



# Interesting Information Behind TaoBao's Annual Shopping Carnival

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# Agenda

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2. Incentive & Purpose
3. Scenarios Support My Design
4. Things I Have Done
5. Alternatives Analysis
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# Background

Taobao.com is a Chinese website for online shopping similar to eBay and Amazon that is operated in China by Alibaba Group.

November 11th (11/11), is chosen because the number "1" resembles an individual that is alone, so we call it "**Single Day**". To we Chinese, there is a new meaningful celebration "**TaoBao's Annual Shopping Carnival**". Like "**Cyber Monday**".



# Incentive & Purpose

## 1. Incredible Increment

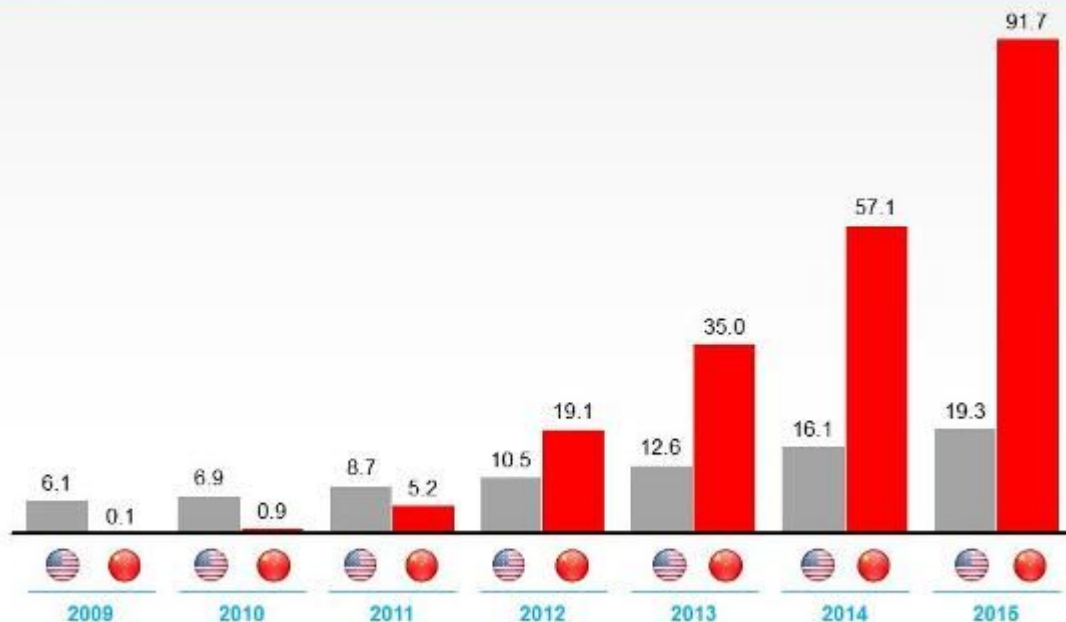
The sales in Alibaba's sites Tmall and Taobao at US\$5.8 billion in 2013, US\$9.3 billion in 2014, US\$14.3 billion in 2015.

