The impact of FTA import utilization on firm performance: An assessment of Philippine manufacturing MSMEs

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THE PHILIPPINE FTA ENGAGEMENT

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Background: Importance of FTAs as a Philippine trade policy

PHL gradually showing its capacity to advance its interests as an individual party (PH-EFTA, PH-Republic of Korea)

PHL engaging in mega-regional agreements (RCEP)

Economic impact of FTAs becoming a topic of discussion among policymakers

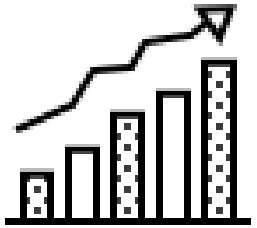
PDP 2023-2028: advancing forward-looking FTA strategies was deemed crucial in facilitating trade and improving the country's global position

FTAs to stimulate MSME growth and development

Objectives of the Study

Contribute to the budding empirical literature on firm-level effects of FTA utilization, especially in the Philippine context

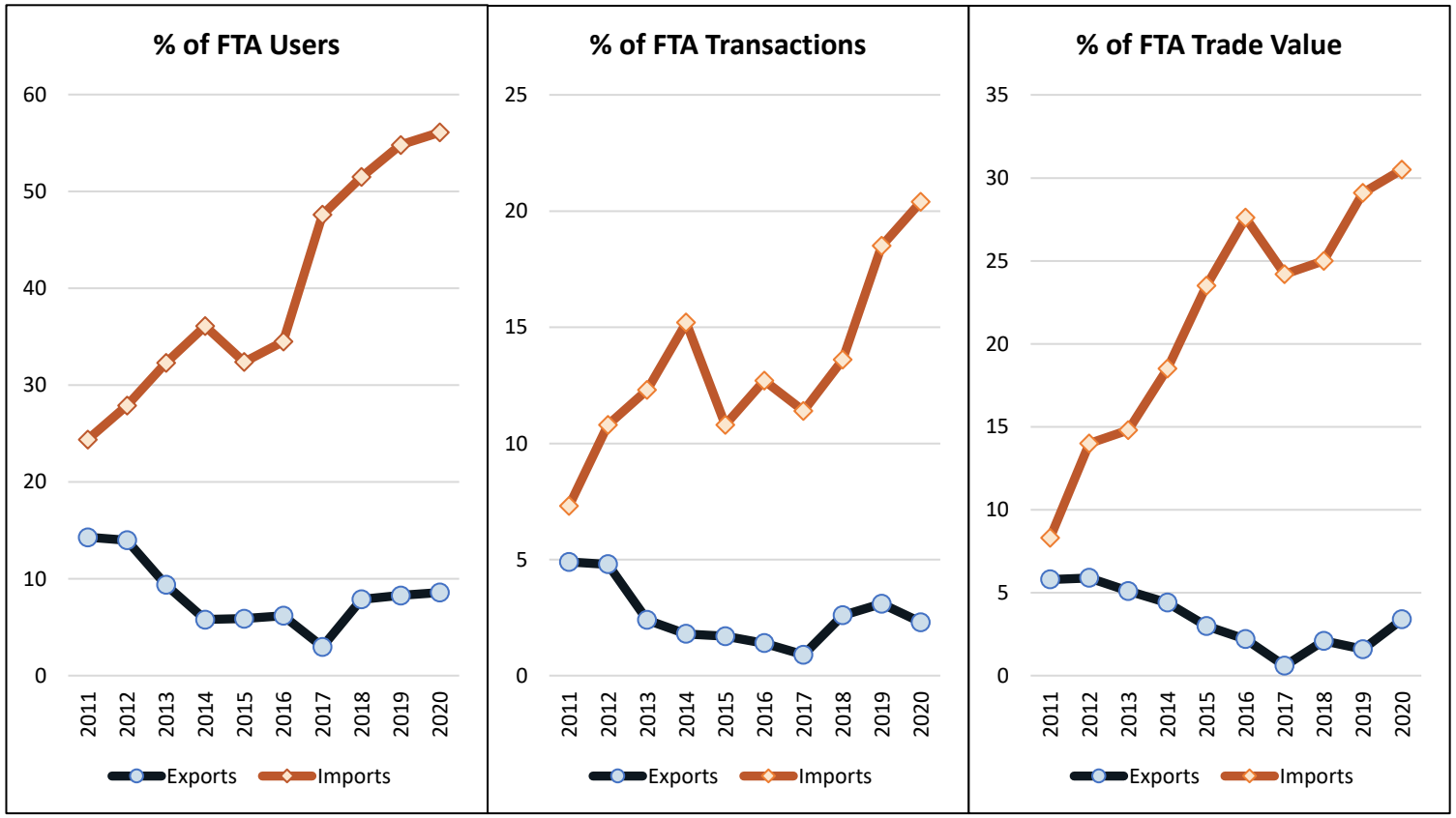
Estimate the causal effects of FTA use on the performance of MSME importers in the Philippine manufacturing sector



