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Pandemic buying: Covid-19 and purchasing behaviour of French households

Thierry Lorey* Mazhar Mughal† Rashid Javed‡

Abstract

In this study, we use comprehensive French consumer data from the Nielsen ScanTrack retailer panel to analyse the progression of purchasing trends of French households during the coronavirus outbreak. Our results are threefold: First, we observe three temporal phases, namely the normal (pre-Covid-19) period, the anticipation period, and the lockdown period. During the three weeks of anticipation (24 February – 15 March), sales of basic and cleaning products increased by 17%. The first week of the preventive lockdown saw panic buying with sales jumping by 30%, followed by a more subdued growth during the subsequent weeks of the lockdown. We found these time trends to be similar to those observed in Italy and Spain. Second, sales of the hypermarkets fell by 6% during the lockdown, while those of supermarkets and convenience stores rose by 13% and 28% respectively. Online sales through drive stores (80%) and home delivery (93%) showed the highest growth. Covid-19 appears to have accentuated the joint evolution of two major phenomena: strong development of E-commerce, and the desire of the households to visit small shops close to their homes. Third, in terms of product categories, we observe an increase in basic, easy-to-store food products, an increasing consumption of fresh, local & organic products, a significant increase in the purchase of basic hygiene products, and a decline in the purchase of cosmetics. In the latter case, Covid-19 seems to have accentuated a fundamental trend in household purchases in France: "eat local".

Keywords: Covid-19; lockdown; purchasing behaviour; France, Italy, Spain.

JEL codes: D14; E00; G51; I10.

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1. Introduction

The Covid-19 pandemic has impacted the economic lives of the people like no other crisis in living memory. From employment and income to household savings and consumption, all aspects of human economic activity have been drastically affected. In this study, we aim to analyse the impact of Covid-19 on the purchasing behaviour of French households. The study has three objectives. First, we use comprehensive French consumer data from the Nielsen ScanTrack retailer panel to analyse the progression of purchasing trends of French households during the coronavirus outbreak. We examine the changes in weekly sales relative to those observed in 2019 and compare them with trends in corresponding Italian and Spanish data. In addition to identifying salient trends in aggregate data, we explore changing trends in the turnover of French retail sector. In addition, we analyze the sales of various product categories during the preventive lockdown.

France is one of Europe's worst hit countries with over a hundred thousand reported Covid-19 fatalities¹. The country reported its first case of the infection on 24 January 2020, and its first confirmed fatality on 14th February 2020. This was the first reported death due to the novel coronavirus outside Asia. Initially, the spread of the virus in France was slow with only 12 positive cases reported within one month of the onset of the pandemic. The spread of the outbreak turned exponential in the month of March, and by the time the French government decided to enter preventive lockdown on 17th March 2020, there were already 6,633 confirmed coronavirus cases and 148 deaths reported in the country. On 11th May when gradual lifting of the first lockdown began, there were a total of 138,854 coronavirus cases and 26,310 related deaths. Figure 1 shows total coronavirus cases in France (panel 1) and total deaths (panel 2) with the red line splitting the pre-lockdown and lockdown periods.

[Figure 1]

For our research, we employ weekly mean sales from January 1, 2020, to 26 April 2020. The variables analyzed correspond to purchases by French households, translated into changes in sales based on a comparison between the year 2020 and 2019. For

¹European Centre for Disease Prevention and Control updated 9th April 2022, <https://www.ecdc.europa.eu/en/geographical-distribution-2019-ncov-cases>

comparison with Spain and Italy, we obtained data from mid-February up to end April 2020.

Our study makes a number of contributions to the literature:

First, unlike most of the literature on the topic which is based on partial or sector-specific data, we base our analysis on a comprehensive, representative dataset of retail sales which covers nearly all of the 29.2 million French households in the first half of 2020. Data from the Nielsen ScanTrack retailer panel used in the study are drawn from on- and off-line stores resulting from the collaboration with all French retailers. Nielsen receives on a daily basis nearly all the transactions from buying households that take place in hypermarkets, supermarkets, convenience stores, hard-discounters, drive-in collection points and home delivery including Amazon and Cdiscount. This represents approximately 16,000 points of sale in France, i.e. more than 98.5% of the total turnover of the distribution universe in France.

Second, some studies on consumer behaviour during the Covid-19 outbreak describe changes in consumer preferences that have taken place during the lockdowns (see for instance, (Andersen et al. 2020; Baker et al. 2020; Fanelli 2021; Laguna et al. 2020; Martin-Neuninger and Ruby 2020; Sorrentino et al. 2022)). However, these studies do not point to the three distinct purchasing patterns that we identify in this analysis.

Third, studies such as Hall et al. (2020), Hashem (2020), Martin- Neuninger and Ruby (2020) focus on one or more distribution channels to examine changing consumer behaviour during the Covid-19 outbreak. To our knowledge, these studies have not highlighted the joint evolution of household purchases for the different distribution channels. In this study, we compared the changes in consumer preferences for these channels and highlight the increasing role of online shopping in France. In addition, we point to the gain in significance of the convenience stores.

Finally, although studies such as de Paulo Farias and de Araújo (2020), Fanelli (2021), Laguna et al. (2020), Nicola et al. (2020) and Yu et al. (2020) analyse the demand for food and resulting price changes in various countries, as far as we know, these studies do not analyse and compare the evolution of household food and non-food purchases during the Covid-19 pandemic. Besides comparing changing purchasing patterns of

various product categories, we underscore the gains local and organic food products made during the first lockdown.

2. Brief review of relevant literature

The literature review on the impact of Covid-19 on household purchases can be divided into three parts: time analysis of household purchases, change in preference for distribution channels, and change in goods basket. In the following, we briefly discuss literature on the three aspects.

