

Spain: E-commerce

One “Click” Does not Fit All

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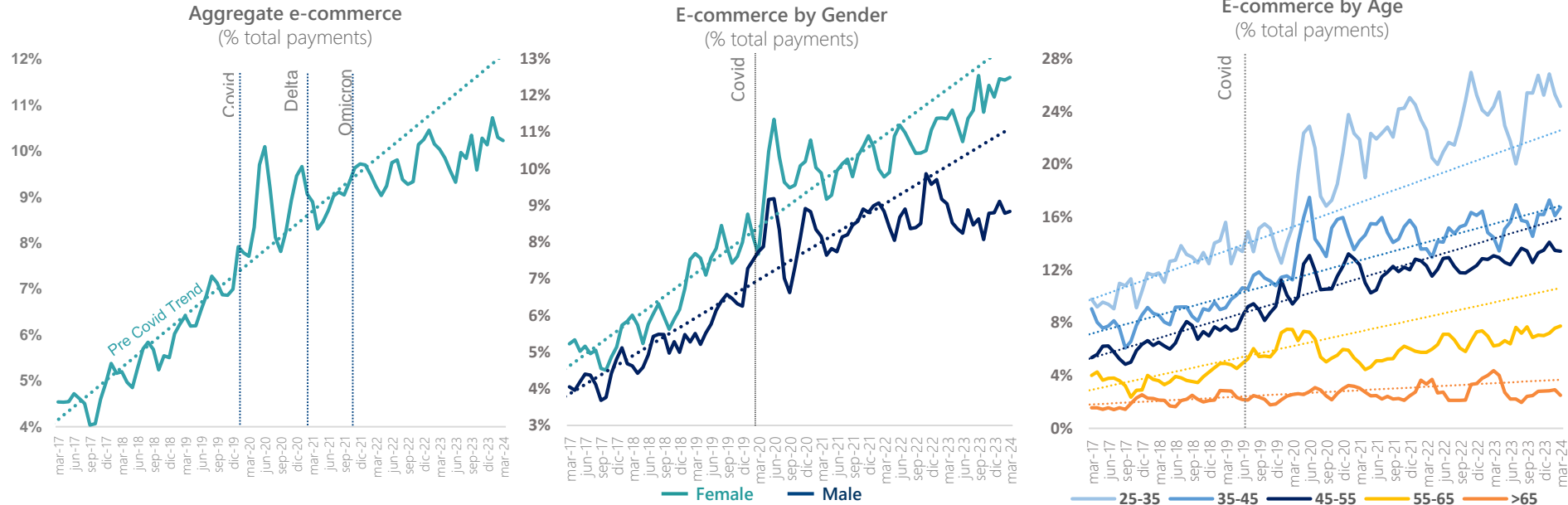
Summary

- The e-commerce secular positive trend remains well alive but the “boost” provided by the “Lockdowns” receded after the restrictions were lifted
- One “Click” Does not Fit all: There is a significant degree of Heterogeneity depending on categories of consumption and demographic characteristics
- Activities with higher presence of “e-commerce” before Covid led also the Post Covid Recovery (Clothing & Footwear, Leisure and Education)
- Basic Goods & Services were boosted by Lockdowns (Food & Beverage, Communications..) but returned to pre-covid trend after restrictions were lifted
- Younger Girls, both rural and urban, in already developed e-commerce activities are leading e-commerce expenditure

E-commerce in Spain: One "Click" does not fit all

Aggregate consumption e-commerce shares in Spain: A secular, but heterogenous trend

