Reflections and predictions on effects of COVID-19 pandemic on retailing

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Abstract

Purpose – The Covid-19 pandemic has a strong effect on societies, business and consumers. Governments have taken measures to reduce the spread of the pandemic, such as social distancing and lockdowns. The latter has also resulted in a temporary closure of physical stores for "non-essential" retailing. Covid-19 thus has a profound impact on how people live. The period of relative isolation, social distancing and economic uncertainty changes the way we behave. New consumer behaviors span all areas of life, from how we work to how we shop to how we entertain ourselves. These shifts have important implications for retailers. This paper aims to discuss the potential structural effect on shopping behavior and retailing when Covid-19 measures are no longer needed and society moves back to a normal situation.

Design/methodology/approach – The paper synthesizes empirical and conceptual literature on the consequences of COVID-19 and introduces a conceptual framework along with a set of predictions that can be investigated with empirical data.

Findings – This study suggests that Covid-19 shapes both consumer needs and behavior and how retailers respond to these changes. Moreover, it suggests that this will not only affect market outcomes (i.e. retail sales and market share online) but also firm outcomes (i.e. customer experience, firm sales) and importantly the competition between online and offline retailers.

Originality/value – In the conceptual framework, this study aims to advance knowledge on longer-term outcomes (vs immediate outcomes such as panic buying) and how COVID-19 is changing the competitive landscape of retail.

Keywords Covid-19 pandemic, Retailing, Retail strategy

Paper type Conceptual Paper

Introduction

One of the most dramatic external events in the past decade has been the COVID-19 pandemic. Since the virus arose in Wuhan in China in 2019, it has spread across the world very rapidly

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leading to strong government interventions and measures, such as nationwide lockdowns. Such massive interventions have not been observed in Western countries since the end of the Second World War. The COVID-19 pandemic also heavily affected the service industry and specifically retailing. The retail industry has entered a new "abnormal," driven by the COVID-19 pandemic. Trips to the mall, dining inside a restaurant, socializing over coffee and heading to the gym; all came to an abrupt halt as stay-at-home measures were issued to prevent the spread of the virus. Now, as countries loosen COVID-19-related restrictions, both customers and retailers have found themselves adjusting to the new reality. During the COVID-19 lockdowns, visiting physical stores was mainly limited to utilitarian retail stores, such as supermarkets, petrol and drug, while more hedonic types of retailers, such as fashion, jewelry and furniture, as well as restaurants were forced to close their doors. Meanwhile, for retailers, operational upheavals have ushered in no-touch business practices focused on protecting both customers and employees. The result has been a shift in business priorities, with savvy retailers recognizing the importance of pushing aside growth in favor of customer loyalty. Specifically, retailers are adopting a "we're all in this together" mentality to keep customers.

Although we have had external shocks or crises in the past, massive shocks like this have so far not been observed in modern retailing. Prior research has mainly considered the impact of external economic changes (i.e. recessions) and internal service crises. For example, Hunneman *et al.* (2015) consider how the importance of retail attributes (i.e. price and service) changes due to changes in consumer confidence. Similarly, there is extensive research on how business cycles affect marketing expenditures, price sensitivity, etc. (for an overview, see Dekimpe and Deleersnyder, 2018). Within the service marketing literature, there are numerous studies on the impact of internal service crises on customer satisfaction (e.g. Gijsenberg *et al.*, 2015). Research on the effect of health crises, such as the current COVID-19 pandemic, on service marketing and retailing is very scarce and in the early stages. In a recent editorial of the *Journal of Retailing*, Roggeveen and Sethuraman (2020) briefly reflected on how COVID-19 is changing the world of retailing. In a recent special issue of the *Journal of Business Research* (Donthu and Gustafsson, 2020), academic scholars have initially reflected on the impact of COVID-19 on business and public policy. For example, Sheth (2020) and Pantano *et al.* (2020) have considered the impact of COVID-19 on consumer behavior and retailing, while Das *et al.* (2021) focus on the implication of pandemics on marketing. Recently, some empirical studies have appeared on COVID-19 effects on shopping behavior (e.g. Islam *et al.,* 2021; Laato *et al.*, 2020).

In this paper, we aim to discuss potential structural effects on shopping behavior and retailing when the pandemic has stopped and we move back to a normal situation. We will specifically consider how COVID-19 affects online and offline shopping behavior and the importance of shopping needs accounting for the fact that there could be differences between retailers. Furthermore, we will consider the impact on retailing strategies and tactics, as well as retail competition. We will develop predictions for these effects, which can be investigated with empirical data. We thereby assume that the COVID-19 pandemic is such a unique combination of government measures, resulting in economic effects and emotional consumer effects, that it should have structural effects on shopping behavior and retailing. We note that this paper is not meant as a strong theoretical paper, but rather as a reflection on how the authors assume that COVID-19 will affect retailing based on their knowledge of the retailing literature and their experience.

The remainder of this paper is organized as follows. We will first discuss why COVID-19 is a stepwise shock for service retailing with effects that will probably last longer than the pandemic itself. Subsequently, we will provide an overview of existing articles on COVID-19 effects and present our conceptual framework. Next, we will use this conceptual framework to discuss the potential consequences of COVID-19 for retailing and present predictions. We end with a conclusion and a section on future research directions.

COVID-19 as an economic and market shock

COVID-19 had strong effects on the economy. After the outbreak of COVID-19, all major stock exchanges, including the FTSE, Dow Jones Industrial Average and the Nikkei saw massive falls as the number of COVID-19 cases grew in the first months of the crisis (BBC News, Jan 2021 [1]). GDP also saw unprecedented decreases in 2020. In response to economic problems, central banks kept their interest rates very low to support economic recovery (Bloomberg, Jan 2021 [2]). Governments have installed very large stimulus packages to support the much-impacted industries including retailing, travel, hospitality and tourism. And in the USA also stimulus checks were provided to people whose jobs have been affected by the coronavirus pandemic (New York Times, 2021) [3]. Due to these measures as well as the quick roll-out of vaccination programs, major economies showed a strong recovery in 2021. However, these vaccination programs did not immediately lead to the end of the pandemic. In fact, in the fall of 2021, new variants of the COVID-19 virus appeared leading to record-breaking increases in infections in many countries leading to new government measures. For example, in The Netherlands, a strict lockdown was implemented, where retail stores were forced to close for a couple of weeks again. Also, in other European countries, some restrictions were implemented. It seems to remain uncertain how the COVID-19 pandemic will further develop, but it is clear that it will continue to have an effect on society.