**Abundant data and information behind!!**

“Singles Day” (“Double 11”) is the largest online shopping event in the world

Sales on China’s “Singles Day” versus “Cyber Monday” in the US<sup>1</sup>

RMB billions



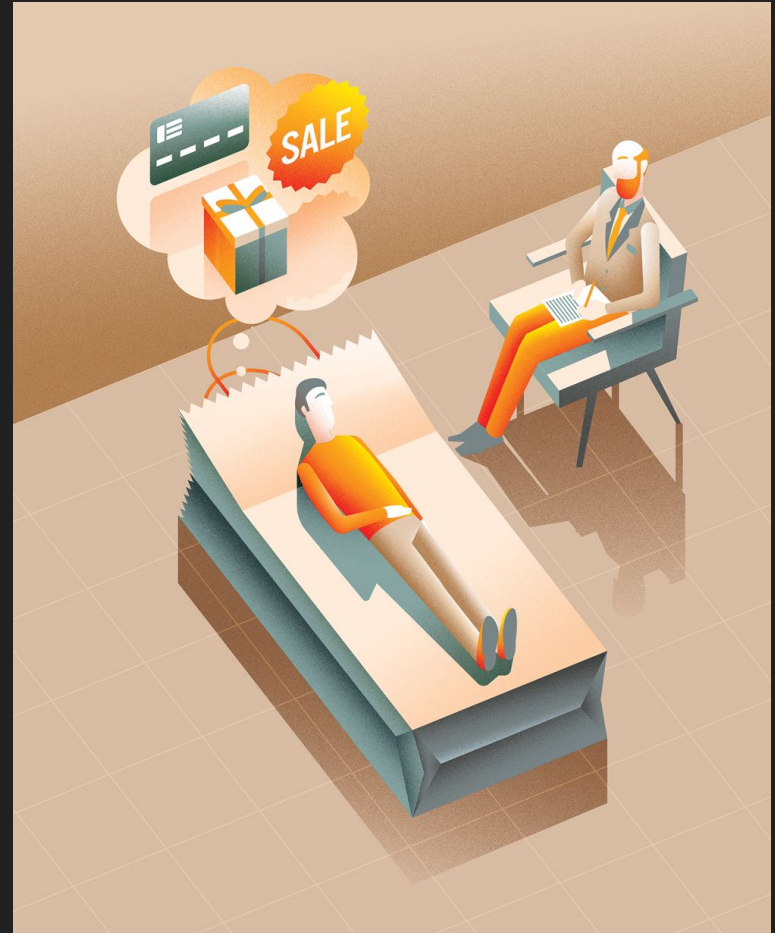
# Incentive & Purpose

## 2. People's Shopping Behavior

What makes retail consumers prefer one venue over another? - Guide  
Salers

When is the peak time? - Maintain the  
flow

Understanding more about the  
consumer. Gender ratio, age groups,  
shopping record, shopping device(PC  
or Wireless devices) - UI Design,  
Advertising investment

