

A picture is worth a thousand words: privacy concerns in pre-owned Markets, a look at Tise

Paris Young Economist Seminar

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Introduction

- Second-hand apparel has become increasingly popular in recent years.
- People have become more aware of the environmental and social benefits of shopping Second-hand.

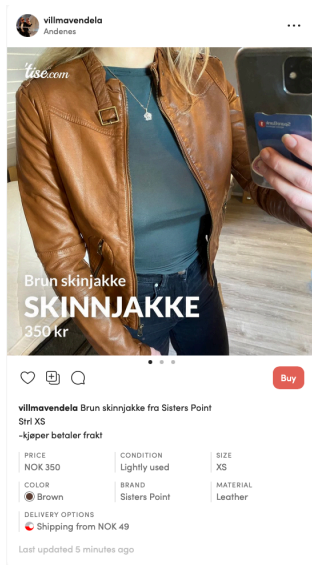
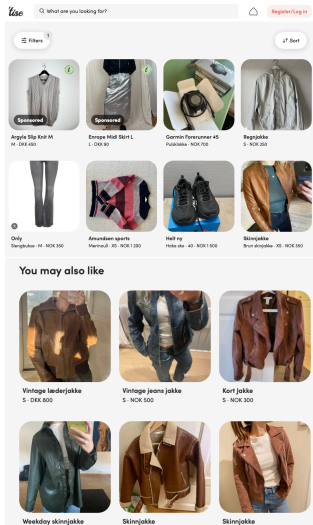
The platform

The company is based in **Norway**, and available in **Sweden, Denmark, and Finland**

- A blend of Instagram and Craigslist, targeting second-hand fashion, interiors, and furniture.
- Promoting sustainability through second-hand trade.

The platform is very similar to Vinted, the main European second hand marketplace for fashion.

The platform



The platform

- Monetize Through:
 - Fee on every item sold, **dynamically calculated** on:
 - Item Price
 - Delivery Method
 - Memberships (monthly/yearly payment)
 - Sponsoring
 - Promoting user products
- Offer Cash back and points

The data I have

- The information of every product posted between January 1st 2016 and November 15th 2023
- The info of every user that has ever posted or purchased an item.
- 4.5 Million Reviews

The data I would love to have

- (Winning) Bids information
- Selected shipping method
 - Express courier
 - Locker
 - Meeting
- Tise Points and Tise Cash used

Questions

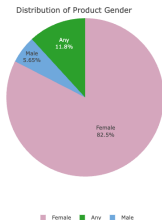
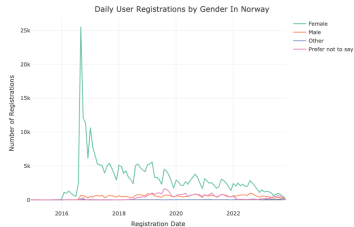
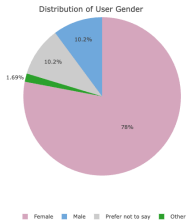
Interesting (to me, at least)

- “Beauty Effect” and privacy concerns in user posting behaviour
- Do second-hand markets/platforms help fast-fashion?
- Does second-hand influence purchases of new items
 - Tried to look for trade data, but too small
- Brand Value: posting behaviour about brands and brand “Tiers”

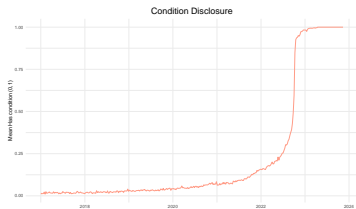
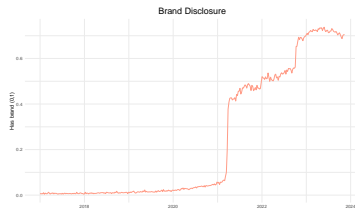
Less interesting:

