The Logistics Performance Index: LPI

Dr.Siwiga Dusadenoad Graduate School of Applied Statistics National Institute of Development Administration

LPI: The Logistics Performance Index

- ◆ Governed by the World Bank, the Logistics Performance Index is an interactive benchmarking tool created to help countries identify the challenges and opportunities they face in their performance on trade logistics and what they can do to improve their performance.
- ◆ The LPI is based on a worldwide survey of operators on the ground (global freight forwarders and express carriers), providing feedback on the logistics "friendliness" of the countries in which they operate and those with which they trade.
- ◆ The LPI was first conducted in 2007. Since 2010, it is reported bi-annually.
- ◆ The LPI 2016 allows for comparisons across 160 countries.

LPI: The Logistics Performance Index

- ◆ The LPI consists of both qualitative and quantitative measures and helps build profiles of logistics friendliness for these countries.
- ◆ It offers two different perspectives: international and domestic.
 - International LPI: provides qualitative evaluations of a country in six areas by its trading partners—logistics professionals working outside the country.
 - Domestic LPI: provides both qualitative and quantitative assessments of a country by logistics professionals working inside each country.

Domestic LPI, Performance: Thailand 2016

	Thailand	Singapore	Malaysia	Vietnam
Export time and cost / Port or airport supply chain				
Distance (kilometers)	25km	31km	75km	141km
Lead time (days)	1 days	2 days	3 days	3 days
Cost (US\$)	N/A	N/A	N/A	N/A
Export time and cost / Land supply chain				
Distance (kilometers)	25km	44km	N/A	249km
Lead time (days)	2 days	2 days	N/A	3 days
Cost (US\$)	N/A	N/A	N/A	N/A
Import time and cost / Port or airport supply chain				
Distance (kilometers)	25km	35km	300km	102km
Lead time (days)	1 days	2 days	7 days	3 days
Cost (US\$)	N/A	N/A	N/A	N/A
Import time and cost / Land supply chain				
Distance (kilometers)	25km	107km	N/A	230km
Lead time (days)	2 days	2 days	N/A	3 days
Cost (US\$)	N/A	N/A	N/A	N/A

Domestic LPI, Performance: Thailand 2016

	Thailand	Singapore	Malaysia	Vietnam
Shipments meeting quality criteria (%)	92.50%	86.66%	82.50%	57.38%
Number of agencies - exports	1	2	N/A	4
Number of agencies - imports	1	2	N/A	3
Number of documents - exports	2	1	N/A	4
Number of documents - imports	1	1	N/A	3
Clearance time without physical inspection (days)	1 days	N/A	N/A	1 days
Clearance time with physical inspection (days)	2 days	1 days	N/A	3 days
Physical inspection (%)	1%	1.28%	N/A	16.71%
Multiple inspection (%)	1%	1.18%	N/A	9.38%
Declarations submitted and processed electronically and on-line (%)	100%	100%	N/A	90.91%
Importers use a licensed Customs Broker (%)	N/A	80%	N/A	61.54%
Able to choose the location of the final clearance (%)	100%	37.50%	N/A	50%
Goods released pending customs clearance (%)	100%	37.50%	N/A	58.33%

