- No publication since 2021

IPS National Competitiveness Research 2024

- Since 2000
- 62 Countries/Regions
- **8 Factors**→98 Criteria
- H:S=58%:42%

H: Hard data, S: Survey data

Comparison of the Models

Name	IMD World Competitiveness Yearbook (2024)	WEF Global Competitiveness Report (2019)	IPS National Competitiveness Research (2024)
With which **variables** to measure NC? (Independent Variables)	• **4 Physical Factors** 1. Economic Performance 2. Government Efficiency 3. Business Efficiency 4. Infrastructure • **0 Human Factors**	• **3 Physical Factors** 1. Enabling Environment (Institutions, Infrastructure, ICT Adoption, Macroeconomic Stability) 2. Markets (Product Market, Labor Market, Financial System, Market Size) 3. Innovation Ecosystem (Business Dynamism, Innovation Capability) • **1 Human factor** 1. Human Capital (Health, Skills)	• **4 Physical Factors** 1. Factor Conditions 2. Business Context 3. Related Industries 4. Demand Conditions • **4 Human Factors** 1. Workers 2. Policymakers & Administrators 3. Entrepreneurs 4. Professionals
For Whom to measure NC? (What is NC?)	• **For Corporations doing business in the nation** The ability of a nation to create and maintain an environment that sustains more value creation	• **For the Nation which wants to increase productivity** The set of institutions, policies, and factors that determine the level of productivity of a country	• **For Policy makers to develop the nation's development strategy** Dynamic competitive positions by choosing two alternative strategies
Global **Scope**?	• **N.A.**	• **N.A.**	• **Double Diamond for global scope**
With whom to compare? (Country Grouping)	• Population • **GDP per capita** • Region	• **N.A.**	• **3x3 Country Groupings** (Size & Competitiveness)
Strategic Implications?	• **Same** weights for all factors/sub-factors	• Same weights for all factors/sub-factors	• **Different weights for Cost & Differentiation strategies**

Contents

1. Models

- Three reports by IMD, WEF, IPS

- Characteristics of IPS Model
  - ➢ Variables: 4 physical factors + 4 human factors
  - ➢ Objectives: To develop national strategy
  - ➢ Scope: Double Diamond
  - ➢ Grouping: 3x3 country groupings
  - ➢ Strategy: Different weights for C & D strategies

Sources of National Competitiveness Before the 1980s

The Productivity Model:

Competitiveness was not the issue those days.

Capital and labor as two determinants, thus P = f (K,L)

This model failed to explain:

Why resource-lacking countries are more affluent than resource-rich nations in general.

Concept of the Productivity Model
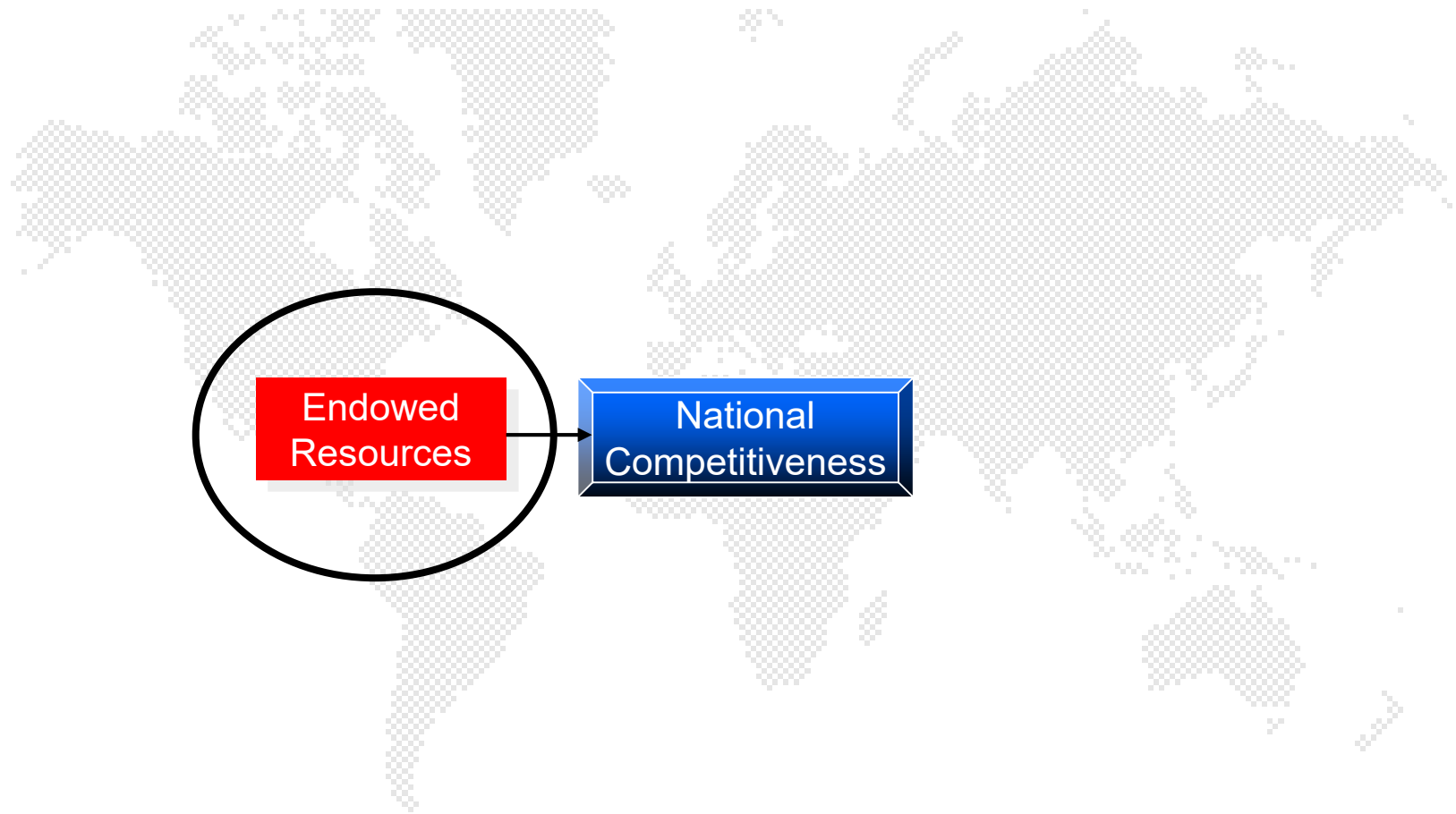
Sources of National Competitiveness Since the 1980s

A New Model should be:

comprehensive enough to include non-quantitative variables to better explain the increasingly complex nature of the world economy

dynamic enough to better reflect the ever-changing nature of national competitiveness

In response to the White House Presidential Commission on Industrial Competitiveness, Michael Porter (1990) proposed a Diamond Model as a means to explain a nation's competitiveness.

The Diamond
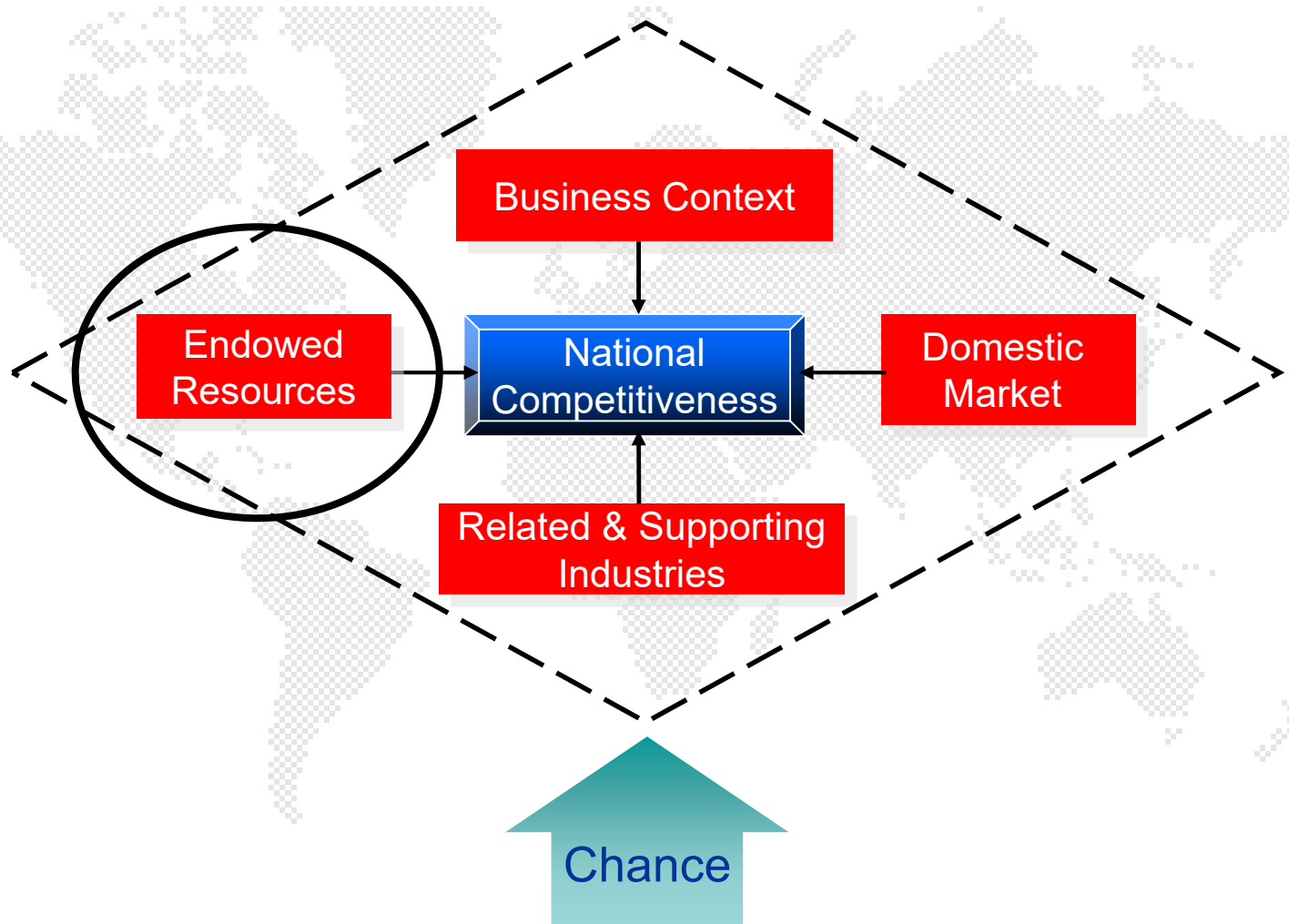
Characteristics of the Diamond Model

The first model to encompass non-quantitative variables, which are mostly physical in nature

Not so relevant to developing and underdeveloped economies

It was mainly designed for developed economies, failing to fully identify sources of NC that are characteristics of developing and underdeveloped economies.

Cho (1994) proposed the 9-Factor Model of NC
by including human factors as additional variables in the Diamond.

The 9-Factor Model
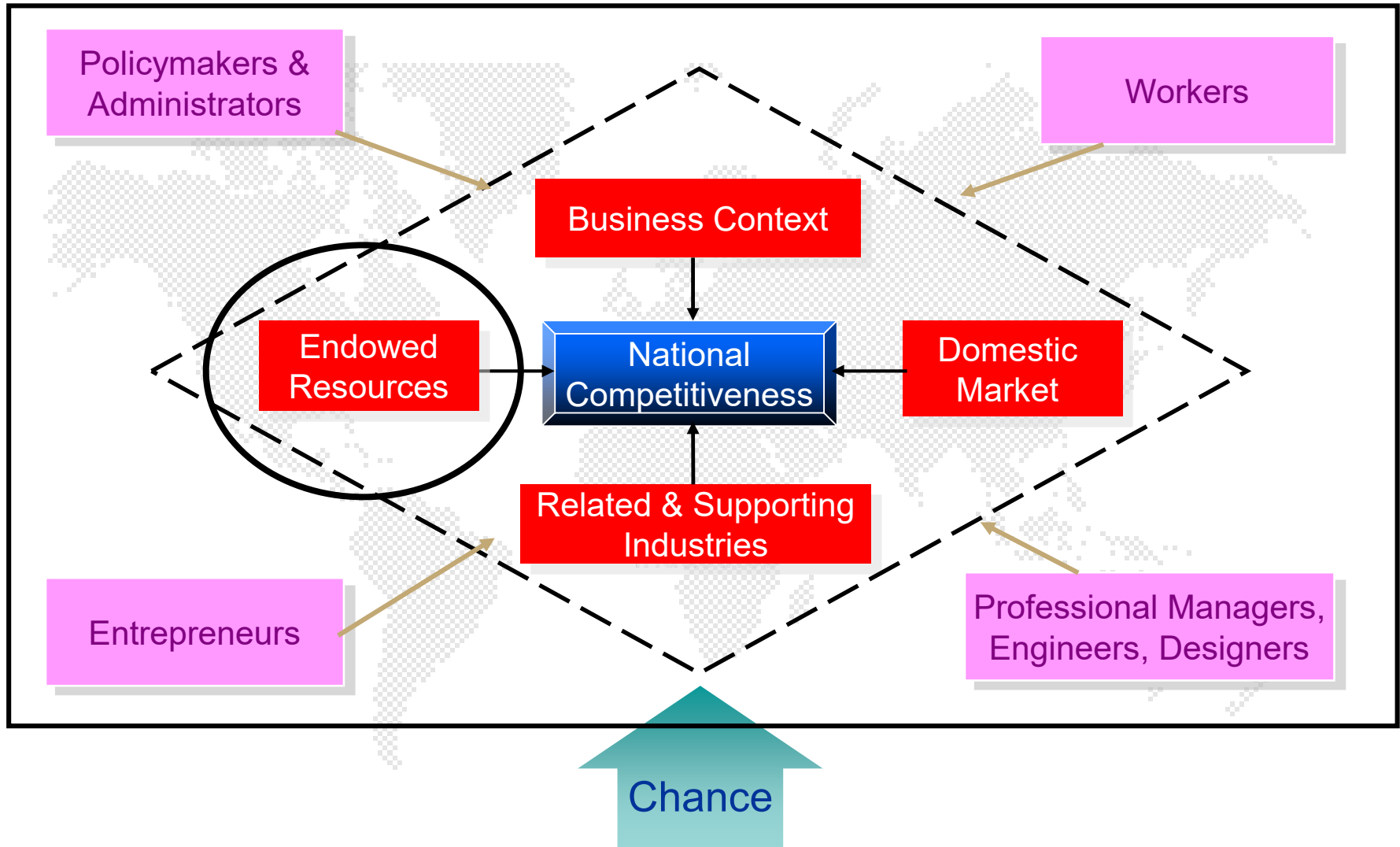
Contents

1. Models

- Three reports by IMD, WEF, IPS

- Characteristics of IPS Model
  - ➢ Variables: 4 physical factors + 4 human factors
  - ➢ Objectives: To develop national strategy
  - ➢ Scope: Double Diamond
  - ➢ Grouping: 3x3 country groupings
  - ➢ Strategy: Different weights for C & D strategies

