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THE DYNAMICS OF NEW DELIVERY FORMS DEVELOPMENT OF GROCERY PRODUCTS IN POLAND – FRISCO CASE STUDY

Robert ROMANOWSKI[1*], Joanna LEMAŃCZYK[2]

[1] Poznań University of Economics and Business; robert.romanowski@ue.poznan.pl,
ORCID: 0000-0002-8585-6806

[2] Poznań University of Economics and Business; joanna.woszczyk10@gmail.com,
ORCID: 0000-0002-6195-8568

* Correspondence author

Purpose: The coronavirus pandemic has a crucial influence on every human being in many areas of life, like education, professional work and state of health. Also, it impacts food consumption and dietary behavior of people. The purpose of the paper is to diagnose the dynamics of new e-grocery delivery formats development caused by Covid-19 in Poland.
Design/methodology/approach: This study follows a mixed method approach, which is based on qualitative interviews, secondary statistics and case study of Frisco – the most successful Polish enterprise on e-grocery sector. Multi-level perspective was used to give a context for changes observed on Polish e-grocery market.
Findings: The pandemic influenced the dynamics of the development of the e-grocery market in Poland, which follows the way how American e-grocery market performs. The landscape before Covid-19 pandemic was dominated by big players like *Amazon* and *Walmart* on the USA market, however big players like *Piotr I Paweł* and *Tesco* disappeared form the e-grocery market in Poland. During pandemic, in both countries a rapid growth of local suppliers was observed. In the USA, big players have been consolidating, however in Poland a previous small enterprise, Frisco, when became a market leader, was bought by big retail player – *Eurocash*. Frisco implements door-to-door deliveries format. However, some new delivery formats, like food parcel lockers, are implemented by big companies like *InPost* on Polish e-grocery market.
Research limitations/implications: Due to the difficulties related to recruiting 8 American e-grocery consumers to the focus group, the authors decided to use smaller (4 people each) mini-groups. The method is adequate to map the general landscape. However, a quantitative study is needed to deepen the information on factors of new delivery formats' development. This article analyzes companies that provide only general information published in public reports.
Practical implications: The paper helps to understand the changes on Polish market in multi-level perspective. The time of the pandemic opened a window of opportunity for new delivery formats, such as food parcel lockers. The implementation of new delivery solutions was possible by observing more developed markets such as American or German one. The development of modern technologies and the general access of potential customers to the Internet also enabled the change of the existing model of traditional trade to e-grocery.

Social implications: Many customers have discovered new shopping opportunities which has led to a permanent change in purchasing behavior. In this article, the authors compare the change in landscape of Polish and American e-grocery market during Covid-19 pandemic.
Originality/value: The paper helps to understand the dynamics of new e-grocery delivery formats development caused by Covid-19 in Poland with multilevel perspective. Moreover, the change in e-grocery market landscape was described. It is needed to deepen the research by new format factors analysis and further observations, what will be the future of these new formats.

Keywords: e-grocery, food delivery, covid-19, multi-level perspective, food parcel lockers.

Category of the paper: In this article, the authors, using qualitative research (mini groups), are looking for answers to the question of how the pandemic changed the landscape of e-grocery, with particular emphasis on new delivery formats' development.

Introduction

There have been significant changes in retail over the past few decades. Both the development of information and communication technologies, sector specialization IT, as well as the growing requirements and the variety of customer needs have led to the emergency of innovative solutions in the field of retail and the creation of new distribution channel, such as electronic commerce (Sławińska, 2016, pp. 33-36). The influence of new communication technologies on retail was being observed around first decade of twenty first century (Powell, 2000; Småros, Holmström, 2000). A characteristic feature of traditional trade is direct customer contact with the seller and a product. Despite numerous advantages, traditional retail has also many disadvantages. Electronic commerce (e-commerce) is treated as an alternative form of sale, departs from standard solutions in favor of virtualization and automation of the sales process and eliminates the limitations of stationary trade (see Schramm-Klein, Wagner, 2014). E-commerce makes it possible to carry out the transactions directly from the place of residence around the clock. It is desirable especially for people with disabilities and people living in rural areas, who have a limited possibility to purchase in a traditional form (Qiao, Qi, 2018). This landscape was rapidly changed by Covid-19 pandemic. Changing landscapes, according to modified multi-level perspective (Dannenberg et al., 2020), could change the regime of the market and open the niches for innovations.