The pandemic not only impacts the macro-economy but also strongly affects specific markets and industries. First, the intensive lockdowns in multiple industries have led to temporary closures of specific sectors or a strong decrease in demand. In multiple countries, only retailers selling essential products (i.e. food products and petrol) were allowed to physically sell their products. The travel sector was confronted with a very strong decrease in demand due to implemented travel restrictions. Second, the pandemic has led to changes in consumer behavior and consumer needs (Sheth, 2020). One important issue is the question of how persistent these changes will be. We will address several of these changes.

Prior literature on COVID-19 effects

Already in the early stages of the pandemic, there has been attention to the effects of the COVID-19 pandemic on business, markets and consumers. As noted the *Journal of Business Research* devoted a special issue to these effects (e.g. Donthu and Gustafson, 2020). Also, the *Journal of Service Research* included some reflections (Voorhees *et al.*, 2020), while the *Journal of Retailing and Consumers* published multiple empirical studies in the early stages of the pandemic (e.g. Laato *et al.*, 2020). Furthermore, some editorials focused on COVID-19 effects (e.g. Roggeveen and Sethuraman, 2020). It is very clear that all this prior literature hints at the potential effects of COVID-19 on consumers, markets and business. It is though important to mention that some of these effects happen in the context of ongoing changes, especially with regard to ongoing digital transformation (e.g. Verhoef and Bijmolt, 2019; Roggeveen and Sethuraman, 2020; Grewal *et al.*, 2021). In this brief overview, we aim to discuss the most important reflections and findings.

We classify prior literature based on the focus of COVID-19 consequences and the use of empirical data vs a mere conceptual discussion. We distinguish five main consequences being discussed: (1) Consumer Behavior, (2) Business Strategies, (3) Retail strategies, (4) Human resource management and (5) Supply chain management. In Table 1, we provide a list of these studies and also show whether the studies present empirical data or are more conceptual.

Sheth (2020) provides a conceptual discussion on the consequences of COVID-19 on consumer behavior. He distinguishes eight immediate consumer responses, such as hoarding behavior, embracing digital technologies, the discovery of new talent (i.e. cooking) and pent-up demand (see also Pantano *et al.,* 2020). Importantly, he also suggests that some of these behaviors might turn into a habit (Verplanken, 1988), which might lead to long-term effects.

Focus	Conceptual vs. Empirical	Studies
Consumer behavior	Conceptual	Sheth (2020), Pantano *et al.* (2020), Hazée and van Vaerenbergh (2021), Lang *et al.* (2021)
	Empirical	Islam *et al.* (2021), Laato *et al.* (2020), Fischer *et al.* (2021), Gijsbrechts and Gielens (2021), Kaiser *et al.* (2021), Ahmadi *et al.* (2021), Guthrie *et al.* (2021)
Business strategies	Conceptual	Eggers (2020), He and Harris (2020), Woodside (2020), Wang *et al.* (2020), Das *et al.* (2021)
Retail strategies	Conceptual	Pantono *et al.* (2020), Roggeveen and Sethuraman (2020), Berry *et al.* (2020)
Human resource management	Conceptual	Carnevale and Hatak (2020), Voorhees *et al.* (2020), Tuzovic and Kabadayi (2021)
Supply chain management	Conceptual	Sharma *et al.* (2020a), Mollenkopf *et al.* (2021)

Hazee and van Vaerenbergh (2021) specifically focus on the consequences of contamination concerns on consumer psychology and behavior. In a conceptual discussion, Lang *et al.* (2021) discuss how their six theoretical distinguished prosumer segments react differently to the COVID-19 pandemic health crises. Roggeveen and Sethuraman (2020) discuss the impact of COVID-19 on the move to online stores. Kirk and Rifkin (2020) focused conceptually more on the panic reactions of consumers. Empirical studies have considered these reactions. Laato *et al.* (2020), Islam *et al.* (2021) and Prentice *et al.* (2021) considered the immediate response of hoarding behavior or panic buying. This indeed occurred and was also stirred up by restrictions of the government and through online information exposure increasing insecurity and fear. Studies also specifically considered stockpiling. Ahmadi *et al.* (2021) show more store visits immediately after the outbreak of COVID-19 across multiple countries and suggest that stockpiling was more pronounced in countries whose residents show high uncertainty avoidance, low long-term orientation, low indulgence and high individualism. Fisher *et al.* (2021) looked at personality drivers of stockpiling and found that honesty-humility was negatively correlated while emotionality and victim sensitivity were positively correlated with stockpiling intentions. Guthrie *et al.* (2021) studied the switching to online shopping during the early phases of the pandemic. Indeed, they show that online sales have grown in multiple categories. Kaiser *et al.* (2021) have studied online sales development among specific consumer groups and show that online sales have especially grown among older consumers, which also seems to have a permanent character. Gijsbrechts and Gielens (2021) show also an increase in online food shopping immediately after the start of the pandemic, but they also suggest that this increase is not permanent.

There have been several discussions on business strategies. Sharma *et al.* (2020a, b) take an international business perspective and consider how firms can manage uncertainty globally. This, for example, is important for service firms, like DHL. Eggers (2020) discusses the challenges small- and medium-sized enterprises face. On the one hand, they do not have the resources (i.e. good IT systems) and capabilities to respond in an adequate fashion. On the other hand, they are smaller and more flexible to respond. Wang, Hong and Gao (2020) discuss how Chinese firms implemented marketing innovations, thereby considering two dimensions: (1) level of collaborative innovation and (2) the motivation for innovations distilling four categories of strategic innovation responses. Academics have also considered the impact of the pandemic on corporate social responsibility and marketing philosophy (He and Harris, 2020). Some firms have aimed to benefit from the COVID-19 pandemic, but He and

Harris (2020) suggest to clearly act socially responsible and that the marketing philosophy is moving more to the societal marketing concept due to COVID-19. In a similar vein, Woodside (2020) also pledges an extension of the marketing concept due to the COVID-19 pandemic. In a recent paper, Das *et al.* (2021) consider how pandemics, such as the COVID-19 pandemic, affect marketing (strategy) using a 7-p model, thereby assuming that the resulting macro-forces of the pandemic (i.e. scarcity and economic contraction) affects outcomes, such as pricing, distribution and people.