Dynamic Evolution of National Competitiveness

Contents

1. Models

- Three reports by IMD, WEF, IPS

- Characteristics of IPS Model
  - ➢ Variables: 4 physical factors + 4 human factors
  - ➢ Objectives: To develop national strategy
  - ➢ Scope: Double Diamond
  - ➢ Grouping: 3x3 country groupings
  - ➢ Strategy: Different weights for C & D strategies

The 9-Factor Model in the Double Diamond

International Context

Policymakers & Administrators

Workers

Business Context

Policymakers & Administrators

Workers

Business Context

Endowed Resources

Endowed Resources

National Competitiveness

Domestic Market

Domestic Market

Related & Supporting Industries

Entrepreneurs

Professional Managers, Engineers, Designers

Entrepreneurs

Related & Supporting Industries

Professional Managers, Engineers, Designers

Contents

1. Models

- Three reports by IMD, WEF, IPS

- Characteristics of IPS Model
  - ➢ Variables: 4 physical factors + 4 human factors
  - ➢ Objectives: To develop national strategy
  - ➢ Scope: Double Diamond
  - ➢ Grouping: 3x3 country groupings
  - ➢ Strategy: Different weights for C & D strategies

Grouping of Nations
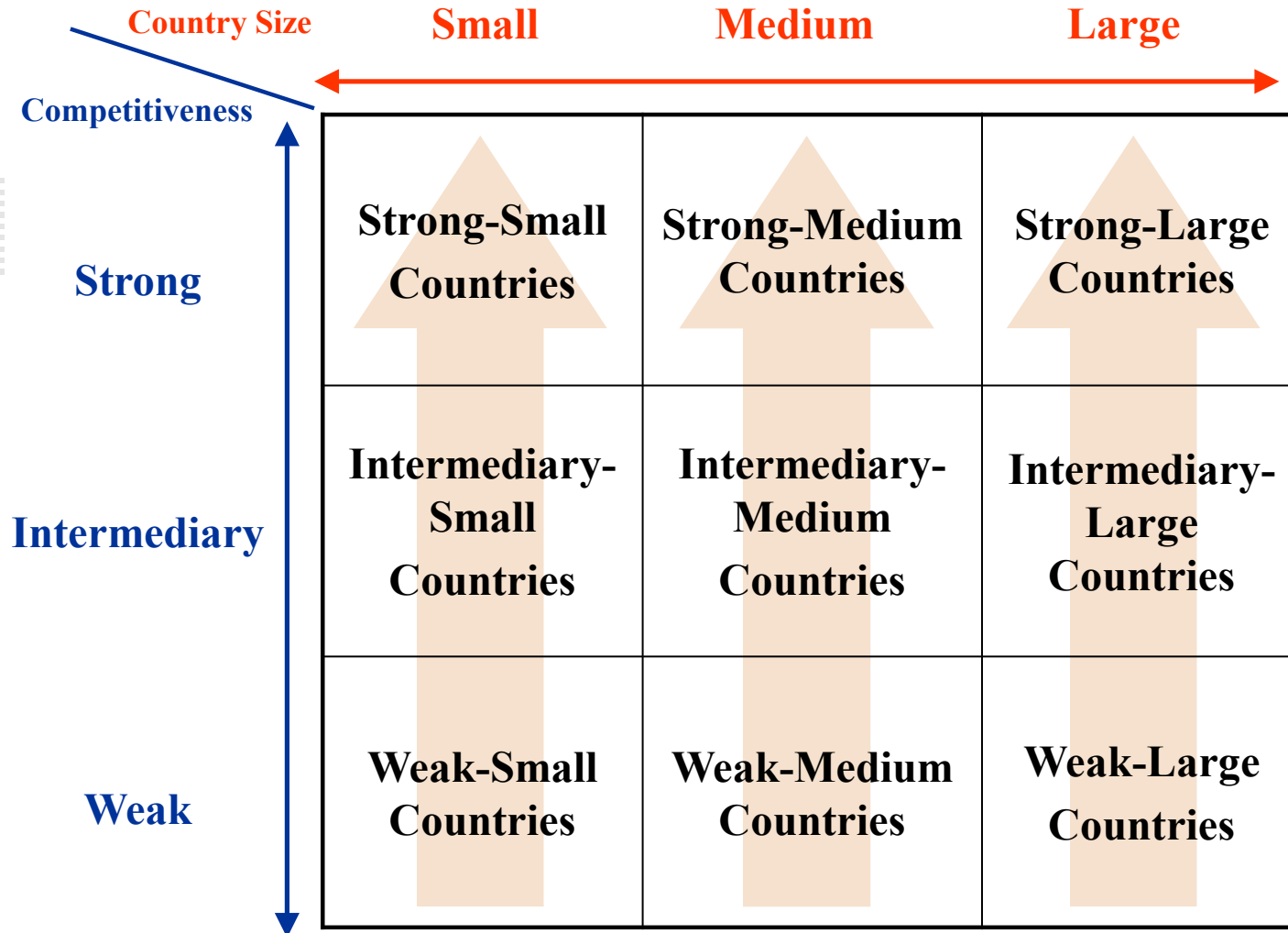
	Small	**Medium**	**Large**
Strong	**Strong-Small Countries**	**Strong-Medium Countries**	**Strong-Large Countries**
Intermediary	**Intermediary-Small Countries**	**Intermediary-Medium Countries**	**Intermediary-Large Countries**
Weak	**Weak-Small Countries**	**Weak-Medium Countries**	**Weak-Large Countries**

Country Size → Small, Medium, Large

Competitiveness ↑ Strong, Intermediary, Weak

Contents
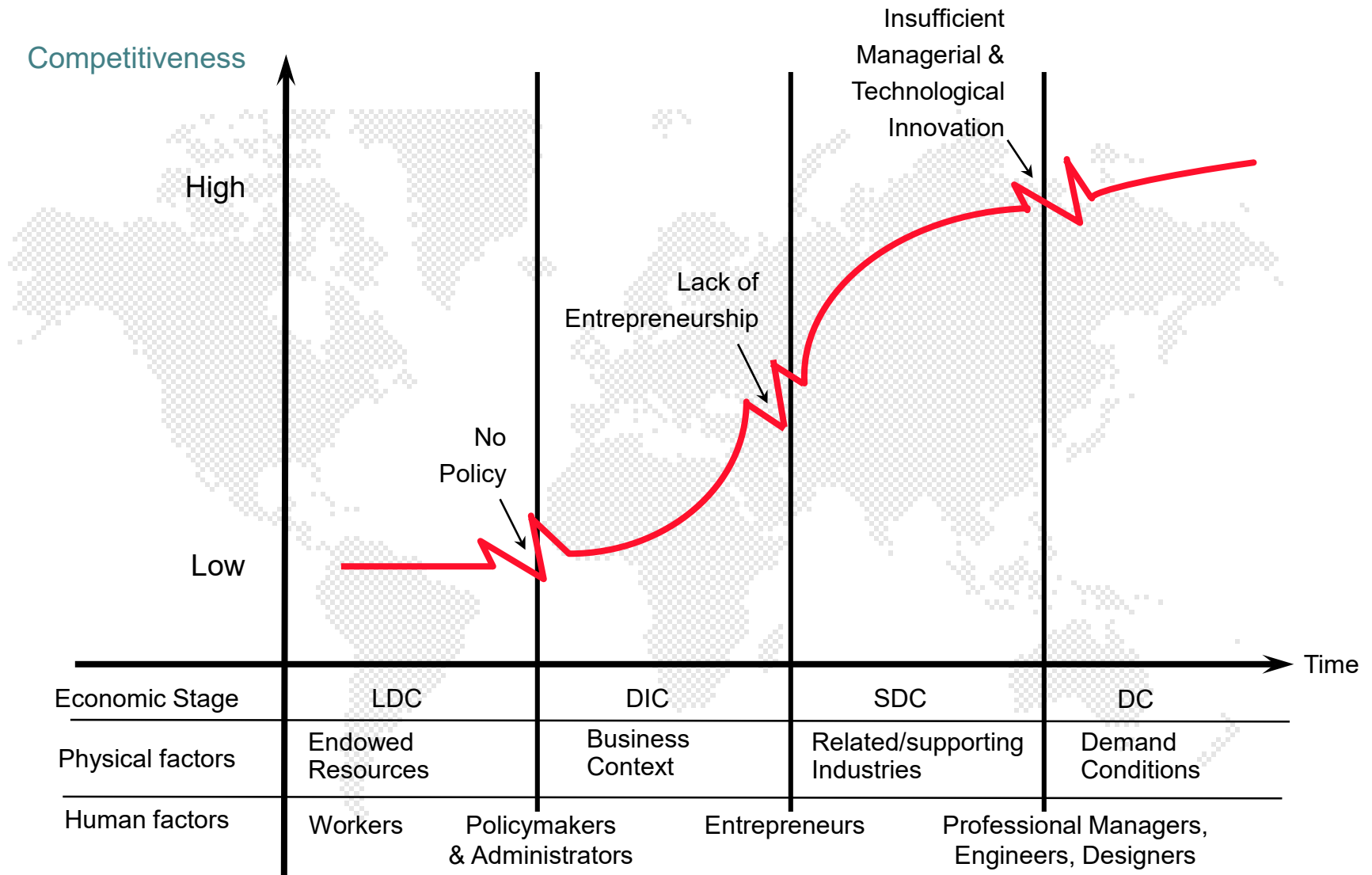
1. Models

- Three reports by IMD, WEF, IPS

- Characteristics of IPS Model
  - Variables: 4 physical factors + 4 human factors
  - Objectives: To develop national strategy
  - Scope: Double Diamond
  - Grouping: 3x3 country groupings
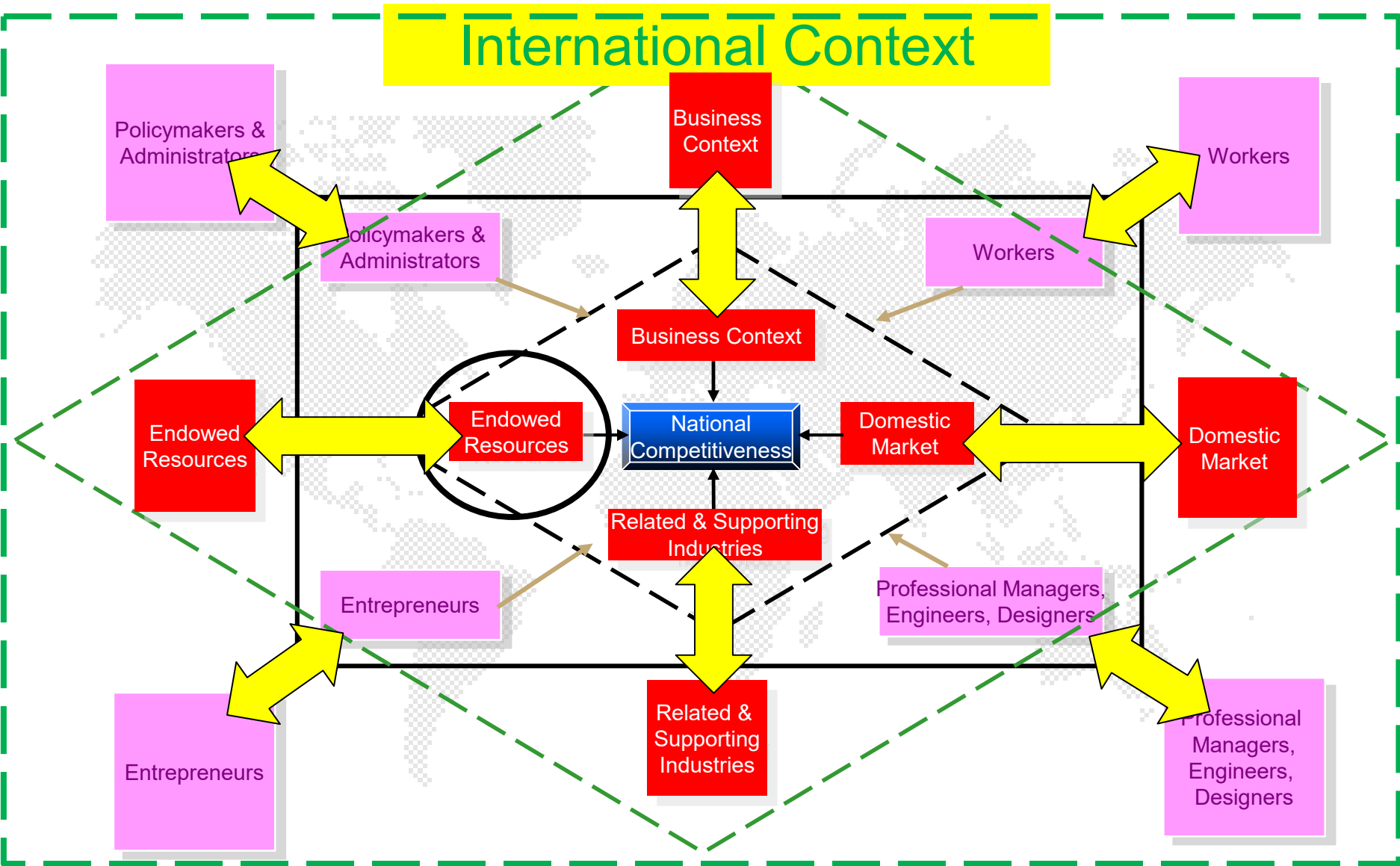 - Strategy: Different weights for C & D strategies