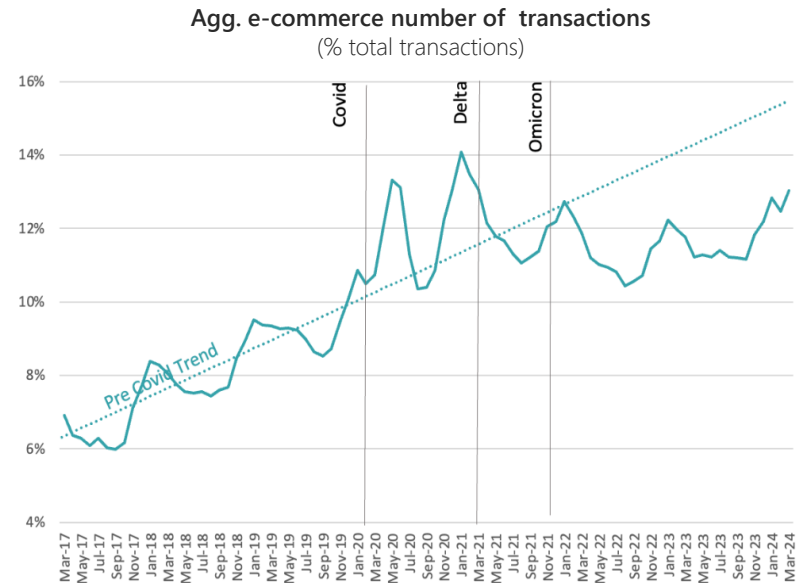
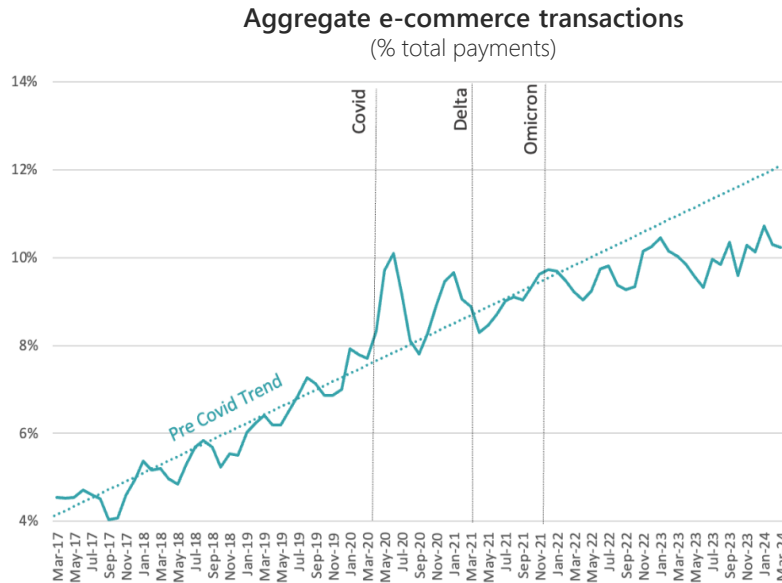
(E-commerce share, as a percentage of total payments. Moving average 3 months)



The secular positive trend boosted by Lockdowns but "back to normal" after the lift of restrictions

Aggregate consumption e-commerce in Spain: Back to normal after Pandemic waves

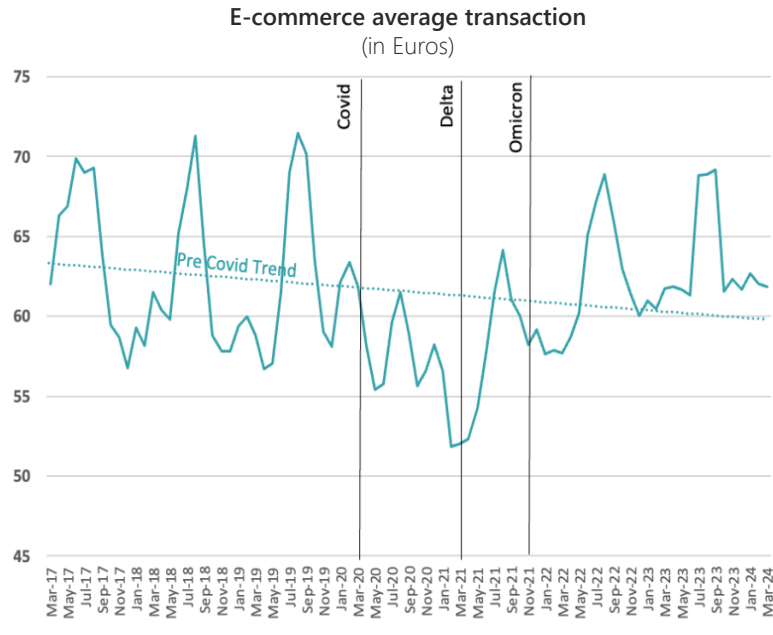
(E-commerce money and number of transactions share, as a percentage of total. Moving average 3 months)