2.1 Time analysis of household purchases

Some studies describe the changes in consumption habits before and during the preventive lockdowns. For example, Andersen et al. (2020) analyze transaction data from large banks in Scandinavia and show that consumers spending dropped by 29% in Denmark and 25% in Sweden as a result of the lockdown.

Using household financial data, Baker et al. (2020) explore how households consumption responds to epidemics, and identify two temporal phases. During a first step, households increase their spending for example on food items, before decreasing their overall spending in the second step. In another study, Martin-Neuninger and Ruby (2020) analyse the consequences of the lockdown on consumer grocery purchasing habits in New Zealand. They show that before the lockdown, during what we will call the “anticipation period”, many households began to panic buy, and stock-pile products like food and gloves. This panic buying can be expected during periods of fear and uncertainty. It was reinforced by the spread of misinformation on the internet. Panic buying causes shortage of many basic products in mass markets.

2.2 Change in Preference for distribution channels (pre-lockdown vs lockdown)

Taking the case of the service sector in New Zealand, Hall et al. (2020) provide evidence for spatial displacement of consumption based on consumer spending patterns. Furthermore, they highlight the link between increased spending in some consumption categories and stockpiling behaviours.

Martin- Neuninger and Ruby (2020) show that supermarkets in New Zealand implemented measures during the lockdown that can have an impact on household consumption behaviour. These include: (a) reducing the opening hours to reduce

panic buying ; (b) maintaining distance between customers and staff ; (c) allowing the entrance of the supermarket on a “ one in, one out” basis; (d) advising their customer to pay on a contactless way; (e) demanding customers to follow floor signage to the supermarket. Some of these measures were also implemented by supermarkets in France, such as the largest supermarket chain in France “Intermarché”. These measures have had potential implications on the shopping process, for example less interactions with retail staff and shorter decision-making process due to time constraints. This new purchasing process may have caused changes in the nature and price of the products (basic vs valorized) purchased by French households, and their frequentation of alternative distribution channels. According to Hashem (2020), the COVID19 pandemic managed to change customer behaviour towards greater dependence on online shopping and e-payment methods. This tendency of households to use E-commerce in the event of a pandemic crisis is not new. Indeed, the demand for online shopping is reported also to have increased during the SARS epidemic in 2002-2004 (Kee and Wan, 2004).

2.3 Change in goods basket and income shock

Extant literature examines factors that could affect consumer preferences for food products. Nicola et al. (2020), for example, identify panic buying and stockpiling of food to be causing high demand. Yu et al. (2020) find that in China, the Covid-19 pandemic had no significant impact on rice and wheat flour prices, i.e. basic necessities. However, de Paulo Farias and de Araújo (2020) show that food prices in Brazil depend on the regions and the period in which the food products were traded.

The pandemic can also represent an income shock for households. Different researchers showed that the Covid- 19 pandemic resulted in job losses (Mcdowell et al. 2020), part-time work (Dias et al. 2020), and therefore less disposable income for everyday purchases.

Griffith et al. (2016) showed that in response to economic shocks, households can adjust their shopping behavior: they reduce their real food expenditure, but maintain the number of calories that they purchased, and the nutritional quality of these calories. Specifically, Gicheva et al (2010) investigated Income Effects in Scanner data: they found that the quantity weighted price paid for products decreases when gasoline prices increase: “consumers are able to save money on groceries by shifting

purchases toward promotional items". These changes in household consumption patterns can sometimes have beneficial effects on health: Ruhm (2000) show that health indicators can be better during a period of economic recession than during a period of economic development, which constitutes a paradox.

3. Analysis of consumption trends

Now we explore the three aspects of changes in French consumer behaviour observed during the lockdown period discussed in the literature review, namely the temporal aspect, the spatial aspect and the product category aspect.

3.1 Change in purchasing trends over time

We begin by comparing the purchasing trends of French consumers during 2019 and 2020. Figure 2 shows week-wise percentage change in the amount of total sales. Three periods can be clearly identified:

The first period corresponds to the first eight weeks of the year (1 January – 23 February, week 1 to week 8), and is characterized by normal consumption. Although some cases of coronavirus had been reported in France, the situation had yet not taken an alarming turn. During this period, total sales showed a steady progression of 1 to 2 percent.

[Figure 2]

The second period could be termed Anticipation time. It corresponds to three weeks (24 February – 15 March, Week 9 to week 11). By then, Covid-19 had begun to badly affect the country and the number of cases had begun to rise exponentially. In order to reduce the risk of catching or transmitting the virus, consumers increased their purchase of cleaning and hygiene products (e.g. disinfectants, floor cleaners, tissue papers). In view of the lockdown which was seeming increasingly likely, consumers also began to stock food. Compared to the same period last year, the sales of basic food products (e.g. pasta, rice, canned vegetables, milk, eggs, delicatessens) significantly increased.

Together, the sales of these two categories of products (cleaning products and food) increased by 17.6% during this period with 6, 10 and 38% increase witnessed during the first, second and third weeks of the period respectively (Figure 5).

The third period, that began on 16 March (week 12 to week 17), corresponds to the lockdown period. The first week (16 – 22 March) saw panic buying with sales jumping by 30%. The rise in consumption slowed in the second (+6%) and third week (+7%) and subsequently plateaued out, averaging 9.4% during the six weeks ending on 26 April.

These trends are largely comparable to those seen in Italy and Spain, two of the countries in the European Union that have been most affected by the Covid-19 pandemic. The three neighbours (Italy, France and Spain) suffered high numbers of reported deaths (35,123 fatalities in Italy, 30,223 fatalities in France and 28,436 fatalities in Spain)².