Strategic Options for Enhancing National Competitiveness

Competitive Strategy

Cost Strategy

Differentiation Strategy

Competitiveness

- High
- Middle
- Low

	Factor Conditions	Business Context	Related and Supporting Industries	Demand Conditions
Physical Factors	Factor Conditions	Business Context	Related and Supporting Industries	Demand Conditions
Human Factors	Workers	Policymakers and Administrators	Entrepreneurs	Professionals

Assigning Weights to Two National Strategies

Main Factors		Weights		Subfactors	Weights	
		CS	DS		CS	DS
Physical Factors	**Factor Conditions**	**32/120**	**4/120**	Natural Resources	3/4	1/4
				Processed Resources	1/4	3/4
	Business Context	**16/120**	**8/120**	Structure	3/4	1/4
				Rivalry	1/4	3/4
	Related Industries	**8/120**	**16/120**	Industrial Infrastructure	3/4	1/4
				Living Infrastructure	1/4	3/4
	Demand Conditions	**4/120**	**32/120**	Demand Size	3/4	1/4
				Demand Quality	1/4	3/4
Human Factors	**Workers**	**32/120**	**4/120**	Quantity of Workers	3/4	1/4
				Quality of Workers	1/4	3/4
	Policymakers & Administrators	**16/120**	**8/120**	Policymakers	3/4	1/4
				Administrators	1/4	3/4
	Entrepreneurs	**8/120**	**16/120**	Personal Competence	3/4	1/4
				Social Context	1/4	3/4
	Professionals	**4/120**	**32/120**	Personal Competence	3/4	1/4
				Social Context	1/4	3/4

Contents

1. Models

2. Rankings

3. Implications

Overview

- **Total Global Rankings: 10 Categories**
  - 2 for Overall Rankings
  - 8 for Factor Rankings

- **Countries/Regions**
  - <mark>Top Performers</mark>: Top 10 Countries/Regions in each Ranking
  - <mark>Special Focus</mark>: 6 Key Countries

United States & China: Major global powers

Korea, Rep. of: Successful transition from developing to developed status

Israel & Ukraine/Russia: Ongoing conflicts (Israel-Hamas, Russia-Ukraine)

Note: Developing countries are marked in red

Contents

2. Rankings

① Two Overall Rankings

    Cost Strategy (CS) & Differentiation Strategy (DS)

② Eight Factor Rankings

      Four Physical Factors & Four Human Factors

Changes in Rankings by Strategy

Cost-Strategy Rankings

1. Canada
2. UAE
5. Singapore
9. China
11. Switzerland

Differentiation-Strategy Rankings

1. Switzerland
3. Singapore
6. Canada
8. UAE
22. China

Strategy Matters!

Cost and Differentiation Strategy Rankings (2024)

Cost Strategy Rankings

Country/Region	R*	Index	Country/Region	R*	Index
Canada	1	52.50	Croatia	32	33.82
UAE	2	50.02	France	33	33.64
Australia	3	49.54	Thailand	34	33.34
United States	4	46.09	Slovenia	35	33.02
Singapore	5	45.85	Indonesia	36	32.90
New Zealand	6	45.34	Peru	37	32.76
Sweden	7	44.77	Czech Republic	38	32.60
Kuwait	8	44.27	Philippines	39	32.49
China	9	44.12	Panama	40	32.39
Finland	10	43.96	Cambodia	41	32.38
Switzerland	11	43.41	Argentina	42	32.25
Colombia	12	43.28	Russia	43	32.14
Denmark	13	43.22	Mexico	44	32.03
Netherlands	14	42.23	Spain	45	32.00
United Kingdom	15	41.69	Brazil	46	31.19
Austria	16	40.95	Egypt	47	31.06
Hong Kong SAR	17	39.69	Dominican Republic	48	30.87
Korea, Republic of	18	39.36	Greece	49	30.30
Taiwan, China	19	38.75	Nigeria	50	30.17
India	20	38.72	Jordan	51	30.13
Israel	21	38.53	Guatemala	52	29.82
Belgium	22	38.29	Hungary	53	29.07
Saudi Arabia	23	37.32	Türkiye	54	28.19
Germany	24	37.31	Sri Lanka	55	28.06
Chile	25	37.17	Kenya	56	27.75
Oman	26	35.27	Ukraine	57	24.65
Vietnam	27	34.61	Bangladesh	58	22.22
Malaysia	28	34.60	Pakistan	59	21.96
Japan	29	34.28	Morocco	60	20.89
Poland	30	34.13	Slovak Republic	61	19.44
Italy	31	33.88	South Africa	62	18.19

Differentiation Strategy Rankings

Country/Region	R*	Index	Country/Region	R*	Index
Switzerland	1	70.61	Croatia	32	45.52
Denmark	2	69.59	Chile	33	45.17
Singapore	3	67.85	Spain	34	45.01
United States	4	67.54	Panama	35	44.01
Sweden	5	66.78	Malaysia	36	42.81
Canada	6	65.09	Türkiye	37	42.69
Netherlands	7	63.83	Philippines	38	42.59
UAE	8	63.64	Peru	39	41.84
Finland	9	63.60	Indonesia	40	41.71
Hong Kong SAR	10	60.83	Mexico	41	41.63
Austria	11	60.46	India	42	40.99
United Kingdom	12	60.35	Argentina	43	40.00
Belgium	13	59.86	Oman	44	39.11
Australia	14	58.56	Dominican Republic	45	38.97
Taiwan, China	15	58.53	Greece	46	37.90
Germany	16	57.49	Egypt	47	36.92
Israel	17	57.00	Hungary	48	36.53
Korea, Republic of	18	56.13	Nigeria	49	36.29
New Zealand	19	55.80	Brazil	50	35.53
Italy	20	50.23	Jordan	51	35.15
Japan	21	49.43	South Africa	52	34.66
China	22	49.42	Kenya	53	34.05
France	23	49.13	Cambodia	54	32.77
Colombia	24	48.98	Sri Lanka	55	31.95
Kuwait	25	48.76	Ukraine	56	30.96
Poland	26	48.57	Morocco	57	29.73
Slovenia	27	48.22	Guatemala	58	28.94
Saudi Arabia	28	46.29	Russia	59	27.86
Thailand	29	45.99	Slovak Republic	60	27.77
Vietnam	30	45.72	Pakistan	61	23.57
Czech Republic	31	45.52	Bangladesh	62	23.21

R∗: Ranking

Cost Strategy Rankings (2024)

Cost Strategy Rankings

Developed

Country/Region	R*	Index
Canada	1	52.5
Australia	2	49.54
United States	3	46.09
Singapore	4	45.85
New Zealand	5	45.34
Sweden	6	44.77
Finland	7	43.96
Switzerland	8	43.41
Denmark	9	43.22
Netherlands	10	42.23
United Kingdom	11	41.69
Korea, Republic of	12	39.36
Israel	13	38.53
Germany	14	37.31
Japan	15	34.28
Italy	16	33.88
France	17	33.64
Austria	18	32.25
Spain	19	32

Developing

Country/Region	R*	Index	Country/Region	R*	Index
UAE	1	50.02	Panama	23	32.39
Kuwait	2	44.27	Colombia	24	32.38
Croatia	3	44.12	Russia	25	32.14
China	4	43.28	Mexico	26	32.03
Hong Kong SAR	5	40.95	Hungary	27	31.19
Brazil	6	39.69	Belgium	28	31.06
Taiwan, China	7	38.75	Guatemala	29	30.87
India	8	38.72	Dominican Republic	30	30.3
Greece	9	38.29	Nigeria	31	30.17
Saudi Arabia	10	37.32	Jordan	32	30.13
Czech Republic	11	37.17	Cambodia	33	29.82
Oman	12	35.27	Chile	34	29.07
Vietnam	13	34.61	Turkey	35	28.19
Malaysia	14	34.6	Sri Lanka	36	28.06
Poland	15	34.13	Kenya	37	27.75
Bangladesh	16	33.82	Ukraine	38	24.65
Thailand	17	33.34	Argentina	39	22.22
Slovenia	18	33.02	Pakistan	40	21.96
Indonesia	19	32.9	Morocco	41	20.89
Peru	20	32.76	Slovak Republic	42	19.44
Egypt	21	32.6	South Africa	43	18.19
Philippines	22	32.49			

R*: Ranking

Differentiation Strategy Rankings (2024)

Differentiation Strategy Rankings

Developed

Country/Region	R*	Index
Switzerland	1	70.61
Denmark	2	69.59
Singapore	3	67.85
United States	4	67.54
Sweden	5	66.78
Canada	6	65.09
Netherlands	7	63.83
Finland	8	63.6
United Kingdom	9	60.35
Australia	10	58.56
Germany	11	57.49
Israel	12	57
Korea, Republic of	13	56.13
New Zealand	14	55.8
Italy	15	50.23
Japan	16	49.43
France	17	49.13
Spain	18	45.01
Austria	19	40

Developing

Country/Region	R*	Index	Country/Region	R*	Index
UAE	1	63.64	Mexico	23	41.63
Brazil	2	60.83	India	24	40.99
Hong Kong SAR	3	60.46	Oman	25	39.11
Greece	4	59.86	Guatemala	26	38.97
Taiwan, China	5	58.53	Dominican Republic	27	37.9
Croatia	6	49.42	Belgium	28	36.92
China	7	48.98	Chile	29	36.53
Kuwait	8	48.76	Nigeria	30	36.29
Poland	9	48.57	Hungary	31	35.53
Slovenia	10	48.22	Jordan	32	35.15
Saudi Arabia	11	46.29	South Africa	33	34.66
Thailand	12	45.99	Kenya	34	34.05
Vietnam	13	45.72	Colombia	35	32.77
Bangladesh	14	45.52	Sri Lanka	36	31.95
Egypt	15	45.52	Ukraine	37	30.96
Czech Republic	16	45.17	Morocco	38	29.73
Panama	17	44.01	Cambodia	39	28.94
Malaysia	18	42.81	Russia	40	27.86
Turkey	19	42.69	Slovak Republic	41	27.77
Philippines	20	42.59	Pakistan	42	23.57
Peru	21	41.84	Argentina	43	23.21
Indonesia	22	41.71			

R*: Ranking

Contents

2. Rankings

① Two Overall Rankings

   Cost Strategy (CS) & Differentiation Strategy (DS)

② Eight Factor Rankings

   Four Physical Factors & Four Human Factors

Eight Factor Rankings: Four Physical Factors - Factor Conditions

Factor Conditions

Country/Region	R*	Index	Country/Region	R*	Index
Australia	1	42.91	Switzerland	32	2.89
Kuwait	2	39.57	Slovak Republic	33	2.80
Canada	3	35.19	Türkiye	34	2.52
UAE	4	30.81	Greece	35	2.50
New Zealand	5	28.29	Israel	36	2.47
Russia	6	25.97	Thailand	37	2.22
Finland	7	22.76	France	38	2.19
Oman	8	21.89	Hungary	39	2.06
Sweden	9	19.52	United Kingdom	40	1.92
Saudi Arabia	10	19.10	Mexico	41	1.73
United States	11	10.67	Vietnam	42	1.50
Chile	12	10.05	Egypt	43	1.42
Peru	13	8.88	Cambodia	44	1.39
Austria	14	7.89	Nigeria	45	1.29
Colombia	15	7.83	Spain	46	1.25
Malaysia	16	6.53	Guatemala	47	1.22
Slovenia	17	6.16	Italy	48	1.19
Brazil	18	5.87	Japan	49	1.05
Czech Republic	19	5.49	Philippines	50	0.93
Panama	20	5.16	India	51	0.83
Poland	21	4.86	Korea, Republic of	52	0.72
Argentina	22	4.86	Morocco	53	0.68
Germany	23	4.52	Sri Lanka	54	0.65
Belgium	24	4.09	Kenya	55	0.60
Croatia	25	4.01	Dominican Republic	56	0.50
Ukraine	26	3.82	Pakistan	57	0.43
Netherlands	27	3.76	Jordan	58	0.37
South Africa	28	3.64	Bangladesh	59	0.36
Denmark	29	3.36	Singapore	60	0.26
Indonesia	30	3.32	Taiwan, China	61	0.26
China	31	3.05	Hong Kong SAR	62	0.04

R*: Ranking

30

Eight Factor Rankings: Four Physical Factors - Business Context

Business Context

Country/Region	R*	Index	Country/Region	R*	Index
Hong Kong SAR	1	67.63	Chile	32	33.58
Singapore	2	66.45	Greece	33	33.00
Switzerland	3	55.26	Türkiye	34	32.63
Sweden	4	55.16	Philippines	35	32.56
Denmark	5	54.60	Japan	36	31.97
Finland	6	53.62	Czech Republic	37	31.58
Belgium	7	51.75	Mexico	38	30.75
Canada	8	50.81	Cambodia	39	30.40
Netherlands	9	48.21	Nigeria	40	30.32
UAE	10	46.51	Oman	41	30.28
Austria	11	46.45	Kuwait	42	29.89
United Kingdom	12	44.50	Saudi Arabia	43	29.77
Colombia	13	43.26	Argentina	44	29.44
Germany	14	42.93	Jordan	45	28.72
United States	15	41.72	Hungary	46	28.47
Slovenia	16	40.69	Brazil	47	28.44
New Zealand	17	40.34	China	48	28.36
Korea, Republic of	18	40.20	South Africa	49	28.28
Italy	19	39.60	India	50	28.10
Taiwan, China	20	39.56	Kenya	51	27.80
Australia	21	37.75	Indonesia	52	27.47
Vietnam	22	37.65	Egypt	53	26.55
France	23	37.15	Guatemala	54	26.35
Israel	24	35.91	Dominican Republic	55	26.11
Thailand	25	35.68	Sri Lanka	56	24.06
Spain	26	35.64	Slovak Republic	57	22.78
Croatia	27	35.63	Ukraine	58	22.03
Panama	28	35.62	Pakistan	59	20.84
Malaysia	29	34.60	Russia	60	20.48
Peru	30	34.25	Morocco	61	16.78
Poland	31	34.11	Bangladesh	62	16.70