- Differences in platform utilization between genders

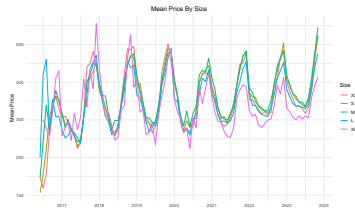
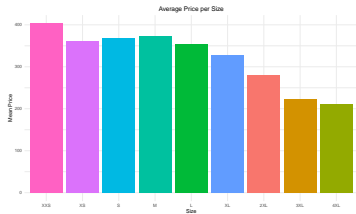
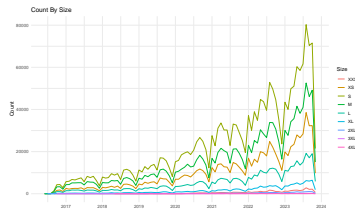
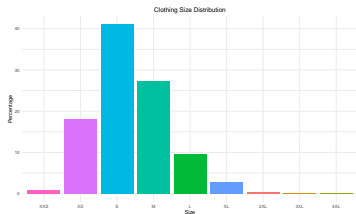
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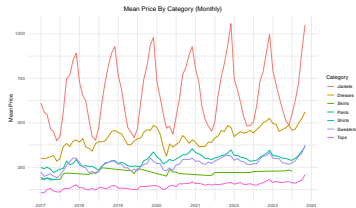
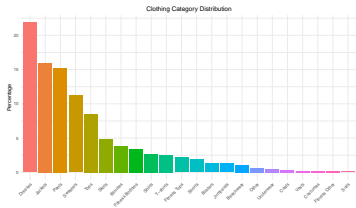
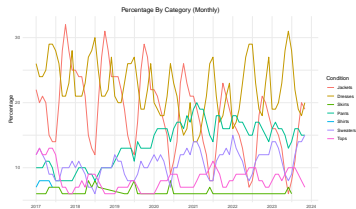
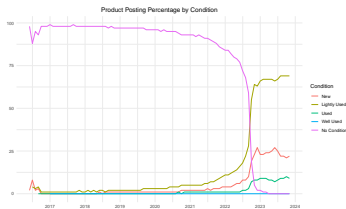
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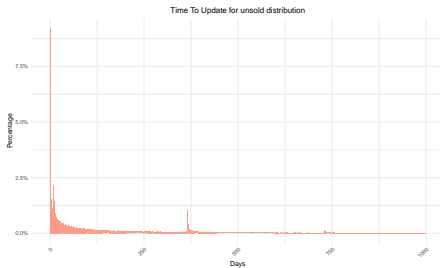
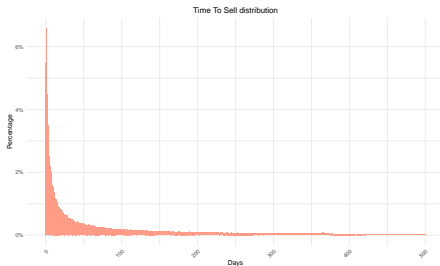
Data Description



Data Description



Data Description



Preliminary Regression model

To estimate the effects on prices:

$$\log(\text{price}) = \theta_i + \gamma_t + \beta_1 \text{person_self} + \beta_2 \mathbf{x}_{it} + \epsilon_{it}$$

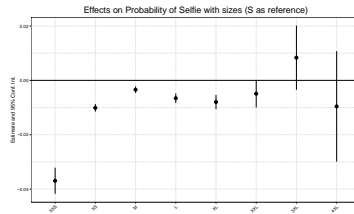
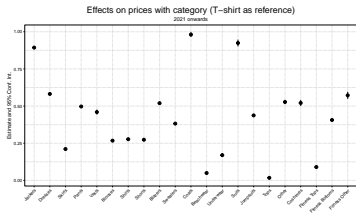
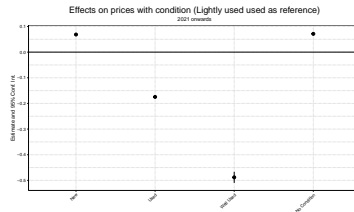
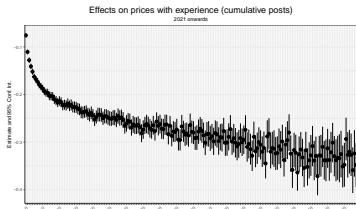
- The model includes the following fixed effects:
 - User Fixed Effects (θ_i)
 - Date Fixed Effects (γ_t)
- The set of controls $\beta \mathbf{x}_{it}$ includes:
 - Cumulative Posts
 - Condition
 - Size
 - Log of Caption Length
 - Category
 - Log of Title Length