- ✓ Import data were noted to be more accurate than export data (Yotov et al. 2016, Quimba et al. 2022)

The Philippine FTA engagement

FTA Utilization Patterns in the Philippines, 2011-2020



Source: Authors' calculations based on the trade transactions data.

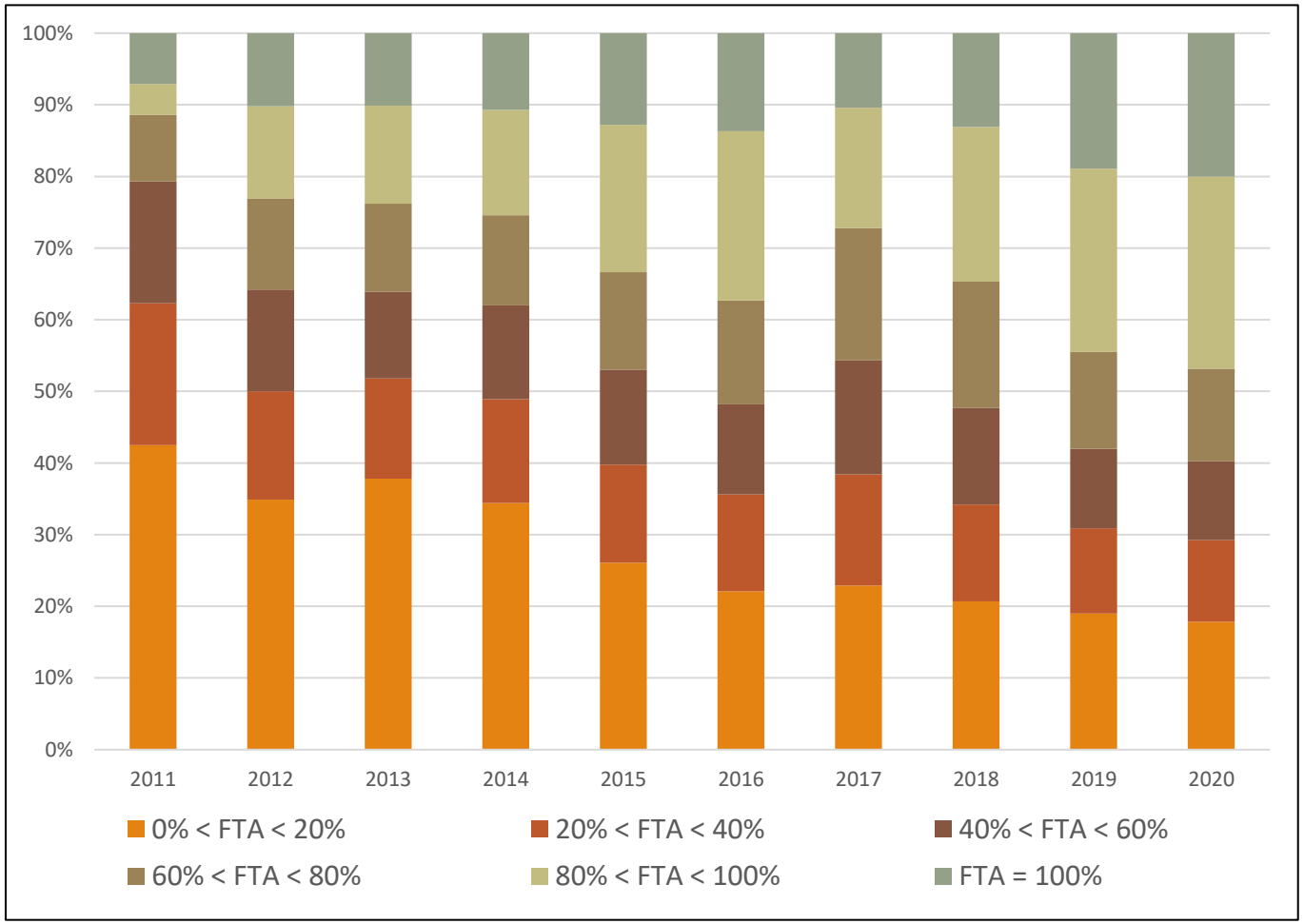
Despite the substantial reduction of trade barriers, the country's FTA utilization in exports failed to expand over the last decade. On the other hand, utilization in imports exhibited a more promising trend.

