China Versus the Rise of Asian Alternatives: A Product-Level Analysis of U.S. Apparel Sourcing Patterns

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Background

Amidst escalating U.S.-China trade tensions and geopolitical concerns, U.S. fashion companies have been actively reducing their "China exposure" and seeking alternative apparel-sourcing destinations (Hanson, 2021). Although U.S. apparel imports from other Asian countries have steadily increased in recent years, the question of who will be the "Next China" and the plausibility of a complete "decoupling with China" remains a heated debate (Razzaque, 2022).

By analyzing thousands of apparel items for sale in the U.S. retail market at the Stock Keeping Unit (SKU) level, **this study explored U.S. apparel sourcing patterns from China versus the other top five largest Asian suppliers, including Vietnam, Bangladesh, Indonesia, India, and Cambodia (Asia5).** Unlike existing literature using aggregated macro-trade statistics, this study provides a unique micro-level perspective on U.S. fashion companies' evolving China sourcing strategies (Datta & Kouliavtsev, 2020; Hook et al., 2022). The study's findings enhance our understanding of the competitiveness of "Made in China" at the detailed product level and offer valuable input for fashion companies in developing effective sourcing strategies in response to the shifting business environment.

Literature review

In theory, China could experience several advantages and disadvantages as an apparel-sourcing destination compared with Asia5. **First,** based on the industrial upgrading and stage of development theories in the textile and apparel industry, China's more advanced economic development level may enable it to stay competitive in producing relatively sophisticated apparel product categories (Gereffi, 2019). **Second**, China's highly integrated local textile and apparel supply chains could make it a favorable option for sourcing orders that involve a greater variety of products (Irfan, 2020; Lu, 2022). **Third**, with concerns surrounding forced labor in China's Xinjiang region, U.S. fashion companies may be less inclined to source apparel containing cotton fibers from China (CBP, 2023). **Fourth,** although U.S. fashion companies increasingly source clothing made from recycled textile materials, whether China has a competitive edge in this emerging market segment remains uncertain (Botwinick & Lu, 2022). **Moreover**, U.S. fashion companies could be less likely to source relatively lower-priced apparel items from China due to its higher production costs and the ongoing tariff war (Handfield et al., 2020; Lu, 2022).

Methods

The study utilized two datasets from EDITED, a big data tool for the fashion industry, to evaluate U.S. retailers' sourcing patterns from China and Asia5. First, 2,000 Stock Keeping Units (SKUs) of apparel items explicitly labeled "Made in China" were randomly selected by EDITED. These SKUs were among millions of apparel products newly launched in the U.S. retail market from January 2021 to December 2022 (EDITED, 2023). Then, using the same method, another 2,000 SKUs of apparel items labeled as made by one of the Asia5 countries were randomly selected by EDITED. The two-year period covered the most updated data from EDITED and was long enough to reveal a relatively stable apparel sourcing pattern (Lu, 2022).

Since most information EDITED provided for each sample was categorical, logistic regression was adopted to assess the quantitative relationship between variables. Other methods, like the ordinary multiple linear regression, could incur biased estimation for categorical data (Field, 2013). The model used *China* as the dependent variable, measuring whether a clothing item was manufactured in China or one of the Asia5 countries (i.e., China=1; Asia5=0). The model included five sets of independent variables:

- Six variables measuring various product categories: *Tops* (Yes=1; No=0), *Bottoms* (Yes=1; No=0), *Underwear* (Yes=1; No=0), *Swimwear* (Yes=1; No=0), *Dresses* (Yes=1; No=0), and *Outerwear & Suits* (Yes=1; No=0).
- Two variables measuring product assortment features: *Pattern* (if the clothing item adopted the plain pattern, i.e., not using graphics, stripes, spots, checks, floral, or other patterns=1; otherwise =0). *SKU* refers to the number of Stock Keeping Units available for the clothing item (e.g., *SKU*=5 means a clothing item has five different sizes or colors).
- Two variables measuring fiber content features: *Cotton* (if the label mentioned the clothing item contained cotton fiber=1; otherwise=0). *Recycle* (if the label mentioned the clothing contained recycled textile materials =1; otherwise=0)
- Two variables measuring pricing strategy: *Price* (if the clothing item was priced higher than the market average=1; otherwise=0). *Market* (If the apparel item fell under the luxury or premium market segment=1; mass or value market segment=0).

