ONLINE FOOD DELIVERY AND SMALL LOCAL RESTAURANTS

A Research Paper submitted to the Department of Engineering and Society
In Partial Fulfillment of the Requirements for the Degree
Bachelor of Science in Computer Science

By

Guillermo Saavedra-Diaz

March 27, 2020

On my honor as a University student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments.

Technology continues to disrupt many different industries in the United States, especially the restaurant industry. Online food delivery platforms have already begun to affect well established businesses in the restaurant industry without any signs of stopping. It is estimated that the online food delivery market will reach a size of $200 billion by 2025 (Singh 2019) and more restaurants are jumping on board these platforms everyday to save their businesses. The process of ordering food online attracts many customers by its simplicity and accessibility in comparison to going into the physical location to order food in person. Customers can have access to hundreds of restaurants nearby and be able to get their food delivered to their doorstep in the push of a button. One of the first companies to enter the online food delivery market was DoorDash and once it found success, other companies like UberEats, GrubHub, and Postmates followed along into the growing market. While online food delivery platforms have been able to find success in the market, restaurant owners have started to see the negative impact and loss in profits.

The technical project focuses on building an online food delivery platform for homemade foods, HomeEats. HomeEats share many similar features with other online food delivery platforms such as viewing nearby food options in the area, ordering food, and getting the food delivered to you. Online food delivery platforms like GrubHub, UberEats, etc. have a very strong mobile phone application presence whereas HomeEats will be a web-only platform accessed via a website. The Science, Technology, and Society paper investigates the impact that online food delivery platforms are having on restaurants. The STS research topic has been tightly coupled with the technical project since the STS research topic is diving into the impact of online food delivery platforms on restaurants and the technical project is building an online food delivery

platform which can shed some light on the process and customer experience behind ordering food online.

REAL COST OF ONLINE FOOD DELIVERY

Many restaurants across the nation have partnered with these platforms in hopes of exposure to an untapped customer base and an increase in profits but issues have started to surface between online food delivery platforms and restaurants' business models. The type of restaurants on these online platforms varies from small local restaurants to large food chain restaurants such as Chik-fil-a, McDonalds, Starbucks, etc. who have a large amount of capital and capacity. Small local restaurants on the other hand, don't have the capital and capacity to maintain a large online demand and have started to struggle as these platform become costly to manage. Even large food chain companies like McDonalds are not happy with the costs and "complained about the high fees they had to pay the delivery provider for every order." (Lucas 2019) when negotiation a contract with UberEats. Another aspect of the impact of online food delivery platforms on local restaurants is the increase in online demand that it has generated which would be a good thing