The three countries entered the lockdown phase at about the same time: (with one week of one another). On 9 March 2020, Italy's President of Ministerial Council Giuseppe Conte announced lockdown beginning from the next day, while Pedro Sánchez, the head of the Spanish government, announced the same on 15th March.

[Figure 3]

The pattern of three purchasing periods observed for France can also be seen in the case of Italy and Spain (Figure 3). During the initial period (weeks 6 and 7)³, sales showed a steady increase (3% in Italy, 4% in Spain). This evolution is similar to the one observed in France. The next period (week 8,9,10) saw a double-digit anticipatory increase in sales in Italy. Sales respectively grew by 11, 18 and 15% during the three weeks. This growth in purchases in Italy is somewhat higher than that observed in France, because Italy was the first European country affected by Covid, and the first to take drastic measures. The increase in Spain during this period was a more gradual 8%.

During the first week of lockdown (week 11), sales in both countries exploded (+28% in Italy, +78% in Spain). Afterwards, the rate of increased slowed down but the growth remained in the double-digits. This purchasing growth seen in the two countries during the lockdown is somewhat higher than that observed in France.

² European Centre for Disease Prevention and Control updated 29th July 2020, <https://www.ecdc.europa.eu/en/geographical-distribution-2019-ncov-cases>

³ Data for the first five weeks are not available.

3.2 Change in preference for distribution channels

France's retail market scene has traditionally been dominated by hypermarkets⁴, supermarkets⁵ and hard discount stores⁶, respectively corresponding to 40, 33.6 and 12% of market share since 2015. The three collectively account for 86% of the sales turnover. In contrast, convenience stores and e-commerce hold small shares of the retail market, even though that of the latter is increasing⁷.

[Figure 4]

Figure 4 shows percentage change in sales of the five distribution channels before (1 January – 15 March 2020) and during the lockdown (16 March – 26 April 2020) with respect to sales in the corresponding periods in 2019.

Three trends could be discerned:

- 1) The turnover of hypermarkets fell by 6% during the lockdown. Hypermarkets are usually situated in the outskirts of urban centres where hundreds of thousands of consumers shop every day. In order to maintain social distancing, only a limited number of customers were allowed to enter at a time after waiting for their turn outside. The resulting inconvenience accompanied by the desire to avoid physical proximity may have contributed to customers reducing their purchases from hypermarkets.

However, this observation can be challenged on two grounds: (1) The waiting lines and limited entrances existed for both hypermarkets and supermarkets; (2) The travelling and administrative restrictions. Starting at noon on March 17 2020, the

⁴ A hypermarket is a self-service retail store deriving more than one-third of its sales from food and having a sales floor area of 2,500 m² or more. The average surface area of a hypermarket in France is 5,300 m², which is three times less than the average surface area of a Wal-Mart Supercenter (18,300m²) in the U.S.A.

Source: <https://www.insee.fr/en/metadonnees/definition/c1825>

⁵ A supermarket is an establishment for self-service retail sales with more than two thirds of its turnover in foodstuffs, and a sales area of between 400 and 2,500 m². source: <https://www.insee.fr/en/metadonnees/definition/c1449>

⁶ A hard discount store is an outlet for the sale of foodstuffs on a self-service basis, under a specific ensign, and with a surface area of 400 to 800 m². The product mix on sale is restricted to commodities. Source : <https://www.insee.fr/en/metadonnees/definition/c1699>

⁷ (Source: Nielsen Scantrack, 26th April 2020).

French government implemented a series of travel restrictions⁸. People were required to remain at home, except to run errands, make business trips, travel for health reasons, for family emergencies, or to perform individual physical activity near home. In addition, for all of these reasons (including "shopping"), individuals who were found away from home must present the law enforcement agents a waiver certification justifying the need to travel. These administrative justification undoubtedly discouraged consumers from making trips to hypermarkets far from home.

- 2) Conversely, sales of supermarkets and convenience stores increased during the lockdown. The former grew by 13% and the latter a more spectacular 28%. The two types of stores are smaller and usually located within the urban areas. Hard discount stores, which sell a small range of products at lower prices also benefited from the trend with an increase of turnover of 7% during the period. This can also be explained by an anticipation of lower incomes and income shock (Griffith et al. 2016), due to the expected increase in unemployment in the second and third quarter of 2020⁹.

The most notable trend during the lockdown, however, was the increase in online shopping which grew by 81%. Online sales through both drive stores (80%) and home delivery (93%) grew substantially. These Drive stores hold significant weight in the French distribution: there were 4,162 Drive stores in France in 2020 compared to 2,257 Hypermarkets. 87% of Drive stores in France are attached to a physical store¹⁰. According to the consulting firm Food Service Vision, home meal delivery has grown 47% over 2 years (2018- 2020), with a turnover of 5 billion euros in 2020¹¹.

⁸ www.vie-publique.fr, Republique française, 24 mars 2020. Entry into force of the state of health emergency (Entrée en vigueur de l'état d'urgence sanitaire).

⁹ <https://www.insee.fr/fr/statistiques/4930129>, In the third quarter of 2020, the unemployment rate rebounded sharply to 9.0% (Au troisième trimestre 2020, le taux de chômage rebondit fortement et atteint 9,0%).

¹⁰ <https://www.lsa-conso.fr>, French professional magazine specialized in distribution, Drive expansion in 2020 continues («La folle année du drive se poursuit»).

¹¹ <https://www.latribune.fr/entreprises-finance/services/distribution/livraison-de-repas-la-nouvelle-folie-des-citadins-francais-898932.html>. La Tribune, French business magazine, Meal delivery: the new craze of French city dwellers.

Besides, there was a 24% increase in restaurant delivery users compared to pre-pandemic times¹².