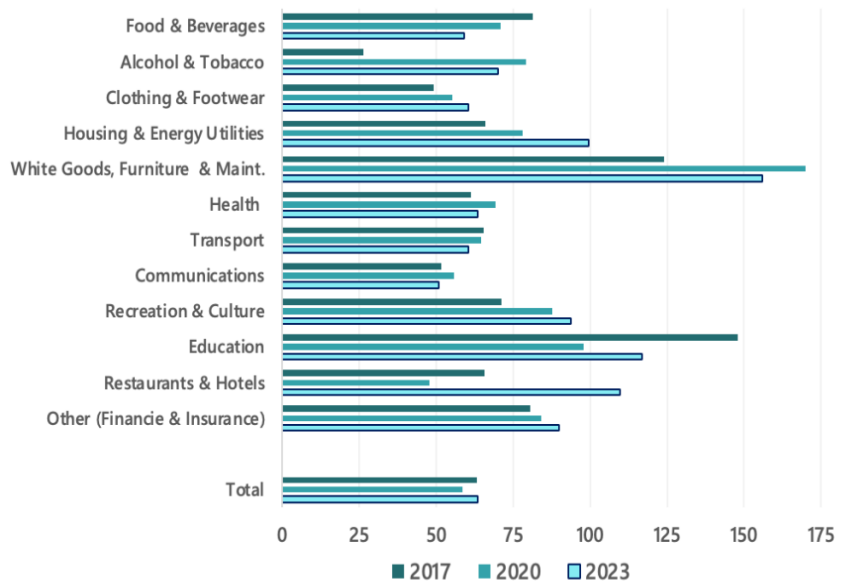
The average ticket recovered after receding during the Covid. Still, some Heterogeneity in the amounts of spending by category remains

E-Commerce: Total & Categories of Consumption average amount by transaction

(In euros)



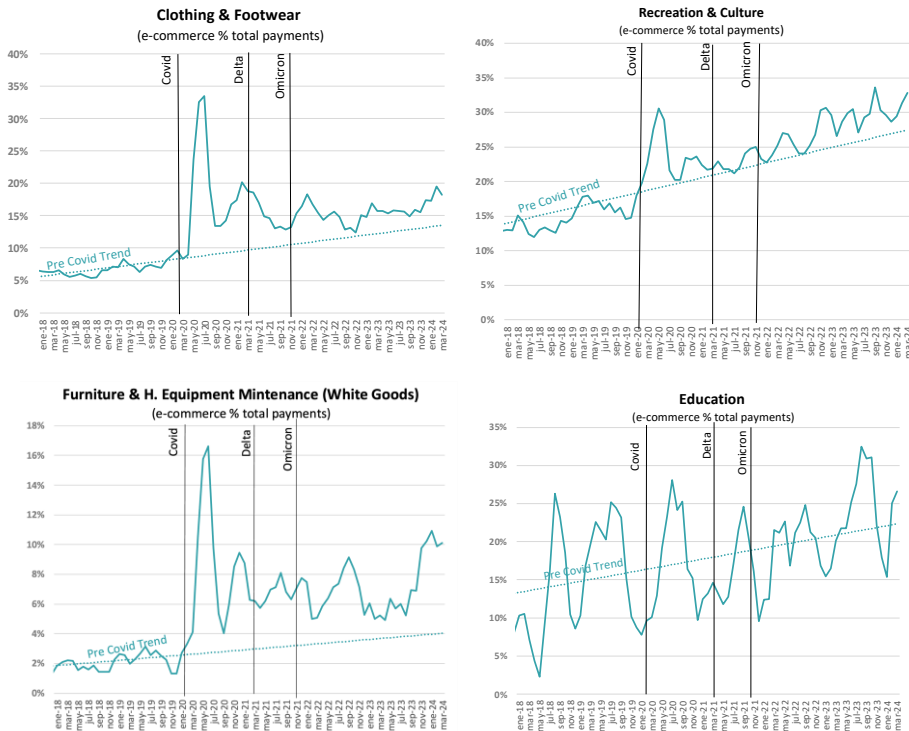
E-commerce average expenditure by Category (in Euros)



Consumption categories well developed before Covid (Clothing and Leisure) accelerated above pre-Covid positive trends

E-Commerce share by Categories of Consumption

(e-commerce in % of Total Expenditure)