The purpose of the paper is to diagnose the dynamics of new e-grocery delivery formats development caused by Covid-19 in Poland. Multi-level perspective was used to show the context of possible changes on the Polish e-grocery market. The method of case study was chosen to diagnose the dynamics of the fastest growing Polish e-grocery enterprises. Moreover, Authors decided to compare the most successful enterprises in the USA and Poland.

Multi-level Perspective

The Multi level perspective (Geels, 2002; 2011) offers a framework to understand the different dynamics of innovations. The model provides an analytical framework to explain under what circumstances and with what effects an innovation can move from a niche to a growth phase. The MLP explains how innovations disseminate by focusing both on technology and socio-economic contexts. It draws on the concept of technological regimes established by Nelson and Winter (1977), who contributed to a comprehensive perspective on complex regimes (Genus, Coles, 2008). Successful distribution of an innovation is not explained by the technology itself but by its application, exploitation, supporting policies, availability of capital, and so on. Hence, it requires a comprehensive perspective in the context of transition studies (Geels, 2002), particularly those that focus on the interrelation of economic crisis and innovation diffusion (Archibugi, 2017). Geels (2002, 2011) and Dannenberg, P., Fuchs, M., Riedler, T. and Wiedemann, C. (2020). distinguish this into socio-technical landscapes, socio-technical regimes and niches (see Figure 1).

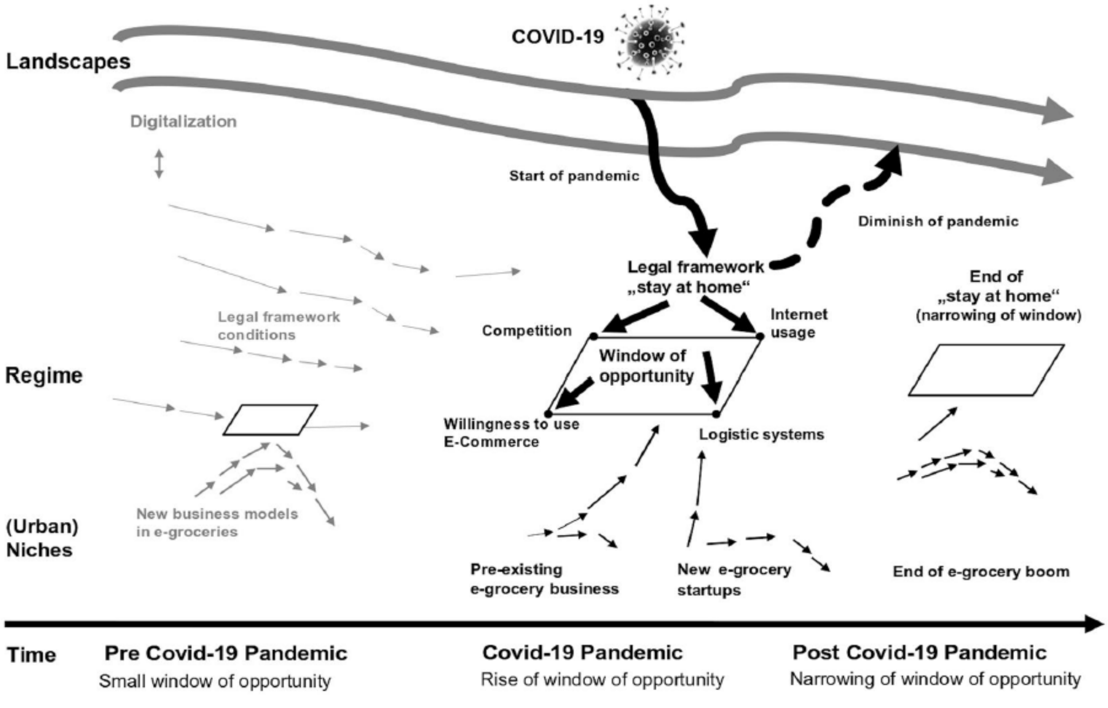

Figure 1. Potential rise and decline of a window of opportunity through COVID-19-related 'stay at home' measures. Source: Dannenberg, P., Fuchs, M., Riedler, T. and Wiedemann. C. (2020). Digital Transition by COVID-19 Pandemic? The German Food Online Retail. Tijdschrift Voor Economische en Sociale Geografie 111 (3):543–60.