Online shopping was doing well even before that with an increase of 39% observed during the pre-lockdown period. Figure 5 below highlights two phenomena: (1) The value market share of E-Commerce grew slightly during the years 2017- 2019; therefore, this positive development already existed. (2) This value market share increased significantly under the impact of Covid-19, reaching 9.9% of the value market share.

[Figure 5]

The respective performance of the five categories of retail stores during the lockdown has helped accelerate the long-term trends observed in France: greater reliance on online shopping and loss of market share by hypermarkets concomitant with increasing share of supermarkets and convenience stores. People are driving less for their grocery and are increasingly buying from nearby stores at the cost of product variety. Indeed, during the lockdown period, there was an increased focus on the purchase of essential products that are easy to store, e.g. frozen, fresh and grocery products (see Section 3.3).

The trends observed in Italy and Spain were somewhat similar. According to European E-commerce report (2021), during the first two months of the pandemic, Italian consumers who bought online grew by 2 million. In Spain, the share of fresh produce grew from a low 2% of e-commerce before the pandemic to 3.5% afterwards.

3.3 Change in the goods basket

The basket of goods that French consumers buy also underwent significant change during the lockdown (Figure 6).

- 1) The sale of food items that could be stored easily increased substantially. The sale of salty and sweet frozen products grew by 34 and 28% respectively, that of salty grocery (e.g. pasta, rice and kitchen items) by 23% and sweets and cake products by 7%. This reflects a generalized trend of stocking food items borne

¹²[https://www.statista.com/statistics/1176841/restaurant-delivery-user-growth-during-covid-in-europe-by-country/#:~:text=As%20the%20coronavirus%20\(COVID%2D19,compared%20to%20pre%2Dpandemic%20times.](https://www.statista.com/statistics/1176841/restaurant-delivery-user-growth-during-covid-in-europe-by-country/#:~:text=As%20the%20coronavirus%20(COVID%2D19,compared%20to%20pre%2Dpandemic%20times.)

out of uncertainty about the length of lockdown and worries about food shortages. This change in food purchasing was likely also reinforced by the closure of bars and restaurants between March 15 and May 28, 2020¹³. Going to restaurant is deeply rooted in the French culture, with 65% of the population estimated to go to a restaurant at least once a month in 2019¹⁴. Traditional out-of-home purchases such as pizza or sweet and savory pies likely shifted to in-home purchases.

[Figure 6]

2) Another trend that was observed during the period was increasing recourse to local, organic and environmental-friendly products¹⁵ (Nielsen Scantrack, statement for the 16 March - 26 April 2020 period). The sale of fresh products, particularly those organic or produced locally, increased, that of dairy products by 19% and non-dairy products by 9%. Likewise, the sale of organic and local vegetables and fruits increased. According to the Nielsen Scantrack report dated 26th April 2020, consumers, worried about getting infected, considered local fresh products to be less likely to be contaminated with coronavirus given shorter transportation time and fewer steps involved in the handling and packing process. In addition, this increase in organic and local fruit and vegetable sales during the lockdown period is mainly due to the online channel.

[Table 1]

¹³ [https://www.weblex.fr > weblex-actualite > coronavirus-.Legal informations online for Entrepreneurs. “Coronavirus \(Covid-19\) : réouverture des cafés, bars, restaurants sous quelles conditions ? <](https://www.weblex.fr > weblex-actualite > coronavirus-.Legal informations online for Entrepreneurs. “Coronavirus (Covid-19) : réouverture des cafés, bars, restaurants sous quelles conditions ? <)

¹⁴ Source: statista 2022) (Website: <https://www.statista.com/statistics/1241740/frequency-going-to-the-restaurant-france/>

¹⁵ A local product is a product whose producer is located within 50 km.

An organically grown product is either an agricultural product or a foodstuff. The method of production excludes the use of synthetic chemicals and Genetically modified Organisms (GMOs), and limits the use of inputs (products brought to the land and crops such as fertilizers, insecticides, etc.).

An environmental-friendly product is a product of sustainable agriculture. In France, this definition includes products produced according to the high environmental value (HVE) standard.

Source: Nielsen Scantrack Panels, week 12 to week 17 2020, lockdown period.

Somewhat similar trends were reported from Italy and Spain: According to Fanelli (2021), Italian consumers reduced their purchases and consumption of ready-to-eat foods and consumed more fresh fruits and vegetables. There was a shift towards the purchase of food in small retail stores and an increased frequency of food shopping in Italy during the COVID-19 pandemic, possibly because super and hypermarkets were considered to be too crowded and less safe than smaller stores. In another study from Italy, Sorrentino (2022) identify four categories of behavioural consumer profiles: (1) digital, (2) homescape lovers, (3) responsible and (4) self-care oriented. Based on an online questionnaire of Spanish population, Laguna et al. (2020) show that purchasing frequency increased for products bought for health (pasta and vegetables) or mood improvement (nuts, cheese and chocolates) but decreased for products with a short shelf-life (fish, seafood) and those perceived to be unhealthy or leading to weight gain (sugary bakery goods). There was a reduction of shopping frequency but no changes in shopping location.

- 3) Consumers also bought more cleaning and hygiene products during the lockdown period: the sale of gloves, soap, disinfectant gels and cleaning products increased by 17% while that of tissue and toilet papers rose by 7%. This trend is borne out of the greater emphasis on cleanliness and personal hygiene in order to reduce the risk of virus infection, and the lockdown itself (people stayed at home and feared of shortage).
- 4) A final trend worth remarking is the 11% drop in the purchase of beauty and personal care products (e.g. creams, lotions, shaving products) as reduced face-to-face interaction decreased the need to care for physical appearance to the usual extent.