Quimba et al. (2022): import utilization rates from leading import sources such as Japan, South Korea, and Singapore have been low

The Philippine FTA engagement

- Shift in the distribution of FTA import users, between importers that barely used FTAs (0-20%) and those with at least 80% FTA use rate
- Increasing share of FTA users importing completely under FTAs
- FTAs becoming an integral component of import activities

Figure 2. Distribution of FTA Import Users, by FTA Use Rate



FTAs and Firm Performance

Table 1. Change in firms' import and FTA user status

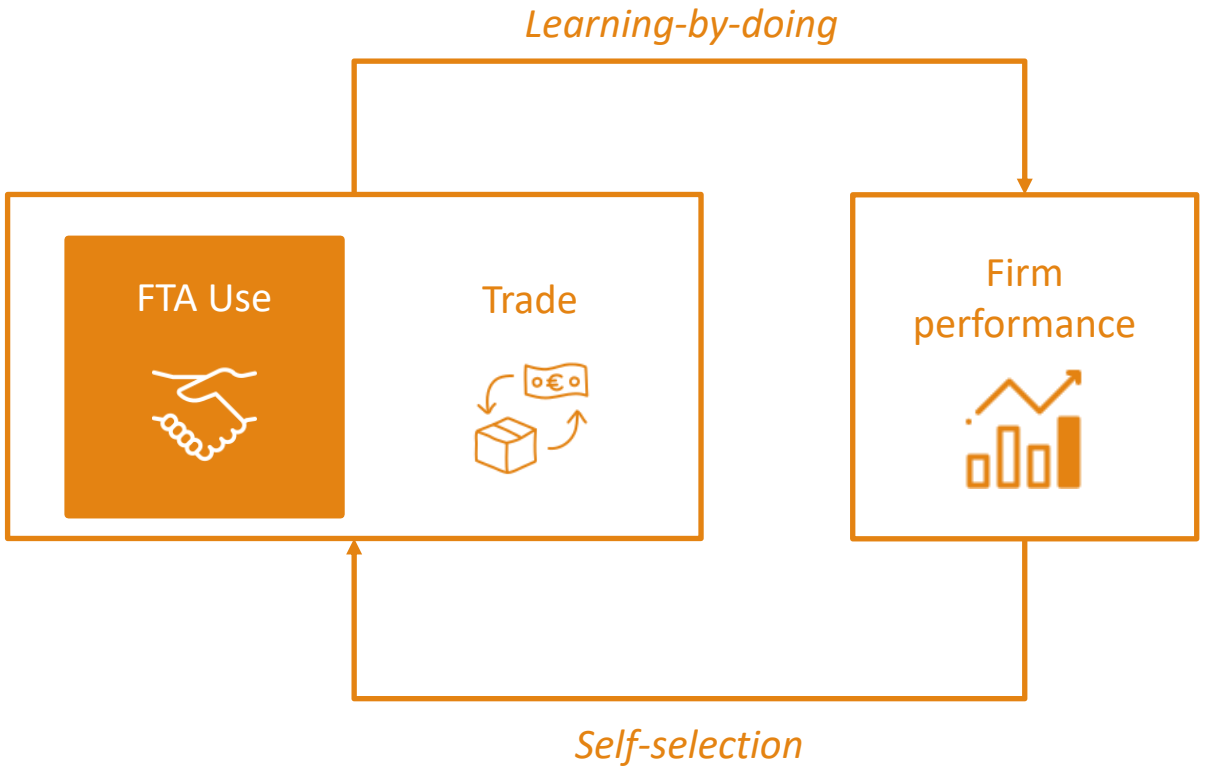
t-1		t		2012	2013	2014	2015	2016	2017	2018	2019	2020
Import	FTA	Import	FTA									
No	No	No	No	49.7	47.9	49.4	49.4	51.3	58.1	64.2	63.3	63.3
No	No	Yes	No	11.4	9.7	8.5	11.0	8.2	3.4	3.7	3.0	2.1
No	No	Yes	Yes	1.8	1.9	1.8	1.9	1.8	2.1	3.1	2.7	2.1
Yes	No	No	No	8.8	10.3	10.9	9.9	10.6	11.7	3.2	2.7	3.2
Yes	No	Yes	No	16.3	15.7	13.4	12.3	14.0	10.6	10.2	10.5	9.9
Yes	No	Yes	Yes	2.9	3.3	3.0	1.8	1.6	1.6	1.8	1.9	1.6
Yes	Yes	No	No	0.9	1.5	2.0	2.0	1.7	1.2	1.6	1.6	2.4
Yes	Yes	Yes	No	1.6	1.9	2.2	2.8	1.7	1.2	1.1	1.2	1.6
Yes	Yes	Yes	Yes	6.5	7.9	8.8	8.9	9.1	10.1	11.1	13.2	13.8

