Consumer response to corporate political statements: Evidence from geolocation data

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Political polarization has been steadily rising in the U.S.

Slope: 0.48
SE: 0.06

Polarization affects:
- where we live
- time spent with family
- who we date/marry

Corporations are more commonly navigating political issues

Source: Boxell, Gentzkow, and Shapiro (2020)
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Source: Boxell, Gentzkow, and Shapiro (2020)
That was then

*Republicans buy shoes, too.*

Business Roundtable Redefines the Purpose of a Corporation to Promote ‘An Economy That Serves All Americans’

AUG 19, 2019

Updated Statement Moves Away from Shareholder Primacy, Includes Commitment to All Stakeholders

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Hong Kong Protests Put N.B.A. on Edge in China

A tweet from the Houston Rockets general manager prompted a backlash in China, making things uncomfortable for a league used to its players and representatives speaking out on politics.

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Walmart to Limit Ammunition Sales and Discourage ‘Open Carry’ of Guns in Stores

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This is now
Can firms serve all stakeholders when those stakeholders disagree?

- I use Walmart’s recent statement on gun policy to study this question
  - Intended to serve customers, employees, and community by increasing safety
  - Gun control is one of the most politically divisive topics in the U.S.
  - Some stakeholders – customers who oppose gun control – will lose value

On Sep 3, 2019, Walmart announced the following:
- Discontinue sales of certain gun ammo
- Ban open carry in Walmarts and Sam’s Clubs
- Encouraged congress to strengthen gun control laws

Smartphone-geolocation data
- 2MM monthly observations
- 63k general merchandise stores
- Jan 2017 - Jan 2020
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There is a partisan response to Walmart’s gun policy statement

- Effect is temporary in aggregate but persists in highly Republican areas
- Time in store also differs along partisan lines
Why Walmart? Explicit stance and nationwide phase-out

“... we encourage our nations leaders to move forward and strengthen background checks and to remove weapons from those who have been determined to pose an imminent danger... I’m sending letters to the White House and the Congressional leadership that call for action on these common sense measures.”

- Doug McMillon, CEO of Walmart
Why Walmart? Gun control is one of the most polarizing issues in America
Why Walmart? They are located in ideologically diverse areas

- 90% of Americans live within 10 miles of a Walmart store.
- 132 stores in highly Republican areas (Dick’s sporting goods has 1)
- eCommerce contributed just 2.8% of sales in 2019
The case against a consumer response to Walmart’s statement

Walmart is amazing! Stores are too convenient and cheap to protest.
I collect novel foot traffic data from SafeGraph Inc.

- Geolocation data provider
- Partner with smartphone apps
  - e.g., weather, navigation
- ‘Pings’ device location when app is running (or on in background)
- 46MM devices, 3.6MM POI, 5,500 brands
- \(corr(\text{sales}_{WMT}, \text{foot traffic}_{WMT}) = 0.71\)
Identifying Walmart’s competitors & customer partisanship

• Competitors: stores with NAICS code 452319
  • General Merchandise Stores, including Warehouse Clubs and Supercenters
  • Public and private firms
    • Big national competitors (Dollar General) and local competitors (Village Discount Outlet Store in Chicago)
    • 62,546 unique stores
    • 4,750 Walmarts and 596 Sam’s Clubs

• Partisanship: county-level vote share to Trump in 2016 election
  • Large variation across the US - standard deviation for the % of Trump votes is 14.9%
Did Walmart’s statement affect aggregate consumer foot traffic?

Difference-in-differences analysis:

$$\ln(\text{Monthly Store Visits}_{i,t}) = \beta_1 \ast \text{Walmart/Sams}_i + \beta_2 \ast \text{Post}_t$$
$$+ \beta_3 \ast \text{Walmart/Sams}_i \times \text{Post}_t + \gamma' \ast \text{FE} + \epsilon$$

- \text{Post}_t = 1 \text{ for September 2019 and later}
  - Sep 1-3, 2019 omitted
- \text{Store} fixed effects control for store size, location, quality
- \text{Year} \times \text{Month} fixed effects control for seasonality, macroeconomic trends
- \text{County} \times \text{Year} \times \text{Month} fixed effects control for local economic health, county population growth
Walmart's foot traffic decreased relative to competitors

<table>
<thead>
<tr>
<th></th>
<th>Ln(Monthly Store Visits)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
</tr>
<tr>
<td></td>
<td>(2)</td>
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<tr>
<td></td>
<td>(3)</td>
</tr>
<tr>
<td>Post</td>
<td>0.027***</td>
</tr>
<tr>
<td></td>
<td>(7.86)</td>
</tr>
<tr>
<td>Walmart/Sams × Post</td>
<td>-0.026***</td>
</tr>
<tr>
<td></td>
<td>(-6.83)</td>
</tr>
<tr>
<td></td>
<td>-0.025***</td>
</tr>
<tr>
<td></td>
<td>(-6.55)</td>
</tr>
<tr>
<td></td>
<td>-0.033***</td>
</tr>
<tr>
<td></td>
<td>(-9.21)</td>
</tr>
<tr>
<td>Year × Month FE</td>
<td>No</td>
</tr>
<tr>
<td>Store FE</td>
<td>Yes</td>
</tr>
<tr>
<td>County × YM FE</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.939</td>
</tr>
<tr>
<td>Observations</td>
<td>2,052,693</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td>2,043,482</td>
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</tbody>
</table>
Was there a partisan response to Walmart’s statement?