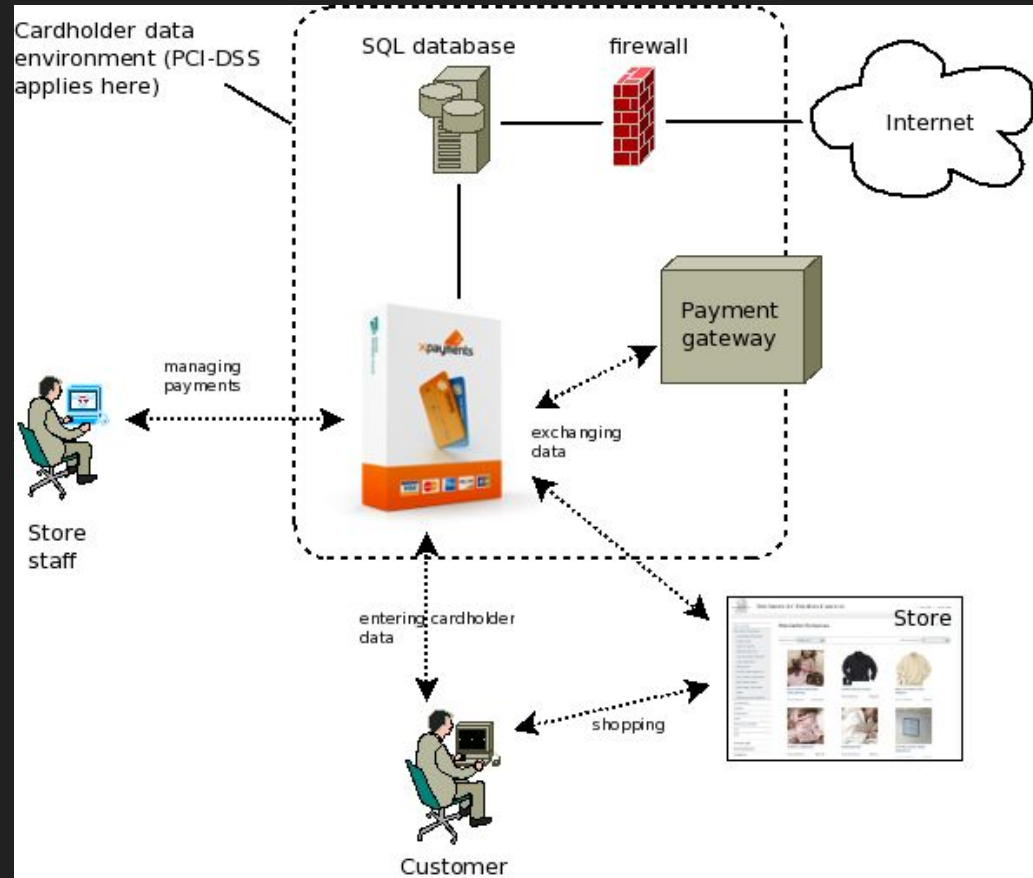


# Incentive & Purpose

## 3. Transaction Data

**What kind of merchandise** is most heated? Or the rank of hot trade?--Guide the Sellers

**Where** does consumption happen most? -- Find possible reason between the consumption and different area?



# Scenarios Support My Design

1. I am the **stakeholder** of Taobao, and I want to check the real-time consumption of different part of China during that day.
2. I am a **data scientist** in Taobao, and I want to see the ratio of Female vs. Male, and I also want to know each of Female and Male's shopping tendency
3. I am a **UI designer** in Taobao, and I want to know **the ratio of Wireless devices vs. PC users** during the shopping.
4. I am a **seller** who wants to operate my shop better in Taobao, and I want to know **hot trade** in Taobao for a guidance.

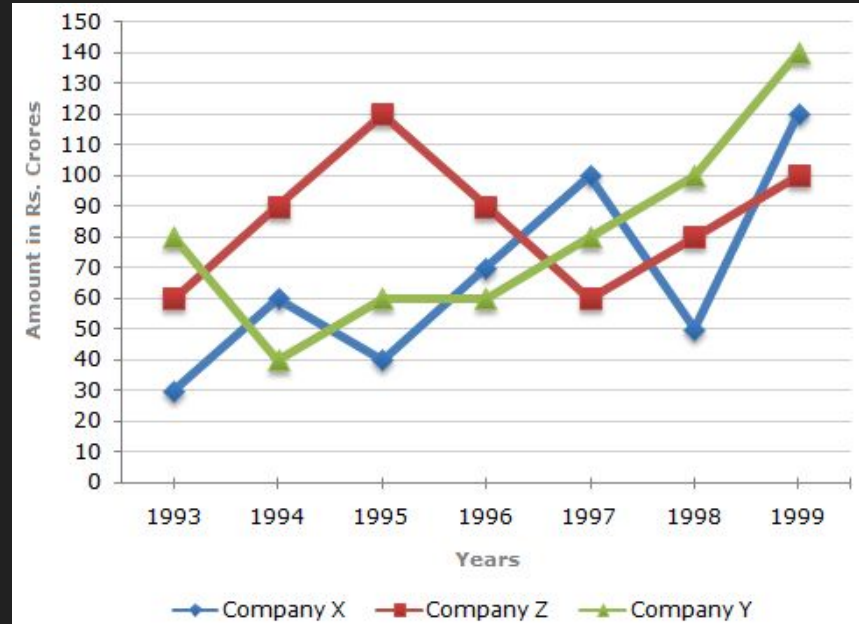
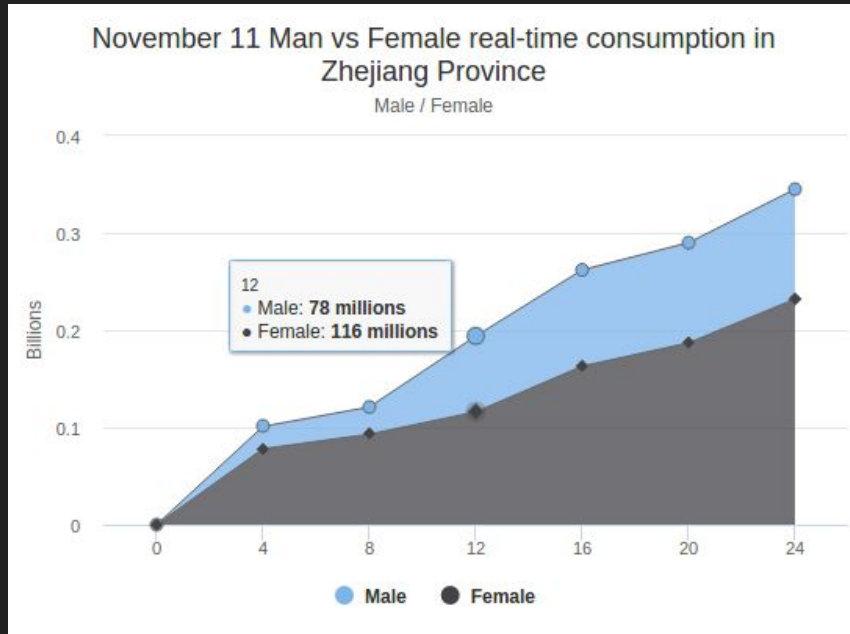
# Things I Have Done