R*: Ranking

Eight Factor Rankings: Four Physical Factors - Related Industries

Related Industries

Country/Region	R*	Index	Country/Region	R*	Index
Austria	1	62.75	Slovak Republic	32	45.96
Denmark	2	62.37	Malaysia	33	43.73
Hong Kong SAR	3	62.08	China	34	43.53
Switzerland	4	61.41	Thailand	35	43.11
Finland	5	61.35	Oman	36	41.86
Singapore	6	60.42	Panama	37	40.39
Sweden	7	59.84	Colombia	38	39.62
Taiwan, China	8	58.85	Jordan	39	39.01
Netherlands	9	58.28	Ukraine	40	38.94
Korea, Republic of	10	57.98	Chile	41	38.56
Belgium	11	57.93	Dominican Republic	42	37.90
United States	12	55.97	Vietnam	43	37.44
Czech Republic	13	55.78	Türkiye	44	36.67
Israel	14	54.43	Argentina	45	36.56
UAE	15	53.99	Mexico	46	36.05
New Zealand	16	53.62	Russia	47	35.42
France	17	53.54	South Africa	48	34.06
Germany	18	53.53	Indonesia	49	34.05
Slovenia	19	53.37	Peru	50	33.58
Australia	20	53.29	Egypt	51	33.52
United Kingdom	21	52.67	India	52	33.22
Japan	22	52.50	Brazil	53	32.96
Spain	23	51.63	Philippines	54	32.41
Hungary	24	51.59	Sri Lanka	55	30.53
Canada	25	51.16	Cambodia	56	29.55
Italy	26	49.66	Morocco	57	29.38
Greece	27	48.11	Guatemala	58	27.44
Croatia	28	48.09	Kenya	59	26.76
Saudi Arabia	29	47.98	Nigeria	60	26.36
Kuwait	30	47.61	Bangladesh	61	25.83
Poland	31	46.51	Pakistan	62	23.63

R*: Ranking

Eight Factor Rankings: Four Physical Factors - Demand Conditions

Demand Conditions

Country/Region	R*	Index		Country/Region	R*	Index
United States	1	79.25		Mexico	32	32.36
China	2	62.47		Türkiye	33	31.69
Switzerland	3	56.10		Peru	34	30.58
Germany	4	54.76		Vietnam	35	29.23
Finland	5	52.01		India	36	29.22
Denmark	6	50.03		Philippines	37	28.85
Canada	7	48.28		Nigeria	38	28.29
United Kingdom	8	46.94		Chile	39	27.78
Singapore	9	46.89		Argentina	40	27.43
Japan	10	46.73		Slovenia	41	27.09
Sweden	11	46.13		Indonesia	42	27.03
France	12	45.29		Malaysia	43	26.84
Italy	13	44.58		Egypt	44	26.43
Austria	14	44.40		Brazil	45	26.12
Belgium	15	44.36		Greece	46	26.08
Korea, Republic of	16	43.73		Guatemala	47	25.37
Hong Kong SAR	17	43.08		Dominican Republic	48	25.06
Australia	18	43.07		Sri Lanka	49	23.38
Taiwan, China	19	41.99		Czech Republic	50	22.31
UAE	20	40.83		South Africa	51	22.14
Netherlands	21	39.91		Oman	52	21.53
Israel	22	37.92		Ukraine	53	21.23
Colombia	23	36.64		Kenya	54	20.69
New Zealand	24	35.57		Hungary	55	20.57
Croatia	25	34.47		Jordan	56	19.66
Spain	26	33.68		Cambodia	57	18.83
Poland	27	33.35		Russia	58	18.18
Thailand	28	33.34		Bangladesh	59	17.84
Saudi Arabia	29	33.09		Morocco	60	17.02
Kuwait	30	33.09		Slovak Republic	61	15.22
Panama	31	32.63		Pakistan	62	13.93

R*: Ranking

Eight Factor Rankings: Four Human Factors - Workers

Workers					
Country/Region	**R***	**Index**	**Country/Region**	**R***	**Index**
China	1	71.37	Chile	32	50.16
Colombia	2	65.28	Dominican Republic	33	50.13
India	3	63.45	Japan	34	49.65
Singapore	4	58.48	Sweden	35	49.59
Philippines	5	57.64	Spain	36	49.56
Kuwait	6	56.79	Jordan	37	49.51
Taiwan, China	7	56.60	New Zealand	38	49.44
Guatemala	8	56.11	Australia	39	49.07
Sri Lanka	9	55.72	Peru	40	48.78
Argentina	10	55.47	Italy	41	48.56
Indonesia	11	55.16	Panama	42	47.52
Mexico	12	55.01	Germany	43	47.09
United Kingdom	13	54.83	Kenya	44	46.74
Thailand	14	54.74	Belgium	45	46.13
Netherlands	15	54.60	Hungary	46	45.42
Korea, Republic of	16	54.17	Egypt	47	45.35
United States	17	53.97	Saudi Arabia	48	45.22
Nigeria	18	53.27	Czech Republic	49	44.52
Brazil	19	52.96	Oman	50	44.44
Cambodia	20	52.91	Türkiye	51	43.41
Denmark	21	52.85	Finland	52	43.27
Canada	22	52.81	Greece	53	43.23
Vietnam	23	52.79	Slovenia	54	41.88
Poland	24	52.25	France	55	41.73
Croatia	25	52.18	Ukraine	56	40.31
Hong Kong SAR	26	51.70	Bangladesh	57	39.73
Austria	27	51.04	Russia	58	38.84
UAE	28	50.81	Pakistan	59	33.54
Switzerland	29	50.79	Morocco	60	31.79
Malaysia	30	50.67	Slovak Republic	61	23.38
Israel	31	50.57	South Africa	62	19.84

R*: Ranking

Eight Factor Rankings: Four Human Factors - Policymakers & Administrators

Policymakers & Administrators

Country/Region	R*	Index	Country/Region	R*	Index
Switzerland	1	84.53	Poland	32	49.75
Singapore	2	83.81	Oman	33	49.07
Denmark	3	83.35	Kuwait	34	48.54
Sweden	4	79.95	Greece	35	46.08
Canada	5	79.57	Jordan	36	45.06
Netherlands	6	78.30	India	37	44.89
Finland	7	76.04	Philippines	38	44.09
UAE	8	75.28	Panama	39	44.03
Austria	9	74.52	Croatia	40	42.85
New Zealand	10	73.25	Egypt	41	42.23
United Kingdom	11	71.33	Argentina	42	40.61
Australia	12	70.99	Thailand	43	40.09
United States	13	70.34	Indonesia	44	39.74
Belgium	14	67.36	Cambodia	45	38.65
Taiwan, China	15	67.00	Dominican Republic	46	38.61
Israel	16	66.32	Türkiye	47	38.39
Korea, Republic of	17	66.07	Russia	48	38.08
Germany	18	65.48	Kenya	49	36.69
Japan	19	63.25	Peru	50	35.75
France	20	60.99	Ukraine	51	34.90
Hong Kong SAR	21	56.79	Mexico	52	33.85
Colombia	22	56.78	Morocco	53	32.35
Chile	23	55.01	Brazil	54	32.23
Saudi Arabia	24	53.87	Nigeria	55	32.04
China	25	53.51	Hungary	56	30.43
Vietnam	26	52.06	South Africa	57	26.10
Slovenia	27	51.90	Slovak Republic	58	25.77
Italy	28	51.85	Pakistan	59	25.73
Spain	29	50.86	Guatemala	60	25.19
Malaysia	30	50.72	Sri Lanka	61	24.22
Czech Republic	31	50.51	Bangladesh	62	23.66

R*: Ranking

Eight Factor Rankings: Four Human Factors - Entrepreneurs

Entrepreneurs

Country/Region	R*	Index	Country/Region	R*	Index
Denmark	1	77.60	Panama	32	45.40
United States	2	77.51	China	33	45.37
Netherlands	3	75.55	Kuwait	34	45.15
Canada	4	75.40	Italy	35	44.76
UAE	5	75.23	Mexico	36	44.59
Singapore	6	73.09	Spain	37	44.42
Switzerland	7	72.66	Dominican Republic	38	43.69
Sweden	8	72.00	Oman	39	43.05
United Kingdom	9	70.85	Thailand	40	41.66
Australia	10	68.77	Japan	41	40.15
Hong Kong SAR	11	67.93	South Africa	42	39.40
Finland	12	67.62	Vietnam	43	39.17
Belgium	13	65.96	Peru	44	38.99
Israel	14	65.78	Hungary	45	38.35
Austria	15	63.26	Philippines	46	36.73
New Zealand	16	63.15	Egypt	47	36.29
Colombia	17	59.97	Nigeria	48	36.00
Taiwan, China	18	57.58	Morocco	49	35.09
Germany	19	56.94	Greece	50	34.82
Chile	20	56.19	Kenya	51	34.75
Korea, Republic of	21	54.53	Guatemala	52	34.69
France	22	54.36	Jordan	53	34.40
Saudi Arabia	23	53.23	Brazil	54	32.69
Slovenia	24	53.12	Slovak Republic	55	32.33
Czech Republic	25	51.12	Argentina	56	29.73
Poland	26	50.59	Ukraine	57	25.64
Malaysia	27	48.56	Sri Lanka	58	25.41
Türkiye	28	47.86	Cambodia	59	25.06
Indonesia	29	46.76	Pakistan	60	24.34
India	30	46.55	Russia	61	21.65
Croatia	31	45.48	Bangladesh	62	20.08

R*: Ranking

36

Eight Factor Rankings: Four Human Factors - Professionals

Professionals					
Country/Region	R*	Index	Country/Region	R*	Index
Singapore	1	83.87	Mexico	32	50.98
Switzerland	2	83.22	China	33	50.94
Netherlands	3	82.53	Argentina	34	50.28
UAE	4	79.29	Türkiye	35	49.57
Denmark	5	78.84	Colombia	36	49.40
Sweden	6	77.92	Chile	37	49.28
United States	7	76.10	Nigeria	38	48.58
Canada	8	74.82	Croatia	39	48.56
Israel	9	72.14	Japan	40	48.45
United Kingdom	10	69.45	Peru	41	48.08
Hong Kong SAR	11	69.03	Malaysia	42	47.82
Taiwan, China	12	68.12	Spain	43	47.03
Belgium	13	66.95	Dominican Republic	44	45.54
Austria	14	66.69	Cambodia	45	45.42
Korea, Republic of	15	64.59	Oman	46	45.05
Finland	16	64.57	Hungary	47	43.98
Germany	17	63.33	Kenya	48	43.23
Vietnam	18	62.33	France	49	42.80
New Zealand	19	62.01	South Africa	50	42.36
Australia	20	61.31	Greece	51	42.03
Czech Republic	21	59.63	Brazil	52	41.40
Kuwait	22	57.64	Jordan	53	40.79
Poland	23	57.10	Egypt	54	40.69
Slovenia	24	55.86	Sri Lanka	55	38.66
Philippines	25	54.41	Morocco	56	33.04
Indonesia	26	54.05	Ukraine	57	31.24
Panama	27	53.83	Russia	58	30.67
Thailand	28	53.76	Pakistan	59	30.06
Italy	29	53.74	Guatemala	60	26.11
India	30	52.18	Slovak Republic	61	25.75
Saudi Arabia	31	51.97	Bangladesh	62	24.49

R∗: Ranking

Contents

1. Models

2. Rankings

3. Implications

Contents

3. Implications

① Intra-Group

② Simulations

③ Term-Priority (TP) Matrix

④ Conclusion

Country Groups: Intra-Group Rankings (CS & DS Rankings)

Size CSI & DSI	Small		Medium		Large	
	CS Ranking	**DS Ranking**	**CS Ranking**	**DS Ranking**	**CS Ranking**	**DS Ranking**
Strong	1. U.A.E. 2. Singapore 3. Kuwait 4. Switzerland 5. Denmark 6. Netherlands 7. Austria 8. Hong Kong SAR 9. Israel	1. Switzerland 2. Denmark 3. Singapore 4. Netherlands 5. U.A.E. 6. Hong Kong SAR 7. Austria 8. Belgium 9. Israel	1. New Zealand 2. Sweden 3. Finland 4. United Kingdom 5. Korea, Rep. of 6. Taiwan, China	1. Sweden 2. Finland 3. United Kingdom 4. Taiwan, China 5. Germany 6. Korea, Rep. of	1. Canada 2. Australia 3. United States 4. China	1. Unied States 2. Canada 3. Australia 4. Japan
Intermediate	1. Belgium 2. Croatia 3. Slovenia 4. Czech Republic 5. Panama 6. Dominican Republic	1. Kuwait 2. Slovenia 3. Czech republic 4. Croatia 5. Panama 6. Dominican Republic	1. Germany 2. Chile 3. Oman 4. Malaysia 5. Poland 6. Italy 7. France 8. Thailand 9. Cambodia	1. New Zealand 2. Italy 3. France 4. Poland 5. Thailand 6. Chile 7. Spain 8. Malaysia 9. Oman	1. Colombia 2. India 3. Saudi Arabia 4. Vietnam 5. Japan 6. Indonesia 7. Peru 8. Philippines	1. China 2. Colombia 3. Saudi Arabia 4. Vietnam 5. Türkiye 6. Philippines 7. Peru 8. Indonesia
Weak	1. Jordan 2. Hungary 3. Slovak Republic	1. Hungary 2. Jordan 3. Slovak Republic	1. Spain 2. Greece 3. Guatemala 4. Sri Lanka 5. Kenya 6. Ukraine 7. Morocco	1. Greece 2. Kenya 3. Cambodia 4. Sri Lanka 5. Ukraine 6. Morocco 7. Guatemala	1. Argentina 2. Russia 3. Mexico 4. Brazil 5. Egypt 6. Nigeria 7. Türkiye 8. Bangladesh 9. Pakistan 10. South Africa	1. Mexico 2. India 3. Argentina 4. Egypt 5. Nigeria 6. Brazil 7. South Africa 8. Russia 9. Pakistan 10. Bangladesh
	18 Economies		**22 Economies**		**22 Economies**	

CSI: Cost Strategy Index
DSI: Differentiation Strategy Index

40

Competitive Factors between the US, China, and India

	Subfactor of NCR 2024	Rank of the US	Rank of China	Rank of India
Physical Factors	Natural Resources	15	40	54
	Processed Resources	12	23	49
	Structure	10	37	23
	Rivalry	37	58	53
	Industrial Infrastructure	1	35	50
	Living Infrastructure	30	37	50
	Demand Size	1	2	25
	Demand Quality	7	28	37
Human Factors	Quantity of Workers	31	1	2
	Quality of Workers	15	45	37
	Policymakers	12	20	25
	Administrators	14	32	35
	Personal Competence (Entrepreneurs)	1	46	23
	Social Context (Entrepreneurs)	4	22	30
	Personal Competence (Professionals)	7	37	18
	Social Context (Professionals)	8	32	19

Contents

3. Implications

① Intra-Group
② Simulations
③ Term-Priority (TP) Matrix
④ Conclusion

The Changing Patterns of US Rankings (2010 - 2024)

Note: The upper number of each triangle is the country's ranking when its competitors remain unchanged in the base data. The lower number of each triangle is the country's ranking when its competitors have their optimal strategies.