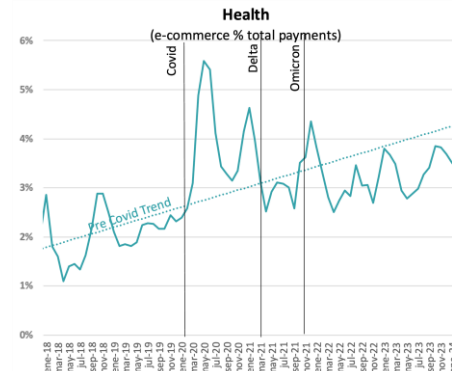
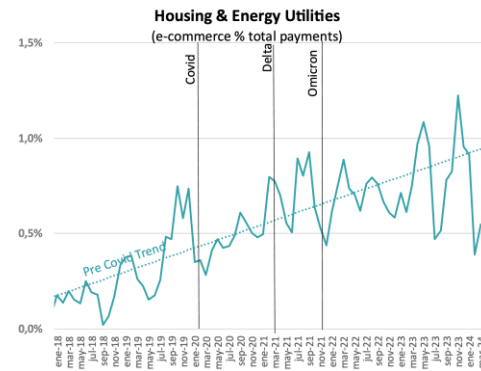
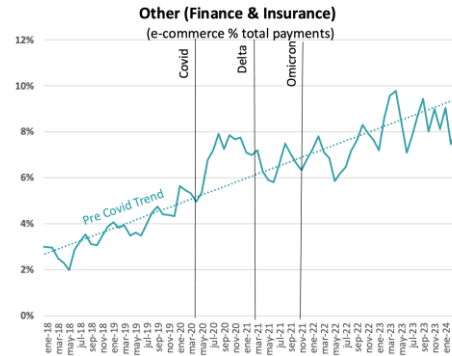
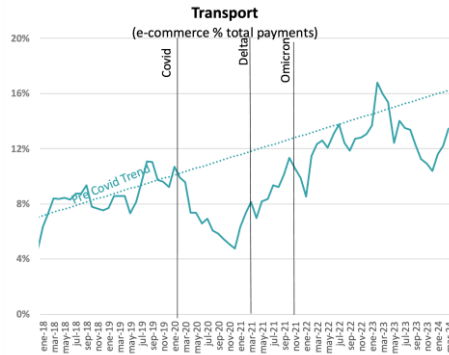


- Some activities experienced a Permanent "boost" on e-commerce as Clothing & Footwear and Recreation and culture...
- ... restrictions on mobility and work from home triggered a rising and accelerating trends on e-commerce in Furniture & Maintenance & in Education

In many activities as Transport, Finance & Insurance and Health the positive secular trend is well alive

E-Commerce share by Categories of Consumption

(e-commerce in % of Total Expenditure)

