

Referee Report (MS 2258)

November 13, 2017

Journal: Economics

Title: On the Role of Vertical Differentiation in Enhancing the Survival of Export Flows: Evidence from a Developing Country

1 Summary of the Paper

This paper asks the question whether engaging in vertical differentiation in global production network enhances export survival rate. It focuses on machinery exports data at the HS-6-digit level from Turkey during the period of 1998-2013. Following Greenaway et al. (1995), the paper uses the relative unit value of exports and imports at the HS6 level to proxy for the level of differentiation, and defines vertical differentiation if the ratio is above a certain range (and horizontal differentiation if the ratio lies within the range). The key findings of the paper suggest that vertical differentiation is linked to higher export survival rate, particularly for machinery parts and components. It concludes that participating in global value chain (or global production network, **GPN**) greatly increases the chances of surviving in export markets.

2 Overall Evaluation of the Paper

As noted by the authors, it is indeed crucial for developing countries dependent on export-led growth to understand the factors determining the survival rates in foreign markets. The current paper has attempted to provide further evidence on the link between product differentiation and export survival rate. However, it has several major issues and would require significant revisions to clarify its structure and analysis. Below I list them in turn.

1. **Reverse causality** - My main concern for the paper is that it asks whether participating in global production network helps export survival without taking into account *selection*. The paper simply regresses trade presence on a dummy that captures whether a particular industry qualifies as vertical differentiation (or an interaction term of the dummy with product type). Their results may simply suggest that larger or more successful firms self-select into producing machinery parts and components rather than finished products. I do not think that a causal inference can be established.
2. **Lack of clarity in its research focus**

- (a) In my opinion, the main focus of the paper is on “the role of vertical differentiation,” as the title suggests. What this implies is that the authors should discuss clearly what vertical differentiation means and what measures are best as a proxy. Instead, the paper only has a short section to discuss the measure of Greenaway et al. (1995) on page 7, together with why a threshold of 0.25 is chosen. There should be more discussions on other measures such as Johnson and Noguera (2012).
- (b) The paper uses a dummy that captures whether a particular industry qualifies as vertical differentiation, based on the 0.25 threshold. Why not using the degrees of vertical differentiation?
- (c) As above, the main analysis should be on and around different thresholds or measures of vertical differentiation. Instead, the paper distributes disproportionate shares to all the conditioning variables. The discussion of the key findings on vertical differentiation falls short (only one paragraph towards the end of page 15). What the readers expect would be the significance of the role of vertical differentiation. I am afraid I do not see satisfactory discussions addressing the key research question.
- (d) The paper proxies for GPN participation with the interaction term between the vertical differentiation dummy and the product type dummy for parts and components. This is a bit unclear - why can't firms be part of a network if they export finished goods? Why does it have to be parts and components? Again, I do not feel that the authors provide clear discussion in terms of what vertical differentiation means and which type it is that they are capturing.

3. Lack of clarity in its analysis

- (a) Where is the empirical specification? It's unclear to me what the dependent variable is.
 - (b) In Section 2.1, the paper draws the conclusion that survival rates are higher for parts and components than finished products. Why? Is it simply comparing a mean of 3.25 years and 2.96 years? I do not see why the difference is significant.
 - (c) For the relative unit value measure, it requires that Turkey both imports and exports the same HS6 product. What happens if that's not the case?
4. **Unclear contribution** - what's novel here? I could not find any discussion on this in the introduction.
5. **Not well-structured** - The paper contains a lot of irrelevant information. For example, in Section 3.1, it discusses a method that is considered NOT appropriate. Why discussing it anyway? There are many paragraphs like this throughout the entire paper.