Some papers focused more on retail strategy responses. Specifically, Pantano *et al.* (2020) discuss how retailers can respond to the COVID-19 challenges and changes in consumer behavior. Their main message seems to be that retailers should put the interest of consumers before profit taking sufficiently taking care of health prevention measures. Berry *et al.* (2020) focused on how service firms, including retailers, can implement safety measures in their service operations using self-service technologies, such as self-scanning.

Consequences
In the service literature, there is also ample attention to the impact of COVID-19 on human resource management and specifically the well-being of frontline-service employees, as these employees are in close contact with customers (Voorhees *et al.*, 2020; Tuzovic and Kabadayi, 2021). This creates health risks for these employees and calls for safety measures (e.g. Berry *et al.*, 2020). In a broader sense, Carnevale and Hatak (2020) discuss implications for human resource management to assure the well-being of employees. An important change for many employees has been the move to working from home, which also induces changes in consumer behavior as work and home are less separated physically.

The COVID-19 pandemic has also strong implications on the supply chain, as due to lockdowns factories were forced to close and the transport was affected. The effect of the COVID-19 pandemic on supply chains has mainly been discussed conceptually (e.g. Sharma *et al.*, 2020a). Mollenkopf *et al.* (2021) link the supply chain challenges to customers and employees. They employ a transformative service lens to examine the role of the supply chain ecosystem in ensuring the health and safety of employees and customers as a well-being outcome during the coronavirus disease of the 2019 (COVID-19) pandemic.

Reflecting on studies presented in Table 1, we note that multiple studies have been written shortly after the outbreak of the pandemic (e.g. Sheth, 2020). The majority of the studies are conceptual (e.g. Voorhees *et al.,* 2020), while the presented empirical studies are also sometimes anecdotal with limited sales data (Guthrie *et al.*, 2021) or mainly use self-reported data (e.g. Islam *et al.*, 2021).

Conceptual framework
The discussed prior literature clearly shows that COVID-19 will have an effect on consumer behavior, market outcomes and firm strategies. The prior literature also focuses strongly on immediate outcomes, such as panic buying. Only a few studies have aimed to consider permanent outcomes conceptually or empirically (Sheth, 2020; Gijsbrechts and Gielens, 2021). In our conceptual framework, we aim to focus more on longer-term outcomes and how COVID-19 is changing the competitive landscape of retail. We thereby focus first on how COVID-19 is shaping both consumer needs and behavior and how retailers respond to this both tactically and more strategically. We assume in our conceptual framework, that this will not only affect market outcomes (i.e. retail sales and a large share of online), but also firm outcomes (i.e. customer experience and firm sales) and importantly the competition between online and offline retailers.

In our framework, we also clearly acknowledge that there are other macro-trends that are already shaping changes in the retail industry before COVID-19 and that COVID-19 can function as an impetus for further development. These developments mainly focus on digital transformation and technologies, stronger emphasis on sustainability due to climate change and focus on corporate social responsibility and ethics (e.g. Ailawadi *et al.,* 2014; Grewal *et al.,* 2021; Shankar *et al.,* 2021; van Doorn *et al.*, 2021; Verhoef and Bijmolt, 2019; Vadakepatt *et al.,* 2021; Verhoef, 2021).

Importantly, in our framework, we also assume feedback effects. For example, changes in retail sales may force retail firms to adjust their retail strategy, while also changes in customer experience may affect how consumers behave, as well as how retailers will react (e.g. Lemon and Verhoef, 2016; Pauwels, 2004).

In the conceptual framework, we also acknowledge that there are differences between retailers. Specifically, we consider that there are differences between retailers having a low-cost focus (i.e. discount retailing) and a service focus (Steenkamp and Sloot, 2018). Prior literature has clearly shown differences between these retailers in how consumers respond to retail strategies (e.g. Hunneman *et al.*, 2021).

Changes in consumers' needs and behavior
Health prevention
The first shift in consumer behavior is the focus on health prevention (Sheth, 2020; Hazée and van Vaerenbergh, 2021). Due to the COVID-19 pandemic, consumers became much more aware that prevention measures can be taken to reduce the risk of infection. The focus on social distancing, wearing face masks and washing hands are measures being taken during the pandemic. In the aftermath of the pandemic crisis, consumers may focus more on prevention in order to be safe. Increased awareness for health prevention is expressed in customer channel choices. Consumers in major retail service sectors such as supermarkets and drug stores have shown caution in engaging in face-to-face contact. In the healthcare sector, doctors are increasingly seeing their patients via video conferencing during lockdowns. Stanford Children's Health Hospital even rose to 500 digital visits a day [4]. In a similar vein, e-pharmacy and services are on the rise and shopping that would normally have been done offline has been replaced by online ordering. Health prevention also affects behavior in the store. For example, the pandemic has spurred the adoption of contactless payments in Europe. In October 2020, consumers used cashless payment services for 67% of their purchases compared to 50% at the beginning of the year (DNB 2020) [5]. Retailers also heavily invested in self-checkouts and implemented on premise safety measures to serve consumers with a strong need for social distancing (Retailtechinnovationhub, 2021) [6] confirming Berry *et al.* (2020)'s call for a strong emphasis on technology focusing on safety (see also Voorhees *et al.,* 2020). During the first COVID-19 outbreak waves, we also noticed that many consumers preferred to shop at less crowded stores and stores with wide aisles. This prospered the sales of large service store chains such as Walmart in the USA and Tesco in the UK, while at the same time, this seemed a disadvantage for relatively small and crowded discount store concepts such as Aldi, Lidl and Trader Joe's. However, a large part of these effects do not seem to last when the COVID-19 restrictions are eased (The Times, 2021) [7]. Another remarkable change in consumer behavior is that consumers are less willing to travel large distances to stores (EY, 2020 [8]) resulting in increased popularity of local and speciality stores at the expense of stores in crowded city centers. As part of society will work more often at home, the increased popularity of local and speciality stores might continue as more people can plan to visit a local store during the day.