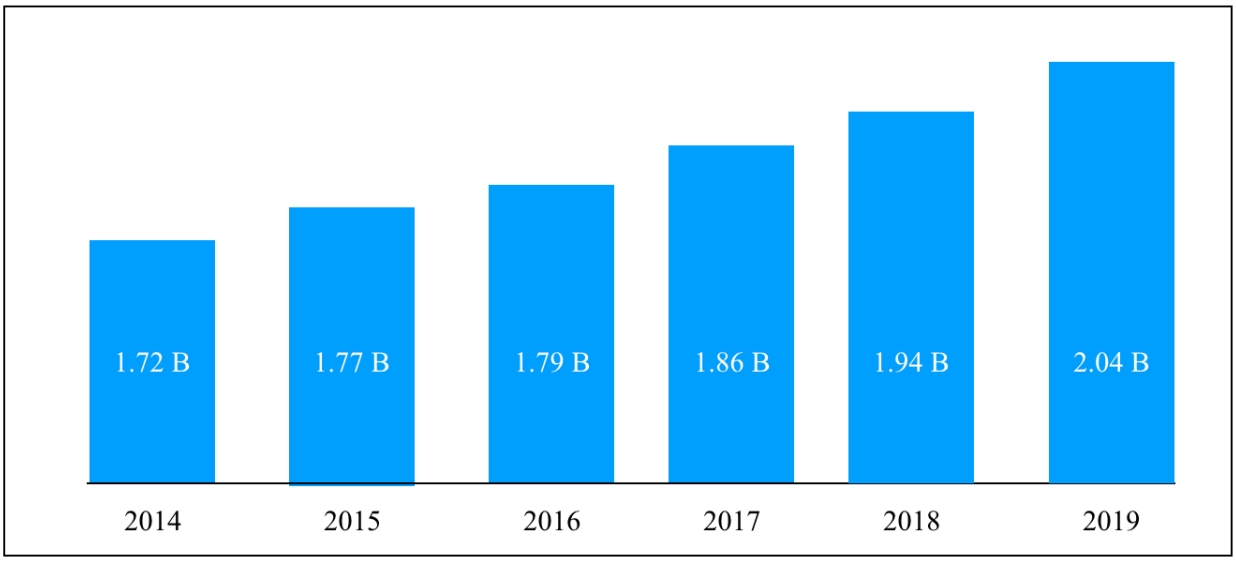

Figure 1: Restaurant deliveries: annual number of orders delivered by restaurants during the 12 months ended in October, in billions. (Adapted by Guillermo Saavedra-Diaz from Amelia Lucas 2019).

for restaurants owners but it has cut into their profits by having to hire extra staff to meet the on-line demand (Akhtar 2019).

Online food delivery ordering continues to be a growing trend in the past few years and Figure 1 demonstrates the increasing number of online orders that have been made. 2020 will be a year where online food ordering will be exploding due to COVID-19. Since there are new restaurant restrictions and "half of all states have placed limitations on restaurants: No dining-in allowed — only take-out, delivery" (Gomez Sarmiento 2020). Currently, restaurant owners are forced to use these platforms to be able to generate some kind of profit during the COVID-19 pandemic but they should carefully analyze the impact of these platforms and see if they are a long term benefit. There have already been issues surfacing that prevent restaurant owners from making a profit on online ordering that include high cost service fees, forced to hire extra staff, and reputation/branding problems.

High cost service fees

The main way that online food delivery platforms make a profit is by charging both the consumer and restaurants a fee on every order. By charging restaurants a fee on every order, their profits are decreased and this can have a bigger impact on small local restaurants. Restaurants of different sizes and capacity are charged the same service fee and "service fees that can reach upwards of 30 percent of final customer checks, which can have a serious impact on operators' profit margins" (Santana 2019). Large food chain restaurants have been able to negotiate smaller service fee by doing exclusive partnerships (Santana 2019) but small local restaurants don't have this advantage and are stuck paying high cost fees.

On the end of the customer, they are also charged a service fee and delivery fee that are relatively high and to put things into perspective, "if you ordered $50 worth of food from a

restaurant, the TMC (Total Meal Cost) would come to $58.49 through Seamless compared with $70.23 if you order through Postmates" (Lichtenstein 2020). This is the price people are willing to pay for convenience and comfort. To put the restaurant side into perspective, Sarah Blaskovich from Dallas News explained that "Let's say a consumer wants to order a burger from a local restaurant via a third-party delivery app. A burger and fries costs $12. The consumer might pay up to $20 because of the service fee, tip, tax and a delivery fee (which may or may not be waived right now). From that $12 sale, the restaurant might get to keep $9 if the commission fee is 25%." (Blaskovich 2020).

Forced to hire extra staff

Online food delivery platforms have increased the online demand on small local restaurants who don't have the capacity to handle such a large customer base. This has forced some small local restaurants to hire extra employees to solely manage the online orders and a "San Francisco restaurant owner told the Times that he had hired one other employee to keep up with increased Uber Eats demand. "(Akhtar 2019). Having to pay for more employees have cut into the profits of small local restaurants that mainly depend on generating profits from in-person customers.