Proxy for partisan preference using county-level share of Trump vote in 2016 election

\[
\text{Ln(Store Visits)} = \beta_1 \ast \text{Walmart} / \text{Sams} + \beta_2 \ast \text{Post} + \beta_3 \ast \text{Rep Vote} \\
+ \beta_4 \ast \text{Walmart} / \text{Sams} \times \text{Post} + \beta_5 \ast \text{Walmart} / \text{Sams} \times \text{Rep Vote} + \\
\beta_6 \ast \text{Post} \times \text{Rep Vote} + \beta_7 \ast \text{Walmart} / \text{Sams} \times \text{Post} \times \text{Rep Vote} + \\
\delta' \ast \text{Interaction Controls} + \gamma' \ast \text{FE} + \epsilon
\]

- Interaction controls for county demographics (education, gender, population, race, etc.)
### Foot traffic change varied based on partisan beliefs

<table>
<thead>
<tr>
<th>Interaction</th>
<th>Ln(Monthly Store Visits)</th>
<th>Interaction Controls</th>
<th>Store FE</th>
<th>County×YM FE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walmart/Sams × Post</td>
<td>-0.030*** (-9.44)</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Walmart/Sams × Post × Rep Vote</td>
<td>-0.037*** (-12.06)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

The table shows the results of the regression analysis on Walmart and Sam's foot traffic change based on partisan beliefs.

- **Walmart/Sams × Post**: The coefficient is -0.030***, indicating a significant decrease in store visits. The t-value is (-9.44).
- **Walmart/Sams × Post × Rep Vote**: The coefficient is -0.037***, suggesting a further decrease in store visits. The t-value is (-12.06).

**Interaction Controls**: The interaction controls are included in the model with and without the interaction terms.

**Store FE**: The store fixed effects are included in both models.

**County×YM FE**: The county-year fixed effects are included in both models.

**R²**: The R² values are 0.939 for both models.

**Observations**: The number of observations is 2,043,482 for both models.
Highly Democratic counties increased visits. Republicans decreased

- Subsamples regs by Trump vote
  - High Dem < 20% Trump
  - High Rep > 80% Trump
- Coefficient on Walmart × Post
The reaction is temporary when looking at all stores
But persists for stores in highly Republican counties
Partisan response is most likely channel compared to alternatives

1. Fear-based reaction
   - Shooting at the El Paso Walmart could cause consumers to stop shopping at Walmart out of fear of additional shootings
   - Inconsistent with increase in Democratic counties

2. Product-based reaction
   - Loss of customers may be due to the store no longer carrying a certain product
   - Magnitude of response inconsistent with this
   - I find results hold when looking at only Sam’s club
     - Prominently mentioned in Walmart’s statement
     - Shooting less salient to Sam’s Club customers
     - Sam’s did not sell ammo at all during sample
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How do Walmart’s remaining customers react?

• These customers either
  1. Don’t care about politics/gun policy
  2. Agree with Walmart’s statement

• If customers agree with Walmart, they may reward the firm by purchasing more items
  • Ideal measure: store-level sales for Walmart and competitors
  • Rough proxy: time spent in store

\[
\ln(\text{Time Spent in Store}) = \beta_1 \times \text{Walmart/Sams} + \beta_2 \times \text{Post} + \beta_3 \times \text{Rep Vote} \\
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Remaining customers spend more time in store, still partisan differences

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<tr>
<td>Walmart/Sams × Post</td>
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<tr>
<td></td>
<td>(16.78)</td>
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<tr>
<td>Walmart/Sams × Post × Rep Vote</td>
<td>-0.011***</td>
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Companies face a difficult challenge when addressing political issues

- I document a partisan reaction to Walmart’s gun policy statement
  - Decrease in foot traffic in Republican counties
  - Increase in Democratic counties
  - Remaining customers spent more time in store
- Setting likely generalizes to other firms addressing political topics
  - Americans are also polarized on immigration, the environment, healthcare, pandemics...
  - US polarization level is similar to that of other developed countries - Britain, Canada, Australia, and Sweden
- Businesses attempting to pursue stakeholder capitalism will struggle to deliver equal value when stakeholders have different beliefs.