

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

Paris Young Economist Seminar

Luca Rossi ¹

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¹Ph.D. student at University of Ferrara and Parma

Introduction

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

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


tuse [Register/Log in](#)

Filters **27 Sort**




Sponsored

Argyle Slip Knit-M
M - DKK 450




Sponsored


Empire Mid Skirt L
L - DKK 80




Garnis Foreummer 45
Puljakke - NOK 700




Begnjakke
S - NOK 250




Only
Strømpesok - M - NOK 350



Amundsen sports
Marineblå - XS - NOK 1 200




Helt ny
Høst sko - 43 - NOK 1 500




Skinnjakke
Brun altpakke - XS - NOK 180


You may also like




Vintage læderjakke
S - DKK 800




Vintage jeans jakke
S - NOK 500




Kort Jakke
S - NOK 300



Weekday skinnjakke




Skinnjakke



Skinnjakke

villmavendela
Andenes

tuse.com



Brun skinnjakke
SKINNJAKKE
350 kr

♡ + 🗨

Buy

villmavendela Brun skinnjakke fra Sisters Point
Stri XS
~kjøper betaler frakt

PRICE NOK 350	CONDITION Lightly used	SIZE XS
COLOR Brown	BRAND Sisters Point	MATERIAL Leather

DELIVERY OPTIONS
Shipping from NOK 49

Last updated 5 minutes ago

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

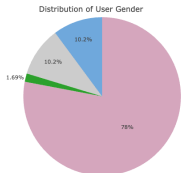
Interesting (to me, at least)

- “Beauty Effect” and privacy concerns in user posting behaviour
- Do second-hand markets/platforms help fast-fashion?
- Brand Value: posting behaviour about brands and brand “Tiers”

Less interesting:

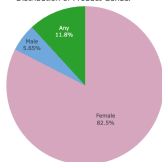
- Differences in platform utilization between genders
- Is second-hand dominated by fast-fashion?

Data Description

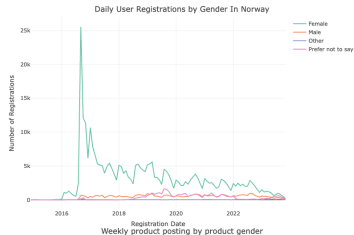


Female Male Prefer not to say Other

Distribution of Product Gender

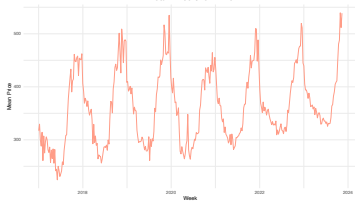


Female Any Male



Data Description

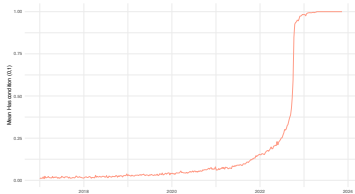
Mean Price over Time



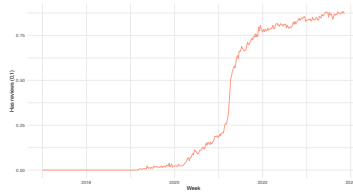
Brand Disclosure



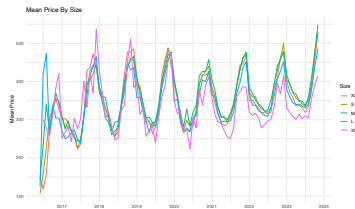
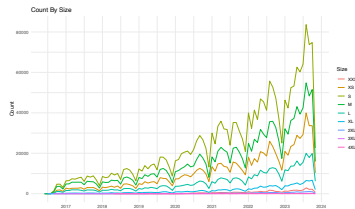
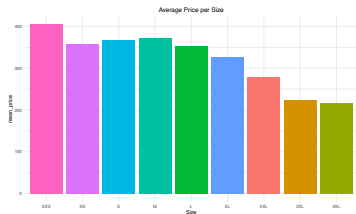
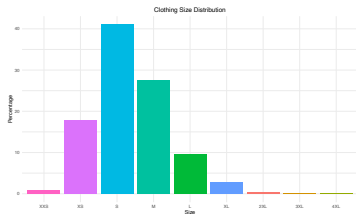
Condition Disclosure