I have created an web application for this project. [Link](#)



# Alternatives -1

## Area Chart vs. Line chart

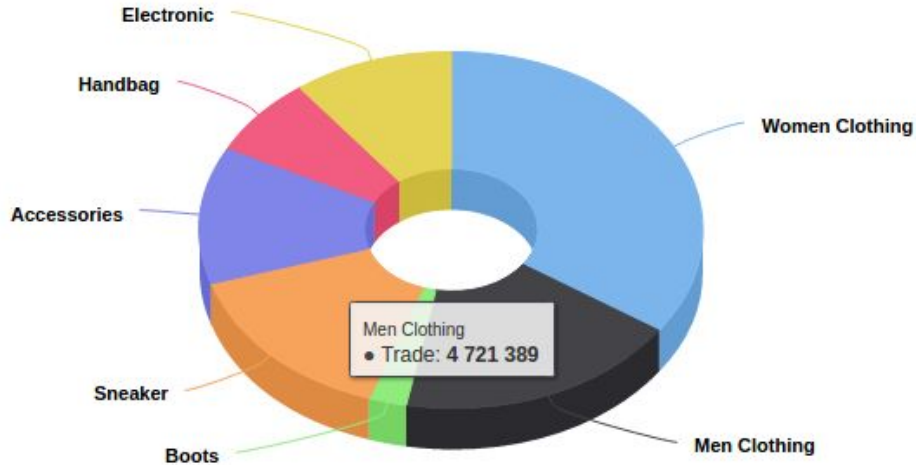


They are both good for time series data. They both show continuity across a dataset. **They are both good for seeing trends** rather than individual. However, since the **real time consumption keeps increases**, in this case, area charts seems to be more good for analysis.