**US: higher with differentiation strategy**

CS: Cost Strategy; BD: Base Data; DS: Differentiation Strategy

The Changing Patterns of China's Rankings (2010 - 2024)

Note: The upper number of each triangle is the country's ranking when its competitors remain unchanged in the base data. The lower number of each triangle is the country's ranking when its competitors have their optimal strategies.

China: higher rankings with cost strategy before, but higher rankings with differentiation strategy recently

CS: Cost Strategy; BD: Base Data; DS: Differentiation Strategy
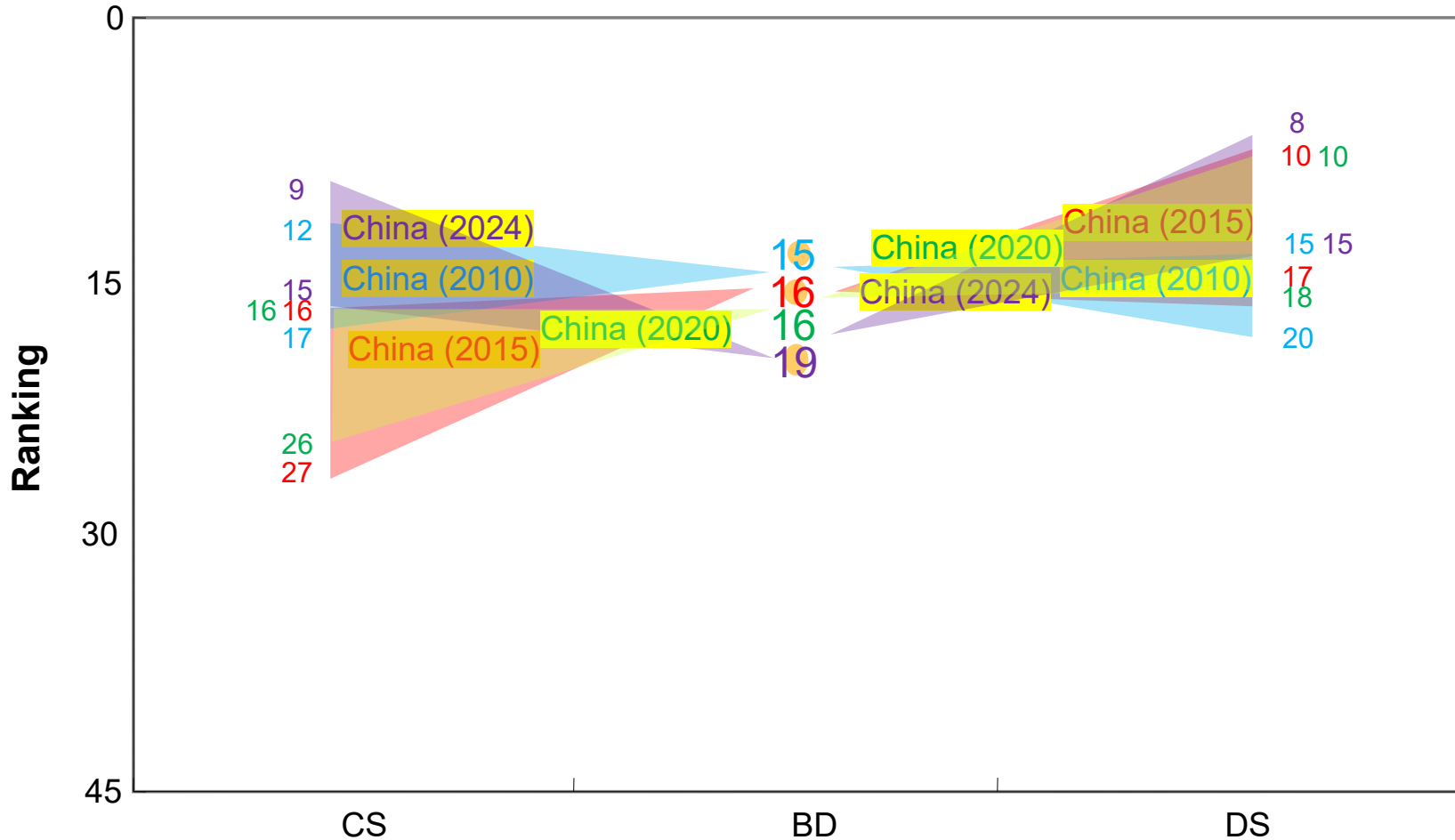
The Changing Patterns of India's Rankings (2010 - 2024)
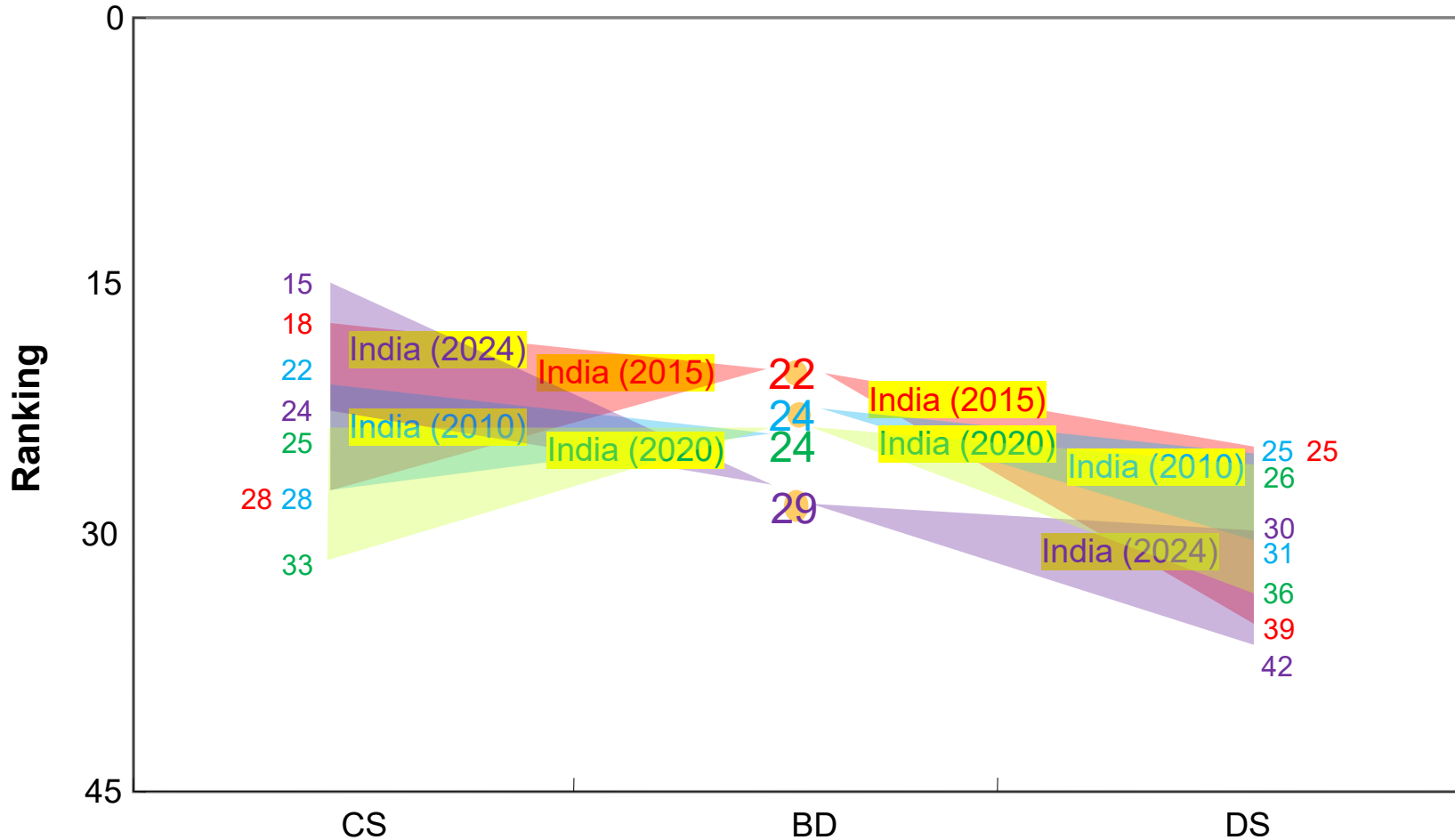
Note: The upper number of each triangle is the country's ranking when its competitors remain unchanged in the base data. The lower number of each triangle is the country's ranking when its competitors have their optimal strategies.

**India: higher rankings with cost strategy**

CS: Cost Strategy; BD: Base Data; DS: Differentiation Strategy

Contents

3. Implications

① Intra-Group

② Simulations

③ Term-Priority (TP) Matrix

④ Conclusion

IPS Model for Weight-Sequence Strategy: Term-Priority Matrix

▪ **Term:** depending on whether the policy is related to the public or private sectors; variables that are more related to private sectors are categorized under a longer term.

▪ **Priority:** The degree of priority (Y-axis) is determined by the degree of the correlation between the sub-factors and competitiveness factors such as GDP per capita.
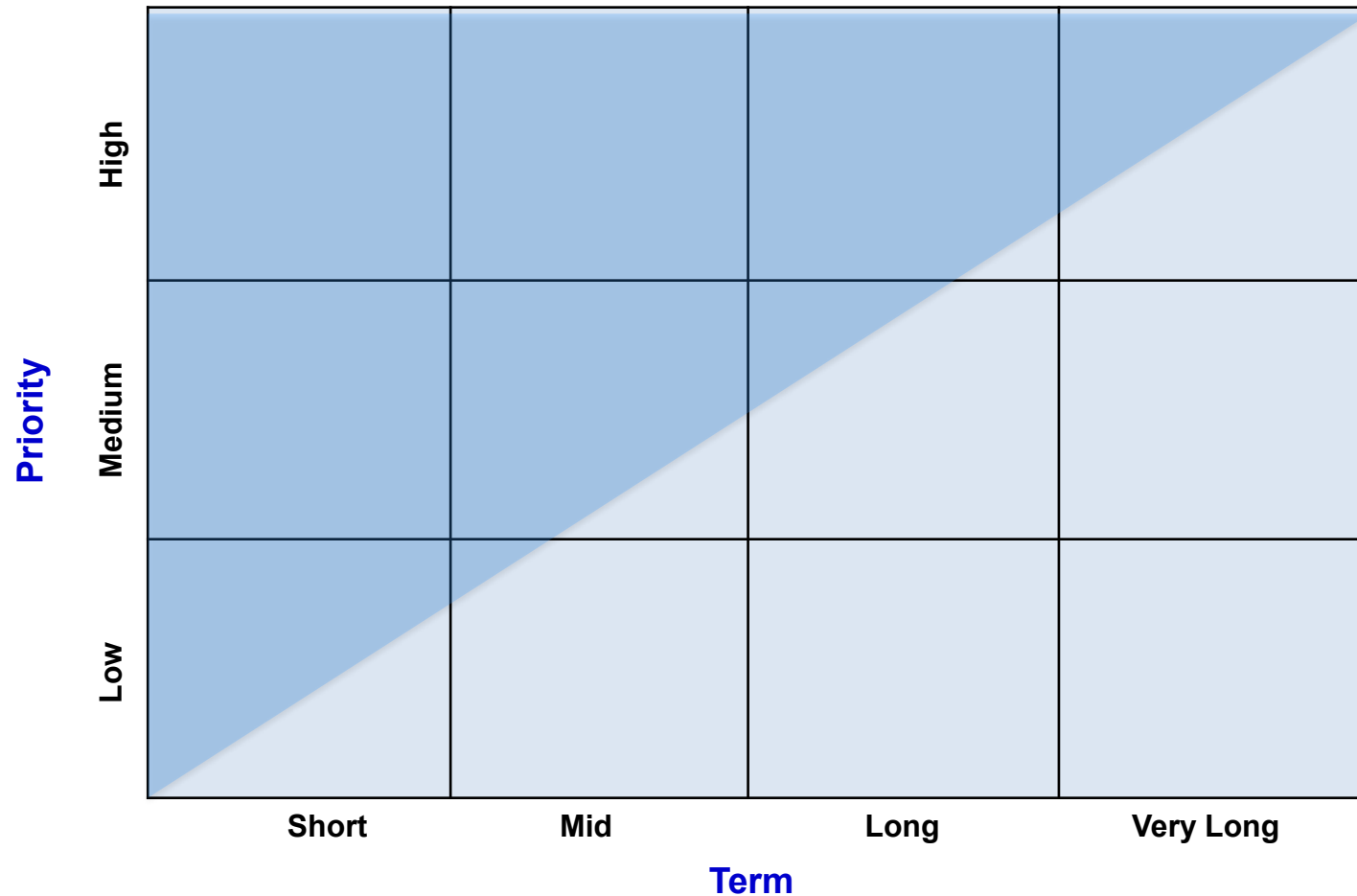
Term-Priority Matrix: US

▪ **Term:** depending on whether the policy is related to the public or private sectors; variables that are more related to private sectors are categorized under a longer term.