Reviews Expansion
Users reviewed at least once

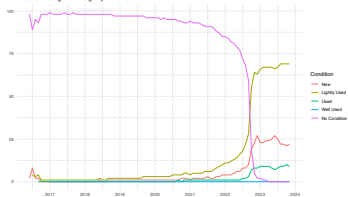


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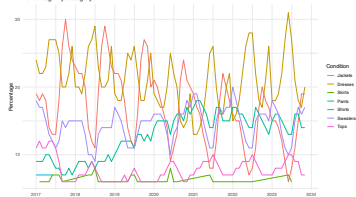


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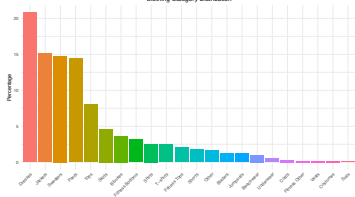
Product Posting Percentage by Condition



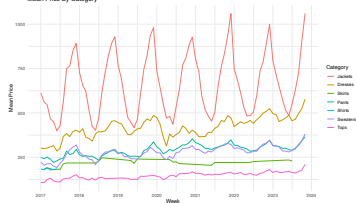
Percentage By Category



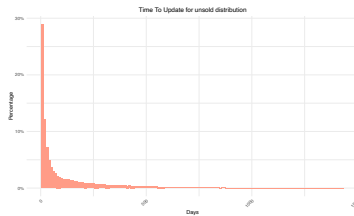
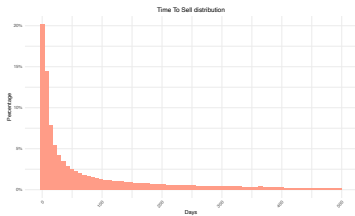
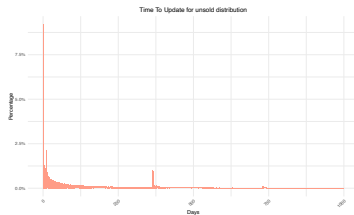
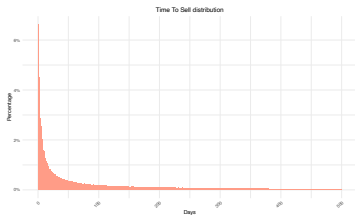
Clothing Category Distribution



Mean Price By Category



Data Description



Preliminary Regression model

To estimate the effects on prices:

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

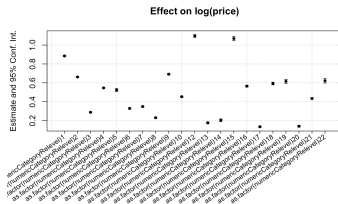
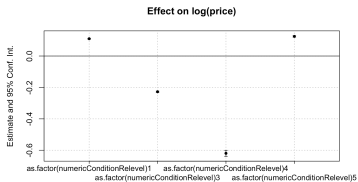
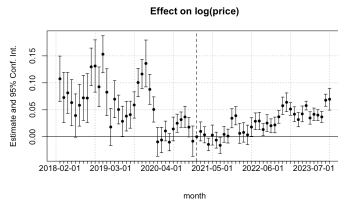
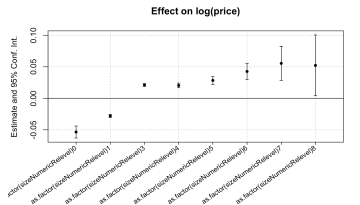
- The set of controls $\beta \chi_{it}$ includes the **User Fixed Effects**, the **Date Fixed Effects** and all the other **controls**.

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)
person_self	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:

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

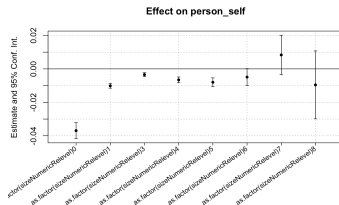
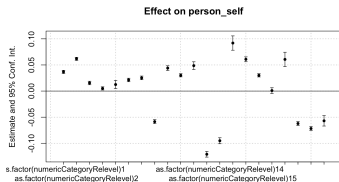
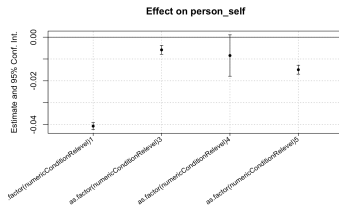
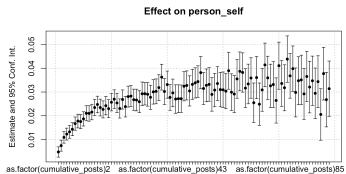
- The set of controls $\beta \chi_{it}$ includes the **User Fixed Effects**, the **Date Fixed Effects** and all the other **controls**.
- Control include:
 - Category
 - Condition
 - Size
- "Experience" is the number of posts published at the time of posting

