

Get Organized to Compete: Impact of Export Promotion on Firms' Organization*

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OUTLINE

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GENERAL REMARKS

This is an interesting paper that exploits a fabulous dataset (RAIS+MDIC+APEX) and addresses a **relevant policy question: what are the channels through which trade promotion programs affect firms performance?**

In so doing, the authors carry out an **extensive descriptive analysis** in which they compare workers' occupational categories, firms' organization in terms of layers, and there **relationship with exporting**, among others.

Moreover, the authors perform IV-FE (along with Poisson-FE) estimations to assess the impact of a coaching program -PEIEX- on firms' organization, whereby the instruments are the **number of PEIEX offices in the state** and the region-state share of firms supported with other APEX programs the previous year.

The authors find evidence consistent with that extensively reported in Caliendo et al. (2012) and, importantly, report that the **PEIEX appears to have a contemporaneous positive significant effects on the firms' number of layers.**

GENERAL REMARKS

The paper speaks thereby to two literatures:

- Firms' organization, dynamics, and trade (e.g., Garicano, 2000; Caliendo and Rossi-Hansberg, 2012; and Caliendo et al., 2012)
- The impact of trade promotion on export outcomes (e.g., Volpe Martincus and Carballo, 2008, 2010; Lederman et al., 2010)

To some extent this creates an identity problem...Is this paper about firms' organization or the evaluation of the impact of a trade promotion program?

The dataset is spectacular, but does the paper need to spend 16 pages on describing firms' layers?...

GENERAL REMARKS

If it is a paper about firms' organization, then it should go well beyond merely replicating Caliendo et al. (2012).

If instead the paper is about the impact of export promotion on firms' organization it should be better focused...

THE STORY

Assuming that the latter is the way to follow, the question arises of what is the story that the paper is telling us/should be telling us.

Do export promotion programs such as PEIEX help firms become more productive and thereby reorganize? Do firms really become more productive? We only observe an increase in the number of layers...

Do export promotion programs help reduce trade cost and accordingly firms penetrate foreign destinations thus expanding their markets and as a consequence reorganize?

THE STORY

According to Caliendo and Rossi-Hansberg (2012), *the level of demand determines the productivity of a firm by determining its optimal organizational structure.*

In the analysis in this paper, only non-exporting firms are included in the estimation sample. Is there a direct effect of the program on firms' organization (see below)? Does domestic demand play a role?

PEIEX is a capacity building program for **SMEs with export potential to operate abroad**, and includes information services, fairs (*rondas de negocios*), and international missions among their activities (APEX's website).

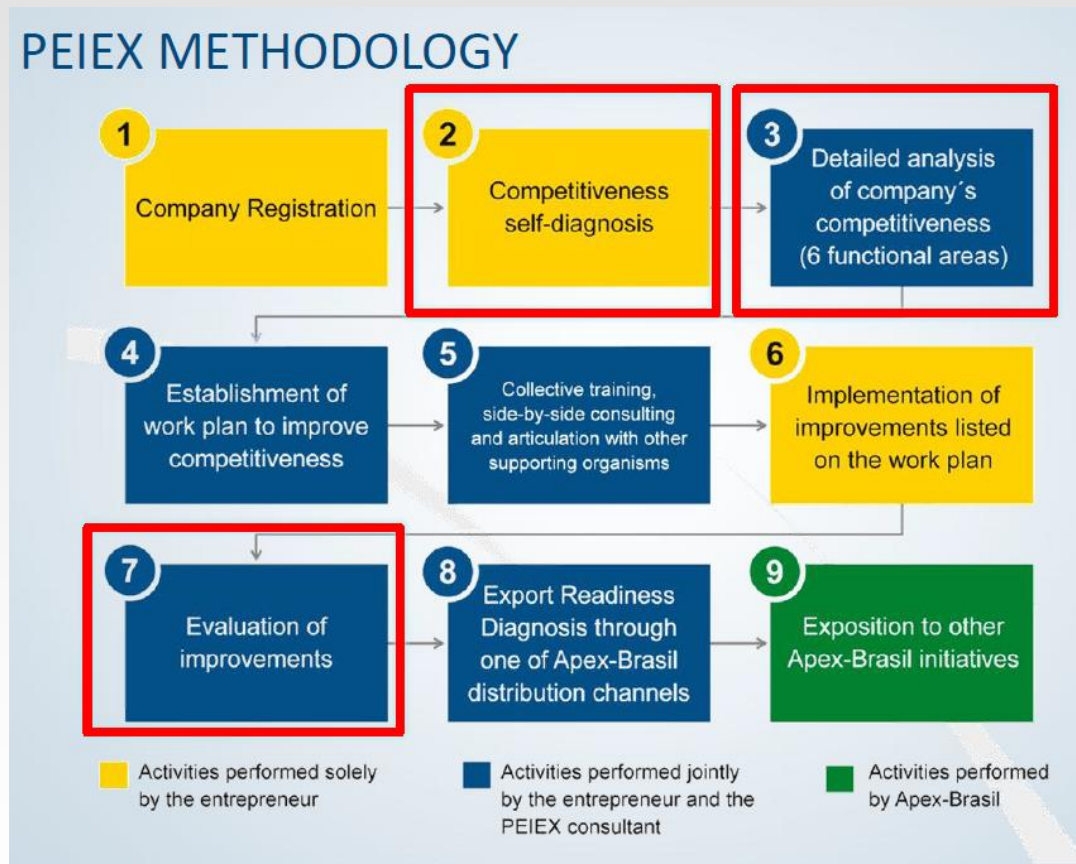
As such, among other things, PEIEX is likely to help reduce trade costs and help companies to break into export markets -particularly when combined with other APEX services- and this may affect firms' organization (story à la Harding and Javorcik with FDI).