The pandemic has also accelerated the demand for healthy eating and food supplements (i.e. vitamins). The past year has made it clear that not everything in the world of health is

under our control. Consumers now feel the need to be healthier and eat healthier foods. Because they spend more time at home and restaurants were closed, time and money are freed up for increases in the consumption of organic and natural food. In the aftermath of the pandemic, consumers consider it more important to take their health into their own hands to relieve pressure on healthcare systems. As a result, consumers intend to spend more on health-related product categories like over-the-counter products and prefer trusted, with science-associated brands (Research by GSK Consumer Healthcare and IPSOS, 2020 [9]). Also, especially organic supermarkets showed a strong sales increase during the pandemic (Supermarket News, May 2021) [10]. It also seemed logical, given the increased health concern, that consumers would buy more fresh products, but especially canned and frozen food products showed a strong sales increase (Janssen *et al.*, 2021). An explanation for this counterintuitive finding might be that the shopping frequency went down by approximately 20% during the lockdowns and that consumers were reluctant to buy a lot of fresh products given their perishability (Supermarket News, July 2020) [11].

Stronger focus on technology
The lockdown of multiple retail sectors has created a dramatic shift from physical retailing to online retailing. This development of a move to online sales was already going on for 2 decades in multiple markets (e.g. Roggeveen and Sethuraman, 2020), but COVID-19 induced a strong shift with enormous growth rates for online players, like Amazon. As noted above, this was partially due to health prevention needs. However, consumers were also forced to move their purchase behavior to webstores during lockdowns, if they, for example, wanted to buy clothes. Prior research has consistently shown that there is a sizable market segment not using online to search or purchase products (e.g. Konus *et al.*, 2008; Herhausen *et al.*, 2019). Now this segment was forced to buy online if they wanted to buy the products they needed. While innovative consumers already were strong users of the online channels, less innovative and typically older consumers were still strongly focusing on the offline channel. A part of the latter group of consumers now also started to order at online stores (Kaiser *et al.*, 2021). Consumers have now all experienced online shopping. This not only holds for retailing but also for restaurants where consumers got used to ordering meals online and delivered by, for example, Uber Eat. Having this online experience, consumers have learned about the benefits (i.e. convenience and assortment) and costs (i.e. price and payment risk) of online retailing and services (Verhoef *et al.*, 2007). These experiences may lead to a more permanent change in consumer needs and preferences. Consumers may, for example, demand more convenience, expect a larger assortment and demand easier-to-use technology in physical stores.

Focus on in-home
Due to the government policies on stay-at-home requirements or household lockdowns, the home has become the new hub and has become a starting point for consumption experiences. Research by Campos-Vazques and Esquivel (2020) shows that consumption patterns were affected differently across categories: Those that were independent of location (healthcare, insurance and telecommunication) showed increases in expenditures, whereas those related to out-of-home activities like tourism, food services and transportation showed declines. In a similar vein, research shows that those working from home have a substantially different consumption pattern than those not working from home: American adults who work from home, spend less time on working and on personal care (e.g. grooming), but more on sleeping, food production, at-home eating activities and leisure (e.g. watching TV) (Restrepo and Zeballos, 2020). From a customer journey perspective, this implies that so-called consumer-owned touchpoints are gaining importance (Lemon and Verhoef, 2016). Consumers have, for example, developed new hobbies that can be practiced at home (Sheth, 2020), such as baking and at-home dinner

preparations. Consumers have also increased usage of in-home digital services like fitness on demand and increased consumption of media services of firms like Netflix and Disney.

Stronger focus on sustainability and local
Within retailing, there is already stronger attention to sustainable retailing with, for example, an increasing assortment of organic grocery products (e.g. Vadakkepatt *et al.,* 2021; van Doorn *et al.,* 2021). However, the COVID-19 pandemic has made this more prevalent and specifically induced a stronger focus on local. The breakdown of global supply chains (e.g. Sharma *et al.,* 2020a) exposed a dependency on imported goods. The concept of the "global consumer" has unraveled as supply lines were cut, flights grounded and borders closed. The pandemic also clearly showed the dark side of globalization, as diseases easily spread around the globe. This may lead to a stronger focus on local and favoring less global. This has also fueled the need for self-sufficiency. This is illustrated by booming customer demand for meal-box services that are made up of regional produce from a network of 125 producers (farmers, fishermen, etc.) and move from farmer's land to plate within 12 h (e.g. boerschappen.nl). Next to the local character, central themes of this firm are "honest food chain" and customer convenience. Relatedly, the pandemic has initially also induced a "we are all in this together" attitude resulting in stronger support for local entrepreneurs through the hardship of the pandemic and attention to those around us. However, as the pandemic endured and COVID-19 became an enduring burden on the daily lives of most consumers, this attitude seems to have partially disappeared and consumers might even have become more selfish.

The pandemic has also increased awareness of nature and climate. For example, 8 of 10 Dutch consumers (compared to 25% pre-pandemic) have indicated that they will limit flying and car usage. The same research shows that 71% of Dutch citizens want to retain the positive environmental developments that stem from Covid restrictions and that 41% want the government to actively work on the economy and the environment (I&O Research, March 2020 [12]). This trend coincides with the stronger attention to climate change and its' emerging consequences for societies (i.e. flooding, heat waves, etc.) leading to a stronger attention for sustainability (e.g. IPPC, 2021 [13]). As a result, retailers might focus more on building energy efficient stores and/or include rooftop greenhouses to meet changed consumer needs.

Retail responses
So far, we have discussed the consequences of the COVID-19 pandemic on consumer needs and behavior. In this section, we aim to focus our discussion on the consequences of retailing and how retailers can respond. Thereby we focus more on long-term reactions going beyond immediate reactions, such as creating additional supply to counter panic buying. We will develop specific predictions on expected effects in line with our conceptual framework.

Mitigating health prevention needs
Consumers' shifting needs during uncertain times require firms to do more than simply communicate the availability of "COVID-19-related enhanced service levels" to consumers to stabilize demand. To keep customers engaged with the firm, there are additional actions that companies can take. We especially expect that a need for social distancing will remain present, at least for several years. As a consequence, retail stores will have to reinvent how to operate a business profitably in the face of reduced footfall and social distancing preferences. There are some options. Retailers might extend opening times to spread customers more gradually over the day. Touchless is a big thing in harnessing against the health concerns of COVID-19. Lush, for example, has a Lush Lens app which enables consumers to scan

products in store for additional information like price and ingredients without having to pick them up. A similar example is Coca-Cola's touchless vending machine which makes use of QR codes to close the deal. They can also reduce assortment to provide more space in the store. This might however reduce the attractiveness of the store. This could be solved by focusing more on online touchpoints in the store, where an additional assortment is offered. This leads to hybrid forms of offline and online retailing, also referred to *phygital* retailing. Retailers can also open new stores outside city centers, where square meters are cheaper and larger stores can be operated. Retailers could also offer opportunities for consumers, that allow them to spend less time in the store. This could be done by offering omni-channel solutions, where for example with mobile apps consumers can extensively search products and are then motivated to visit the store to have a good purchase experience. Pandora, a jeweler, added remote shopping assistant services to enable store staff to guide customers through their buying journey from the comfort of their own homes. Retailers might also invest in Click and Collect solutions, where consumers are also stimulated to purchase online but to pick up the products at the store location. The store can then be visited to purchase some additional products, but the bulk of the products is purchased online (Gielens *et al.*, 2021).