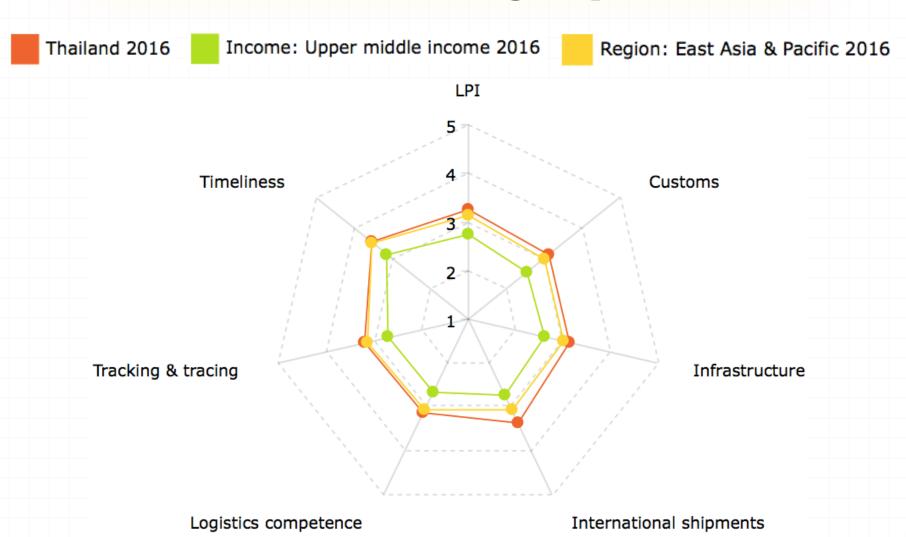
International LPI

- ◆ The efficiency of customs and border management clearance ("Customs").
- The quality of trade and transport infrastructure (Infrastructure").
- The ease of arranging competitively priced shipments (Ease of arranging shipments").
- The competence and quality of logistics services—trucking, forwarding, and customs brokerage ("Quality of logistics services").
- The ability to track and trace consignments ("Tracking and tracing").
- The frequency with which shipments reach consignees within scheduled or expected delivery times ("Timeliness")

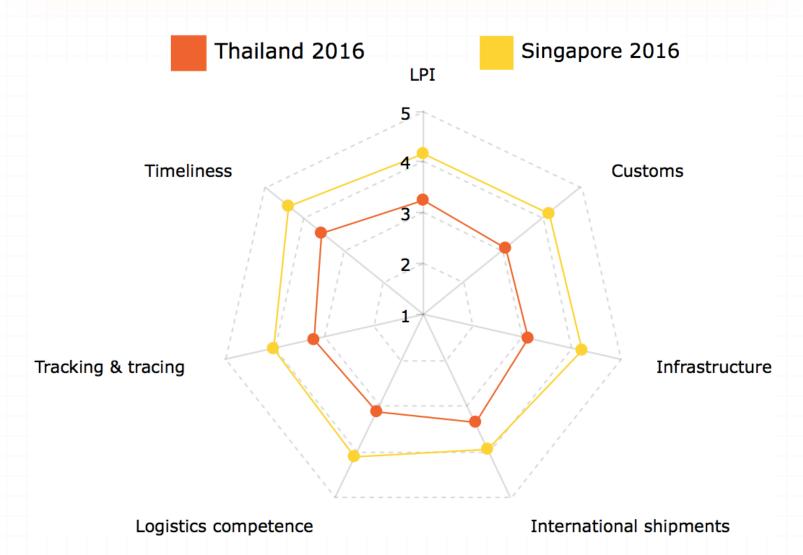
International LPI: Thailand's Performance

	2007	2010	2012	2014	2016
World Rank	31	35	38	35	45
Score	3.31	3.29	3.18	3.43	3.26
Customs	3.03	3.02	2.96	3.21	3.11
Infrastructure	3.16	3.16	3.08	3.40	3.12
Ease of arranging shipments	3.24	3.27	3.21	3.30	3.37
Quality of logistics services	3.31	3.16	2.98	3.29	3.14
Tracking and tracing	3.25	3.41	3.18	3.45	3.20
Timeliness	3.91	3.73	3.63	3.96	3.56