4. Concluding remarks

In this study, we analysed the changes taking place in the purchasing behaviour of French consumers during the first Covid-19 preventive lockdown. We used panel data on French retail market from Nielsen Scantrack to identify key sales trends in household shopping. Our main contribution is to have highlighted simultaneously three different temporal phases during the Covid-19, the transformation of household purchase in the different distribution channels, and four new trends in the

product consumption. To our knowledge, this multi-dimensional revolution in consumption behavior has not been highlighted jointly via panel tools by other researchers in the case of France. Our study highlights the ability of households to adapt their consumption patterns to a new economic situation, and confirms the studies of Griffith et al. (2016) and Gicheva et al (2010).

First, we highlighted three temporal phases, namely the normal period, the anticipation period, and the lockdown period. We compared these time trends with those prevalent in Italy and Spain, and found them mostly similar.

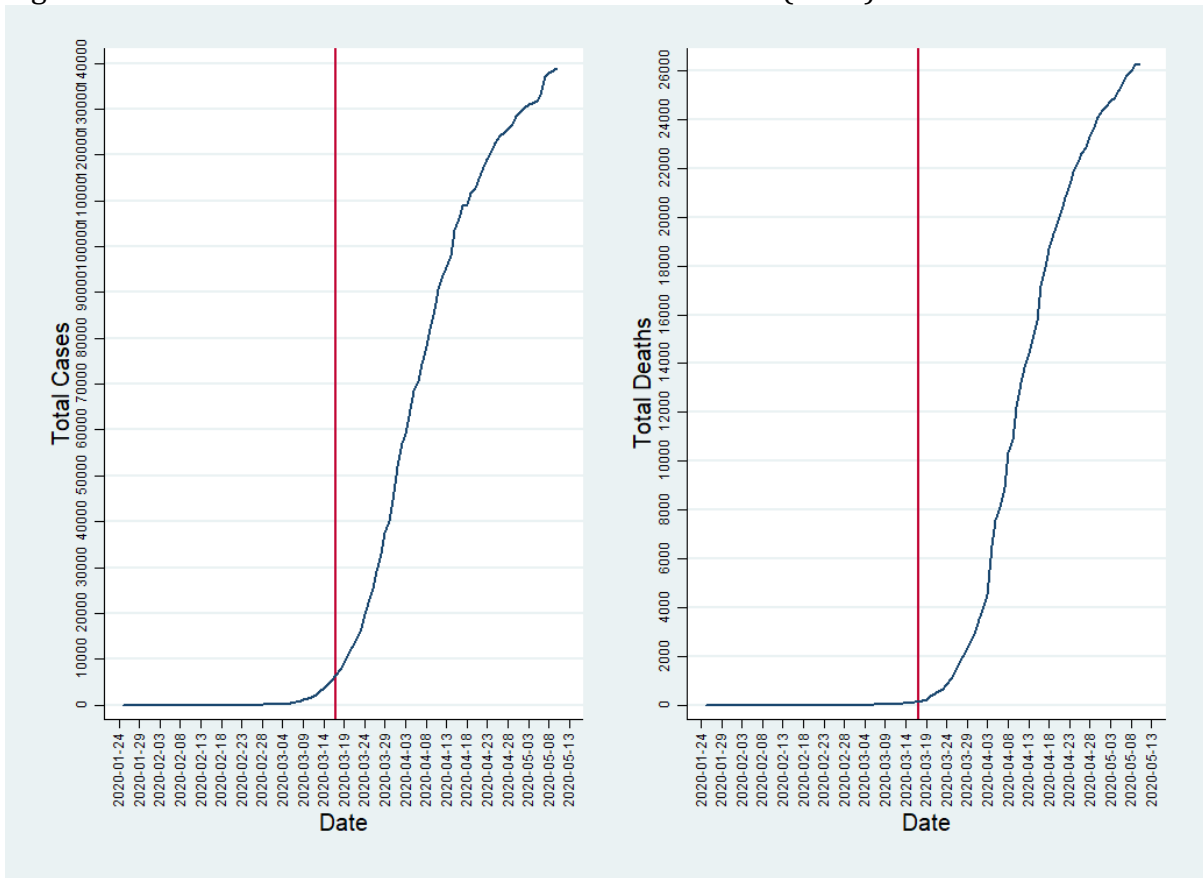
Second, we highlighted the transformation of household purchases during the covid-19 outbreak by simultaneously analysing the use of different distribution channels. We pointed out that Covid-19 appears to have accentuated the joint evolution of two major phenomena: (1) strong development of digital commerce, and (2) the desire of the households to frequent small shops close to their homes. The latter helps maintain social distancing (a short-term objective) and at the same time reduces the transport (a long-term ecological objective). This development in favour of small nearby stores is a major emerging trend in household purchases in France (Labbé-Pinlon et al. 2016).

Finally, we highlighted the joint purchasing preferences of households in the form of four trends: (a) an increase in local, basic, easy-to-store food products; (b) a significant increase in the purchase of basic hygiene products; (c) a decline in the purchase of cosmetics, which were perceived as less important during a period of social isolation; (d) An increase in fresh dairy and fresh non-dairy products, specifically organic and local vegetables and fruits. This increase was mostly realized in the online channels. This constitutes a paradox for the big tendency call "localism", because internet shopping has a strong environmental cost. From a public policy perspective, this highlights the need to redefine what a "local product" stands for in a multi-channel and digital environment (Fuentes-Bautista 2014). Indeed, the French government has yet not clearly defined and regulated "local products". Here again, the Covid-19 crisis has accentuated a social phenomenon which involves the purchase of local, French products in connection with convenience stores, small supermarkets and surprisingly online channels. This trend, popularized by the slogan "eat local" in France, has turned into a worldwide trend (Reich et al. 2018).