▪ **Priority:** The degree of priority (Y-axis) is determined by the degree of the correlation coefficient between the sub-factors and competitiveness factors such as GDP per capita.

Priority	Short	Mid	Long	Very Long
High	**Administrators (14)** - The process of governemnt (17) - Ethics (19) **Industrial Infrastructure (1)** - Vehicles (26) - Maritime transport (26) - Mobilephone subscribers (42)	**Living Infrastructure (30)** - Secondary enrollemnt rate (32) - Personal safety (46) - Gini index (39)	**Social Context of Entrepreneurs (4)** - Availability of entrepreneurs (11) - Support of the social system (18)	**Demand Quality (7)** - Consumer sophistication: quality (16) - Consumer sophistication: design (28)
Medium	**Policymakers (12)** - The result of legistlation (17) - Erhics (33)	**Structure (10)** - Equal tretment (15) - Shared values (28) **Social Context of Professionals (8)** - Professional's social status (11)	**Personal Competence of Entrepreneurs (1)** - The process of decision making (5) - Core competence (13) **Personal Competence of Professionals (7)** - Ability to manage opportunities (24)	**Quantitiy of Workers (31)** - Employment rate (22)
Low	**Rivalry (37)** - Goods openness (% of imports of GDP) (58) - Goods openness (% of exports of GDP) (60)	**Processed Resources (12)** - Wood production (13) - Meat indigeneous (17)	**Quality of Workers (15)** - Education (20)	

Term

Term-Priority Matrix: China

▪ **Term:** depending on whether the policy is related to the public or private sectors; variables that are more related to private sectors are categorized under a longer term.
▪ **Priority:** The degree of priority (Y-axis) is determined by the degree of the correlation coefficient between the sub-factors and competitiveness factors such as GDP per capita.

Priority	Short	Mid	Long	Very Long
High	**Administrators (32)** - The result of policy implementation (53) - International experience (48) **Industrial Infrastructure (35)** - Internationak travel (44) - Internet users (47)	**Living Infrastructure (37)** - Student monility (44) - HDI (42) - CO2 emission (45)	**Social Context of Entrepreneurs (22)** - Social status (31) - Openness of foreign entrepreneurs (31)	**Demand Quality (28)** - Consumer sophistication: IPR (39)
Medium	**Policymakers (20)** - The process of parliamnet (33) - Ethics (46)	**Structure (37)** - Firm's decision process (53) - Equal treatment (54) **Social Context of Professionals (32)** - Availability of professionals (35) - Mobility of professionals (46)	**Personal Competence of Entrepreneurs (46)** - The result of decision making (46) **Personal Competence of Professionals (37)** - Ability to manage opportunities (62)	**Quantitiy of Workers (1)** - Employment rate (33)
Low	**Rivalry (58)** - Goods openness (% of imports of GDP) (57) - Service openness (% of imports of GDP) (60)	**Processed Resources (23)** - Natural gas production (26) - Meat indigeneous (51)	**Quality of Workers (45)** - Openness (59)	

Term

Term-Priority Matrix: India

▪ **Term:** depending on whether the policy is related to the public or private sectors; variables that are more related to private sectors are categorized under a longer term.

▪ **Priority:** The degree of priority (Y-axis) is determined by the degree of the correlation coefficient between the sub-factors and competitiveness factors such as GDP per capita.

Priority	Short	Mid	Long	Very Long
High	**Administrators (35)** - Education level (55) - International experiences (59) **Industrial Infrastructure (50)** - Maritime transport (54) - Mobile phone subscribers (56) - Internet users (58)	**Living Infrastructure (50)** - Tertiary enrollment rate (51) - Students per teacher (53) - Social safety net (53) - HDI (56)	**Social Context of Entrepreneurs (30)** - New business (40) - Availability of entrepreneurs (49) - Social status (55) - Openness of foreign entrepreneurs (55)	**Demand Quality (37)** - Consumer sophistication: design (48) - Consumer sophistication: IPR (50) - Consumer sophistication: design (57) - Consumer sophistication: quality (60)
Medium	**Policymakers (25)** - International experiences (48) - Education level (59)	**Structure (23)** - Health, safety, environmental concerns (57) - Firm's decision process (59) - Global brands (62) **Social Context of Professionals (19)** - Availability of professionals (42) - Professional's compensation (50) - Professional's social status (60)	**Personal Competence of Entrepreneurs (23)** - The result of decision making (47) - International experience (47) **Personal Competence of Professionals (18)** - Ability to manage opportunities (60) - Professional's core competence (60) - Professional's international experience (61)	**Quantitiy of Workers (2)** - Employment rate (48)
Low	**Rivalry (53)** - Goods openness (% of imports of GDP) (55) - Service openness (% of imports of GDP) (59)	**Processed Resources (49)** - Wood production (43) - Meat indigeneous (46)	**Quality of Workers (37)** - Attitude & motivation (48) - Openness (50) - Relationship (55) - Education (56)	

Term

Competition and Cooperation between the US and China

- Despite their differences and conflicts over sensitive issues, such as political systems, culture, and ideology, there is a room for cooperation as well as competition between the two.

- The analysis of the US and China will give important implications for other economies to analyze their competitive and cooperative relationship with other economies.

Contents

3. Implications

①Intra-Group
②Simulations
③Term-Priority (TP) Matrix
④Conclusion

Conclusion

Model	• Source: From Physical to both Physical and Human • Scope: From Domestic to both Domestic and International
Weight-Sequence	• Strategy: Cost/Differentiation - 4 Development Sequences • Goal: Growth/Distribution - 4 Time Sequences
Competitive-ness	• Competition • Cooperation
Audience	• Academicians • Practitioners (Policymakers and Business People)

🔍 For more information, please visit IPSNC website at www.ipsncr.org

Appendix

Base Data 2023

Ranking	Country/Region	NCI	Ranking	Country/Region	NCI	Ranking	Country/Region	NCI
1	Singapore	61.31	22	Czech Republic	43.83	43	Jordan	34.00
2	Denmark	60.76	23	Saudi Arabia	43.29	44	Hungary	33.83
3	Canada	59.72	24	Italy	43.22	45	Croatia	33.44
4	Netherlands	59.61	25	Israel	42.82	46	Argentina	33.26
5	United States	58.83	26	Japan	42.78	47	Oman	32.75
6	Switzerland	58.36	27	Poland	41.18	48	Turkey	32.48
7	Sweden	57.99	28	Chile	41.08	49	Nigeria	31.74
8	U.A.E.	56.91	29	Vietnam	40.96	50	Brazil	31.32
9	Australia	56.49	30	India	40.65	51	Egypt	31.24
10	Finland	56.40	31	Malaysia	39.90	52	Russia	29.72
11	New Zealand	53.91	32	Indonesia	39.88	53	Cambodia	28.29
12	Belgium	53.18	33	Panama	39.36	54	Ukraine	28.14
13	Hong Kong	52.99	34	Slovenia	39.32	55	Guatemala	28.10
14	Austria	51.05	35	Greece	38.46	56	Slovak Republic	28.00
15	United Kingdom	50.99	36	Colombia	38.32	57	South Africa	26.54
16	Germany	50.56	37	Spain	38.31	58	Bangladesh	26.39
17	Taiwan	50.30	38	Thailand	37.73	59	Kenya	26.29
18	China	48.81	39	Philippines	37.55	60	Pakistan	26.18
19	Korea	47.70	40	Dominican Republic	35.38	61	Sri Lanka	24.54
20	Kuwait	44.59	41	Mexico	34.99	62	Morocco	22.54
21	France	44.27	42	Peru	34.89			

NCI: National Competitiveness Index

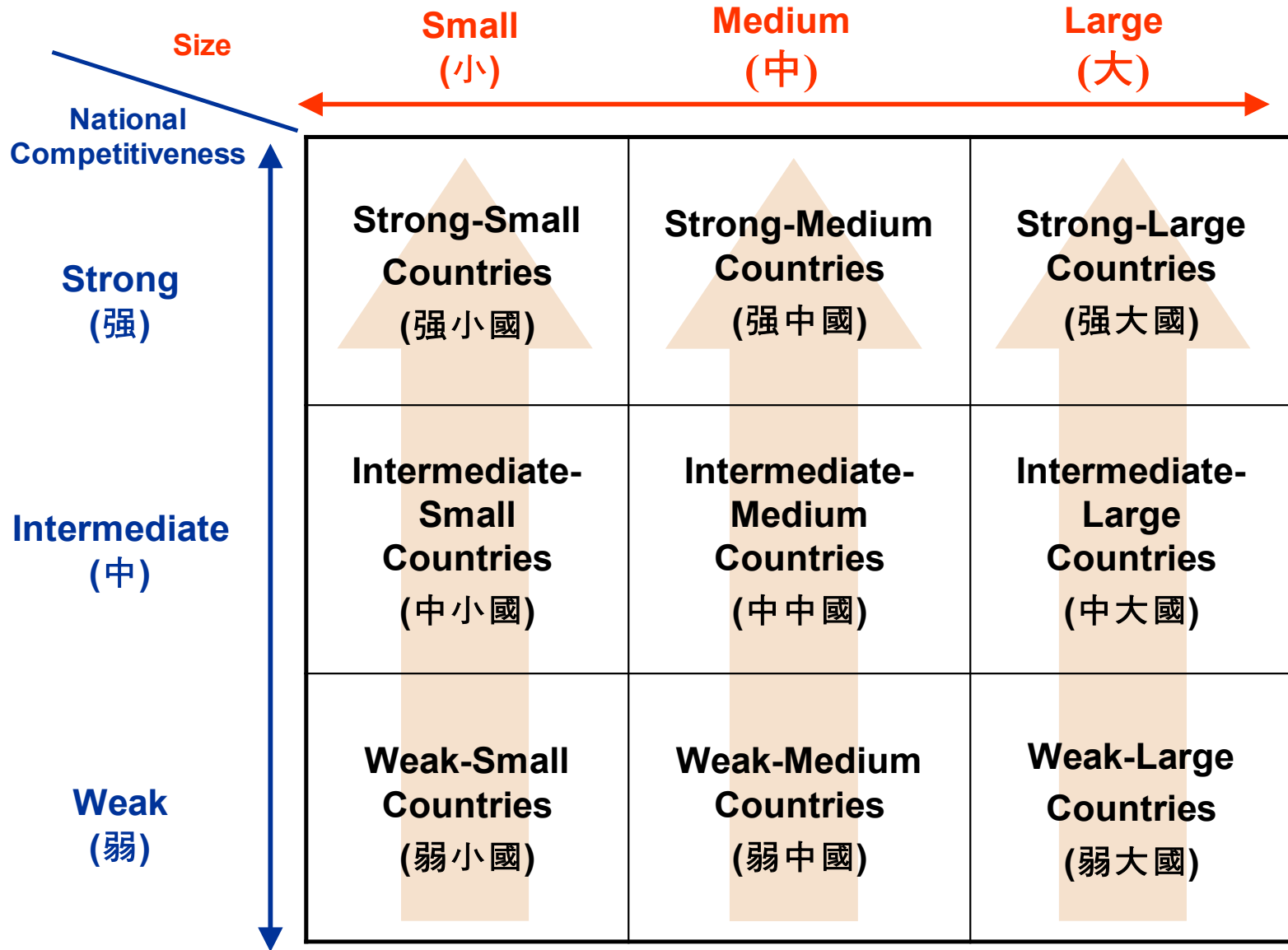# IPS Model and the Impacts of Emerging Technologies (e.g., ChatGPT)

- The IPS model is useful in analyzing the effects of the technological disruption such as chatGPT in a comprehensive and systematic way.
- The emerging technologies have the potential to influence the competitiveness of countries/regions, impacting both their cost and differentiation advantages

	Main Factors	Impacts of the Russia-Ukraine War
Physical Factors	Factor Conditions	• Improving oil production process and enabling <u>automation</u> of tasks • Development of alternative resources: <u>sustainable</u> energy
	Demand Conditions	• <u>Expanding</u> existing markets • Improving products and services <u>quality</u>
	Related Industries	• <u>Streamlining</u> communication across supply chain and <u>automating administrative</u> tasks • Improving living infrastructure: efficacy in the <u>education</u> sector
	Business Context	• Efficacy in <u>innovating</u> existing business processes • Promoting firm strategy for <u>internationalizing</u> existing businesses.
Human Factors	Workers	• Demands for <u>new jobs</u> amid the emergence of generative AI • Improvement in the <u>productivity</u> of workers: example of client services roles
	Policymakers & Administrators	• Facilitating the <u>legislation</u> by identifying areas of specific regulations • Facilitating effective communication between administrators and the public
	Entrepreneurs	• <u>Identifying</u> investment opportunities and risk factors • <u>Supporting the operations</u> of startups with challenges of limited resources
	Professionals	• <u>Facilitating the automation</u> of routine administrative tasks and <u>enhancing</u> their <u>knowledge</u> • <u>Enhancing efficiency</u> and <u>accuracy</u> in carrying out these tasks

Strategy Simulations: US and China

Country/Region	Ranking	BD	CSI	DSI
Singapore	1	61.31	48.65	69.26
Denmark	2	60.76	47.38	71.86
Canada	3	59.72	54.51	65.30
Netherlands	4	59.61	45.80	69.02
United States	5	58.83	46.58	67.50
Switzerland	6	58.36	44.96	69.29
Sweden	7	57.99	46.43	66.92
U.A.E.	8	56.91	50.29	64.64
Australia	9	56.49	52.03	61.95
Finland	10	56.40	45.67	66.44
New Zealand	11	53.91	48.91	58.10
Belgium	12	53.18	42.04	62.41
Hong Kong	13	52.99	40.56	61.57
Austria	14	51.05	40.62	58.71
United Kingdom	15	50.99	39.77	60.88
Germany	16	50.56	40.55	58.16
Taiwan	17	50.30	40.38	59.87
China	18	48.81	47.44	53.68
Korea	19	47.70	39.30	56.80
Kuwait	20	44.59	43.51	48.54
France	21	44.27	35.48	51.30
Czech Republic	22	43.83	36.23	48.87
Saudi Arabia	23	43.29	40.88	47.95
Italy	24	43.22	36.14	50.79
Israel	25	42.82	35.92	47.90
Japan	26	42.78	35.69	50.01
Poland	27	41.18	35.95	48.14
Chile	28	41.08	38.47	46.01
Vietnam	29	40.96	37.34	48.19
India	30	40.65	39.09	46.03
Malaysia	31	39.90	38.18	43.41