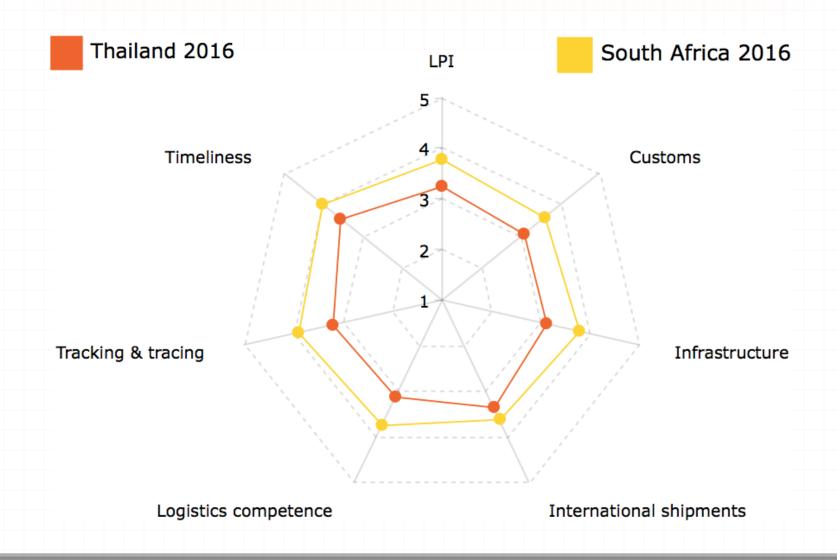
International LPI: Thailand against its region and income group



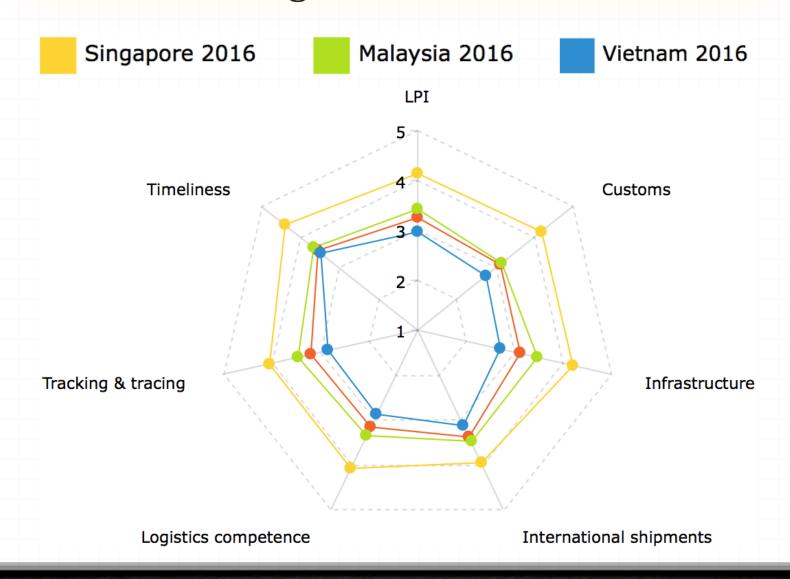
International LPI: Thailand against top performer in region (Singapore)



International LPI: Thailand against top performer in income group (South Africa)



International LPI: Thailand against some region countries



International LPI: Thailand's Performance for 2016

<u> </u>		<u>, I </u>	
SINGAPORE	MALAYSIA	THAILAND	VIETNAM
5	32	45	64
4.14	3.43	3.26	2.98
4.18	3.17	3.11	2.75
(1)	(40)	(46)	(64)
4.2	3.45	3.12	2.7
(6)	(33)	(46)	(70)
3.96	3.48	3.37	3.12
(5)	(32)	(38)	(50)
4.09	3.34	3.14	2.88
(5)	(35)	(49)	(62)
4.05	3.46	3.2	2.84
(10)	(36)	(50)	(75)
4.4	3.65	3.56	3.5
(6)	(47)	(52)	(56)
	5 4.14 4.18 (1) 4.2 (6) 3.96 (5) 4.09 (5) 4.05 (10) 4.4	5 32 4.14 3.43 4.18 3.17 (1) (40) 4.2 3.45 (6) (33) 3.96 (348 (5) (32) 4.09 3.34 (5) (35) 4.05 (36) 4.4 3.65	5 32 45 4.14 3.43 3.26 4.18 3.17 3.11 (1) (40) (46) 4.2 3.45 3.12 (6) (33) (46) 3.96 3.48 3.37 (5) (32) (38) 4.09 3.34 3.14 (5) (35) (49) 4.05 3.46 3.2 (10) (36) (50) 4.4 3.65 3.56

LPI 2014 Survey (1-3)