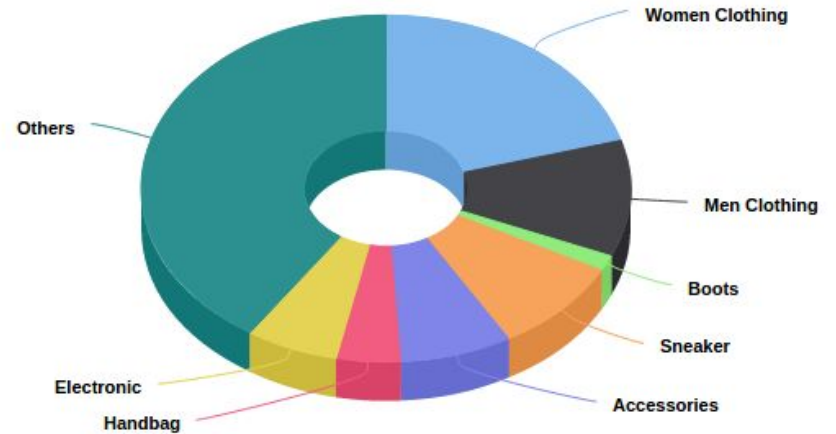
# Alternatives -2

## Pie Chart Without Others vs. Has Others

Hot Trade  
Top 7 Trade in China



Hot Trade  
Top 7 Trade in China

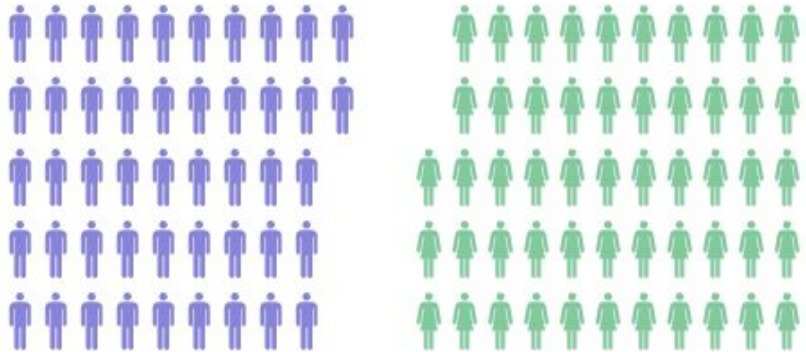


Focus on the **most important part**, as a guidance. Show **emphasis**.

# Alternatives -3

How to show Ratio

Male vs. Female



PC vs. Wireless



Vote it?