Country/Region	Ranking	BD	CSI	DSI
Indonesia	32	39.88	35.87	47.26
Panama	33	39.36	37.15	44.34
Slovenia	34	39.32	33.03	45.35
Greece	35	38.46	33.81	43.43
Colombia	36	38.32	33.33	44.60
Spain	37	38.31	31.21	43.95
Thailand	38	37.73	35.32	44.07
Philippines	39	37.55	35.49	43.69
Dominican Republic	40	35.38	31.81	42.81
Mexico	41	34.99	33.81	39.24
Peru	42	34.89	33.00	42.04
Jordan	43	34.00	31.97	37.53
Hungary	44	33.83	28.61	38.43
Croatia	45	33.44	27.73	40.25
Argentina	46	33.26	32.05	38.66
Oman	47	32.75	32.42	32.10
Turkey	48	32.48	26.04	39.93
Nigeria	49	31.74	28.66	37.44
Brazil	50	31.32	30.92	35.02
Egypt	51	31.24	31.23	36.34
Russia	52	29.72	33.49	28.86
Cambodia	53	28.29	30.33	32.00
Ukraine	54	28.14	27.75	33.47
Guatemala	55	28.10	30.14	29.85
Slovak Republic	56	28.00	22.86	32.55
South Africa	57	26.54	17.65	34.89
Bangladesh	58	26.39	25.69	31.68
Kenya	59	26.29	24.56	30.72
Pakistan	60	26.18	29.15	27.88
Sri Lanka	61	24.54	22.50	29.94
Morocco	62	22.54	19.70	27.12

BD: Base Data; CSI: Cost Strategy Index; DSI: Differentiation Strategy Index

IPS Model for Country Groups

	Small **(小)**	**Medium** **(中)**	**Large** **(大)**
Strong **(强)**	**Strong-Small Countries** **(强小國)**	**Strong-Medium Countries** **(强中國)**	**Strong-Large Countries** **(强大國)**
Intermediate **(中)**	**Intermediate-Small Countries** **(中小國)**	**Intermediate-Medium Countries** **(中中國)**	**Intermediate-Large Countries** **(中大國)**
Weak **(弱)**	**Weak-Small Countries** **(弱小國)**	**Weak-Medium Countries** **(弱中國)**	**Weak-Large Countries** **(弱大國)**

Size

National Competitiveness

Enhancing Competitiveness through Cooperation

The key areas of strengths and weaknesses

Criteria of NCR 2023	US rankings	China's rankings
Livestock	18	52
Consumer sophistication: design	7	49
Consumer sophistication: new technology	7	43
Vehicles	2	40
Scientific research institutions	1	38
Firm's decision process	11	41
Global standards	9	39
Health, safety, and environmental concerns	8	44
Portfolio openness (Financial outflows as % of GDP)	10	49
The result of decision making (e.g., the ability to seize opportunities)	1	46
Coal production	8	5
Goods and services: export	2	1
Personal security	45	17
Number of labor force	3	1

The advantageous areas of the US

The advantageous areas of China

Some potential areas where both economies can complement with each other to achieve a **win-win outcome through partnership**

Cost Strategy Ranking and Differentiation Strategy Rankings (Changes)

Cost Strategy Ranking

2023	Country/Region	Change	2023	Country/Region	Change
40	Panama	14	32	Japan	-1
49	Greece	13	33	Philippines	-4
38	Czech Republic	11	34	France	0
22	Belgium	8	35	Thailand	-3
59	Pakistan	8	36	Greece	1
23	Saudi Arabia	8	37	Mexico	8
51	Jordan	7	38	Russia	-5
44	Mexico	7	39	Colombia	0
13	Denmark	6	40	Slovenia	-2
24	Germany	6	41	Peru	0
39	Philippines	6	42	Oman	11
36	Indonesia	5	43	Argentina	3
43	Russia	5	44	Jordan	-1
28	Malaysia	4	45	Dominican Republic	-3
14	Netherlands	4	46	Egypt	-6
9	China	3	47	Spain	1
]48	Dominican Republic	3	48	Brazil	4
31	Italy	3	49	Cambodia	-2
57	Ukraine	3	50	Guatemala	-6
25	Chile	2	51	Pakistan	4
52	Guatemala	2	52	Nigeria	-1
6	New Zealand	2	53	Hungary	-4
61	Slovak Republic	2	54	Ukraine	0
27	Vietnam	2	55	Croatia	2
3	Australia	1	56	Turkey	-6
58	Bangladesh	1	57	Bangladesh	-1
47	Egypt	1	58	Kenya	1
30	Poland	1	59	Slovak Republic	-1
16	Austria	0	60	Sri Lanka	0
1	Canada	0	61	Morocco	0
17	Hong Kong	0	62	South Africa	0

Differentiation Strategy Ranking

2023	Country/Region	Change	2023	Country/Region	Change
1	Denmark	0	32	Slovenia	2
2	Switzerland	0	33	Colombia	4
3	Singapore	2	34	Panama	-1
4	Netherlands	-1	35	Thailand	0
5	United States	1	36	Spain	3
6	Sweden	1	37	Philippines	-6
7	Finland	-3	38	Greece	-6
8	Canada	0	39	Malaysia	-1
9	UAE	2	40	Dominican Republic	0
10	Belgium	-1	41	Peru	1
11	Australia	1	42	Croatia	-1
12	Hong Kong SAR	-2	43	Turkey	0
13	United Kingdom	0	44	Mexico	1
14	Taiwan, China	2	45	Argentina	5
15	Austria	2	46	Hungary	0
16	Germany	2	47	Jordan	0
17	New Zealand	-3	48	Nigeria	-4
18	Korea	-3	49	Egypt	0
19	China	0	50	Brazil	5
20	France	3	51	South Africa	5
21	Italy	-1	52	Ukraine	-4
22	Japan	2	53	Slovak Republic	-1
23	Czechia	6	54	Oman	8
24	Kuwait	3	55	Cambodia	2
25	Vietnam	0	56	Bangladesh	-3
26	Poland	4	57	Kenya	4
27	Saudi Arabia	-5	58	Sri Lanka	0
28	Israel	-7	59	Guatemala	-5
29	Indonesia	-1	60	Russia	-9
30	India	-4	61	Pakistan	-2
31	Chile	5	62	Morocco	-2

* Changes against 2023

Country Groups: Intra-Group Rankings (CS & DS Rankings)

Size / Strategy Index	Small		Medium		Large	
	CS	**DS**	**CS**	**DS**	**CS**	**DS**
Strong	Austria Belgium Denmark Hong Kong SAR Kuwait Netherlands Singapore Switzerland U.A.E.	Austria Belgium Denmark Hong Kong SAR Netherlands Singapore Switzerland U.A.E.	Finland Germany New Zealand Sweden Taiwan, China United Kingdom	Finland Germany Korea New Zealand Sweden Taiwan, China United Kingdom	Australia Canada China Saudi Arabia United States	Australia Canada China United States
Intermediate	Czech Republic Israel Panama	Czech Republic Greece Israel Kuwait Panama Slovenia	Chile France Italy Korea Malaysia Poland Thailand Vietnam	Chile France Italy Malaysia Poland Spain Thailand Vietnam	India Indonesia Japan Philippines	Colombia India Indonesia Japan Philippines Saudi Arabia
Weak	Croatia Dominican Republic Greece Hungary Slovak Republic Slovenia	Croatia Dominican Republic Hungary Slovak Republic	Cambodia Guatemala Jordan Kenya Morocco Oman Spain Sri Lanka Ukraine	Cambodia Guatemala Jordan Kenya Morocco Oman Sri Lanka Ukraine	Argentina Bangladesh Brazil Colombia Egypt Mexico Nigeria Pakistan Peru Russia South Africa Türkiye	Argentina Bangladesh Brazil Egypt Mexico Nigeria Pakistan Peru Russia South Africa Türkiye

CS: cost strategy
DS: differentiation strategy

18 Economies	**23 Economies**	**21 Economies**

Country Groups: Intra-Group Rankings (CS & DS Rankings)

Size → Competitiveness ↓	Small		Medium		Large	

Small

Strong

CI	DS
Austria	Austria
Belgium	Belgium
Denmark	Denmark
Hong Kong SAR	Hong Kong SAR
Kuwait	Netherlands
Netherlands	Singapore
Singapore	Switzerland
Switzerland	U.A.E.
U.A.E.	

Intermediate

CS	DS
Czech Republic	Czech Republic
Israel	Greece
Panama	Israel
	Kuwait
	Panama
	Slovenia

Weak

CS	DS
Croatia	Croatia
Dominican Republic	Dominican Republic
Greece	Hungary
Hungary	Slovak Republic
Slovak Republic	
Slovenia	

Medium

Strong

CS	DS
Finland	Finland
Germany	Germany
New Zealand	Korea
Sweden	New Zealand
Taiwan, China	Sweden
United Kingdom	Taiwan, China
	United Kingdom

Intermediate

CS	DS
Chile	Chile
France	France
Italy	Italy
Korea	Malaysia
Malaysia	Poland
Poland	Spain
Thailand	Thailand
Vietnam	Vietnam

Weak

CS	DS
Cambodia	Cambodia
Guatemala	Guatemala
Jordan	Jordan
Kenya	Kenya
Morocco	Morocco
Oman	Oman
Spain	Sri Lanka
Sri Lanka	Ukraine
Ukraine	

Large

Strong

CS	DS
Australia	Australia
Canada	Canada
China	China
Saudi Arabia	United States
United States	

Intermediate

CS	DS
India	Colombia
Indonesia	India
Japan	Indonesia
Philippines	Japan
	Philippines
	Saudi Arabia

Weak

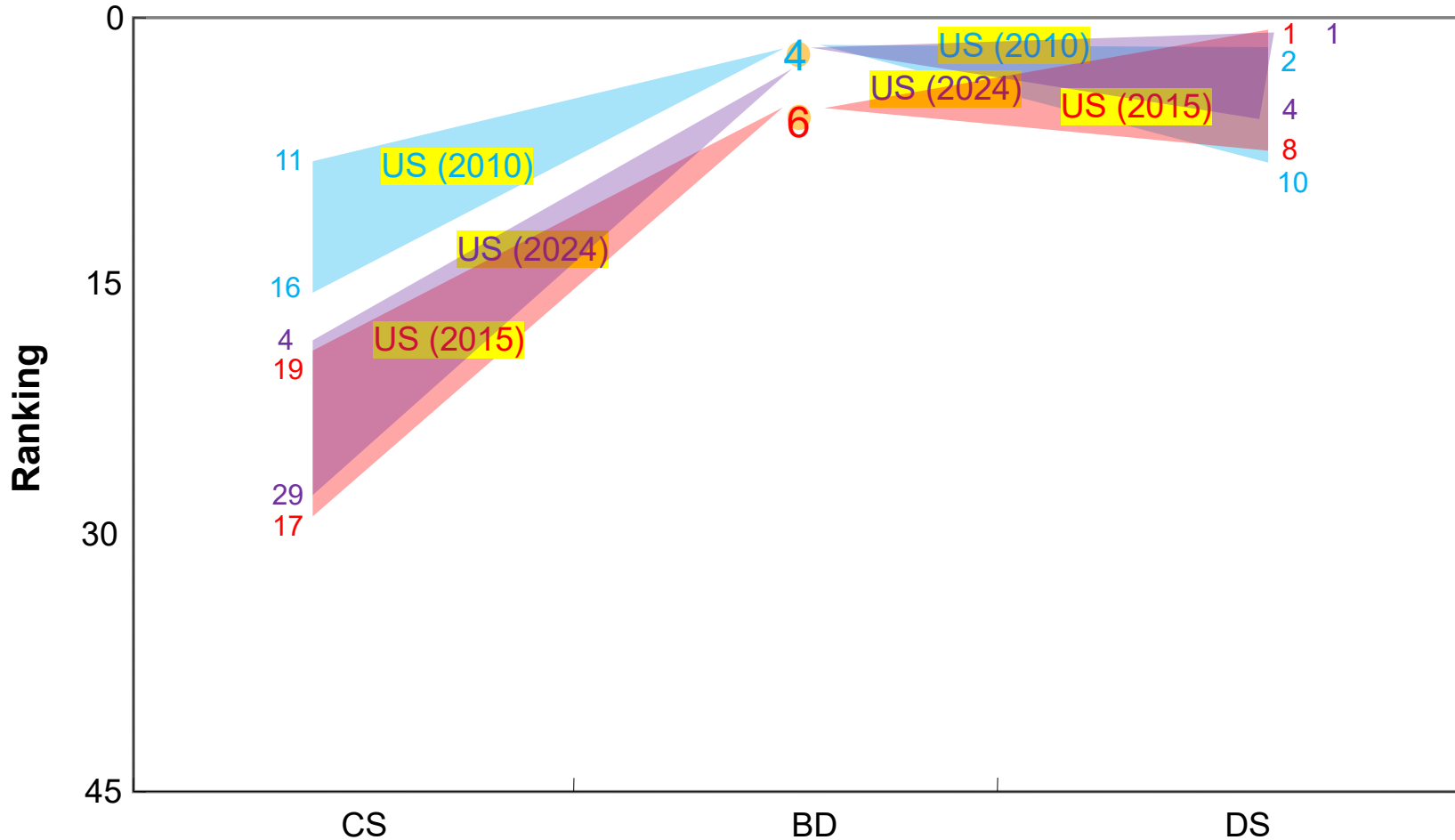| CS	DS
Argentina	Argentina
Bangladesh	Bangladesh
Brazil	Brazil
Colombia	Egypt
Egypt	Mexico
Mexico	Nigeria
Nigeria	Pakistan
Pakistan	Peru
Peru	Russia
Russia	South Africa
South Africa	Türkiye
Türkiye	

