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Abstract

This paper explores the disruptive industry and consumer trends that have emerged in the services sector due to the COVID-19 pandemic. Adopting a multi-method approach utilizing secondary data, case studies, and interviews, we examine how service providers realigned their business practices to survive and thrive in these chaotic circumstances. We illustrate innovative solutions and discuss emerging models using several mini-case studies across airline, fitness, restaurant, office fulfillment/replenishing, and other service sectors.

Introduction

The COVID-19 pandemic has redefined parameters of service delivery across various industries and led service providers to adapt their existing business/operating models, implementation methods, and value propositions in light of enhanced safety requirements, government
regulations, labor market challenges, supply chain disruptions, shifting customer utility functions, and price sensitivities. It has also impacted the characteristics and formation of new ventures.¹

Therefore, it is essential to examine and identify what disruptive industry and consumer trends have emerged in the services sector due to COVID-19 and how the industry has adjusted and transformed itself in response. We adopt a multi-method approach where we utilize secondary data, case studies, and interviews for addressing our research questions. We also provide mini-case studies from different industries, including the airline, fitness, restaurant, and office fulfillment/replenishing that demonstrate creativity in adjusting business models to the new reality.

We find that despite unprecedented challenges, business owners have demonstrated a lot of resilience and creativity in adapting their business models to the vicissitudes of the new environment. However, the general tension between employee and customer safety and reopening and scaling operations to the pre-COVID levels remains a legitimate concern. Managers are also facing challenges with creating vaccination and testing policies and protocols that ensure safety while respecting employee privacy and freedoms,² procuring appropriate PPE, and following appropriate cleaning procedures.

**Findings**

*Safety concerns have been top-of-mind for service providers.* Text analysis of the 60K+ unique COVID-19 related business banners on Yelp! at the start of the pandemic supports the premise that service providers have adapted previously developed queuing and yield optimization models to ensure customers’ physical and psychological safety and security while complying with social distancing guidelines and policy regulations during COVID-19. Using a word cloud built with R-software package (please see Figure 1), we observe that terms such as safe/safety are immediately adjacent to the more prominently positioned terms linked to reopening plans.

*Employee-focused B2B services were disproportionally impacted by the pandemic.* In collecting data for this project, we interviewed several California’s Bay Area executives and small business owners representing different industries to gain a deeper understanding of how the business operations have been disrupted by COVID-19 and how they have adapted to the changes. Interestingly, technology executives who provide B2B services, as well as services directly to customers, were relatively upbeat about the business prospects and some of them even reported stronger KPIs and increasing demand for their offerings. In stark contrast however, services that
relied on face-to-face contact with the consumers, servicing business customers of physical buildings were severely impacted. Beauty salon and gym owners, restaurant owners, janitorial service providers, and dry cleaners all reported the devastating impact of COVID-19 on their businesses.

**Figure 1.** Word Cloud Summarizing Yelp! COVID-19 Banner Information

Office Libations, a small San Francisco-based office kitchen/pantry fulfillment and replenishing business is a representative example. The company’s founder and CEO shared with us that his up-and-coming company had been growing rapidly prior to the pandemic and had reached an impressive $250,000 a month revenue with only 20 full-time employees. Ninety-nine percent of the company’s business came from tech and professional services, which is typical for the B2B service providers in the area. However, once the offices went to lockdown with only essential employees continuing, the business came to a standstill and even after some relaxation of the rules and some staff starting to return to work, the company’s sales fell by over 85%. The company experimented with other product lines such as providing services to retail clients and shipping employee care packages to the employees of their former office fulfillment clients with limited success. Their beer store line, which was a minor product
line prior to the pandemic, gained some prominence since alcohol beverage sales for home consumption increased significantly during this period. The company relied on Paycheck Protection Program and Economic Injury Disaster loans to support operations, yet the turnaround was very slow, and many of their clients announced that they would not be returning to work for extended periods. Eventually, the business was forced to furlough and eventually lay off 80% of its workforce, with KPI shifting from revenue growth to burn rate minimization. The situation remains grim, and the company is shifting its focus to the future and developing its own line of customized roasted coffee for office consumption amidst these challenging circumstances.