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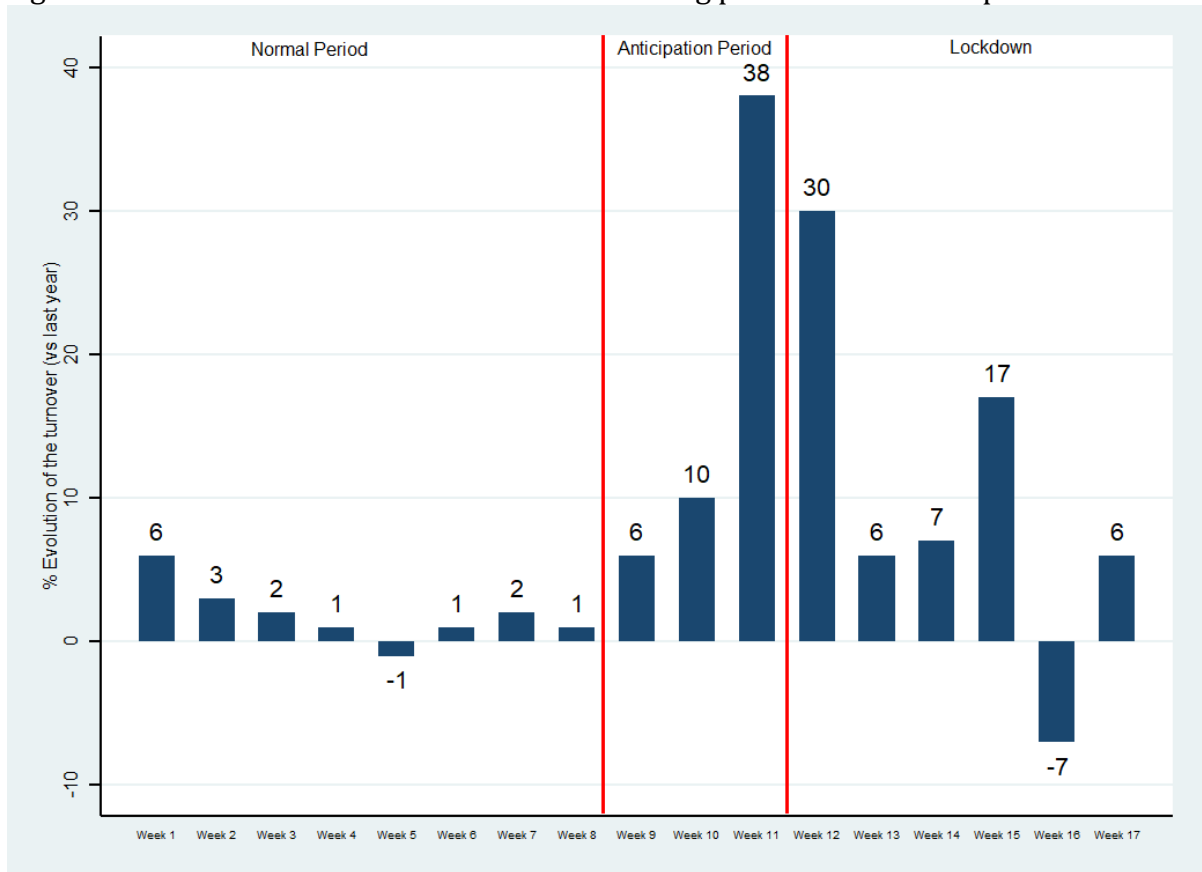
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Figure 1: Total coronavirus cases and fatalities in France (2020)



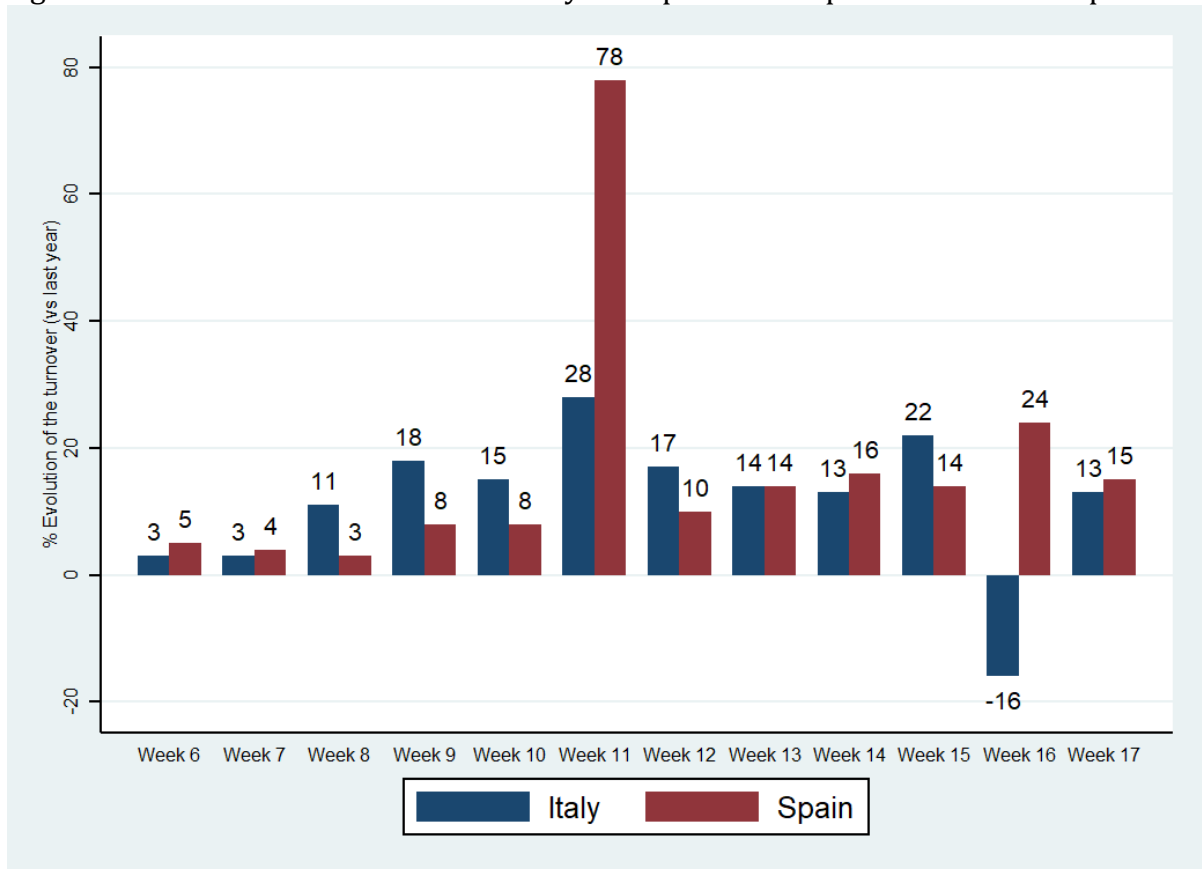
Source: Authors' calculations using Roser et al. (2020)