To limit social interactions in the store, retailers can also implement more self-service and AI solutions. Self-service solutions such as self-scanning and self-checkouts. This may also reduce the time consumers spend in the store. AI solutions using mobile apps may help consumers find the right products in the store (Verhoef *et al.*, 2022), which may also lead to less social interactions and additional savings as service personal does not have to be contacted. Furthermore, it also may increase shopping speed. An example is Zara's new to be opened store in Madrid which will become "a global benchmark for the integration of the store and online shopping experiences." With the aim of increasing customer service, technologies such as changing room reservations, locating in-store positions of web-browsed items, and in-app payments (to avoid printed tickets and to avoid crowds and queues) are added to the physical sales space. However, self-service and AI may also reduce the personal service experience in the store, which is traditionally considered a major differentiator of offline service retailing. Service retailers thus have to be careful to implement these solutions.

The move to more hybrid forms of retailing seems a likely strategy for service retailers. However, discounters may face stronger problems. They face multiple challenges. First, given their low-cost focus investments in AI solutions may be too costly, while consumers might also not value it given their focus on price and less on experience (Hunneman *et al.*, 2021). These solutions may also negatively affect their price image. Second, discounters have typical fewer square meters providing less opportunities to create more space for consumers despite having a smaller assortment (Steenkamp and Sloot, 2018) creating more crowding. The ability to reduce assortment further is very limited and thus providing in-store solutions combining offline and online will be challenging. Furthermore, as noted it is questionable whether customers of these retailers will value these solutions given their focus on a low price. Overall, we expect that service retailers have to invest in hybrid solutions to counter health and technological wishes of consumers, while low-cost-focused retailers will do this to a lesser extent.

P1. Service retailers will increasingly implement hybrid forms of retailing, while discounters will do this to a much lower extent.

Mitigating online
As discussed, the COVID-19 pandemic increased the competition of traditional service retailers with online concepts. In the past, retailing and service literature have emphasized the importance of multi-channel operations for retailers. There is some evidence that multi-channel retailers indeed have a higher sales growth (Cao and Li, 2015) and that adding online

channels is positively valued by the stock market (Homburg *et al.*, 2014). Adidas, for example, has integrated endless-aisle technology to their stores. This retail service offers opportunities to mitigate the offline disadvantage of limited stock and assortment and the potential to customize offers. However, there is no strong evidence that multi-channel is the ultimate solution for store-based retailers to successfully compete with online retailers (e.g. Liu *et al.*, 2018). These retailers face several difficulties including required large investments in the online channel, the lack of strong digital capabilities (e.g. Verhoef *et al.*, 2021), severe price competition with strong and large online players (i.e. Amazon) and online advertising (i.e. Google). Still, COVID-19 is likely to lead to lower sales in the store and hence if retailers aim to retain market share having a successful online channel seems necessary for service retailers.

Retailers following a discount strategy typically serving a price-oriented segment are less likely to be affected by online competition (Steenkamp and Sloot, 2018). While discount stores were more affected by COVID-19, they now recover easy and reach pre-COVID-19 sales levels again (Kantar, 2022) [14]. Moreover, in the aftermath of the COVID-19 crises and the war in Ukraine, inflation is on fire due to global supply chain problems and a faster-than-expected increase in demand (CNBC, 2022) [15]. This will increase price sensitivity and will provide discounters opportunities to gain market share. The high investment in online operations for discounters and the high delivery and service costs will make the online model not attractive for discounters despite the COVID-19 crisis. We thus assume that they remain hesitant to invest in multi-channel solutions.

Given the strong problems service retailers now face, it is also our assumption that the development of an online channel will now be very difficult for traditional store retailers. Moreover, these retailers will be late movers and will be confronted with disadvantages. Only when they will be able to be really innovative, they could be successful (Shankar *et al.*, 1998). Service retailers that already have developed an online presence will have an advantage and are more likely to remain successful retailers in the future, as they already have built up capabilities and an online brand presence and did substantial investments before COVID-19. We have developed the following two predictions:

P2. Low-cost focused retailers (i.e. discounters) will invest less in multi-channel operations, than service retailers.

P3. Service retailers already having developed an online channel (and thus being a multi-channel retailer) before COVID-19 will be more successful (i.e. higher sales growth, higher profitability) with their online operations than retailers that are developing an online channel (and thus become a multi-channel retailer) as a response to the COVID-19 crises.

Mitigating in-home
A major trend is thus the focus on in-home experiences. From a customer journey perspective this implies, that customer-owned touchpoints become more important in the customer journey, at the expense of other touchpoints, such as the retail store (Lemon and Verhoef, 2016). Service retailers can benefit from this development, if they offer products and solutions that help customers in their in-home experience. For example, as customers have rediscovered baking and cooking at home, apps can be offered with food recipes and ways how they can improve their baking and cooking performance. Similarly, virtual reality can make attending a concert or visiting a museum happen by using cutting-edge technology. This not only addresses consumers' needs (here, for culture) but also help grow service retailers' audiences. At the moment, several major companies including IKEA, Mastercard and Amazon have already incorporated virtual and/or augmented reality into their shopping applications. This implies that retailers should go beyond value-creation within the store, but also should develop solutions that create value in-home improving the customers' experience

of their own touchpoint (Vargo and Lusch, 2004). An in-depth customer-centric understanding how the in-home customer owned touchpoints contribute to customer experience is essential. We assume that this experience is especially relevant for service retailers and less for low-cost focused retailers. Hence, we have developed the following predictions for service retailers only:

P4. Service retailers implementing solutions improving customer's performance in-home will have a higher customer experience than service retailers not having implemented these solutions.