*There is a lot more urgency to return to normalcy on the part of small businesses.* Small business owners do not have deep pockets and often use personal funds to support their ailing businesses. Small business owners are extremely concerned about the well-being of their customers and employees but at the same time, confronted with the reality of losing their businesses. When it comes to larger firms, their decisions to continue to let employees work from home is motivated by a competitive job market where the companies are reluctant to ask the employees to return to work before they are ready, and potential PR fallout associated with being the first company to return to the offices.

*There are deep changes in service delivery models.* While the pandemic disrupted indoor dining, app-based third-party delivery volume growth has been explosive. With deliveries more than doubling year-over-year in Q2 of 2020, Uber Eats segment has exceeded that of the ride-sharing business for Uber.\(^3\) Postmates achieved 125 percent growth for the same quarter\(^4\) while Grubhub grew by 41 percent year-over-year. Grubhub also managed to add another 225,000 restaurants to the platform.\(^5\) However, despite the rapid explosion in sales, growing customer base, and impressive increases in company valuation metrics, they are yet to reach profitability. Uber's ride-sharing vertical is marginally profitable whereas its Uber Eats operations are highly unprofitable. Also, after reviewing the financials of the top players in the industry, it is evident that for all the firms that have meal delivery at the core of the value proposition, more sales translate into deeper losses.

Even though the management of these firms is making claims that growth will persist following the pandemic, there is no guarantee that the customers are not going to pull back from at-home-dining and return to the restaurants. Anecdotal evidence suggests that consumers crave in-person experiences and
may become a lot more mobile following the lockdowns. This market will likely be in flux as we come out of the pandemic, and the sales could stagnate or decline. The further shakeout and M&A activity will likely consolidate the sector further while new business models continue to emerge.\textsuperscript{6}

The need for these services to operate at scale is also altering the public policy discussion about the labor force protections in this sector. Multiple battles are being fought to regulate the ‘gig-economy’ as more and more people are forced to turn to these opportunities in place of the full-time employment options in a challenging employment environment where part-time jobs are plentiful, yet quality jobs with livable wages and benefits are hard to find. California passed a law (i.e., Assembly Bill-5)\textsuperscript{7} that prevents companies from classifying rideshare and food delivery employees as independent contractors. It requires companies to adhere to the minimum wage regulations, pay overtime, unemployment insurance, workers’ compensation, and other benefits. Multiple injunctions were filed to delay the implementation of the bill, and the state sued companies found in violation of the new employee classification rules. A contentious ballot proposition (Prop-22) that attempted to soften the rules for rideshare and meal delivery companies passed with 59% of the vote but was later ruled to be unconstitutional.\textsuperscript{8}

These platforms have also been disrupting the restaurant business. Karniouchina and colleagues demonstrate that app-based delivery service providers did not only gain awareness during the lockdowns (as measured by the number of social media mentions), but the overall level of interest has increased even after the lockdowns were lifted.\textsuperscript{9} We take this as an indication that the pandemic increased the importance of collaborating with delivery service providers such as Grubhub or Uber Eats. These providers are now playing a more significant role in consumer lives and everyday conversations.

In addition to eroding the restaurant profits, hefty delivery fees reduce consumer welfare and create economic accessibility barriers for a substantial portion of the consumers. Therefore, it is not surprising that multiple local governments are attempting to regulate delivery charges. Under normal conditions, it is hard to make an argument for regulating prices, but considering the COVID-19 pandemic, temporary measures are being justified. San Francisco capped delivery charges at 15% while New York proposed a measure capping fees at 10%. These caps are often expected to stay in place until restaurants are able to reopen at full capacity.\textsuperscript{10} However, this opens the door for further industry regulation in the future and resets consumer expectations to a level that may be hard to reverse in the future.