- 1/34 Your position in your company (choose one)
 - Senior Executive
 - Area and/or Country Manager
 - Department Manager
 - Supervisor
 - Operations
 - Other

- 2/34 Organizational level
 - Corporate and/or Regional Headquarters
 - Country Branch Office
 - Local Branch Office
 - Independent Firm/Entrepreneur
- 3/34 What is the number of employees for your company (choose one) *
 - 1-9
 - 0 10-49
 - 50-249
 - 250-499
 - 500 or more

LPI 2014 Survey (4-6)

4/34	The freight mode you typically deal with in your work (choose one)			5/34	Direction of trade and transport you are primarily dealing with (choose one)	
	 Maritime 				_ ′	
	○ Road				○ Export	
	○ Rail				○ Import	
	Air Transpor	rt			Export ar	nd Import
Express deliv					O Domestic	
			Main line of your work (o		noose one)	nal transit
			Full Container/	Trailer Loads		e above
			O Less than Full C	Container/	Trailer Loads	
			 Bulk/Break Bulk 	Cargo		
			Customer Tailored Logistics Solutions			
		Warehousing a Courier Service		and Distribution		
				s		
			Most of the abo	ve		

LPI 2014 Survey (7-9)

7/34	Which of the following geographic regions do you deal with most in work (choose one)		
	Select	9/34	Enter the postal or ZIP code of your facility (alternatively enter the name of the city)
8/34	The country you are currently wo		
	Select		Email
	Check here to confirm country sele		Please enter your email address to use the 'resume later' button (optional)
	as the country you are currently working in. If correct, please go back and select the correct		

LPI 2014 Survey (10)

10/34 Rate the <u>efficiency of the clearance process</u> (i.e. speed, simplicity and predictability of formalities) by border control agencies

	Very low	Low	Average	High	Very high
Korea, Rep.	0	0	0	0	0
Taiwan	0	0	0	0	0
Chad	0	0	0	0	0
Georgia	0	0	0	0	0
El Salvador	0	0	0	0	0
Denmark	0	0	0	0	0
Sudan	0	0	0	0	0
Libya	0	0	0	0	0

LPI 2014 Survey (11)

11/34 Evaluate the **quality of trade and transport related infrastructure** (e.g. ports, railroads, roads, information technology) in ...

	Very low	Low	Average	High	Very high
Korea, Rep.	0	0	0	0	0
Taiwan	0	0	0	0	0
Chad	0	0	0	0	0
Georgia	0	0	0	0	0
El Salvador	0	0	0	0	0
Denmark	0	0	0	0	0
Sudan	0	0	0	0	0
Libya	0	0	0	0	0

LPI 2014 Survey (12)

12/34 Assess the **ease of arranging completely priced shipments** to ...

	Very Difficult	Difficult	Average	Easy	Very Easy
Korea, Rep.	0	0	0	0	0
Taiwan	0	0	0	0	0
Chad	0	0	0	0	0
Georgia	0	0	0	0	0
El Salvador	0	0	0	0	0
Denmark	0	0	0	0	0
Sudan	0	0	0	0	0
Libya	0	0	0	0	0

LPI 2014 Survey (13)

13/34 Evaluate the overall level of <u>competence and quality of logistics</u> <u>services</u> (e.g. transport operators, custome brokers) in ...

	Very low	Low	Average	High	Very high
Korea, Rep.	0	0	0	0	0
Taiwan	0	0	0	0	0
Chad	0	0	0	0	0
Georgia	0	0	0	0	0
El Salvador	0	0	0	0	0
Denmark	0	0	0	0	0
Sudan	0	0	0	0	0
Libya	0	0	0	0	0

LPI 2014 Survey (14)

14/34 Rate the <u>ability to track and trace your consignmnets</u> when shipping to ...

	Very low	Low	Average	High	Very high
Korea, Rep.	0	0	0	0	0
Taiwan	0	0	0	0	0
Chad	0	0	0	0	0
Georgia	0	0	0	0	0
El Salvador	0	0	0	0	0
Denmark	0	0	0	0	0
Sudan	0	0	0	0	0
Libya	0	0	0	0	0

LPI 2014 Survey (15)

When arranging shipments to the contries listed below, how often do they reach the consignees within the scheduled or expected delivery time?