Socio-technical landscapes are predominant framework conditions that can only marginally be influenced by individual actors. Landscapes include basic social issues (e.g. the values of a society), political settings (e.g. constitution) as well as economic conditions (e.g. oligopolies) or ecological conditions (e.g. climate). Such a landscape is usually relatively rigid but can change in the long term ('longue durée', e.g. due to demographic change; Geels, 2011).

Landscape can also change through economic and political crisis (Dederichs, Dannenberg, 2017).

Socio-technical regimes are embedded in the landscape. Regimes are characterised by established practices. A stable regime configuration offers actors a safe and stable framework for their activities. In contrast to the comparatively rigid structure of the landscapes, regimes can change significantly faster, for example through learning processes. Regime components are particular technologies, actual markets and policies. Moreover, they include, for example, infrastructure, technological knowledge, and company networks (Zademach, Schulz, 2016). There is a special focus on the driving role of customers (or users).

Technological niches are protected areas (e.g. from competition). They are fields of experimenting and trying out, such as R&D laboratories, subsidised demonstration projects, or settings in which users have special demands and are willing to support innovations (Geels, 2011). Lee and Malerba (2017) distinguish three types of windows of opportunity: (i) windows that are opened by new basic technologies like within digitalisation; (ii) windows based on a new type of demand or a major shake-up of existing demand, and (iii) institutional windows induced by public intervention. Digitalisation during 'stay at home' could be such field of special demands and policy intervention. The innovation of food online trade has already emerged in a niche and could now significantly affect the middle – and mediating – level of the sociotechnical regime and possibly the landscape. This happens when a window of opportunity opens (Geels, 2002; 2011).

Spread of COVID-19 was a shock at landscape level and 'stay at home' policy changed the socio-technical regime. COVID-19 can be seen as an exogenous global landscape development (see Geels, 2011), which led to the 'stay at home' measures at the political sub-regime (see Dannenberg et al., 2020). The Authors described the dynamics of German e-grocery market, which had many similarities to the Polish one.

Food retail entered a special situation in many countries. In general, while retail stores that did not provide essential goods or services had to close, and politicians responded to this with economic support measures, the food trade as a 'systemically important service' remained open to ensure supply for the population (ZPP, 2021). Nevertheless, food retail faced severe restrictions. There were strict hygiene measures (disinfection, compulsory use of shopping trolleys, limitations on the number of customers, and rules to keep distance from food counters and cashiers). Other food providers, like restaurants and canteens were required to close entirely. In total 'stay at home' led to an increased demand in food trade retail, and – partly due to stocking up and panic buying – even bottlenecks in terms of the supermarkets' ability to supply products (BEVH, 2020). Products that were considered to have a shelf life aspect were purchased more frequently, sometimes with growth rates of over 400 per cent compared to the same period last year (Nielsen, 2020).

This situation implicated the expansion of the niche for online grocery retail. The 'stay at home' policy helped online grocery retail to develop a new configuration that breaks through by taking advantage of a windows of opportunity and in this way adjusts the socio-technical regime (Geels, 2011). Subsequently, special attention is given to the extent to which the changes in online food retailing are now experiencing a 'thicker and more transformative' (Murphy et al., 2014, p. 264) dynamic, through which the previous food retail regime is changing in its nature and with its actor constellations.

The 'stay at home' measures and the general reduction of activities (especially in terms of gastronomy) have expanded a protected area for online food retailing. This is characterised by less competition from other industries and a continued high demand for food. This enabled the online grocery retail in Germany to conquer larger markets and growth rates of ca. 150 per cent in March 2020 (Nielsen, 2020). Online purchases were replacing offline retail purchases.

At the same time, this situation came as a surprise to food retail, and online retailers' capacity quickly reached capacity limits. Ultimately, 22 per cent of potential new customers could not place an order because the desired products or delivery dates were not available (Nielsen, 2020). A main reason for using food online retail during the crisis was the fear of infection. Twenty per cent of customers indicated that this was an important motive for buying groceries online. For new customers, however, the most frequently mentioned motive (31% of those surveyed) was panic buying (fear of contagion and the aim to buy ahead). In contrast, this was a minor motive for existing customers (9% of those surveyed). This difference suggests that some customers mostly register with the online services for the purpose of buying stocks and above-average quantities when they place their first order (Halm 2020). The study indicates that new e-grocery customers due to COVID-19 crisis were driven by the temporary motives limited to the crisis. The window of opportunity was opened by Covid-19, but some of the niche changes could be more permanent than the others.