One of the ways that restaurant owners have found to reduce the costs of hiring extra staff is to not employ full-time delivery drivers on their own but instead leverage drivers from these online food delivery platforms. Tracy Schuhmacher and Sarah Taddeo from Democrat & Chronicle interviewed a restaurant owner that started using these platforms and he explained that "When Grubhub started offering delivery as well as ordering, he switched over to using their drivers. He estimates that the fees charged by Grubhub are about half the cost of employing his own." (Schuhmacher and Taddeo 2018).

Reputation and branding problems

When restaurants leverage online food delivery platforms to reach more customers, they are trusting these platforms with their reputation and brand since customers are interacting with the online platform food delivery drivers instead of the actual restaurant's staff. A bad experience with the delivery can hurt the image of the restaurant and impact its reputation. It has already been found that online food delivery drivers tampered with the orders and a recent study showed that "nearly 30% of drivers are snacking from the food they're responsible for delivering." (Matias 2019) in a study composed of drivers from online food delivery platforms such as DoorDash, Postmates, Grubhub and Uber Eats (Matias 2019). If a customer found that his/her food order has been tampered with or arrived late, he/she will be cautious about ordering from them again.

The big risk with these online food delivery platforms is that restaurants are offloading their customer experience to a different company whose drivers might not have the same values and expectations as the actual restaurant. The issue becomes that "restaurants can spend years building their reputations for food and service. With a delivery app, the customer experience becomes a third party's website or app, as well as a driver the restaurant didn't hire." (Schuhmacher and Taddeo 2018). Restaurants are stuck in a tight spot where the online food delivery platform experience can be completely different than the in-person customer experience which they have more control over.

REGULATIONS ON ONLINE FOOD DELIVERY PLATFORMS FROM LOCAL GOVERNMENTS

Online food delivery platforms are relatively new to the restaurant industry and there has not been many regulations established around the interaction between online delivery companies and restaurants. The involvement of local governments is crucial to be able to regulate online

food delivery platforms and make sure that they are not having a negative impact on small local restaurants and putting them out of businesses. This is very similar to the issue between the taxi industry and ride-hailing platforms such as Uber and Lyft in New York City where the New York City Council had to get involved to "cap on the number of for-hire delivery and transportation vehicles on the city's streets, striking a stunning blow to tech companies like Uber and Lyft." (Wodinsky 2018). This is the type of regulations that online food delivery platforms need in order to play fair agains the restaurants industry and prevent small local restaurants from going out of business due to the high costs of patterning with the platforms.

These types of regulations have already started to become the topic of discussion in local governments but not without the strong push by restaurant owners. There are currently a few bills introduced in New York City to prevent online food delivery platforms from hurting restaurants. These bills are pushing to enforce customers being able to see how much restaurants are charged, requiring licenses to operate for online delivery, letting restaurants charge more for online delivery, restricting on the commission charged, etc. (Warerkar 2020). These types of legislation will lessen the negative impact that local restaurants are currently facing and enable them to continue turning a profit even with online delivery.

Online food delivery companies need to increase their communication and transparency in order to develop better platforms that meet the exceptions of restaurant owners all across the U.S. instead of just focusing on serving the large food chain restaurants that already have the capital to take a loss on profits. Legal regulations are helping increase this transparency but it is also up to the customers to push for a better relationship between their favorite restaurants and online food delivery platforms. Customers can push forward to prevent their favorite restaurants from going out of business by ordering directly with the restaurant.