# Alternatives -4

Show Different Province : Hover vs. Navigation Bar

Brand

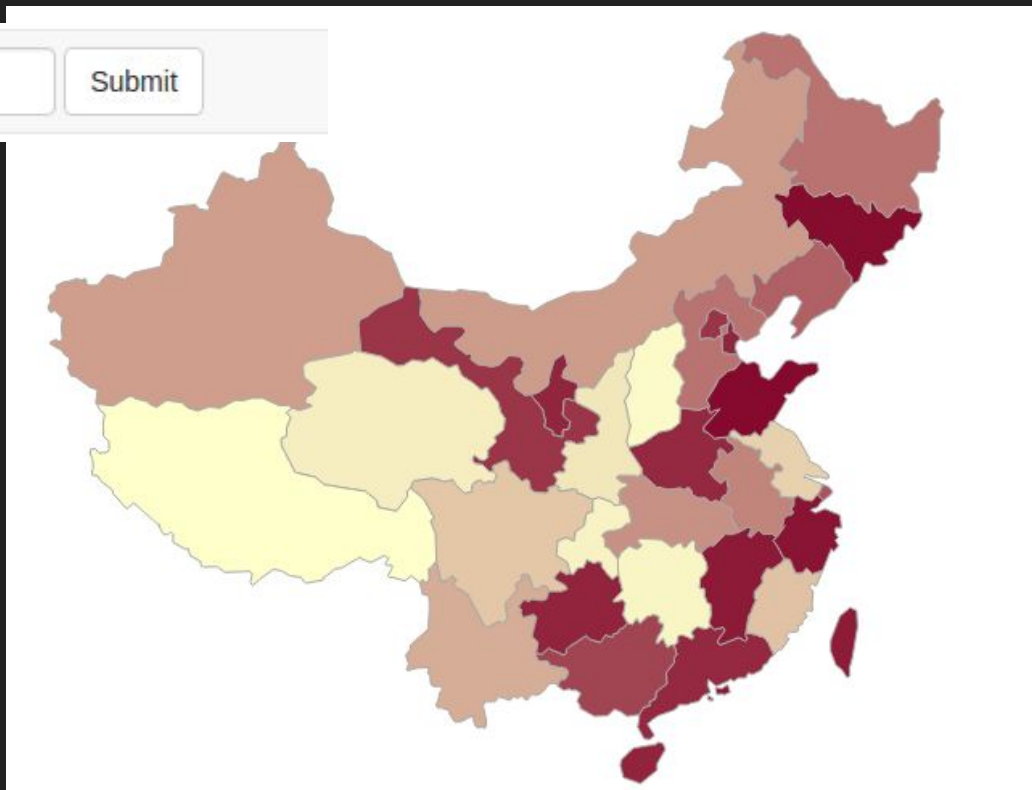
Home

Special

Search

Submit

1. Hover to Show( My Favorite)
2. Search to Show
3. Navigation to Show (It needs good UI design and alignment)

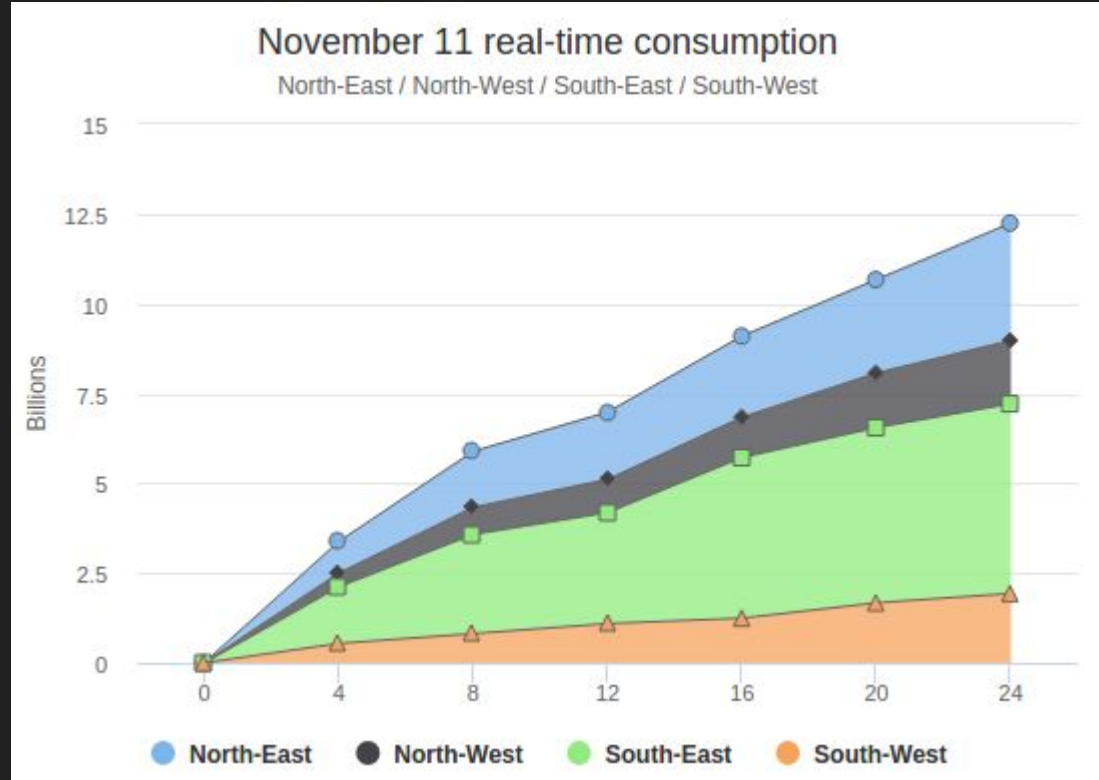


# Solution & Interesting Findings

## 1. Consumption VS. GDP

South East of China Occupied the most ratio of consumption. And North West of China is the least.

Interestingly,  
East China Area GDP 32.85% Rank 1  
South China Area GDP 17.44% Rank 2  
West China Area GDP 6.10% Rank 7