Landscape change during Covid-19 on a global scale

The influence of new communication technologies on retail was being observed around first decade of twenty first century (Powell, 2000; Småros, Holmström, 2000) and the landscape had not been changed much till the middle 2010's. A comparison of countries in the 2014-2015 top ten list of offline–online global grocery markets shows that performance in the offline market, contrary to expectations, is not necessarily matched by performance in the online market. As shown in Figure 2., besides China and the United States, countries like India, Russia and Brazil in the top five global grocery markets in 2015, did not even appear in the top ten online list (Institute of Grocery Distribution, 2015).

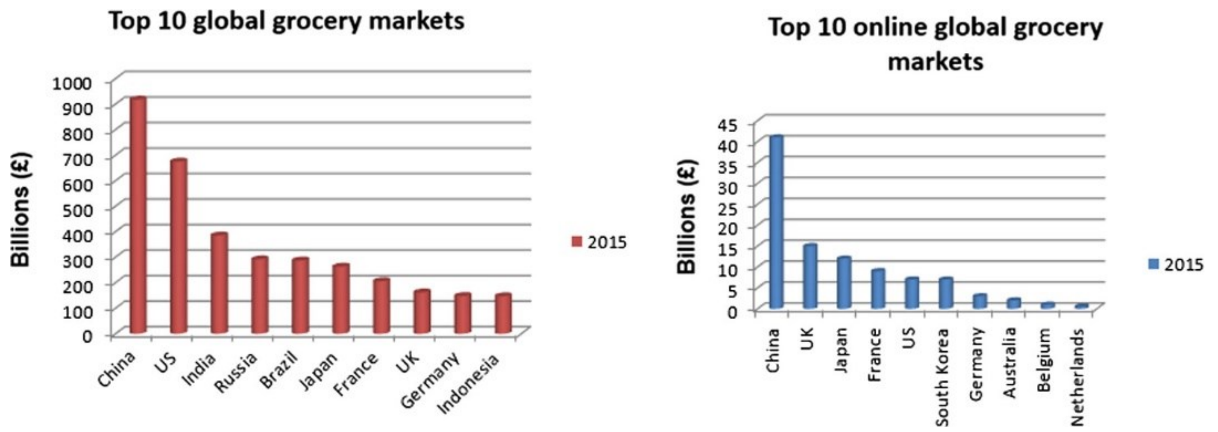

Figure 2. Top ten global grocery markets (offline and online). Data source: Institute of Grocery Distribution (Institute of Grocery Distribution, 2015).

As shown in Figure 3, in 2015, out of the top ten offline global grocery retailers, only 30% (*Walmart* stores, *Tesco* plc. and *Costco*) appear as part of the top ten online global grocery retailers. While *Walmart* stores led the offline global grocery ranking, it appears only second in the online list, where Amazon leads. This disharmony between countries as well as organizations relating to performance in the offline and online global grocery spaces, signals the existence of uniqueness, possible complexities and challenges in the online grocery business.

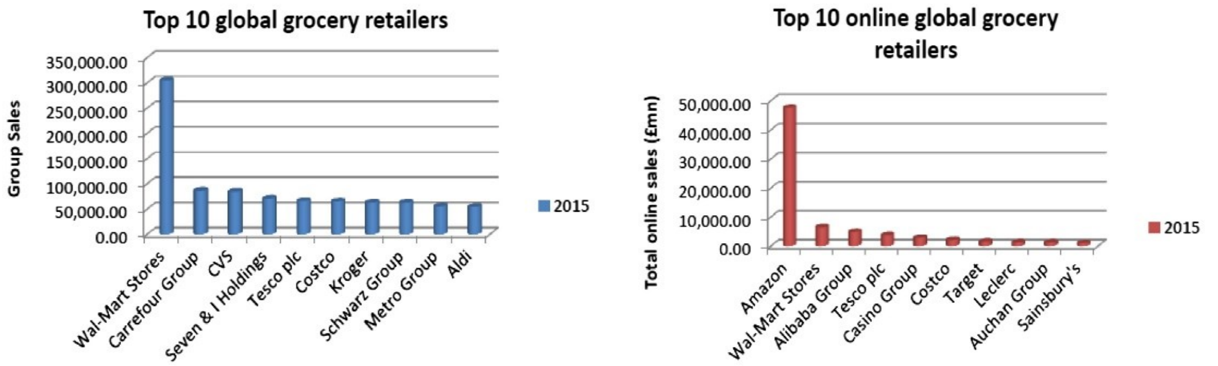

Figure 3. Top 10 offline and online global grocery retailers. Data source: Institute of Grocery Distribution (2015).