Figure 2: Evolution of the turnover in France during pre- and lockdown periods



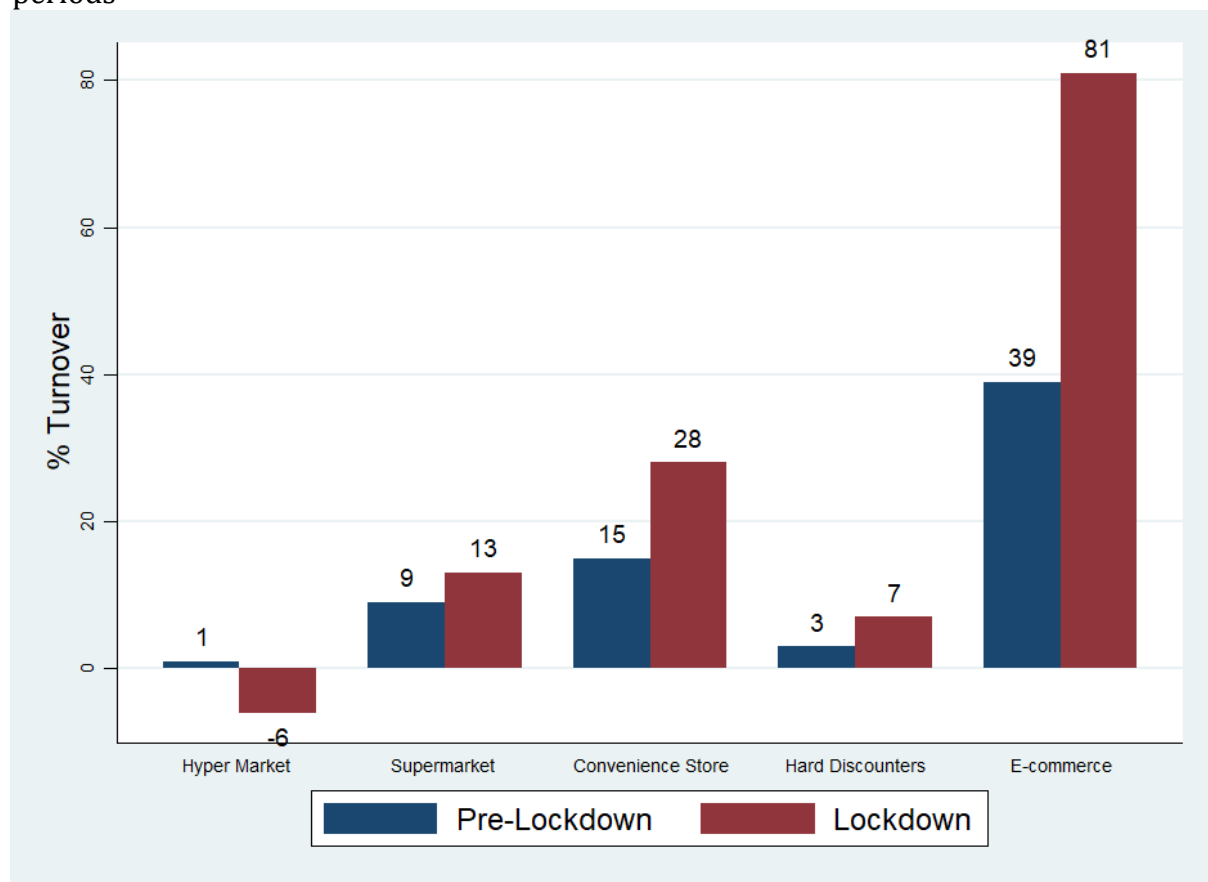
Source : Nielsen Scantrack Panels, Total = Hypermarkets, Supermarkets, Hard Discounters, & E-business, Evolution of the turnover by week vs last year, week 1 to week 17, year 2020 vs year 2019.