While some restaurant businesses chose to rely on third-party delivery services, others chose to protect their margins and maintain quality control...
by keeping curbside pickup and home delivery operations in-house. One of the restaurant owners we interviewed runs a restaurant that is well-known for its impeccable service and fresh farm-to-table ingredients, as well as sustainably harvested seafood. Due to COVID-19, the restaurant was forced to first shut down entirely and subsequently reopen, limiting its traditional service to outdoor dining at 50% capacity. At the same time, the restaurant developed a unique, more affordable, streamlined menu for its newly created pickup service. Many high-caliber restaurants use commission-free online ordering platforms (e.g., Upserve) that allow for seamless integration with their existing or newly created websites that provide the customers with the look and feel of the establishment. While relying on traditional third-party meal delivery services is not seen as a good option by some high-end restaurateurs who are committed to carefully monitoring all aspects of customer experience and ensuring a high level of service, online ordering with a pickup option is often seen as a more palatable compromise. Restaurant owners also emphasized the importance of maintaining close relationships with suppliers, adjusting to supply chain disruptions, and focusing on seasonal menus that use available fresh ingredients.

On the other hand, some restaurants went beyond their core offerings during the pandemic. For example, one of the restaurants in the Bay Area went as far as transforming itself into a "no-touch drive-thru grocery," offering not only packaged meals and bottles of wine but also groceries, reducing the risk of exposure and allowing the consumers to stay in their cars while the items were carefully loaded into the trunks. Other restaurants started bottling craft cocktails and expanding into packaged desserts, and ventured into meal preparations. However, based on our interviews, the sales for these line extensions were somewhat underwhelming as shoppers bought alcohol in bulk and opted to buy desserts and comfort foods at grocery stores.

There are many creative business model adaptations in response to COVID-19. Many businesses faced the reality of their extant business models not being viable in the new environment and had to make adjustments that required rapid redeployment of their core resources and capabilities as well as developing new ones. The service industries that relied on face-to-face interaction with their customers or focused on servicing businesses and their employees were especially impacted. The extreme pressures resulted in dramatic revenue losses and tough cost-cutting decisions but also prompted an impressive degree of creativity exhibited by these firms. For instance, we interviewed several restaurant owners who told us how they were balancing the need to continue operations with the need to keep their clients and customers safe as well as stay within the limits of frequently changing
regulations. However, the changing business models and innovative solutions were not limited to the restaurant industry. Below are just a few examples that demonstrate the explosion of innovation in the services sector, reimagining of core offerings as well as adjustments to promotional activities.

**Learning pods offered by the fitness industry.** Many exercise facilities had to reduce capacity or close completely due to COVID-19 restrictions and incompatibility of some of their core offerings with social distancing requirements. Drastically reduced service offerings and capacity (e.g., reserved single swimmer lanes, cancellation of indoor classes, social events, and team sport activities) led to membership cancellations and deferrals. Some fitness providers have managed to find new uses for their outdoor spaces and existing expertise that fit the emerging customer needs. For instance, the Bay Club switched from providing children’s sports programming to running small-scale study pods for children involved in remote learning. Bay Club converted their childcare facilities designed to accommodate children while their parents exercise to support remote learning for K-5 students supplemented by physical education programming adjusted to COVID-19 safety protocols. The programs tapped into the need of working parents to supervise their kids’ remote learning activities and offer their children some options for physical education and sports programming during the pandemic (please see Figure 2 for further details).

**Figure 2. Bay Club Distance Learning Program Advertisement**

![Bay Club Distance Learning Program Advertisement](image)