The landscape on e-grocery market that appeared in this period (figure 2 and 3) lasted until the pandemic. The e-grocery market model (landscape) formed in the United States is the model that the Polish market is currently pursuing. Before pandemic, there were a few big players that have become entrenched in the purchasing awareness of consumers. In the United States, the pandemic could have influenced a larger volume of e-grocery purchases, but it did not mean that it was necessary to create a new business solution from scratch.

The Covid-19 pandemic has stimulated particularly rapid development of the e-grocery industry. Grocery shopping delivery is an increasingly available option. Suppliers are developing a distribution network not limited to the city, more and more often it is possible to order groceries for suburban areas.

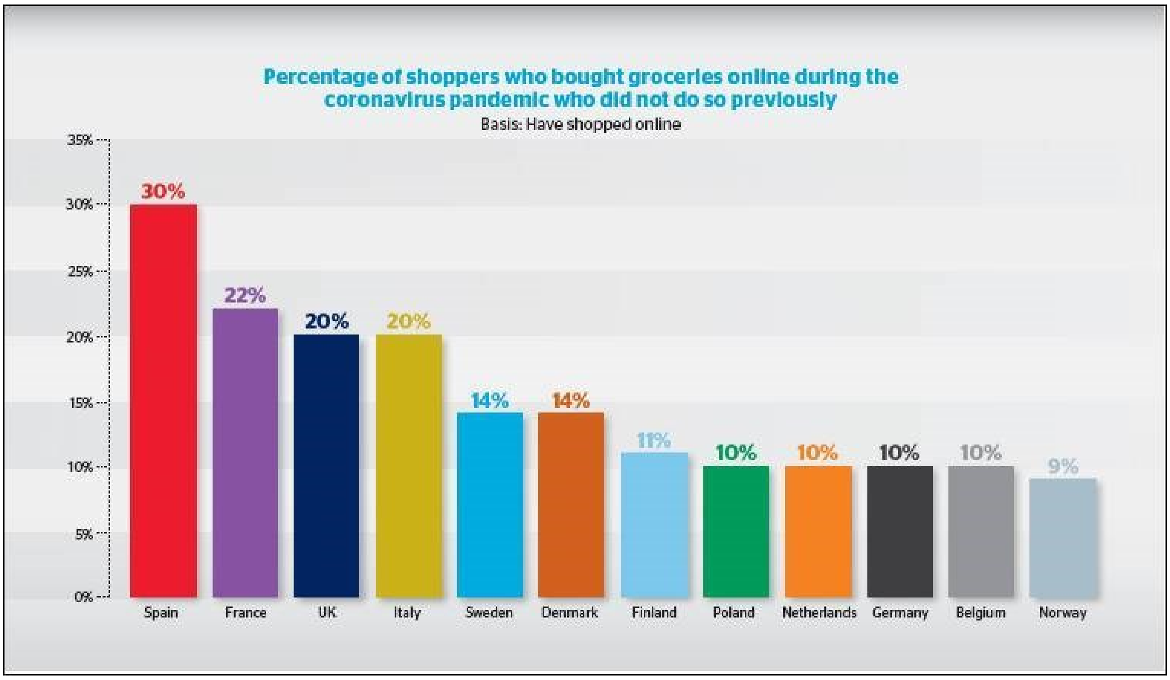

Figure 4. The e-grocery industry in Europe during Covid-19. Source: DirectLink, https://www.directlink.com/coronavirus-pandemic-drives-online-grocery-shopping/.

According to Direct Link rapport (2020), online shopping in some product categories (clothes or electronics) has always been very popular, groceries and pharmacy goods from 2020 are two notable newcomers. Food, in particular, has very high sales figures in certain countries. The online grocery shopping trend does not only apply to the Polish market (Figure 4). The data from 2020 show the highest increases in Spain (30%), France (22%), and the United Kingdom (20%). In Poland, an increase of 10% was recorded. Important information is a fact that the data concern consumers who have not used e-grocery so far. Perhaps users who are forced to buy FMCG products online, fearing infection, will continue shopping for e-grocery also after the pandemic, which may change the landscape of e-grocery market for years.