Source: Authors' calculations based on the trade transactions data. The percentage shares are based on the number of firms with at least one import transaction during the 2011-2020 period.

Majority of traders have been inactive importers—non-importers that did not also import in the previous year—and their percentage share has gradually increased throughout the 2010s.

Share of consistent users of FTA schemes—FTA users that continued to use in the succeeding year—has had an increasing trend as well

FTAs and Firm Performance



- Self-selection: productive firms are more likely to engage in international trade
  - Transport and marketing expenses, administrative and compliance costs, acquisition of knowledge on trade and FTAs
- Learning-by-doing: engaging in international trade generate additional performance gains
  - Access to quality inputs, knowledge spillovers and technology transfers
  - Inconclusive empirical evidence on FTA utilization effects (e.g. Hayakawa 2015, Jongwanich and Kohpaiboon 2020, Koo 2021)

Methodology and Data

Empirical Strategy: Propensity Score Weighting and Difference-in-Difference

- Need to address the endogeneity of FTA use
- Rosenbaum and Rubin (1983): the propensity score is the probability of a firm to be assigned to the treatment, given a set of observed characteristics.
- DID compares the pre- and post-treatment outcomes between importers that started using FTAs and those that did not
  - Case of stopping FTA use
- Outcomes: labor productivity, capital intensity, employment, export intensity, total imports
- FTA user: at least one import transaction under any FTA

Data Source: Merged Trade-Survey/Census Data

Preliminary Analysis

Differences in Means, Selected Indicators

	MSME Users	Difference	
		MSME Non-users	Large Users
Labor productivity (thousand PhP, 2018 prices)	1,339.7	534.6***	-106.6
Capital intensity (thousand PhP, 2018 prices)	1,625.2	-144.7	101.6
Total employment (number of workers)	85.5	5.8***	-626.4***
Domestic sales (% of total revenue)	81.2	37.8***	7.6***
Foreign ownership (% of capital participation)	22.4	-34.5***	-11.0***
Age (years)	25.1	7.4***	-3.0***
Exports (thousand PhP, 2018 prices)	106,481.0	-44,881.8*	-1,817,168.2***
Imports (thousand PhP, 2018 prices)	319,233.7	241,439.2***	-1,995,269.0***

Source: Authors' calculations based on ASPBI/CPBI and trade transactions data.

- MSME Users vs MSME Non-users
  - Users have higher productivity levels
  - Users are older and hire more workers, tend to be domestic-owned
  - Users have more imports but less exports
- MSME Users vs Large Users
  - Differences in labor productivity and capital intensity were non-significant
  - Large firms hire more workers, and tend to be older
  - Higher share of foreign-owned firms
  - Higher export and import values

Empirical Findings

Weighted DID Results, Starting FTA Use, by Firm Size

	MSMEs		Large	
	1 year	2 years	1 year	2 years
	(1)	(2)	(3)	(4)
$\ln(LaborProductivity_{is,u})$				
$ATT_{FTAstart}$	0.028	-0.015	0.031	0.040
	(0.064)	(0.141)	(0.056)	(0.133)
Observations	2,794	1,772	2,133	1,385
R-squared	0.868	0.917	0.883	0.943
$\ln(CapitalIntensity_{is,u})$				
$ATT_{FTAstart}$	0.055	0.161	0.141	0.423
	(0.116)	(0.197)	(0.099)	(0.259)
Observations	2,801	1,777	2,143	1,390
R-squared	0.895	0.943	0.891	0.937
$\ln(Employment_{is,u})$				
$ATT_{FTAstart}$	-0.031	-0.066	-0.025	-0.118
	(0.041)	(0.102)	(0.038)	(0.088)
Observations	2,848	1,818	2,155	1,399
R-squared	0.928	0.956	0.941	0.980
$ExportIntensity_{is,u}$				
$ATT_{FTAstart}$	-0.015	0.000	-0.023	0.004
	(0.013)	(0.001)	(0.019)	(0.004)
Observations	2,848	1,818	2,155	1,399
R-squared	0.843	0.942	0.156	0.680
$\ln(Imports_{is,u})$				
$ATT_{FTAstart}$	0.851***	0.848**	0.505***	2.466***
	(0.161)	(0.332)	(0.180)	(0.841)
Observations	2,848	1,818	2,155	1,399
R-squared	0.889	0.947	0.893	0.926