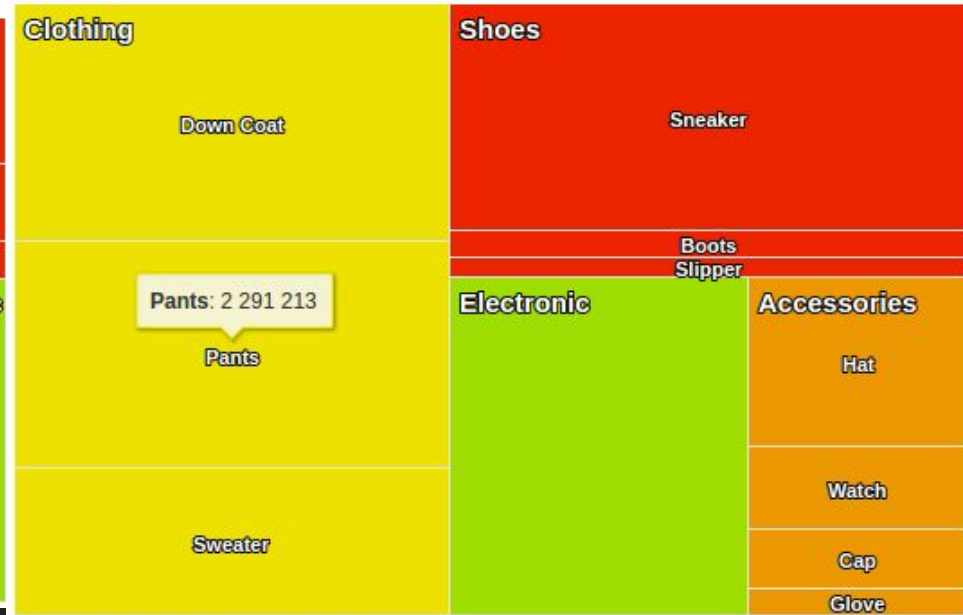


# Solution & Interesting Findings

Woman Shopping Tendency



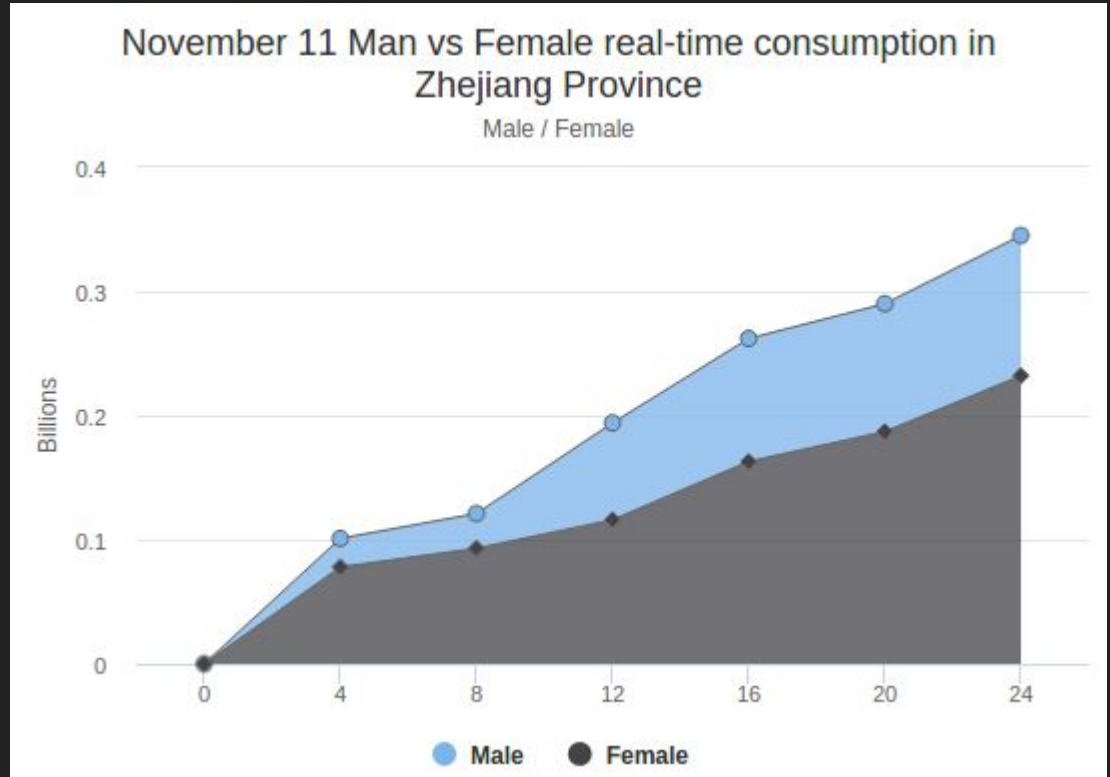
Man Shopping Tendency



1. Electronic
2. Shoes type
3. Makeups vs Accessories

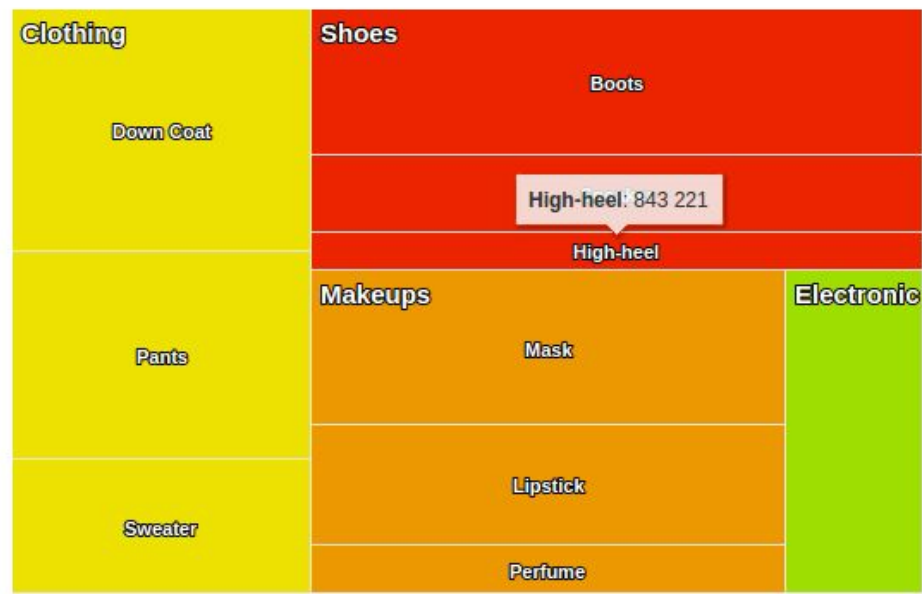
# Solution & Interesting Findings

1. 0 am - 4 am is the peak time for shopping.
2. Women are more likely to buy something during the shopping carnival(Though man vs. female ratio is 48% vs. 52%, very close)

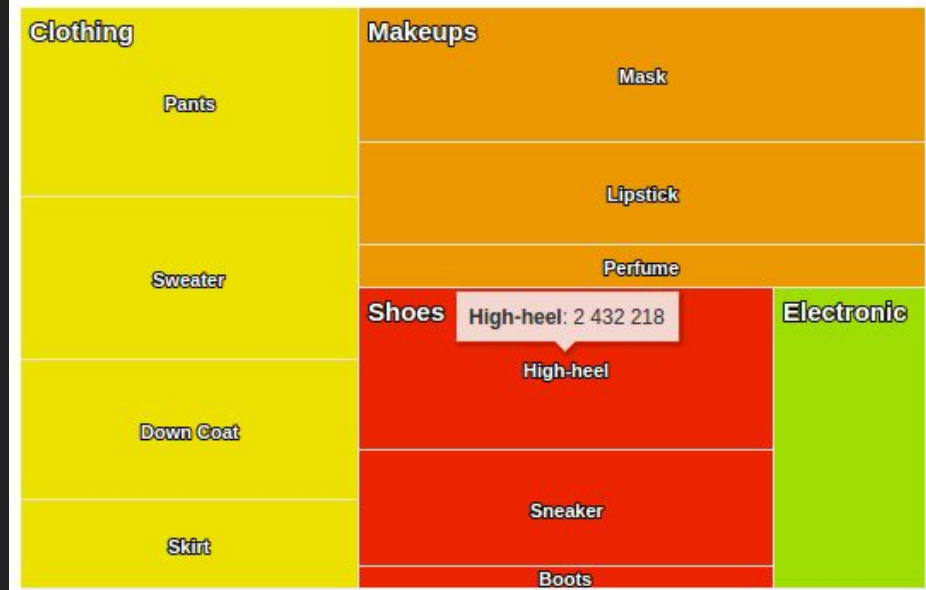


# Solution & Interesting Findings

Woman Shopping Tendency



Woman Shopping Tendency



1. Down Coat and Skirt ( Weather)
2. Makeups rank
3. High-heel in Zhejiang



# References

- [1] Julija Pragarauskaite, Gintautas Dzemyda (2012). Visual decisions in the analysis of customers online shopping behavior, *Nonlinear Analysis: Modelling and Control*, 2012, Vol. 17, No. 3, 355–368.
- [2] Bhagaban Das, Sangeeta Mohanty, Nikhil Chandra Shil (2008). Categorizing Consumers' Buying Behavior: A Factor Analysis in Consumer Durable Market, *International Journal of Business and Management* September, 2008.
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- [4] Edward J. Wegman (2013). Visualizing Transaction Data: A Case Study for the CPI. George Mason University.
- [5] Chris Clifton, Ananth Iyer, Reha Uzsoy (2012). A prototype integrated transaction data analysis and visualization environment for the transportation, distribution and logistics sector, A Proposal for Exploratory Research Submitted to the E-Enterprise Center at Discovery Park.
- [6] <https://d3js.org/>