	Hardly Ever	Rarely	Sometimes	Often	Nearly Always
Korea, Rep.	0	0	0	0	0
Taiwan	0	0	0	0	0
Chad	0	0	0	0	0
Georgia	0	0	0	0	0
El Salvador	0	0	0	0	0
Denmark	0	0	0	0	0
Sudan	0	0	0	0	0
Libya	0	0	0	0	0

LPI 2014 Survey (16)

How often do shippers <u>ask for environmentally friendly options</u> (e.g. in view of emission levels, choice of routes, vehicles, schedules, etc.) when shipping to ...

	Hardly Ever	Rarely	Sometimes	Often	Nearly Always
Korea, Rep.	0	0	0	0	0
Taiwan	0	0	0	0	0
Chad	0	0	0	0	0
Georgia	0	0	0	0	0
El Salvador	0	0	0	0	0
Denmark	0	0	0	0	0
Sudan	0	0	0	0	0
Libya	0	0	0	0	0

LPI 2014 Survey (17)

17/34 Based on your experience in <u>international logistics</u>, please select the options that best describe the operational logistics environment <u>in your country of work</u>

	Very low	Low	Average	High	Very high
Korea, Rep.	0	0	0	0	0
Taiwan	0	0	0	0	0
Chad	0	0	0	0	0
Georgia	0	0	0	0	0
El Salvador	0	0	0	0	0
Denmark	0	0	0	0	0
Sudan	0	0	0	0	0
Libya	0	0	0	0	0

LPI 2014 Survey (18)

18/34 Evaluate the <u>quality of trade and transport related infrastructure</u> (e.g. ports, roads, airports, information technology) in your country of work

	Very low	Low	Average	High	Very high
Korea, Rep.	0	0	0	0	0
Taiwan	0	0	0	0	0
Chad	0	0	0	0	0
Georgia	0	0	0	0	0
El Salvador	0	0	0	0	0
Denmark	0	0	0	0	0
Sudan	0	0	0	0	0
Libya	0	0	0	0	0

LPI 2014 Survey (19)

- 19/34 Evaluate the <u>competency and quality of service</u> delivered by the following by your country of work (from Very Low to Very High)
 - Road transport service providers
 - Rail transport service providers
 - Air transport service providers
 - Maritime transport service providers
 - Warehouse/transloading and distribution distributor
 - Freight forwarders
 - Custom agencies
 - Quality/standards inspection agencies
 - Health/SPS (Sanitary and Phyto-Sanitary) agencies
 - Customs brokers
 - Trade and transport related associations
 - Consignees or shippers

LPI 2014 Survey (20)

20/34 Evaluate the **efficiency** of the following process in your country of work

(from Hardly Ever to Nearly Always)

- Are import shipments cleared and delivered as scheduled?
- Are export shipments cleared and shipped as scheduled
- Is the Customs clearance procedure transparent?
- Is the clearance procedure of other border agencies transparent?
- Do you receive adequate and timely information when regulations change?
- Do traders demonstrate high level of compliance receive expedited clearance?

LPI 2014 Survey (21)

- 21/34 How often in your country of work, you experience (from Hardly Ever to Nearly Always)
 - Major delays due to compulsory warehouse/transloading
 - Major delays due to pre-shipment inspection
 - Major delays due to maritime transshipment
 - Criminal activities (e.g. stolen cargo)
 - Solicitation of informal payments in connection with logistics activities