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

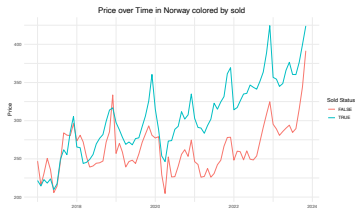
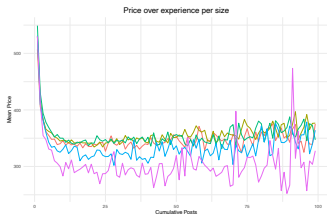
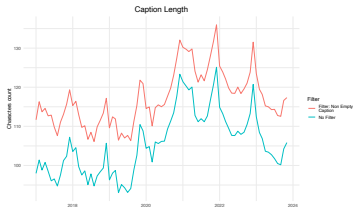


Image posting behaviour

Image posting behaviour over time and sold status

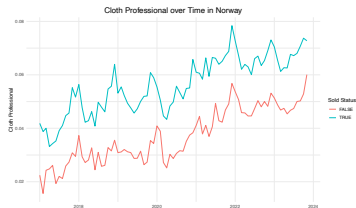
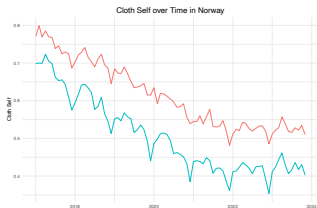
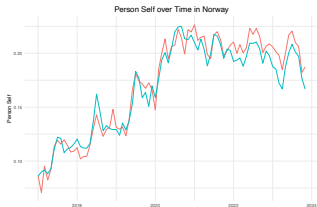


Image posting behaviour

Image posting behaviour over time and price quintile

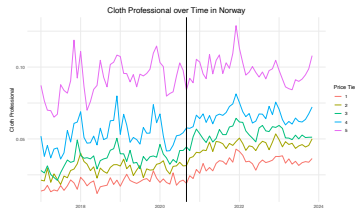
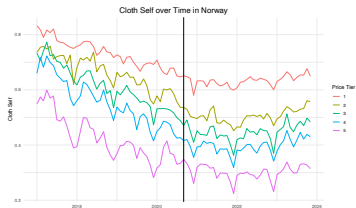
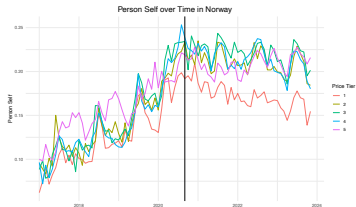
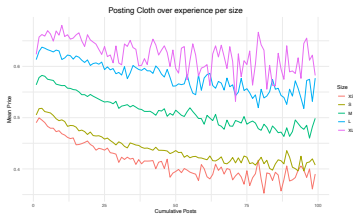
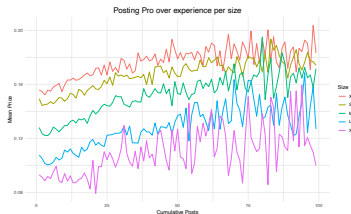
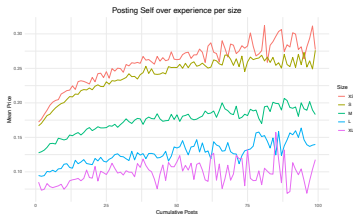


Image posting behaviour

Image posting behaviour over “experience”



The number of cumulative posts is used as “experience”

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 categories and prices are seasonal

Recap continued

Recapping regression prices

- Posting a selfie increase the price by 4% after 2021
- Also increasing the caption length by 1%, an effort signal, increases the price by 26%
- Worse condition have lower prices
- “Less competitive” sizes have higher prices

Recap continued

Recapping regression selfie

- An 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
- Different sizes from the highest represented are less incline to post themselves
- Some categories are more sensitive to posting selfie, for example beachwear

Recap continued

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

Potential Research Questions

- The value of privacy in monetary terms
- Brand value, how changed the product framing after introducing search fields?

Thank you !! 😊