Covid-19 pandemic has changed the landscape and enabled to develop new formats in e-grocery (new regime). The world economy contracted by 4.3% in 2020, while for many countries of the world the fall was the worst since the Second World War. The pandemic has hit developed countries the most, as many European countries and some US states have taken strict quarantine measures (Food Retail and Consumer…, 2021).

The biggest e-grocery players in the USA during Covid-19 pandemic

To find out what purchasing behavior is dominant in the United States, qualitative research was organized with US residents. The research method was to interview in mini-groups. Due to IMAS international association (2021), a mini-group is a special form of focus research.

In this article, the authors, are looking for answers to the question of how the demand side uses e-grocery in the context of not only purchases but, above all, delivery methods. Due to the smaller size of the groups, the authors conducted the study in two mini-groups. The interviews were conducted via "Skype" with residents of the United States. To standardize the time of the meeting, the authors decided to select participants from among the inhabitants of the city of New York and nearby towns and villages. The division of groups is shown in table 1. It is assumed that in the mini-group the conversation takes place in a group of 2-4 respondents and a moderator. Our mini group consisted of 8 people (four women and four men). Four of the respondents live in a large city and the other four live outside large urban agglomerations. The research was done via skype. The interview was conducted in English and lasted 70 minutes. Our interlocutors answered questions about the e-grocery market and modern forms of delivery.

Table 1.
Mini groups study participants

		Male	Female
Group 1	City	2	2
Group 2	Downtown	2	2

Source: own study.

When we asked about the possibility of online delivery of groceries, the respondents answered differently. The respondents living in the city most often talked about door-to-door delivery. However, due to the greater concentration of small shops, the interviewees admitted that they often buy some products at nearby shops. People living further from the city declare different ways of shopping. In the area where they live, there are just a few options for e-food delivery. They can do online ordering from the major food store chains like *ShopRite* or *Stop'n'Shop*. These suppliers also deliver the orders. *Costco* also makes it very convenient to order food. What is more, they declare local purchases, carried out in local entrepreneurs. They order from a produce supplier who reinvented his business during the pandemic. Originally, the company delivered products to restaurants. Unfortunately, those restaurants were shut down during Covid-19. So, to keep the company viable, the enterprise offered its services to the local households. *Instantcart* is the company that often is the ordering/delivery system used by these companies, especially *Costco*. All of the above do door-to-door service.

Another question was related to the most popular delivery methods. *Amazon* does grocery via *Whole Foods*, which is not available in some areas. Some people use the regular ordering system if they need a more exotic ingredient like specialty baking chocolate or some spices and other rare products. The participants of the study pointed out *Walmart* parcel lockers for grocery shopping as one of the most popular methods of collecting purchases. However, the most popular, according to respondents, is door-to-door delivery, offered by many companies, including giants such as *Amazon* or *Walmart*. These big retail chains have separate websites dedicated to e-grocery orders. During the interview, one of the participants mentioned an innovative form of delivery of groceries used by *Amazon*. The company itself called its delivery as *"Prime Air"* future delivery system. This company designed air delivery to safely get packages to customers in 30 minutes or less using autonomous aerial vehicles (drones). *Amazon* has few options of e-grocery delivery on its website, the company gives the customer the choice of door-to-door delivery or personal pickup in a store or parcel locker.

During the study, participants mentioned barriers to purchasing resulting from the place of residence. Despite the large selection of grocery suppliers, you can still find so-called food deserts in the USA. According to a 2009 U.S. Department of Agriculture report, about 2.3 million people in the USA live more than a mile away from a supermarket and don't have reliable vehicle access (National Public Radio, 2019).

Speaking of food deserts deliveries, the respondents mentioned several home delivery companies, but not in full scope. This kind of delivery services were offered through companies such as *Instacart*, *Peapod*, and *ShopRite*. The results in rural areas was not nearly as promising. National Public Radio (2019) states that the 59 rural census tracts analyzed, zero qualified for full grocery delivery. Thirty percent of them were partially deliverable to, and 69.5% of the tracts were not deliverable to at all.

