

"Made in the USA" – An Investigation of Firm Resources and its' relationship with different Product Categories

Mehnaz Fatima Monamy, Fahima Islam, and Dr. Debanjan Das, West Virginia University, USA

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The Textile and Apparel (T&A) industry of the United States (U.S.), which once had a significant role in the country's industrial structure, has experienced a gradual decline over the past few decades (Manufacturing USA, 2022). The U.S. is the world's third largest cotton producer and second largest apparel consumer (Statista, 2022), yet, people can hardly find clothes with the "Made in the USA" label while shopping in the stores. The T&A industry's fragmentation and focus on manufacturing costs over quality are the reasons for this decline (ILO, 2022). As manufacturing becomes more fragmented and global, firms have more choices for where to produce. Countries like China, Bangladesh, Vietnam, and India have become T&A production hubs due to cheap labor, less regulation, and low manufacturing costs (Towner, 2019). However, in recent years, U.S. T&A manufacturing has started to make a comeback, with the industry dominating the cotton market and producing large amounts of raw materials and finished textile goods such as apparel, home use, and hospital/medical use (Bureau of Economic Analysis, 2021).

The U.S. T&A industry encompasses a total of 13,076 businesses, ranging from small to large, which also employ 168,786 individuals at present (IBISWorld, 2022). The growth of the T&A industry is significantly linked to the Western Hemisphere supply chain, which has emerged as a critical economic driver for the T&A industry (Poston, 2022). Although the U.S. T&A industry experienced a decline for years, the "Made in the USA" label still holds significant advantages for this industry. Consumers believe that products with the "Made in the USA" label are of superior quality (Benstead et al., 2017). Moreover, according to Moore et al., (2018), U.S. manufacturers have identified skilled workforce, automated processes, and availability of raw materials as the factors for bringing back manufacturing in the United States. Additionally, the U.S. T&A industry has significant growth potential in specific product categories, including performance clothing, protective clothing, specialty and industrial fabrics, and non-woven product categories (Keough & Lu, 2021). The industry also focuses on high-value activities like design and marketing, mainly on the west coast of the U.S. (Harris, 2018). Considerable resources are needed and will be required to rejuvenate the U.S. T&A industry.

The Resource-Based View (RBV) of the firm shapes the study's theoretical foundation for predicting organizational performance and competitive advantage. The RBV theory argues that a firm's sustained competitive advantage is based on its valuable, rare, inimitable, and non-substitutable resources (Barney, 1991). The capability of firms to create or acquire these resources affects their performance and competitiveness. A quantitative content analysis approach was used to examine the unique firm resources and product categories of T&A manufacturers in the U.S. Information on the U.S. T&A firms was collected from the "Made in the USA" database (OTEXA,

2022), managed by the Office of Textiles and Apparel from January 2023 to March 2023. A total of 504 T&A firms were selected; however, 97 were removed due to insufficient information. The data available on each firm's page were analyzed for this study and coded using the RBV theory framework. An Excel spreadsheet was used for coding the data. Any coding discrepancies were resolved through discussion. To analyze the data, descriptive statistics were run to obtain the frequencies and percentages. Furthermore, the Chi-Square and Spearman correlation tests were run to evaluate the relationship between categorical variables.

Textile production accounted for 61.2% (N = 249) of the T&A businesses, followed by apparel (54.8%, N = 223), footwear (7.6%, N = 31), PPE (7.1%, N = 29), and accessories (4.4%, N = 18). Additionally, the results indicated that 33.7% of the firms have their production location in Southeast region (N = 137), followed by Mid-Atlantic (20.4%, N = 83), Pacific Coastal (18.9%, N = 77), Midwest (11.5%, N = 47), New England (8.8%, N = 36), Southwest (3.7%, N = 15), and The Rocky Mountains (2.9%, N = 12). Using the Resource-Based View (RBV) theory, the study identified five essential categories of firm resources: general organizational resources (79.4%, N = 323), organizational knowledge resources (78.9%, N = 321), physical resources (60.7%, N = 247), human resources (59.7%, N = 243), and financial resources (16.2%, N = 66).

A chi-square test of independence was performed to examine the relationship between product categories and manufacturing region, product categories and firm resources, and manufacturing region and firm resources.

Table 1: Chi-Square Statistics

	Financial Resource	Physical Resource	Human Resource	Organizational Knowledge Resource	General Organizational Resource
Apparel	$\chi^2 = 6.13$ p = .013***	$\chi^2 = 17.19$ p < .001***	$\chi^2 = 8.25$ p = .004***	$\chi^2 = 2.82$ p = .094	$\chi^2 = 6.03$ p = .014***
Textile	$\chi^2 = 2.41$ p = .121	$\chi^2 = 2.70$ p = .101	$\chi^2 = .48$ p = .489	$\chi^2 = 1.96$ p = .162	$\chi^2 = 1.22$ p = .270
Footwear	$\chi^2 = 2.36$ p = .125	$\chi^2 = 3.39$ p = .066	$\chi^2 = .04$ p = .851	$\chi^2 = 1.36$ p = .243	$\chi^2 = .08$ p = .781
PPE	$\chi^2 = .46$ p = .49	$\chi^2 = 8.52$ p = .004***	$\chi^2 = .438$ p = .508	$\chi^2 = 2.18$ p = .140	$\chi^2 = .89$ p = .345
Accessories	$\chi^2 = .003$ p = .958	$\chi^2 = 2.31$ p = .129	$\chi^2 = .14$ p = .714	$\chi^2 = 1.13$ p = .287	$\chi^2 = .03$ p = .865

The chi-squared test also revealed a significant association of manufacturing region with financial resources $\chi^2(1, n = 407) = 14.12, p = .028$ and with organizational knowledge resources $\chi^2(1, n = 407) = 13.46, p = .036$. Furthermore, the spearman correlation test showed that the manufacturing region has also a significant association with physical resources ($p = .033$) and general organizational resources ($p = .024$). Based on the chi-squared test, there was also a significant association between manufacturing region and apparel product category $\chi^2(1, n = 407) = 36.95, p < .001$. The association between manufacturing region and apparel product category was found to have a medium, significant effect size ($V = .301, p < .001$; Cohen, 1988). There was a significant association between manufacturing region and footwear product category $\chi^2(1, n = 407) = 20.70,$

$p = .002$. The association between manufacturing region and footwear product category was found to have a small, significant effect size ($V = .226$, $p = .002$; Cohen, 1988). And, there was a significant association between manufacturing region and PPE product category $\chi^2(1, n = 407) = 13.51$, $p = .036$. The association between manufacturing region and PPE product category was found to have a small, significant effect size ($V = .182$, $p = .036$; Cohen, 1988).

General organizational resources were found to be the most common firm resources among U.S. T&A firms. These findings suggest that the type of product a firm manufactures is related to the type of resources they allocate to different areas of their organization. These findings also suggest that manufacturing region plays a crucial role in determining the type of resources needed to manufacture different product categories. The findings of this study have significant implications and contributions for academia, industry, consumers, and policy makers alike. The findings can assist established domestic businesses in enhancing their performance and enable emerging businesses to utilize unique resources to thrive in the global competition.

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