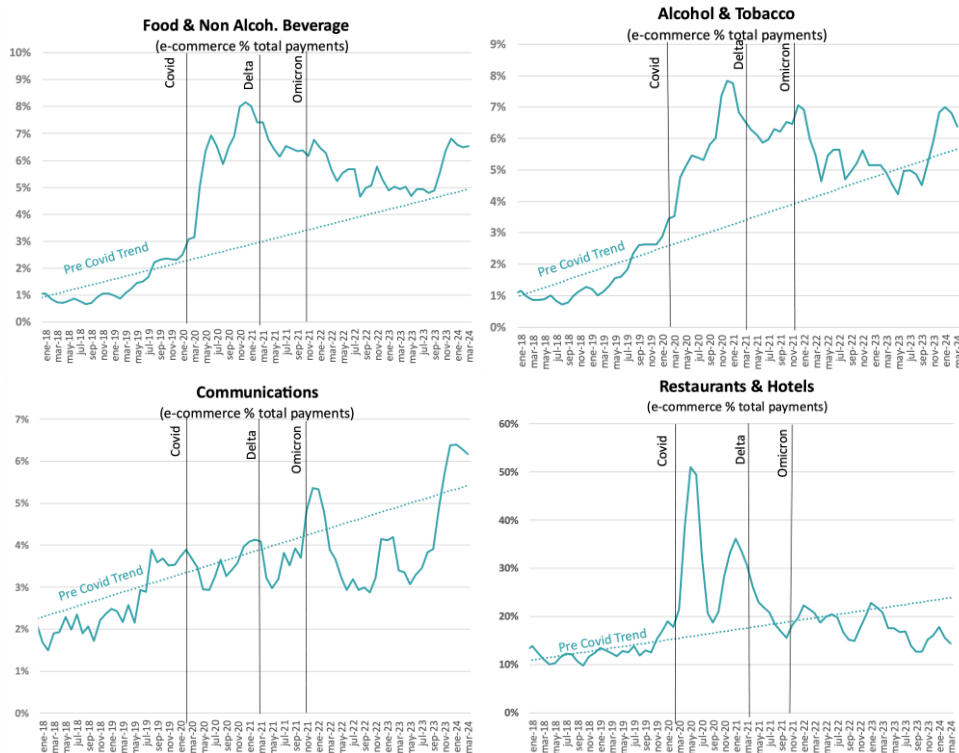


- The pre-covid positive trend remains well alive in Transport and other expenditures (i.e. Finance & insurance)
- ... Housing and Energy Utilities maintained the pre-covid trend while Health returned to trend after the boost during Covid

Consumption of Basic Goods & Services (Food & Beverages, Restaurants & Hotels) back to normal positive trend after the Covid temporary boosts

E-Commerce share by Categories of Consumption

(e-commerce in % of Total Expenditure)

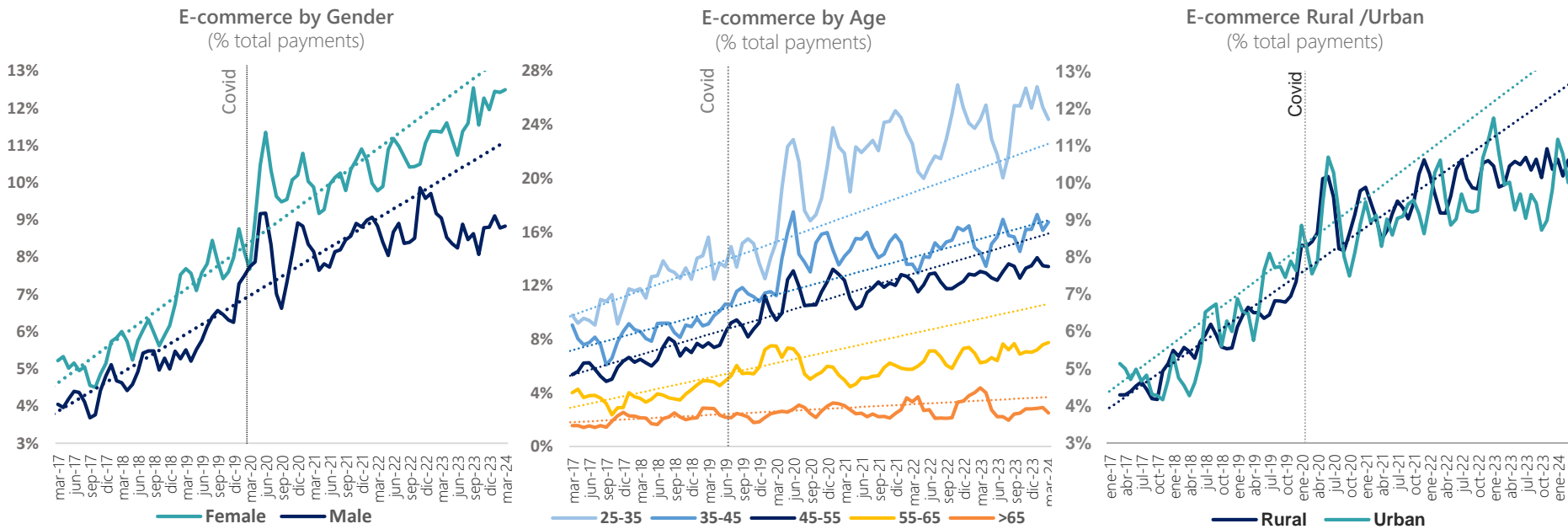


- First Needs as Food & Beverages were temporarily boosted but vanished with the end of Covid restrictions returning to levels slightly above pre-Covid trend
- ... Communications recover the pre covid trend while Restaurants & Hotels remains at similar pre covid share

Young Girls both Urban and rural lead e-commerce expenditure in Spain

E-commerce shares in Spain: Gender, Geography and Age differences

(E-commerce share, as a percentage of total payments. Moving average 3 months)



Source: Mishra, Ortiz, Rodrigo, Spilimbergo & Vázquez (2024) "E-commerce during Covid in Spain: One "Click" does not fit All" CEPR DP 19004