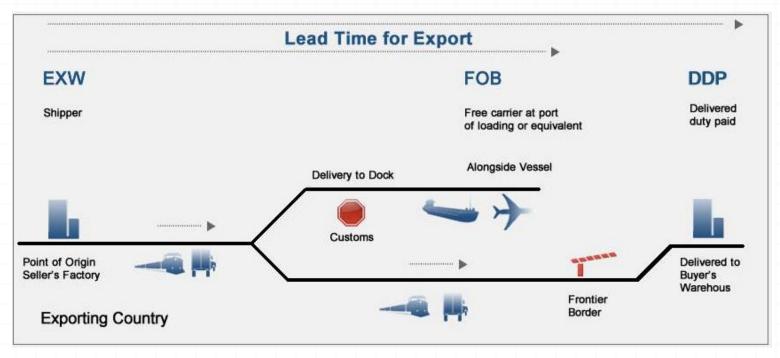
LPI 2014 Survey (22)

22/34 Since 2011, have the following factors improved or worsened in your country of work

(from Much Worsened to Much Improve)

- Custom clearance procedure
- Other border-related government agencies clearance procedure
- Quality of trade and transport related infrastructure
- Quality of telecommunication/IT infrastructure
- Quality of private logistics services
- Regulation related to logistics
- Solicitation of informal payments in connection with logistics activities

LPI 2014 Survey (23-24)



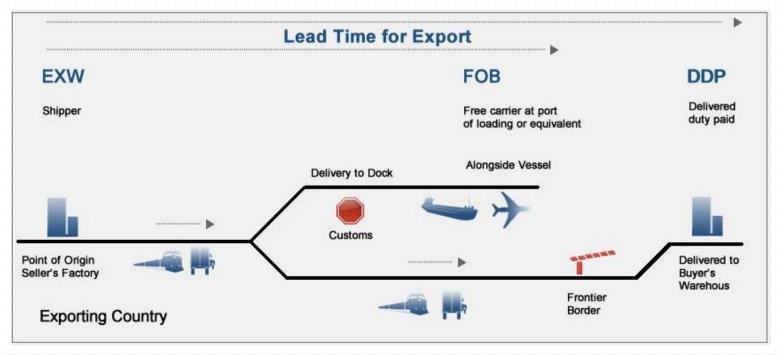
23/34 When exporting a full load from your country of work (United States), please estimate the following time and cost parameters.

Please select from below the portion of the supply chain that best describes your work

- TO PORT / AIRPORT Export pre-carriage: EXW to FOB
- BY LAND Export carriage: EXW to DDP
- O Both

24/34 Consolidation: How much more would it cost to send a one ton shipment as less than full (container, truck) load (LCL/LTL) as compared with a ton sent as part of a full load (FCL/FTL) when exporting from your country of work (United States) on the same routes?

LPI 2014 Survey (25-26)



25/34 When importing a full load to your country of work (United States), please estimate the following time and cost parameters.

Please select from below the portion of the supply chain that best describes your work

- FROM PORT/AIRPORT Import on-carriage: DAT to DDP
- BY LAND -- Import carriage: EXW to DDP
- Both

26/34 As a logistics provider, do you maintain indicators of service level to client? If yes, what is the percentage of imports to your country of work (United States) meeting your quality criteria for delivery to the consignee

LPI 2014 Survey (27-30)

27/34	How many government agencies in	volved in the clearance pro	cess do you typically de	eal with in your co	ountry of work (Ur	nited States)
	For imports	Select				
	For exports	Select	•			
28/34	How many forms do you typically	have to submit, for clearand	ce, in your country of wor	k (United States)		
	For imports	Select	 			
	For exports	Select	‡			
29/34	For imports, estimate the average your country of work (United States		omission of an accepted	Customs declarat	ion and notification	on of clearance in
	Without physical inspection	Select	\$			
	With physical inspection	Select	\$			
30/34	What are the main methods for de	termining whether shipmen	nts are physically inspec	ted by <u>Customs</u>		
			Yes	No	N/A	Do not know
	Automated risk assessment		0	0	0	0
	Inspector discretion		Θ	0	0	0

LPI 2014 Survey (31-34)

Select	‡
32/34 Of all the import shipm	ents what percentage are physically inspected more than once in your country of work (United States)
Select	
33/	34 Does Customs regularly apply reference prices or other forms of arbitrary uplifts?
	○ Yes
	○ No
	○ N/A
	O Do not know