Mitigating local/sustainability
During the pandemic, we have seen the rise of local market places, such as Lokalist.nl where local entrepreneurs collaborate to support local store survival during the pandemic and to continue service to the customer at low/no cost. It seems essential that national and international operating service retailers need to embrace this local focus, by, for example, including more local assortments in the store. Other solutions could be that service retailers function as a platform offline (store within a store) and online for these local initiatives. Service retailers have the capabilities to run successful retail operations and using a platform strategy they can support these local initiatives and also benefit from them. As noted, focus on local produce and sustainable consumption receives widespread attention as witnessed by increased customer demand for organic products. This trend seems to be ongoing and is likely to be supported by a strong interplay of NGO's and government measures (i.e. stimulating sustainable consumption with a strong focus on CO_2 emissions). We though also note that consumers may still face issues with sustainable products, such as high prices and sometimes presumed lower quality (Van Doorn and Verhoef, 2015; van Doorn *et al.*, 2021), leading to lower intentions to purchase these products. For service retailers, it is though important to invest in sustainable retailing. It is likely that this will have positive performance consequences. There is extensive evidence that CSR yields small positive returns for CSR initiatives and increases loyalty through improved customer attitudes (e.g. Ailawadi *et al.*, 2014; Margolis *et al.*, 2007; van Doorn *et al.*, 2017). CSR initiatives such as introducing organic products should though also be combined with a clear sustainable strategy (van Doorn *et al.*, 2021) in order to be successful. We postulate that especially service retailers having already developed a strong sustainable strategy and extending that with a stronger focus on local and sustainable initiatives will be more successful.

For low-cost-focused retailers, a focus on sustainability may be considered by consumers as not consistent with a low-price strategy, as typically sustainable products are much more expensive than regular products (Van Doorn and Verhoef, 2015). Thus discounters should be careful with assortment changes focusing on sustainability. Hence, we mainly expect that service retailers will benefit from a sustainable focused strategy in their assortment and thus developed a prediction for service retailers only:

P5. Service retailers with a strong CSR strategy before COVID-19 developing more sustainable initiatives (i.e. embracing local, extension of sustainable assortment, sustainable supply chain management) will have higher performance than service retailers not having a CSR strategy. This difference in performance will be stronger after COVID-19 than before COVID-19.

Market and competition effects
We discussed the consumer need consequences and retailers' responses in the prior sections. These changing consumer needs and the lockdowns have also strong market effects. These

are especially strong for the competition between online and offline businesses. We already noted that this competition has been going on for 2 decades now and that this not only occurs due to changes in the market resulting from changes in consumer behavior but also due to changes in financial markets.

Since the development of online, retailers such as Amazon and Zalando with digital business models have successfully entered the market and have become dominant market players (e.g. Verhoef and Bijmolt, 2019; Roggeveen and Sethuraman, 2020). There have been extensive discussions on how these digital players are changing retailing (e.g. Reinartz et al., 2019; Shankar et al., 2021). Traditional retailers respond to these developments by developing multi-channel strategies (Neslin et al., 2006). For example, food retailers such as Ahold Delhaize and Tesco, have strongly invested in online retailing. French retailers, such as Leclerc and Carrefour have implemented Click & Collect solutions, where consumers can order online and pick up their grocers offline (e.g. Gielens et al., 2021). As discussed, these reactions will be more prominent due to COVID-19.

Both lock-downs forcing consumers to go online, as well as health-prevention concerns, have driven consumers to the online channel. This change was not gradually, as what we have seen in the past with a significant trend of increasing online sales over time. The change in online sales was a large shock with increases in online sales of more than 40% in 2020 [16]. This steep increase is observed in many retail sectors (Guthrie et al., 2021). Even in food retailing large increases were observed, despite the fact that these stores were not closed during the lockdowns. A major question is whether these sales increases will persist over time, or will only be a shock and whether sales will return with a prior growth rate again? We take two perspectives on this: (1) a consumer perspective and (2) a business perspective.

Taking the consumer perspective, the first question is whether the considered changes in consumer needs will remain present. This specifically holds for the health prevention need. If consumers remain aware of the health risks of being close to other consumers, they might continue to prefer online over offline shopping. However, the increased vaccination rate might gradually decrease the perceived health risk of meeting other people. Furthermore, consumers might get used to the virus, while there can be increasing resistance to measures to reduce health risks as the pandemic endures. A second question is whether consumers having learned about the benefits and costs of online shopping will start preferring online over offline given the newly discovered benefits. Our discussion on a stronger focus on technology, suggests that consumers are likely to have a stronger preference for online shopping. Finally, a third question is whether online shopping will just become a habit (Sheth, 2020; Verplanken, 2006). Due to habit formation, online shopping could be the most likely choice replacing the prior most likely choice for offline retailing. A recent study by Gijsbrechts and Gielens (2021) shows little evidence for persistence in online customer behavior in food retail. However, Kaiser et al. (2021) suggest that especially consumers aged above 65 seemed to continue with online shopping when government measures were relaxed. Very recent figures suggest that now measures have been relieved and the pandemic turns into an endemic, that retail sales indeed recover. However, for example in the UK retail sales do not seem to return to pre-COVID-19 levels [17].