CS: cost strategy
DS: differentiation strategy

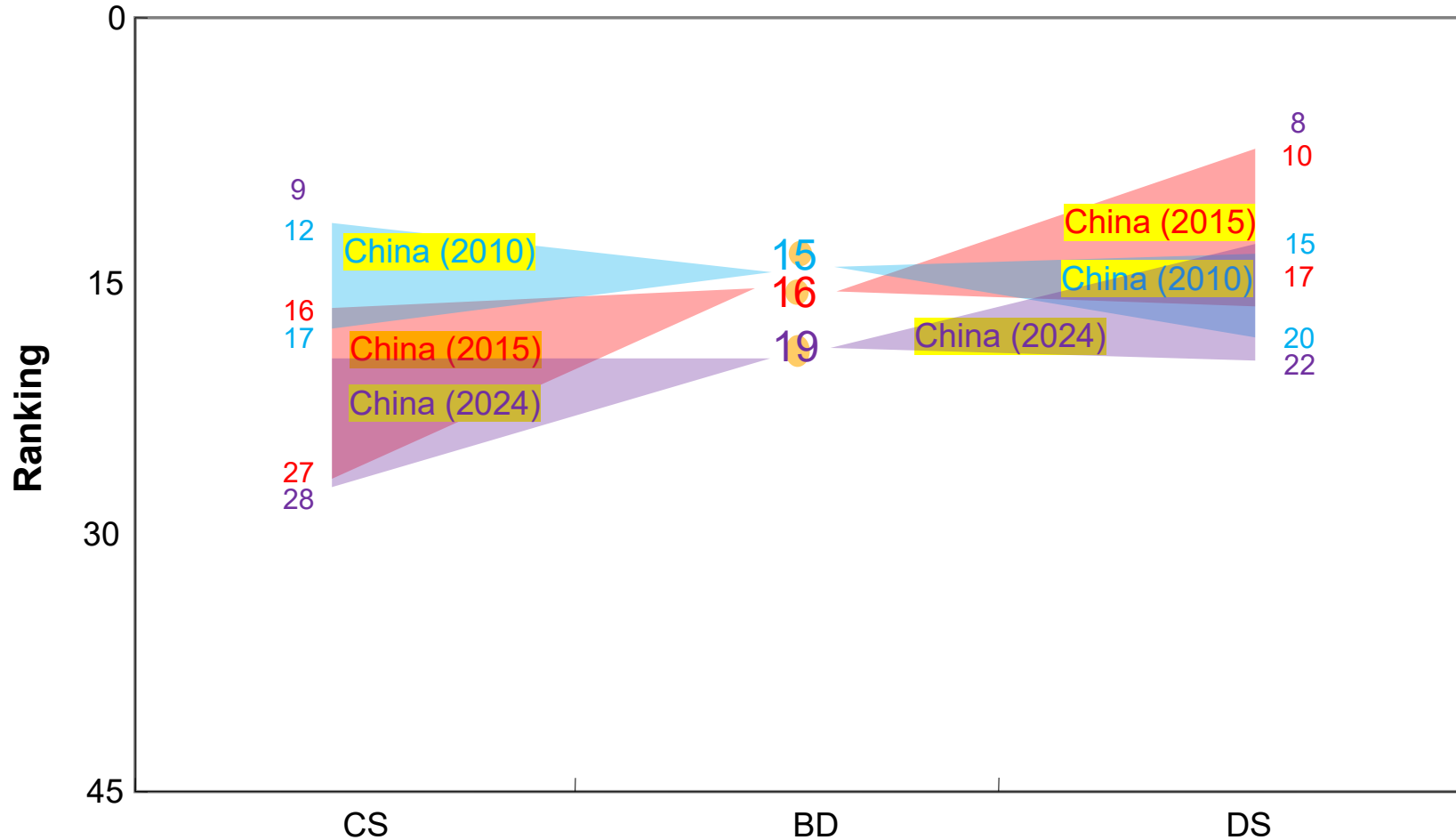**18 Economies** — **23 Economies** — **21 Economies**

The Changing Patterns of US Rankings (2010, 2015, 2024)

Note: The upper number of each triangle is the country's ranking when its competitors remain unchanged in the base data. The lower number of each triangle is the country's ranking when its competitors have their optimal strategies.
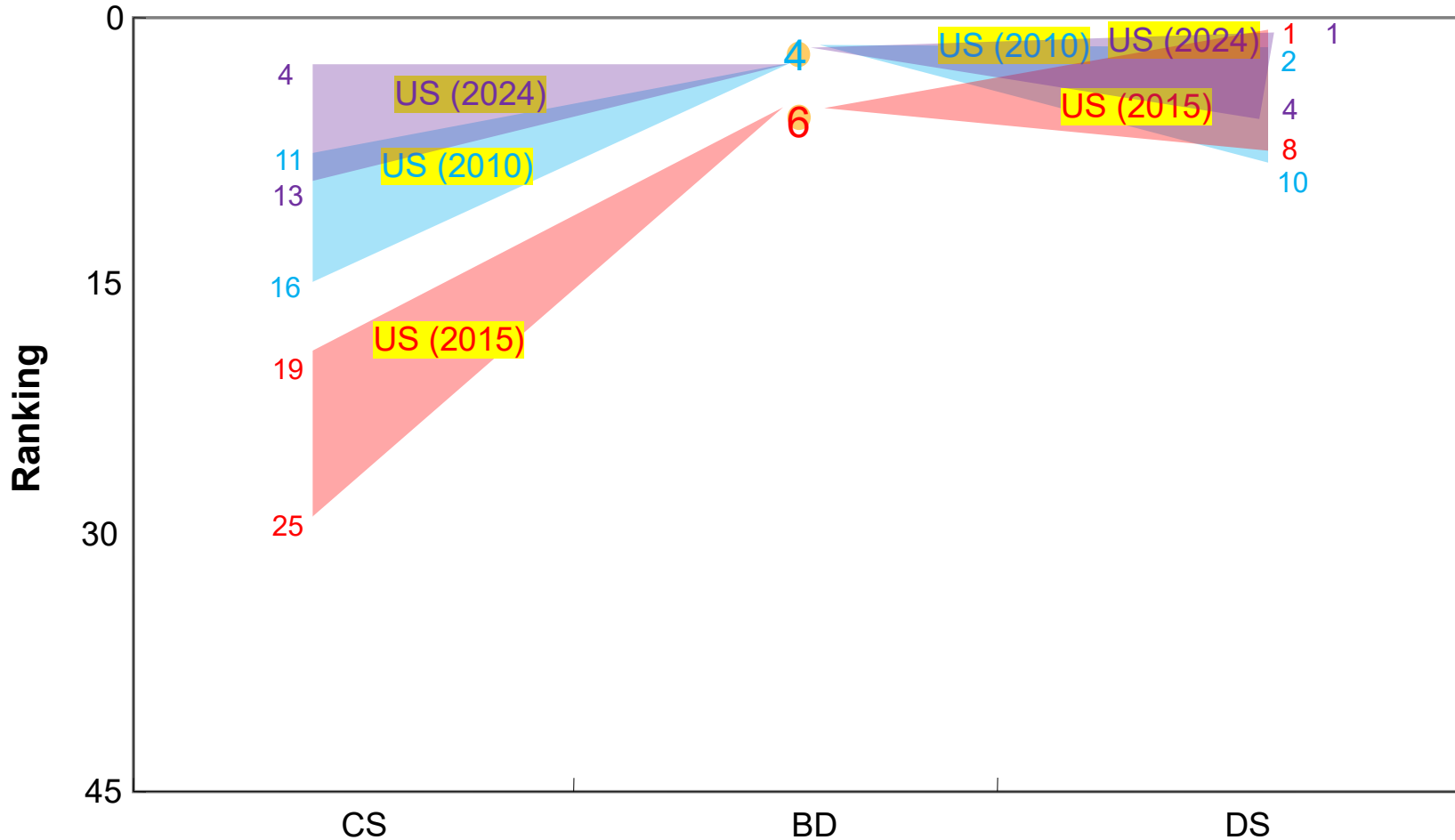
US: higher with differentiation strategy

CS: Cost Strategy; BD: Base Data; DS: Differentiation Strategy

The Changing Patterns of China's Rankings (2010, 2015, 2024)

Note: The upper number of each triangle is the country's ranking when its competitors remain unchanged in the base data. The lower number of each triangle is the country's ranking when its competitors have their optimal strategies.

China: higher rankings with cost strategy before, but higher rankings with differentiation strategy recently

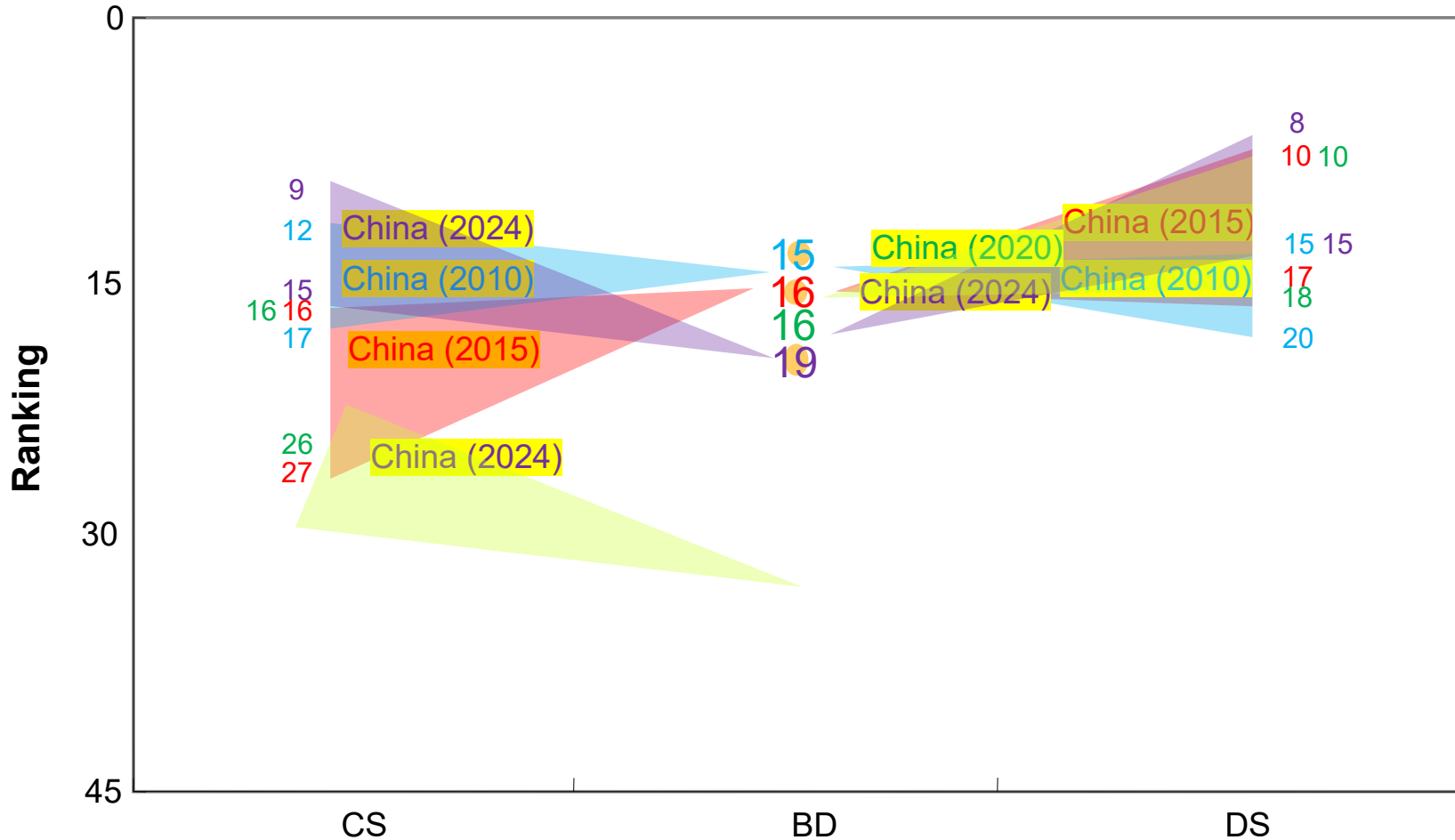CS: Cost Strategy; BD: Base Data; DS: Differentiation Strategy

The Changing Patterns of US Rankings (2010, 2015, 2024)

Note: The upper number of each triangle is the country's ranking when its competitors remain unchanged in the base data. The lower number of each triangle is the country's ranking when its competitors have their optimal strategies.

US: higher with differentiation strategy

CS: Cost Strategy; BD: Base Data; DS: Differentiation Strategy

The Changing Patterns of China's Rankings (2010, 2015, 2024)

Note: The upper number of each triangle is the country's ranking when its competitors remain unchanged in the base data. The lower number of each triangle is the country's ranking when its competitors have their optimal strategies.

China: higher rankings with cost strategy before, but higher rankings with differentiation strategy recently

CS: Cost Strategy; BD: Base Data; DS: Differentiation Strategy

Optimal Strategic Mix

Factors	Stages	Developing	Transitional	Developed
Physical Factors	**Factor Conditions**	Resource-based	Manufacturing-based	Knowledge-Based
	Business Context	Protectionism	Efficiency	Competition
	Related and Supporting Industries	Physical Infrastructure	Industrial Cluster	Regional Integration
	Demand Conditions	Quantity	Quality	Sophistication
Human Factors	**Workers**	Cheap	Motivated	Skilled
	Policymakers and Administrators	Facilitation	Support & Regulation	Advice
	Entrepreneurs	Risk Taking	Efficiency Developing	Value Creating
	Professionals	Operational	Managerial	Strategic