It can be concluded that the United States is one of the world leaders in the e-grocery market. The observation is based on the direction of development of the e-grocery market and the already available solutions for the delivery of grocery purchases in USA (Mkansi et al., 2018). The landscape of e-grocery in the USA was based on two big players like *Amazon* and *Walmart* functioning nationwide before Covid-19. They used pandemic as the window of opportunity to consolidate and developed new delivery formats in e-grocery, such as food parcel lockers (*Walmart*) or aerial vehicles – drones (*Amazon*). However, this window of opportunity was used by some local suppliers to expand door-to-door delivery formats. American path dependency in e-grocery would be a good pattern for Polish market (see Fai, 2003; Bergek, Onufrey, 2014).

Changing the landscape of e-grocery business in Poland during pandemic

Many ideas come from the United States. Before Covid-19 pandemic, the landscape was similar in Poland as it used to be in the USA. In Poland, e-grocery sector was dominated by couple of big players, especially by Tesco (the whole Poland) and Piotr I Paweł (Western Poland). However, after the disappearance of Tesco from the market (the process started in 2018 and finally all 301 point of sales were sold in March 2021; Tomaszkiewicz, 2021), except Warsaw metropolitan area, no company could meet the e-grocery needs declared by consumers. Due to the pandemic, the e-grocery business model had to become popular in other Polish cities. An example of such an intense expansion is the case of Frisco, which, being the leader of the

Warsaw e-grocery market, decided to extend its activities into Poznań and Wrocław. Showing the market leader path may define the way how market will react and how followers will change the market landscape.

The pandemic negatively affected many traditional enterprises but also created an opportunity for the development of e-commerce enterprises. The e-grocery business model became widespread, especially during the pandemic. Fear of being around in generally accessible places and gathering many potential infected contributed to a change in the purchasing behavior of many consumers. An example of an e-commerce store with a food assortment is the Frisco company, operating on the Warsaw market. Frisco.pl is one of the online supermarkets operating on the Polish market, which is a convenient alternative to grocery shopping in hypermarkets. Orders are carried out throughout Poland, however, Frisco services, due to the specificity of the market, are the most popular on the Warsaw metropolitan area. The assortment of the online store is not limited to groceries and household chemicals. In the offer of the e-commerce concept, you can find a wide selection of specialists, local, BIO, and fresh products (Eurocash group, 2020). The order can be placed via the website or via the mobile application. The picking of orders is largely done by machine, and the high standard of services is ensured by appropriately adapted vehicles equipped with a refrigerator. Free delivery is carried out for orders in Warsaw worth at least PLN 250. A modern business model respects the time of potential customers, which is why Frisco offers deliveries in hourly intervals specified by the buyer, 7 days a week. E-commerce business, like traditional companies, is not indifferent to loyalty programs. In the case of Frisco, the customer who purchases for the sixth time receives permanent access to the Frisco Friends program, which offers privileges in delivery, more attractive prices, and gifts (Frisco, 2020).

Table 2.
The COVID-19 influence on Frisco performance (Orders and Average basket in PLN)

	I	II	III	IV			
	Before (January-February)	The first COVID wave (March-May)	Summer (June-September)	The second COVID wave (October)	* Before/ 1st wave	# Before/ 2nd wave	Overall (Jan-Oct 2020)
Daily orders	1 650	1 750	1 980	2 102	6%	6,%	27%
Average net basket	260	386	296	331	48%	12%	27%

Source: own elaboration based on Grupa Eurocash, "Nr 1 na warszawskim rynku-raport, s. 4".

The company's success was determined by some numerical changes in individual categories (Table 2). For the financial statements for shareholders, Eurocash, which has had a majority stake in Frisco since 2020, has prepared a report that takes into account pandemic and non-pandemic periods with different amounts and types of trade restrictions. The results are divided into 4-time orientations, taking into account the restriction-free periods January-February and June-September, as well as the first and second waves of cases and the increasing number of restrictions in March-May and October. The months of January-February were considered by the authors of the report as the period before the pandemic, and thus they became a reference point for comparisons of the following months.

When analyzing the data (table 2), significant changes in volume can be noticed in the first wave of the pandemic. What's more in table 2, the average shopping basket is also rising (+48%), and the number of daily orders (+6). In the compared periods, only the share of loyal customers decreases, which may be due to the acquisition of an above-average number of new users. The results from the summer period provide the following conclusions: the number of regular customers and the number of daily orders have increased, the daily value of the basket and the share of selected shopping categories have decreased. These data prove that the group of regular customers is growing. This is largely related to satisfaction with the quality of the services provided. Perhaps the use of the e-grocery business model will become permanent in consumer habits, also after the end of the pandemic (Frisco, 2020).