Regression Tables: prices

	log(price)	
	Before 2021	After 2021
log(captionLen)	0.3269*** (0.0017)	0.2692*** (0.0010)
log(titleLen)	0.1387*** (0.0020)	0.1447*** (0.0011)
Real Person	0.0536*** (0.0027)	0.0404*** (0.0014)
Brand	✓	✓
Category	✓	✓
Condition	✓	✓
Size	✓	✓
Observations	1,258,209	3,183,197
R ²	0.60215	0.64183
Within R ²	0.20969	0.32883
Date fixed effects	✓	✓
User fixed effects	✓	✓

Regression Plots

Coefplots for control variables for prices



Preliminary Regression model

To estimate the selfie posting behaviour:

$$\text{person_self} = \theta_i + \gamma_t + \beta_1 \log(\text{price}) + \beta_2 \text{"experience"} + \beta_3 \mathbf{x}_{it} + \epsilon_{it}$$

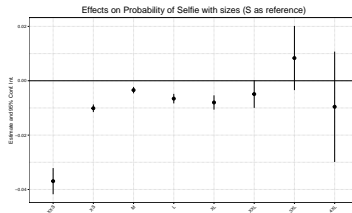
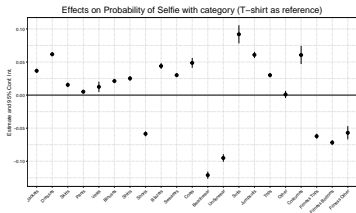
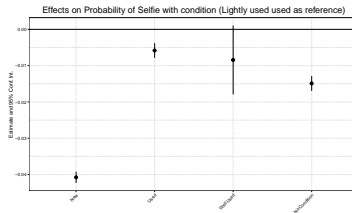
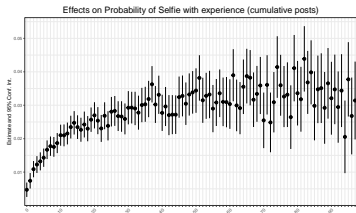
- The model includes the following fixed effects:
 - User Fixed Effects (θ_i)
 - Date Fixed Effects (γ_t)
- The set of controls $\beta \mathbf{x}_{it}$ includes:
 - Size
 - Condition
 - Category
 - Log of Caption Length
 - Log of Title Length
- "Experience" is the number of posts published at the time of posting

Regression Tables: Posting picture behaviour

	person_self
	(1)
log(price)	0.0072*** (0.0004)
log(captionLen)	0.0091*** (0.0004)
log(titleLen)	-0.0134*** (0.0006)
Condition	✓
Category	✓
Size	✓
Observations	3,327,954
R ²	0.34001
Within R ²	0.01282
Date fixed effects	✓
User fixed effects	✓

Regression Plots

Coefplots for control variables for posting yourself in the picture



Some other graphs...

Caption length and prices per size and sold status over time

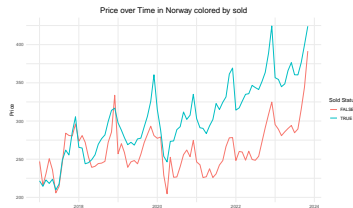
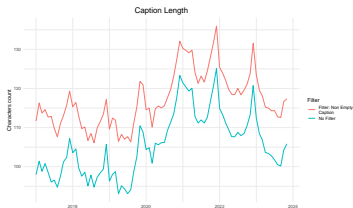