Econometric Results: Younger and already active on-line activities outperform

$$(1) os_{i,r,s,t} = Male_i + Urban_i + Age_i + \overline{os}_{s,2019} + Lockdown_{r,t} + \alpha_s + \beta_r + \gamma_t + \delta_i + \varepsilon_{i,r,s,t}$$

Table 1. Online spending shares, macroeconomic characteristics, and pandemic restrictions

VARIABLES	Online spending % (amount)								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Male = 1	-0.0079* (0.004)	-0.0100** (0.004)	-0.0074 (0.005)	-0.0094* (0.005)		-0.0126*** (0.004)		0.0882*** (0.033)	
Urban = 1	-0.0049 (0.005)	-0.0007 (0.006)	-0.0081 (0.006)	-0.0039 (0.006)		0.0012 (0.006)		0.0277 (0.040)	
Age	-0.0020*** (0.000)	-0.0022*** (0.000)	-0.0024*** (0.000)	-0.0025*** (0.000)					
Young (Dummy if Age < percentile 25) = 1						0.0481*** (0.006)		-0.031 (0.043)	
Avg. sector online share pre-pandemic	1.0526*** (0.032)		1.1337*** (0.035)						
Pandemic = 1 (March 2020 onwards)	0.0185*** (0.002)								
Mobility Restriction (Residential)			0.0018*** (0.000)	0.0023*** (0.001)	0.0021*** (0.001)			0.0020*** (0.001)	0.0019*** (0.001)
Pandemic*Male						-0.0004 (0.000)	0.0002 (0.003)		
Pandemic*Urban						-0.0047 (0.004)	-0.0038 (0.004)		
Pandemic*Young						0.0098** (0.004)	0.0104** (0.004)		
Pandemic* Avg. sector online share pre-pandemic						0.1519*** (0.024)	0.1582*** (0.024)		
Male*Mobility Restriction (Residential)								-0.0010*** (0.000)	-0.0012*** (0.000)
Urban*Mobility Restriction (Residential)								-0.0003 (0.000)	0.0001 (0.000)
Young*Mobility Restriction (Residential)								0.0009** (0.000)	0.0012*** (0.000)
Mobility* Avg. sector online share pre-pandemic								0.0076*** (0.002)	0.0070*** (0.002)
Observations	473,315	473,315	225,214	225,214	225,214	473,315	473,315	225,214	225,214
R-squared	0.150	0.162	0.161	0.176	0.262	0.163	0.166	0.237	0.263
Sector FE	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Province FE	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Client FE	No	No	No	Yes	No	Yes	No	Yes	No
Sample	Client FE	Client FE	Client FE	Client FE	Client FE	All	All	All	All
Standard Errors	Cluster at client	Cluster at client	Cluster at client	Cluster at client	Cluster at client	Cluster at client	Cluster at client	Cluster at client	Cluster at client
Period	2017m1 to 2022m12	2017m1 to 2022m12	2020m2 to 2022m12	2020m2 to 2022m12	2020m2 to 2022m12	2017m1 to 2022m12	2017m1 to 2022m12	2020m2 to 2022m12	2020m2 to 2022m12
No. Clients	1000	1000	1000	1000	1000	1000	1000	1000	1000
No. Provinces	51	51	51	51	51	51	51	51	51
No. Categories	19	19	19	19	19	19	19	19	19
No. Months	72	72	33	33	33	72	72	33	33
Average Dep. Var.	0.0783	0.0783	0.0880	0.0880	0.0880	0.0783	0.0783	0.0880	0.0880
Average Pandemic Var.	0.493	0.493	105.6	105.6	105.6	0.493	0.493	105.6	105.6
Average Male	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526	0.526
Average Urban	0.203	0.203	0.204	0.204	0.204	0.203	0.203	0.204	0.204
Average Age	55.51	55.51	55.39	55.39	55.39	55.51	55.51	55.39	55.39
Average Cash % of amount	0.182	0.182	0.158	0.158	0.158	0.182	0.182	0.158	0.158

- We estimate a panel data model of online Share as a function of Gender, urban-rural, online share before the covid and lockdowns including fixed effects on sector, region, time, and individual
- Women and young spend more than man and older individuals. Those activities with already high shares before the covid accelerated the most. No significant difference on e-commerce evolution of urban and rural areas

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