1. **CREATED TO SUPPORT YOUR STUDENT’S SCHOOL CURRICULUM**
2. **STABLE PODS OF UP TO 12 STUDENTS**
3. **FULLY-EQUIPPED, DISTRACTION-FREE CLASSROOM SETTING WITH W-Fi**
4. **K-5 ACADEMIC PROGRAM WITH CHAMPIONS BY KINDERGARTEN EDUCATION**
5. **SUPPLEMENTAL STEAM ENRICHMENT PROGRAM BY CHAMPIONS**
6. **PHYSICAL EDUCATION AND SPORTS PROGRAMMING BY BAY CLUB**
7. **COMPREHENSIVE COVID-19 SAFETY STANDARDS**
8. **PROGRAM FLEXIBILITY BASED ON ADJUSTMENTS TO THE 2020/21 SCHOOL CALENDAR**
9. **HIGHLY QUALIFIED AND BACKGROUND CHECKED TEACHERS**
10. **NOW BOOKING SESSION 2.**
**Employee snack and care package delivery.** Many firms that became snack and care package providers for employees working from home had one thing in common; they used to provide products and services to brick and mortar offices and their employees prior to the pandemic. For example, before COVID-19 necessitated working from home, Bonitas International was one of the quiet success stories of the fashion accessory world. Due to the B2B nature of their business, not many people knew about the company that provided employers with designer lanyards and retractable ID badge reel jewelry. With the advent of COVID-19, these products lost their relevance virtually overnight; however, the company realized that its competitive advantage resides in its ability to handle complex fulfillment and logistics scenarios associated with servicing the employees of large enterprises. The company was quickly rebranded as bondyworld.com and became a leader in employee care packages and snack delivery for people working from home. They align their services with company culture and individualize their approach based on client institutions.

**Travel and airline industry.** The travel industry was impacted especially negatively by the pandemic, with some sectors coming to a screeching halt. Nevertheless, many alternative high-quality virtual travel experience options have been developed and offered for mass consumption since the start of the pandemic, and these offerings are likely to stay relevant even once the pandemic has subsided. In the meantime, the industry participants that facilitate physical hospitality and travel options have been adversely impacted. Some of these industry players have identified unique revenue sources in these difficult times. The airlines have also altered their promotional efforts to reduce the risks associated with uncertainty of travel and changing regulations and health guidelines. Alaskan Airlines introduced a "buy one, get one seat free" deal designed to aid with social distancing (please see Figure 3). With the middle seat being left vacant, the promotion gives a pair of customers the full row of seats for the price of one ticket. Furthermore, United Airlines was the first major airline to permanently eliminate flight change fees and other airlines followed suit.

Singapore Airlines, which focused exclusively on international flights prior to the pandemic, was particularly affected by travel restrictions and quarantine requirements leading to cancellations of some of their most popular routes. However, the airline managed to capitalize on customers’ desires to travel during the pandemic even when this travel was only imaginary. While the original idea of the "flight to nowhere" (where the plane would take off and land at the same destination) drew legitimate criticism from environmental activists, an alternative arrangement of dining and
being entertained on board of a grounded jet drew just as much interest. While the meal service has been suspended on most flights due to safety concerns, the company distributed airline meals that could be prepared and consumed at home by tourism-starved consumers indicating that consumers were willing to go to great lengths to bring some excitement into their lives. Moreover, the airline has opened its training center to the public (adults can experience the cockpit training simulator while children can role-play and pretend to be crew members).

Figure 3. Alaskan Airlines Marketing Focused on Risk Reduction and Social Distancing

Note: Images are part of Alaskan Airlines email campaign (August-September 2020).

There is a proliferation of virtual services and experiences. From telemedicine\textsuperscript{18,19} to virtual classes from top universities,\textsuperscript{20} performances,\textsuperscript{21} art exhibits,\textsuperscript{22} remote cooking,\textsuperscript{23} and Zoom yoga classes,\textsuperscript{24} from virtual 1:1 explorer adventures\textsuperscript{25} to the increased use of virtual tours by the real estate agents,\textsuperscript{26} people are getting more accustomed to virtual experiences. While the aforementioned examples existed before COVID-19, they became more widely utilized in the COVID economy, as unique virtual experiences were offered for consumption in the world of travel restrictions. For example, virtually all universities pivoted to a form of distance learning over the Spring Break of 2020. The students who did not initially embrace the idea of online
classes soon began to ask for more remote offerings across the curricula by Fall 2021. Many faculty who had never taught online have become online teaching veterans over the last couple of years. Similarly, virtual wine tasting experiences supported by wine tasting kits and Zoom technology have become common for individual consumers as well as executives, who have incorporated these events into their team-building and entertaining activities for their teams. As one executive observed: "The kits are all built and packed in-house by the ONX hospitality team. They are sent to each household or workplace of the individuals in the tastings and have accommodated several households at a time via Zoom. Executive groups from multiple Fortune 500 companies have also utilized these virtual experiences to keep their teams connected while working from home" (please see Figure 4).