Results and discussions

The logistic regression was statistically significant at the 99% confidence level (likelihood ratio (L.R.) statistics =5035.3, $p<.001$). Specifically, **First,** contrary to popular belief, no statistical evidence shows that China was a preferred sourcing destination for most product categories compared with Asia5. Instead, U.S. fashion companies were 52.3% less likely (Wald X^2=7.6, $p<.001$) to source from China for *Bottoms*, 48.9% less likely (Wald X^2=4.6, $p<.001$) for *Underwear*, and 49.7% less likely (Wald X^2=8.2, $p<.001$) for *Outerwear & Suits*. Also, the calculated Herfindahl-Hirschman Index (HHI) indicated that clothing categories imported from Asia5 as a whole were more diverse than those from China (Gnangnon, 2021). **Second**, when

holding other factors constant, apparel imports from China were 263.9% more likely (Wald X^2=118.4*, p<.001*) to be plain in style (i.e., *Pattern* =1). However, no statistical evidence showed that imports from China had a deeper assortment than those from Asia5 (i.e., variable *SKU*). **Third,** reflecting the concerns about forced labor, U.S. apparel imports from China were 54.4% less likely (Wald X^2=63.4*, p<.001*) to contain cotton fiber (i.e., *Cotton*=1). Likewise, imports from China were 64.1% less likely (Wald X^2=7.7*, p<.001*) to include recycled textiles (i.e., *Recycle*=1). **Additionally**, compared with Asia5, U.S. apparel imports from China were 294.8% more likely (Wald X^2=206.9*, p<.001*) to target the luxury and premium segment (i.e., *Segment*=1) and 176.5% more likely (Wald X^2=55.7*, p<.001*) to be priced higher than the market average for the same category (i.e., *Price*=1).

Implications and future research agenda

First, the findings provide new evidence showing the rise of Asia5 as a viable alternative to sourcing from China. Notably, China's perceived competitive advantages in making more sophisticated and diverse products may no longer be as dominant or significant as previous studies suggested (Hanson, 2021). **Second**, the results highlight the need for additional research to explore the outlook of China as an apparel-sourcing base against the shifting business environment. For example, as the findings suggest, the implementation of the Uyghur Forced Labor Prevention Act and the growing trend towards textile recycling could have a lasting impact on U.S. fashion companies' sourcing strategies from China and Asia5 in the long term.

References

Botwinick, A., & Lu, S. (2022). Explore US retailers' merchandising strategies for clothing made from recycled textile materials. *International Journal of Fashion Design, Technology and Education*, ahead of print, 1-10. https://doi.org/10.1080/17543266.2022.2129462

Datta, A., & Kouliavtsev, M. (2020). The end of the Multi Fiber Arrangement and the pattern of US apparel trade: A gravity model analysis. *Journal of Economic Studies*, *47(3),* 695-710.

EDITED (2023). Market intelligence. Retrieved March 18, 2023 from https://edited.com/

Gereffi, G. (2019). Economic upgrading in global value chains. *Handbook on global value chains*, 240-254.

Gnangnon, S. K. (2021). Aid for Trade and Import Product Diversification: To What Extent Does Export Product Diversification Matter. *Economic Issues*, *26*(2), 1-43.

Handfield, R. B., Graham, G., & Burns, L. (2020). Corona virus, tariffs, trade wars and supply chain evolutionary design. *International Journal of Operations & Production Management*, *40*(10), 1649-1660.

Hanson, G. H. (2021). *Who will fill China's shoes? The global evolution of labor-intensive manufacturing* (No. w28313). National Bureau of Economic Research. Retrieved from https://www.nber.org/papers/w28313

Hook, S., Chin, L., & Saari, M. Y. B. (2022). The impact of transport infrastructure on Readymade garment export in Bangladesh: A gravity model estimation. *Baltic Journal of Law & Politics*, *15*(1), 822-845.

Irfan, M., Wang, M., & Akhtar, N. (2020). Enabling supply chain agility through process integration and supply flexibility: Evidence from the fashion industry. *Asia Pacific Journal of Marketing and Logistics*, *32*(2), 519-547.

Lu, S. (2022). *2022 fashion industry benchmarking study.* Washington, DC: United States Fashion Industry Association. Retrieved from https://www.usfashionindustry.com/pdf_files/2022/Benchmarking/2022%20USFIA%20Benchmarking%20Study.pdf

Office of Textiles and Apparel, OTEXA (2023). Total U.S. textile and apparel imports. Retrieved from https://www.trade.gov/otexa-import-data

Razzaque, M. A. (2022). Geo-Economics, Globalization, Geo-Economics in the Aftermath of the COVID-19 Pandemic: Trade and Development Perspectives from Bangladesh. *Globalisation Impacts: Countries, Institutions and COVID19*, 105-125.

Saccani, N., Bressanelli, G., & Visintin, F. (2023). Circular supply chain orchestration to overcome Circular Economy challenges: An empirical investigation in the textile and fashion industries. *Sustainable Production and Consumption*, *35*, 469-482.

U.S. Customs and Border Protection, CBP. (2023). FAQs: Uyghur Forced Labor Prevention Act (UFLPA) Enforcement. Retrieved March 18, 2023 from https://www.cbp.gov/trade/programs-administration/forced-labor/faqs-uflpa-enforcement