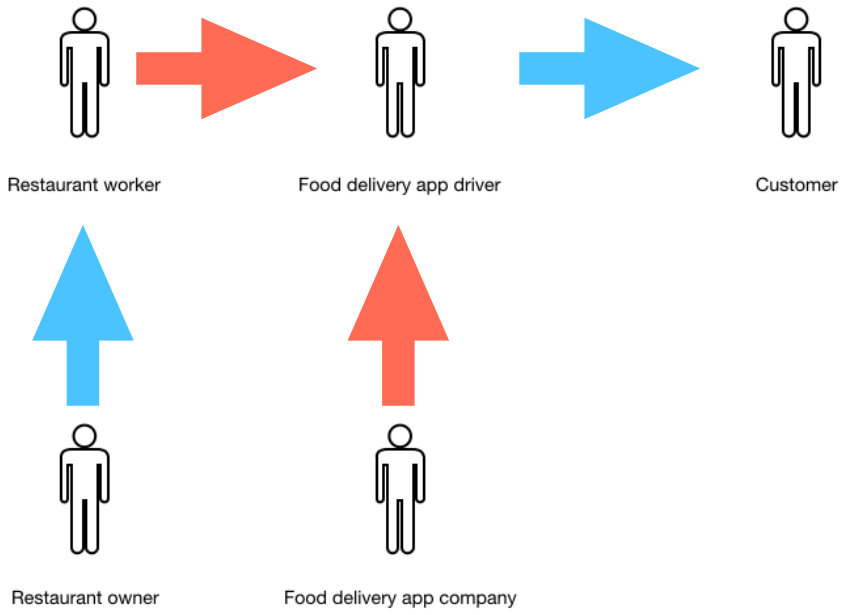

Figure 2: Actors in Food Delivery App Process: The Actor Network Theory diagram specifies all the actors involved in the Food Delivery App Process. This involves restaurant owners, restaurant workers, food delivery app driver, food delivery app company, and customer. (Adapted by Guillermo Saavedra-Diaz from Latour, Callon, and Law 1986)

ACTOR NETWORK THEORY IN ONLINE FOOD DELIVERY

It can be difficult to analyze the online food delivery network due to the large amounts of actors involved in the process which include the restaurant owner, restaurant worker, online food delivery driver, online food delivery company, and the customer. The Actor Network Theory adapted from Latour, Callon, and Law can be used to better investigate the different relationships between the actors involved.

There is an interesting relationship between the online food delivery driver and the online food delivery company since the online food delivery driver is not an employee but rather a con-

tractor. This means they have no ties to the actual food delivery company, but the online food driver is still part of the network. There are already legislations pushing for drivers to be considered as employees rather than contractors and "restaurant interests are considering a push for such a law in Illinois, which would entitle delivery drivers to full benefits, minimum wages and other legal protections" (Cahill 2020). The restaurant owner also does not employ the online food delivery driver in this network but still depends on the actor for online orders. The process in the Actor Network Theory diagram begins when a customer places an order, followed by the restaurant worker preparing the order, continues when the online food delivery driver picks up the order from the restaurant, and ends with the customer receiving the order at their home.

The Actor Network Theory diagram in Figure 2 displays the different actors involved and the different relationships with color blue for a direct relationship and color red for an indirect relationship. The restaurant owner and restaurant worker have a direct relationship since the restaurant owner considers the worker as an employee and provides benefits. The restaurant worker and the food delivery app driver have an indirect relationship since they do not work for the same company but are both involved in the same process. The relationship between the food delivery app company and the food delivery app driver is indirect since the driver is considered a contractor with no ability for benefits from the online food delivery company. Customers are able to provide an extra income to online food delivery drivers by tipping them and 95% of customers do tip during these deliveries (Purdue 2019). This relationship is simplified by providing customers with the ability to enter a tip amount with percentages already calculated within the online food delivery platform. (Glaser 2019).

In conclusion, the online food delivery market continues to grow every year but not enough research has gone into analyzing the real impact of these platforms on the restaurant in-

dustry. Investigating possible issues is important in order for the restaurant industry to stay afloat and not suddenly collapse due to increasing online food delivery adoption in the United States. The STS research topic dives deep into the impact of online food delivery on local restaurants to see if these platforms are a long term benefit for these restaurants or will be putting them out of business instead. Building an online food delivery platform for homemade foods as a STS technical project will provide a better insight on how these platforms operate and the overall customer experience that is created. The technical project will implement very similar features to those found in popular online food delivery platforms such as Uber Eats, Grubhub, and Postmates. The difference comes in the actors that play a role in the online food delivery network but this can be further analyzed using the Actor Network Theory framework.

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