**Figure 4. Virtual Wine Tasting**

There is a move toward AR/VR and virtual fantasy experiences. It is not surprising that Augmented Reality (AR) and Virtual Reality (VR) technologies gained prominence during the pandemic with Facebook’s parent company officially changing its name to Meta. While computer gaming exploded during the pandemic, the industry added some experiential components to its offerings. Roblox collaborated with celebrities and luxury brands to add to its emerging metaverse from Gucci garden such as virtual concerts by Tai Verdes, Lil Nas X, and Twenty One Pilots. It also launched

**There is a move toward automation and robotic technologies.** People young and old have been leaving the workforce in record numbers leaving an undeniable impact on the way services are delivered. The "Great Resignation" has led to challenging labor market conditions in the services sector. Many hotels have switched to cleaning rooms on-demand only and suspending room service options. Consequently, various service industries saw an increased drive toward automation. From emphasizing automation of order processing to improving the AI technology behind customer service chatbots to experiments with actual robot assistants, everyone has been experimenting with ways to automate mundane, repetitive tasks. In the food industry, the order-taking process has been shifting to smartphone apps and tablets placed on tables while robots are being utilized in the back of the house for tasks ranging from pizza making to burger flipping.

**Travel restrictions widely impacted the service industry.** Restrictions in travel and trade across borders have impacted multiple sectors of the economy. In addition, the overall perception of the severity of the disease and the availability of the vaccine and therapeutics have impacted the outlook and corresponding resiliency rates for entire sectors. For example, when Pfizer announced the 90% efficacy rate for its vaccine trial on November 9, 2020, travel stocks exploded on the positive outlook. According to the stock quotes on the Yahoo Finance portal Norwegian Cruise Lines, Royal Caribbean Cruises, Carnival Corporation, American Airlines Group, United Continental Holdings, and Delta Airlines gained 26.8%, 28.8%, 39.3%, 15.2%, 19.2%, and 17% respectively in a single trading day.

**Conclusions**

Our study sheds light on the challenges and public policy tensions between reopening plans and safety during the life-altering COVID-19 pandemic and identifies novel service design and delivery models that provide new sources of value for customers. For instance, while the pandemic has disrupted indoor dining, we detect a transition towards app-based home delivery models that rely on gig-economy providers at a large scale. We also identify a proliferation of creative business model adaptations that have emerged in response to COVID-19 and highlight the rapid increase in the provision of virtual offerings. In particular, service providers that showed agility and adaptability to the new environment were more likely to survive in the face of uncertainty and under turbulent business conditions. Our case
studies from various service industries provide insights into how to successfully steer a business towards profitability by bridging the gap between available resources and changing demand patterns.

Our research also lays the foundation for academics researching the growing area of service innovations and business models, especially in dynamic and turbulent environments. For example, while our study has documented an explosion of entrepreneurial activity during the COVID-19 pandemic, it would be interesting to supplement it with an examination of business owners’ risk aversion and anxiety levels as well as levels of optimism about the future. One could also explore the impact of government assistance on struggling small businesses. Specifically, the Paycheck Protection Program (PPP) and the Economic Injury Disaster Loan (EIDL) are federal loans programs that serve as a temporary source of liquidity for small businesses and support their recovery efforts from the economic impacts of the pandemic. Further research should address the concrete impediments that prevented businesses from securing the funds through PPP, EIDL, and other programs. This information will be valuable in future small business support efforts during post-pandemic recovery. In addition, research streams calling for more technological innovations in the areas ranging from medicine to hospitality and studies into customer acceptance of breakthrough service technologies are especially relevant given the labor shortages and pandemic-related challenges.

Finally, besides changes in distribution and product preferences, one may also examine changes in brand preferences. COVID-19 and the related lockdown measures may have generated a stronger backing of local businesses in comparison to larger corporations. With news of beloved landmark establishments and local businesses with a high degree of community embeddedness struggling during the pandemic, many consumers felt compelled to support smaller local establishments through such difficult times. Social media analysis may be effectively utilized to explore emerging trends towards greater support of local and minority-owned businesses.

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