It is though not only a consumer perspective that has an impact on how online and offline developed. The COVID-19 pandemic and measures have strongly affected how retailers could function. While many physical stores suffered and could only survive with government support, online retailing flourished. We show in Figure 1 how this might work out for online and offline retailing. In this figure, we consider COVID-19 as an external shock (see also Figure 2). This external shock thus leads to changes in shopping behavior. It is expected that this will not only be temporary but there will also be a permanent shift. This will lead to weakened revenues and lower profitability for physical stores, resulting in a lower market capitalization. Note that the lockdowns have strongly weakened cash position immediately,
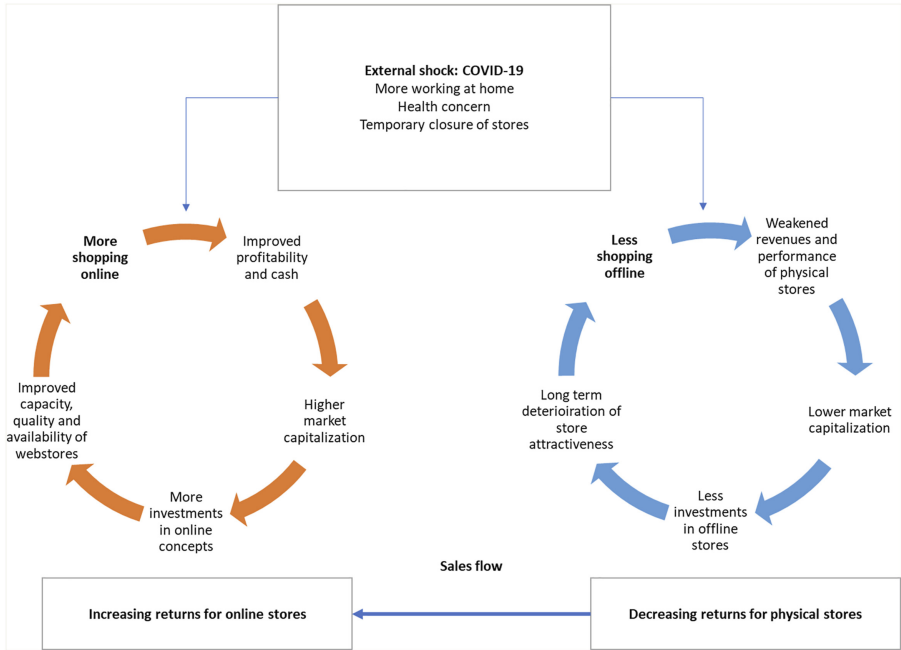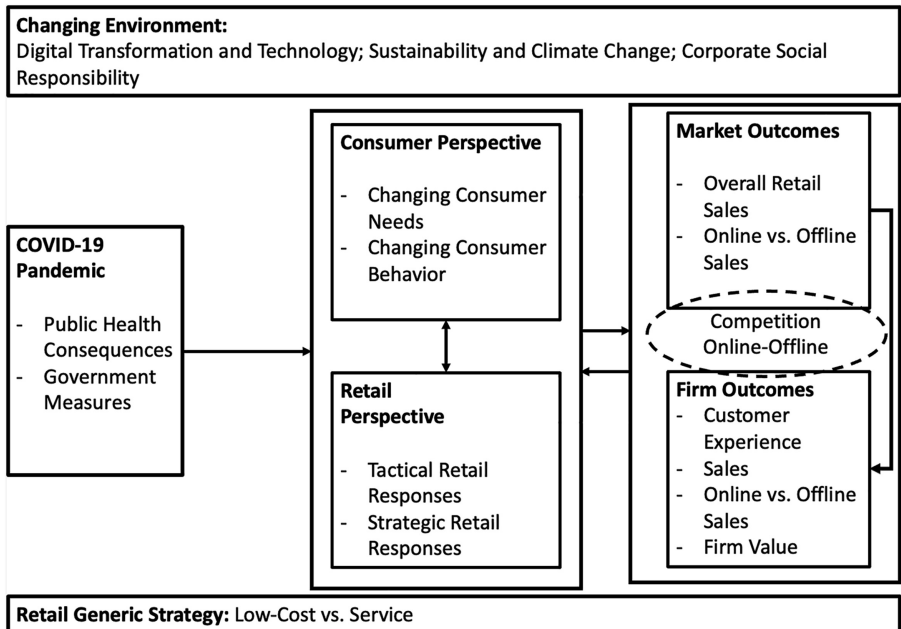
especially for retailers forced to close their stores, as government support only partially covered sales losses. As a consequence, physical retailers will face strong financial difficulties and become more reluctant to invest in store improvements, which will in the long-run further reduce store attractiveness. Online concepts are though on the rise and investors are willing to invest in digital business models. For example, Turkish food delivery start-up Getir was able to attract 768 million dollar of growth capital (Reuters, March 2022) [18], while online retailer Picnic attracted extra investment money from Edeka facilitating a further roll-out in Germany as well as France (Retaildetail 2021) [19].

As a consequence, online stores will only be improved and attractiveness will increase. In the long-term, this implies that sales will continue to move away from offline to online retailing. This development might already have been ongoing before COVID-19, but COVID-19 is likely to make this movement even stronger. These developments on the market side, the financial position of store retailers and the developments in financial markets.

There is though one caveat we have to mention. The lockdowns presented online retailers with a strong unexpected increase in demand. As a consequence, retailers had to invest in new warehouses, logistics, etc. to serve new as well as existing customers. As not all sales increases will be permanent, online retailers may have invested too much and the ROI of these investments may be disappointing. There could also be the excess capacity (i.e. too much fulfillment capacity or too many vans for delivery of online food sales). This may especially be an issue for food retailers as the online channel is still far from profitable for most omni-channel retailers. Some early figures from the UK show that the market share of online grocery initially almost doubled during the first stages of the pandemic, but that sales slipped a little bit post-vaccination (Morningstar, August 2021) [20]. As noted, recent research by Gijsbrechts and Gielens (2021) also shows that for food retailing many new online retail customers return to the store. However, we expect that this will just be a temporary hick.

We expect that COVID-19 will lead to a fundamentally stronger position for online retailers compared to traditional offline retailers, due to changing consumer needs and reduced investments in physical stores. As a consequence, we expect that COVID-19 will have a permanent effect on the retail sector. This will imply that we expect that in the long-run online retailers will continue to grow at the expense of offline retailers. This will induce offline retail firms will face strong problems to survive. In our conceptual model (Figure 2), we also suggest differences between service and low-cost retailers. Low-cost retailers serve a specific market segment focusing on low prices with specific assortments (Steenkamp and Sloot, 2018). Due to especially high logistic (i.e. delivery) costs, online retailers will find it difficult to effectively compete with low-cost offline retailers and to gain market share from these retailers. Hence, we expect that low-cost retailers will face less problems. We have the following predictions:

Based on the above discussion, we have developed the following major predictions:

P6. Offline retailers will face strong survival problems due to a permanent stronger position of online retailers.

P7. Survival problems for offline retailers will be weaker for low-cost retailers than for service retailers.