The pandemic had an impact on the popularization of the e-grocery format, therefore in the case of Frisco, decisions were made to extend the range of services. The cities that have had a full scope of delivery since mid-2021 are Wrocław and Poznań. The summary of the financial results for the first half of the year showed a sales increase of PLN 33.9 million year to year basis. This result includes sales data from Warsaw (PLN 126.7 million), Wrocław (PLN 10.5 million) and Poznań (PLN 0.37 million).

The pandemic had forced entrepreneurs to create new solutions for the supply of grocery products. E-grocery shopping has become more popular and FMCG sellers saw an opportunity to reach new recipients by developing innovative forms of delivering grocery shopping. Door-to-door delivery has not been the only alternative to stationary purchases for some time. The new solution developed by Inpost is pick-up lockers with three thermal zones, enabling the storage of food products awaiting collection by the customer. This solution is being implemented in three Polish cities: Warsaw, Cracow, and Wroclaw (table 3).

Table 3.
Click and collect lockers in Poland by InPost

Click and collect lockers			
Warsaw	**32**	**7**	**39**
Cracow	**16**	**6**	**22**
Wroclaw	**3**	**2**	**5**
Together	**66**		

Source: https://inpost.pl/lodowkomaty.

Pick-up points are adapted to the storage of various types of food products. In total, 66 refrigerator machines were built in Poland, of which the most active (32) are located in Warsaw. The second-largest number of e-grocery pick-up points is located in Cracow (16), only three refrigerators are in operation in Wroclaw. InPost announces the expansion of its operations to new locations.

Conclusion

The agri-food sector has experienced huge change over the past few decades which, along with the increase in globalization, led to the diversification of sales markets and had a positive impact on Poland's participation in the international arena. According to multi-level perspective, the COVID-19 pandemic triggered new challenges that have changed the existing landscape in e-grocery market. Lockdown, limited trade, further restrictions, and also a change in consumer behavior have become the stimuli that motivated the improvements into the existing regime solutions. The 2020 pandemic turned out to be a great obstacle for many companies, but there were companies that, despite restrictions, dynamically developed their activities. The food sector continues to play an important role despite the pandemic in the Polish economy. Although the epidemic was supposed to inhibit the development of many sectors, this is where the reverse trend was observed. In the face of the threat and growing uncertainty, the population stocked up and bought long-term products' expiry date, which contributed to an increase in the sales volume. The development of modern technologies and general access to the Internet of potential customers also allowed for a change in the existing model of traditional trade on e-commerce.

The pandemic influenced the dynamics of the development of the e-grocery market in Poland, which follows the way how American e-grocery market performs. The landscape before Covid-19 pandemic was dominated by big players like *Amazon* and *Walmart* on the USA market, however big players like *Tesco* and *Piotr I Paweł* disappeared form the e-grocery market in Poland. During pandemic, in both countries a rapid growth of local suppliers was observed. In the USA, big players have been consolidating, however in Poland a previous small enterprise, *Frisco*, when became a market leader, was bought by big retail player – *Eurocash*.

Frisco implements door-to-door deliveries format. However, some new delivery formats, like food parcel lockers, are implemented by big companies like *InPost* on Polish e-grocery market. The Polish suppliers try to implement some new delivery formats of grocery purchases, as it is observed in the USA. The most popular delivery solutions, such as door-to-door or special parcel lockers, existing before Covid-19 pandemic, became more and more popular. The change of shopping habits was caused by a pandemic and probably for a large part of them, even after the cancelling of economic restrictions, a significant percentage of new habits will be observed in the future. The case of *Frisco* gives an opportunity to express that the change of e-grocery market in Poland could be permanent, especially for click and collect lockers format. The authors decided to use smaller (4 people each) mini-groups, due to the difficulties related to recruiting 8 American e-grocery consumers to the focus group, which is the limitation of the study. The method is adequate to map the general landscape. However, a quantitative study is needed to deepen the information on factors of new delivery formats' development and to forsee will the new formats be permanent or are they just a quick short-lasted reaction on current market needs.

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