

## Explore the Export Behavior of Textiles and Apparel “Made in the USA”: A Firm-Level Analysis

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As the marketplace for textiles and apparel (T&A) becomes ever more global, U.S. T&A firms<sup>1</sup> are increasingly engaged in export (Freund, Roop & Colby-Oizumi, 2018; USITC, 2019). Statistics show that the value of U.S. T&A exports totaled \$22.7 in 2017, up nearly 20% from ten years ago (OTEXA, 2018a). While most existing studies that evaluate the performance of the U.S. T&A industry focus on either the macro-level industrial activities or companies’ sourcing strategies, the academic literature addressing the export behavior of textiles and apparel “Made in the USA”, especially at that micro-level, remains limited (Lu, 2018; Hodges & Link, 2018).

This study intends to explore the export behavior of textiles and apparel “Made in the USA” based on an analysis of micro firm-level data. The findings of the study will fulfill a critical research gap and significantly enhance our understanding of the state of U.S. T&A firms and their evolving business strategies in response to today’s global economy (Dicken, 2015).

Theoretically, the export behaviors of U.S. T&A firms could be affected by three primary factors. *The first factor is the product category.* Since the United States is one of the most developed economies in the world, based on the comparative advantage trade theory, U.S. T&A firms are more likely to export capital-intensive textile products than labor-intensive apparel to other less economically advanced countries and regions (Dickerson, 1999; Platzer, 2017). *The second factor is firm size.* According to the resource-based view (RBV) theory, larger firms, in general, are more likely to engage in export and succeed in their overseas business (Galbreath, 2005). Notably, navigating the much more complex market, legal, cultural and political environment in foreign markets will require substantial additional financial and technical resources that may not be affordable to small and medium-sized enterprises (Moen & Servais, 2002). *The third factor is the geographic location.* Because of the patterns of regional T&A supply chains shaped by both economic and policy reasons, U.S. T&A firms are suggested to enjoy unique incentives and advantages in exporting to the Western Hemisphere, including member countries of the North American Free Trade Agreement (NAFTA) and Central America Free Trade Agreement (CAFTA) (Platzer, 2017; Freund et al., 2018). In comparison, U.S. T&A firms may find it much more challenging to get involved in the local supply chains and overcome the disadvantages of distance when exporting to markets outside the Western-Hemisphere, such as Asia and Europe (Dicken, 2015; Kunz, Garner & Karpova, 2016; Lu, 2018). Thus, this study proposes that: *H1: U.S. T&A firms are more likely to export textiles than apparel products. H2:*

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<sup>1</sup> In this study, textiles and apparel are defined as the sectors covered by the North American Industry Classification System (NAICS) Code 313, 314 and 315.

U.S. T&A firms larger in size are more likely to engage in exports. *H3*: U.S. T&A firms are more likely to export to the Western Hemisphere than other regions in the world.

To empirically test the hypotheses, from September to October 2018, we collected and compiled the detailed production and export information of all 122 U.S. T&A firms covered by the U.S. Department of Commerce Office of Textiles and Apparel “Made in the USA” database<sup>2</sup>, the most comprehensive and the only government-run firm-level dataset focusing on the U.S. T&A sector (OTEXA, 2018b). The collected data includes the following variables:

- *Textiles*: if a firm makes textile products (NAICS 313 or 314)=1; otherwise =0
- *Size*: if a firm is with 150 employees or more=1; otherwise =0
- *Export*: if a firm engaged in export=1; otherwise =0
- *WH*: if a firm exports to the Western Hemisphere =1; otherwise =0

We first conducted a logistic regression analysis using *Export* as the binary dependent variable and *Textiles* and *Size* as the independent variables to evaluate the impact of product category and firm size on U.S. T&A firms’ export behaviors. The regression model is statistically significant ( $X^2=10.87$ ,  $p=0.00$ ). More specifically: first, consistent with *H1*, U.S. T&A firms that make textile products are suggested to be 2.84 times more likely to export than those firms that make apparel products only (Wald  $X^2=4.03$ ,  $p=0.045<0.05$ ). Second, consistent with *H2*, U.S. T&A firms with more than 150 employees are also suggested to be 4.11 times more likely to engage in export than those with fewer than 150 employees (Wald  $X^2=4.40$ ,  $p=0.036<0.05$ ).