Future research
In this paper, we mainly reflected on the consequences of the COVID-19 pandemic for service retailing based on a discussion of changes in consumer needs and consumer behavior. The reflections are based on our knowledge of the literature and our experience in the retailing industry. As a consequence, this paper also contains own opinions on how COVID-19 will

affect retailing. We provided some predictions on how retailers can mitigate the effects of the COVID-19 pandemic and what potential sales effects are. By formulating predictions in an academic paper, we might create the impression that these predictions will indeed become reality. However, it should be very clear to the reader of this paper, that these predictions are rather uncertain given that a pandemic is occurring very rarely and theory development on the impact of pandemics on consumer behavior and retail is rather weak. Moreover, there is a lack of data. These stated predictions can though be investigated in future research and we stimulate researchers to do so.

However, there are also other avenues for further research. As noted earlier, the majority of studies on COVID-19 effects have been conceptual (Table 1). There are some empirical studies, but they mainly focus on the immediate effects of COVID-19 in 2020 considering behaviors, such as panic buying, hoarding, stock-piling and a move to the online channel. Only recently, two papers have considered some long-term effects (e.g. Gijsbrechts and Gielens, 2021).

One major issue in our reflection is that we assume that changing consumer needs and behavior will be persistent. The question is whether this is actually true. Recent research by Gijsbrechts and Gielens (2021) suggests that this is not straightforward and should not be easily assumed. They show that a large number of customers of online grocery retailing returned to the store. This though focuses on grocery retailing only, where the adoption of online retailing was still very low. We believe there is an urgent need for studies showing whether the effects of COVID-19 are persistent over time or in the end are a temporary phenomenon. In Table 2, we provide some important research questions in this regard, thereby taking our conceptual model in Figure 2 as a starting point.

Beyond the research issues mentioned in Table 2, we also observe two other areas for future research. First, due to COVID-19, governments started to have a strong influence on the daily lives of consumers. While consumers accepted these measures in the early phases of the pandemic, in later phases, this became more problematic for specific groups. What is the impact of the strong government interventions leading to reactance among specific consumer segments and leading to stronger polarization or deepening existing lines of polarization (i.e. democrats vs republicans in the USA) on consumer behavior? How do health-prevention requirements (i.e. obliged testing and vaccination, wearing of mouth masks) of service providers affect customer experience and customer loyalty? There are probably many other

Research focus	Examples of research questions
Consumer needs	To what extent are the effects of COVID-19 on changing consumer needs regarding health, technology, in-home and sustainability persistent?
Consumer behavior	To what extent is the switch to online shopping as observed during the pandemic persistent? And what is the interplay between the existing trend of digitalization, changing retail strategies and COVID-19 in this behavioral change?
	Will other trends in behavior (i.e. more in-home, and stronger focus on sustainability/local) remain or disappear?
Retail strategies	Will COVID-19 pandemic induce a persistent increase in investment in new digital technologies by retailers?
	Will more retailers remain multi-channel after the pandemic?
Market outcomes	To what extent will online players retain higher sales growth levels after the pandemic? Will their sales growth levels return to levels before the pandemic? And will they actually be confronted with reduced sales, as the pandemic only caused a temporary peak in sales?
Firm outcomes	What is the impact of the use of new digital technologies on customer experience?
	Will offline retailers indeed have strong survival problems in the after-math of the pandemic?
	Will offline retailers' market capitalization decrease in the coming years?

Table 2.
List of potential research questions to be studied

questions to ask and we stimulate service and retail researchers around the globe to come up with more interesting research issues.

Second, one important issue is that COVID-19 seems to have long-term effects on the economy. Specifically, due to problems in global supply chains in combination with a stronger than expected recovery of economies, prices of natural resources, semi-finished products such as computer chips, transportation costs and labor rose much faster than anticipated [21]. This is leading to consumer inflation levels and a loss of purchasing power we have not observed for a long period of time in most Western countries. Inflation levels are now even sky-rocketing due to the widely condemned invasion of Russia in Ukraine. The world is recovering from COVID-19 and is now moving into a new crisis with strong economic unforeseen consequences [22]. This will raise important issues in retailing. How will price-sensitivity develop also given these economic consequences of the pandemic? How will retailers react? Where will they procure their assortment? How does this affect negotiations with suppliers?

Concluding thoughts

We thus reflected in this paper on the consequences of the COVID-19 pandemic for retailers. In our discussion, we mainly focused on retailing to keep it focused. However, similar effects can be found in other service industries. For example, restaurants were also closed and had to develop solutions (i.e. at home delivery) to stay in business and a trend like focusing on in–home experiences will also affect them. For other service industries (i.e. travel), no alternative revenue sources were available. Hence, we also pledge for reflections on how COVID-19 affects specific service sectors, such as travel and hospitality. We hope that our reflections will stimulate future research on this topic and will also help the service and retail management to develop good pandemic recovery strategies. Furthermore, it would be relevant to use more structured methods to derive important trends, that are expected in the future, such as the Delphi technique (e.g. Watson, 2008; Fehrer *et al.,* 2018).

Notes

1. (https://www.bbc.com/news/business-51706225)

2. (https://www.bloomberg.com/news/articles/2021-01-05/ultra-low-interest-rates-here-to-stay-2021-central-bank-guide)

3. (https://www.nytimes.com/article/coronavirus-stimulus-package-questions-answers.html)

4. (https://med.stanford.edu/news/all-news/2020/03/stanford-increases-use-of-telemedicine.html).

5. (https://www.dnb.nl/actueel/algemeen-nieuws/dnbulletin-2020/opmars-contactloos-betalen-in-coronatijd/).

6. (https://retailtechinnovationhub.com/home/2021/7/6/retailers-invest-heavily-in-self-checkout-tech-amid-covid-19-outbreak)

7. (https://www.thetimes.co.uk/article/covid-sales-boom-is-over-says-tesco-boss-hsj0brj6p)

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9. (https://www.gsk.com/en-gb/media/resource-centre/covid-19-prompts-increased-focus-on-self-care/)

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18. https://www.reuters.com/business/fast-delivery-startup-getir-closes-funding-round-with-12-bln-valuation-2022-03-17/

19. https://www.retaildetail.eu/en/news/food/edeka-double-its-stake-picnic

20. (https://www.morningstar.co.uk/uk/news/AN_1629186319123320900/top-news-uk-grocery-sales-slip-as-online-decline-hits-ocado.aspx)

21. https://www.weforum.org/agenda/2022/01/challenges-supply-chains-covid19-2022/

22. When writing the first version of the manuscript, the war between Russia and Ukraine was not a reality. However, when writing our final version, it is clear that this war has a strong impact on geo-politics, the availability of natural resources and prices for energy and food.

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