Image posting behaviour

Image posting behaviour over time and sold status

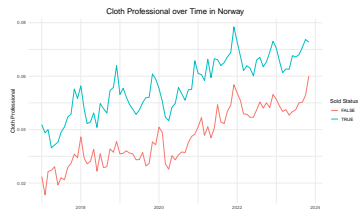
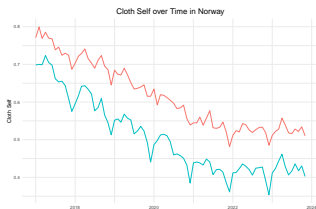
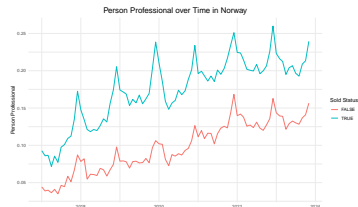
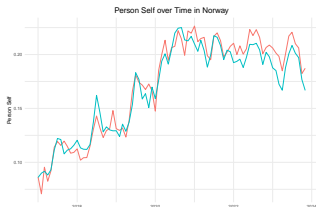


Image posting behaviour

Image posting behaviour over time and price quintile

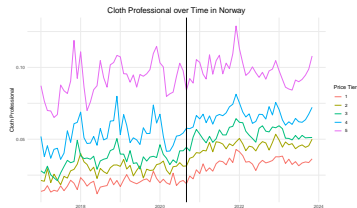
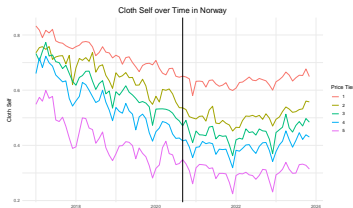
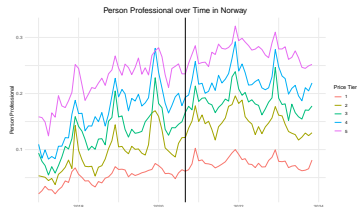
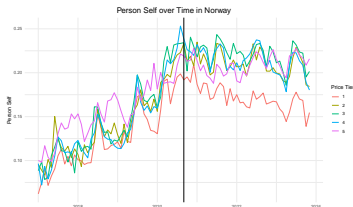
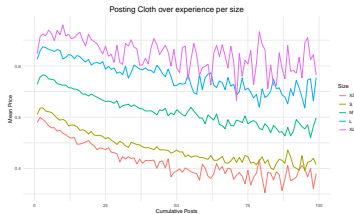
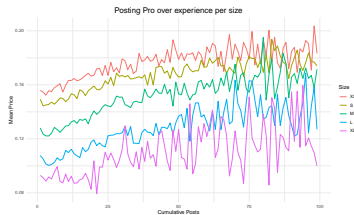
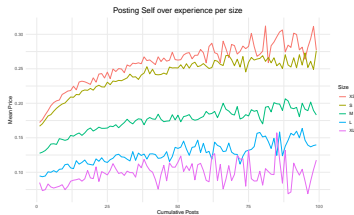


Image posting behaviour



Recap: Descriptive statistics

- The platform is **dominated by female** users and products
- **The platform changes** and introduce compulsory fields **over time**
- **The items size distribution is skewed towards smaller sizes**
- Posting behaviour has a **seasonal component** (categories and prices)

Recap regression prices

- **Posting a selfie increase the price by $\approx 4\%$** after 2021
- Also **increasing** the caption length by 1%, an **effort** signal, increases the price by $\approx 0.30\%$
- Worse condition have lower prices
- “Less competitive” sizes have higher prices

Recap regression selfie

- **A higher price increases the probability of posting a selfie**
- Also **increasing the caption length** by 1%, an effort signal, **increases the probability of posting a selfie** by 1%
- **“Experience”** have a **positive impact on posting a selfie** - up to a point (3%)
- Individuals of **sizes other** than the **most represented** are **less likely** to post themselves.
- **Some categories** are **more sensitive** to posting selfie, for example beachwear

Recap continued

- **Prices** seem to have a **positive impact** on posting behaviour
 - exerting more effort
- Also **sizes** seem to have an impact in the posting behaviour
 - Confidence?
- **“Experience” definitely shapes** some of the picture **posting behaviour**

Potential Research Topics

- **Monetary value of Privacy**
- **Brand value**, how changed the product framing **after introducing search fields?**

Thank you !! 😊