The paper is silent about the impact of program-related export transitions and these transition to exporting have direct implications on firms' organization (Caliendo and Rossi-Hansberg, 2012).

The story should be better spelled out...

THE PROGRAM

The paper provides some information about the program but more is needed if one wants really understand how it works and how it can affect firm performance...



By the way, regarding the ITC award referred to in Footnote 4 after just one year of execution...

THE PROGRAM

Are there additional eligibility criteria? What are the variables that are considered in the assessment (which is important to understand firm selection into the program)? Are there rejections?

If the share of exporters was not the reason to decide where to open the PEIEX offices, what were the reasons behind the actual locational decisions?

The program consists of several heterogeneous activities covering different areas: management, human resources, marketing, production, financing, and international trade...

Can we safely expect that such heterogeneous activities have homogeneous effects on firms' performance? Are there services more likely to directly influence firms' organization than others? Is there information on the specific assistance provided to firms? And different kinds of assistances may imply different assistance intensities (*dosage effects*)...

I know that this may be too much, but the data are so great...

ESTIMATION ISSUES

PEIEX é um sistema de resolução de problemas técnico-gerenciais e tecnológicos que visa incrementar a competitividade e promover a cultura exportadora empresarial e estrutural em Arranjos Produtivos Locais (APLs) selecionados (Desenvolvimento's website)....Objetivos:... Promover a interação e a cooperação entre as empresas (APLs) e instituições de apoio (Cervieri, 2006)... O Projeto Extensão Industrial Exportadora é considerado uma ação estruturante aos APLs (Instituto Gene's website).

PEIEX would then be one instrument for *Local Productive Arrangements*, which is a cluster policy in Brazil. This policy has been shown to positively affect employment and exports (Figal Garone et al., 2012). Is there an attribution problem? Is PEIEX or APL in general what causes the observed firms' changes?

ESTIMATION ISSUES

The main instrument for firms' participation in PEIEX is the number of PEIEX offices in a given state in a given year.

This variable is state-level (27), whereas the regression uses firm-state-sector level data and standard errors in the regressions are clustered by firm (207,405).

True, 27 cluster may be too few if we believe in Angrist and Pischke (2008)'s 42...In any case, something better should be done in this regard.

Adjusting standard errors to take this into account is important for proper inference, particularly in this IV exercise as the magnificent F tests reported in Table 20 are likely to suffer a great deal...

ESTIMATION ISSUES

The IV estimated coefficients seem to be large than the OLS counterparts. What is the rationale? Why would be OLS underestimating the effects of interest?

Or are there heterogeneous effects (Card, 1999)?

Along these lines, are there heterogeneous effects across sectors, states, firms' size/initial number of layers?

There are reasons to believe that this may be the case....., given other policies that can act as conditioning factor exhibit substantial variation across states (this is for instance the case with transport infrastructure –Moreira (2013)); remedies offered are likely to fit better firms' needs in certain sectors, even though there is tailoring; and additionality of the program is likely to differ depending the intensity of these firms' needs, which might be proxied with size...

Given that PEIEX offices were established in different micro-regions/cities and Brazilian states are large, would it be possible to estimate the impact of the program for each state (with a positive number of offices) with a similar logic to that used at the national level, but with the advantage of eliminating important heterogeneities?

ESTIMATION ISSUES

Estimation primarily uses within variation in identifying the effects of interest (with or without IV).

This approach assumes common pre-treatment trends. Is this the case? Given that the PEIEX offices are considered to have been opened in 2009 and 2010, this leaves two years (2006-2007) to assess such trends through a very simply placebo exercise (comment on state-level regressions above: more years in some states)

At least, one would like to see whether there are pre-participation differences...Thus, while the authors control for firm-size lagged two years (level), participating firms may have been expanding the previous years (growth), which would make them more likely to expand their number of layers.

Last but not least, to what extent could previous firms' organization affect the probability to join the program? Is it possible an Ashenfelter effect?

INTERPRETING THE RESULTS

The authors find a positive significant *contemporaneous effect* of PEIEX on the number of layers. As presented, PEIEX is primarily a capacity building program and not a classical sales-oriented trade promotion activity. Given the sequence of the program (registration, self-assessment, assessment, etc.), how reasonable is to already see effects the same year? Are there lagged effects that should be controlled for? Are effects sustainable?

APEX has declared that invested USD 12 million in PEIEX between 2009 and 2011 and has provided support to more than 9,500 firms. This raises two interrelated questions:

What is the benefit/cost ratio of the program?

Combining the figures above gives an average spending of approximately USD 1,200 per firm: Is this enough to change the life of the firms? How does the distribution of this spending looks like? It is highly likely that the distribution is asymmetric, which bring us back to the issue of heterogeneity in treatment intensity.

Interconnection of PEIEX and Apex-Brasil integrated support system for the internationalization of Brazilian companies.

(Borges, 2010). Are there complementarities (interactions) between PEIEX and other APEX programs?