Because of the categorical nature of the data, we then conducted a contingency analysis of *Export* and *WH* to evaluate U.S. T&A firms’ export market preferences (Lawal, 2003). The results show that there is a statistically significant association between the two variables (Pearson  $X^2=46.28$ ,  $p=0.00$ ) and their correlation is very strong (Phi and Cramer’s  $V=0.616$ ). Overall, the results support *H3* and suggest that Western Hemisphere is a preferred export destination for U.S. T&A firms than other regions in the world.

The findings of the study have two important implications. First, the results indicate that export has become a critical growth engine supporting the development and expansion of T&A “Made in the USA” in today’s global economy. It is the time for a fundamental shift of U.S. T&A trade policy from restricting imports to supporting the export needs of T&A firms. Second, echoing previous studies, the results also confirm the unique significance of Western Hemisphere to the economic prosperity of U.S. T&A firms and their export performance (Platzer, 2017; Lu, 2018). Particularly, policymakers should not harm the ever-closer supply chain collaboration between U.S. T&A firms and their partners in the Western Hemisphere.

<sup>2</sup> The firm information in the database was solicited and then verified by OTEXA (Source: conversation with OTEXA staff). For this study, we used the information in the database updated as of October 1, 2018.

Future studies can continue to explore the export behavior of U.S. T&A firms by examining more disaggregated data at the product level. The extent to which free trade agreements and trade preference programs enacted in the United States support the export of U.S. T&A firms can also be studied further. Additionally, it will also be interesting to compare the export performance of U.S. T&A firms and their counterparts in other developed economies such as Japan and Western Europe to see if there are any similar or different patterns and related affecting factors.

## References

- Dicken, P. (2015). *Global shift: Mapping the changing contours of the world economy* (7<sup>th</sup> ed.). Guilford.
- Dickerson, K. G. (1999). *Textiles and apparel in the global economy* (3<sup>rd</sup> ed.). Prentice Hall.
- Freund, K., Roop, M., & Colby-Oizumi, H. (2018). *Textiles and Apparel: Made In USA... Again?*. U.S. International Trade Commission Staff Working Paper (ID-055).
- Galbreath, J. (2005). Which resources matter the most to firm success? An exploratory study of resource-based theory. *Technovation*, 25(9), 979-987.
- Hodges, N. J., & Link, A. N. (2018). Prescriptions for Growth for US Textile and Apparel Firms. In *Knowledge-Intensive Entrepreneurship* (pp. 145-162). Springer, Cham.
- Kunz, G. I., Garner, M. B., & Karpova, E. (2016). *Going global: The textile and apparel industry* (3<sup>rd</sup> ed.). New York: Fairchild.
- Lawal, B. (2003). *Categorical data analysis with SAS and SPSS applications*. Psychology Press.
- Lu, S. (2018). What Will Happen to the US Textile and Apparel Industry if the NAFTA Goes?. *Margin: The Journal of Applied Economic Research*, 12(2), 113-137.
- Moen, Ø., & Servais, P. (2002). Born global or gradual global? Examining the export behavior of small and medium-sized enterprises. *Journal of international marketing*, 10(3), 49-72.
- Office of Textiles and Apparel, OTEXA (2018a). *The export market report*. Retrieved from <https://otexa.trade.gov/msrpoint.htm>
- Office of Textiles and Apparel, OTEXA (2018b). *Made in USA database*. Retrieved from <https://otexa.trade.gov/growamerica/madeinusa.htm>
- Platzer, M. (2017). *Renegotiating NAFTA and U.S. textile manufacturing*, Washington, DC: Congressional Research Service.