Note: Standard errors are reported in parentheses. **, and *** denote significance at the 95% and 99% levels, respectively.

- Starting FTA use did not significantly affect labor productivity, capital intensity, employment, and export intensity
  - Total firm imports increased
- MSMEs had larger import gains than large firms during the first year of FTA use
  - Slightly lower gains during the following year
  - Positive effects substantially increased for large firms after continuing use

Empirical Findings

Weighted DID Results, Stopping FTA Use, by Firm Size

	MSMEs		Large	
	1 year	2 years	1 year	2 years
	(1)	(2)	(3)	(4)
$\ln(LaborProductivity_{is,u})$				
$ATT_{FTAstart}$	-0.139**	-0.142	0.116	0.309*
	(0.057)	(0.164)	(0.118)	(0.159)
Observations	2,389	1,516	1,413	1,009
R-squared	0.872	0.929	0.915	0.956
$\ln(CapitalIntensity_{is,u})$				
$ATT_{FTAstart}$	-0.120	-0.346	-0.006	-0.269
	(0.103)	(0.328)	(0.164)	(0.545)
Observations	2,398	1,528	1,414	1,015
R-squared	0.890	0.923	0.938	0.944
$\ln(Employment_{is,u})$				
$ATT_{FTAstart}$	-0.019	0.122	-0.031	0.057
	(0.045)	(0.093)	(0.076)	(0.211)
Observations	2,426	1,543	1,421	1,017
R-squared	0.925	0.951	0.971	0.984
$ExportIntensity_{is,u}$				
$ATT_{FTAstart}$	0.001	-0.003	-0.006	0.015
	(0.001)	(0.013)	(0.005)	(0.015)
Observations	2,426	1,543	1,421	1,017
R-squared	0.349	0.846	0.79	0.794
$\ln(Imports_{is,u})$				
$ATT_{FTAstart}$	-0.926***	-0.625**	-0.774***	-2.336**
	(0.151)	(0.310)	(0.203)	(1.202)
Observations	2,426	1,543	1,421	1,017
R-squared	0.933	0.985	0.956	0.952

Note: Standard errors are reported in parentheses. **, and *** denote significance at the 95% and 99% levels, respectively.

- Stopping FTA use had contrasting results on the labor productivity of MSMEs and large firms
- Stopping use resulted in lower imports
- Trend in import effects was similar to that in starting FTA use
  - Import decline slowed down among MSMEs, but accelerated among large firms during the second year

Conclusion and Recommendations

Overall, using FTAs in imports did not directly improve MSME performance in terms of productivity, capital intensity, employment and export intensity. Nonetheless, FTAs had significant effects on the imports of MSMEs, as FTA starters experienced substantial increases in total imports, while quitting use led to import declines.

The effects of FTA utilization differed between MSMEs and large firms (e.g. labor productivity, total imports).

Importance of FTAs in facilitating Philippine trade

- Consistent with existing macro-level studies
- FTA import use did not significantly encourage firms to venture more into exporting
- FTA importers are likely to be domestic-oriented

The import-enhancing effects of FTAs still present upgrading and capacity-building opportunities for Philippine firms that would eventually prepare them for GVC integration.

- Domestic-oriented firms acquiring upgrading skills in the domestic market, serving as a stepping stone for their eventual participation in export markets (Navas-Alemán 2011, Beverelli et al. 2018).

Conclusion and Recommendations

Prioritize the easing of FTA procedures and lowering of administrative and compliance costs

Intensify policy support to encourage FTA utilization among MSMEs; ensure that FTA use would lead to favorable outcomes

Leverage FTAs to improve access to intermediate inputs, and strengthen the country's GVC participation

Investigate products that were imported from FTA partners, both under preferential and MFN tariffs

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