Figure 3: Evolution of the turnover in Italy and Spain before pre- and lockdown periods



Source: Nielsen Scantrack Panels, Hypermarkets, Supermarkets, Hard Discounters, Drive, Evolution of the turnover by week vs last year, year 2020 vs year 2019

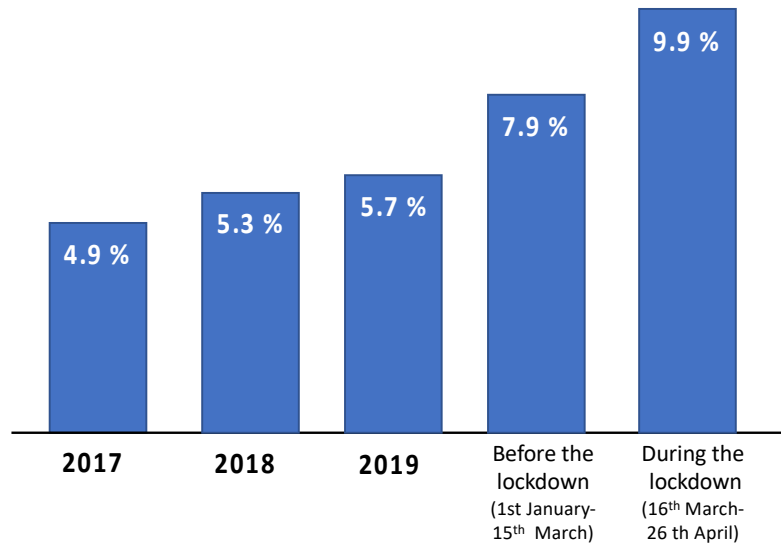
Figure 4: Evolution of the turnover by channels of distribution during pre and lockdown periods



Source: Nielsen Scantrack, 26th April 2020, evolution of the turnover, comparison of Pre-Lockdown vs Lockdown periods, year 2020 vs year 2019

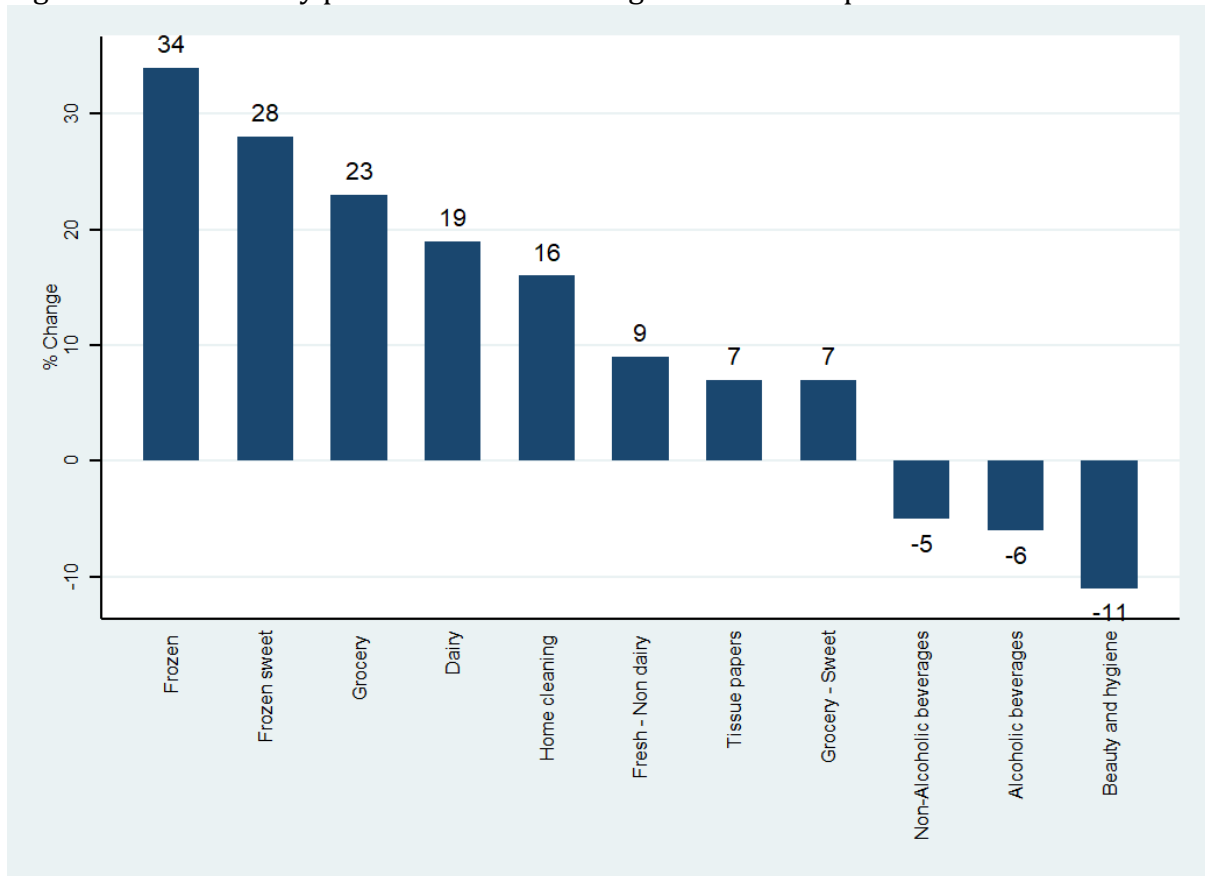
Figure 5: Value market share of E-Commerce vs Total Channels of Distribution

Value Market Share of E-Commerce vs Total Channel of Distribution



Source: Nielsen Scan Track, 26th April 2020.

Figure 6: Purchases by product families during the lockdown period



Source: Nielsen Scantrack Panels, Total = Hypermarkets, Supermarkets, Hard Discounters, & E-Commerce. Evolution of the turnover by week vs last year)(from week 12 to week 17 : lockdown period

Table 1: Evolution of the turnover offline vs online of local & organic fruit & vegetables

	Offline	Online
Local & organic fruit & vegetables	- 10%	+ 116%

Source: Nielsen Scantrack, 16th March to 26th April 2020