```````````````````````````````

A CRITICAL STUDY OF THE DEMAND AND SUPPLY IN RELATION TO FOOD DELIVERY APPS LIKE ZOMATO AND SWIGGY IN INDIA.

NIKHIL POLKE1*, SACHIN TRIPATHI2, MR. RUSHIL CHANDRA3

1,2,3 Assistant Professor, Symbiosis Law School Nagpur, Symbiosis International (Deemed University), Pune - India *Email: nikhilpolke@slsnagpur.edu.in

Abstract

Online food delivery services have gained popularity over the past several years. Businesses mayonly achieve long-term success if they consistently improve to suit shifting customer needs. This paper aims to critically analyze the demand and supply of food delivery apps like Zomato and Swiggy in India. It is not just the technology, but the experience provided to the consumer through such apps that counts. Young individuals aged approximately 15-34 years appear more likely to follow this trend, especially in metropolitan cities where heavy traffic and dense population make even short trips time-consuming. As a quicker and more convenient alternative, more and more Indians are turning to such apps. Online food delivery services now need to comprehend the preferences and thoughts of their consumers in order to live up to their expectations. These include availability of various food products, timely delivery service, accessibility etc. The paper will discuss the historical context, the current situation, various schemes deployed by them, etc.

Keywords: Demand, Supply, Food delivery Apps, Zomato, Swiggy, Marketing Strategies.

Table of Contents

Introduction

- 1. Research Problem
- 2. Objectives
- 3. Historical Background
- 4. Literature Review:
- 5. Book review-
- 6. Marketing strategies of food delivery apps
- 7. Demand of Zomato
- 8. STATISTICS:
- 9. HOW DEMAND OF PEOPLE LEAD TO GROWTH OF ZOMATO
- 10. SUPPLY OF ZOMATO
- 11. Statistical analysis of Supply of Zomato
- 12. Demand and Supply of Swiggy
- 13. High Demand And Limited Supply: The Story Of Foodtech In India
- 14. Young People Drive Demand
- 15. COVID-19 and associated Challenges
- 16. Covid-19-related issues
- 17. Analysis

Conclusion

Introduction

Today, consumers gravitate more towards food delivery apps rather than the traditional method of walking into a restaurant. Food delivery apps list a number of food establishments and chef's kitchens along with a detailed menu for each one of them. The apps are usually made in such a manner that they are easy to understand, provide a user-friendly interface and cater to everyone's need. Customers need to download the software on their smartphones and register with it. Their address and financial details are included when they create a profile on the apps. The apps accepts a variety of payment methods, including cashless accounts, credit cards, and debit cards.



Apps usually do not vary much in the services, features, and eating alternatives that they provide as a lot of features are similar. These include providing order history, using coupons, options to choose from veg and non-veg food items etc.

The Indian processed food industry is expected to expand to US\$ 470 billion by 2025 from US\$ 263 billion in 2019-20, according to a KPMG report. (IBEF, 2021)To assure consumer comfort, fulfillment, and loyalty, the sector is coming up with innovative approaches. Individual restaurants' free home deliveries and internet food delivery services are in intense competition. The availability of new technologies and developments have provided consumers with a wide range of options. At first, investors hesitated out of fear and doubted the concept of the apps, but as a result of the success of the idea, there is now an increasing number of competitors in the market. The biggest players in this market include Zomato, Swiggy, food Panda, Ubereat and Just Eat. Few major restaurant chains, including KFC, Pizza Hut, Faasos and Domino's, have their own supply chains.

1. Research Problem

- Which food delivery app is used by consumers in India the most?
- What are the reasons for a consumer to gravitate towards one app more?

2. Objectives

- To analyse the demand and supply of Zomato and Swiggy .
- To determine the factors affecting the demand and supply of these apps.
- To analyze the marketing strategies used by these delivery apps.
- To give suggestions on how a food delivery app can enhance their services to fulfill consumer's demand in contemporary times.

3. Historical Background

It might seem like a cutting-edge modern phenomena to order home delivery of food from your favourite restaurant using an app on your phone. Warfare, scientific progress, and evolving labour and work practices have all influenced when and how people order meals.

The first pizza delivery business was established in Italy in 1889. The disputed pie was created at the notorious Pizzeria di Pietro e Basta Cos. The restaurant in Naples wanted to make sure the royal family had the chance to experience the unique pizza variety it had developed. When the king and queen arrived in town, Raffaele Esposito, the head chef, gave it to them. Pizza has been a mainstay of the food delivery industry for more than a century and is a favourite of both the wealthy and common people.

Colonial India gave birth to the dabbawala, or "one who carries a box," food delivery system in the 1890s. They send home-cooked lunches to the workers in boxes they have chosen from them rather than leaving their jobs to go get lunch or going home. Dabbawala originated in Mumbai and afterwards extended to other locations. Although the fundamental idea has not changed, dabbawala has changed to keep up with the changes and is still relevant today. Now, employeesmay use an app or SMS to order and request lunch. (Jackson, 2021)

As the usage of smartphones rose, food delivery apps began to dominate the delivery sector. After work, those who decided they'd rather not cook may make dinner plans with a few clicks on their phone. Without getting up from their computers, office workers may request meals to be delivered. Since the dawn of the twenty-first century, various fresh food delivery applications have been introduced. By specialising on upmarket takeaway and home delivery from elite restaurants, some establishments have managed to survive the epidemic.

Deepinder Goyal and Pankaj Chaddah founded the market-dominating food delivery app Zomatoin 2008 with the intention of simplifying the dining and food delivery procedures so that we mayenjoy the best meals supplied by the restaurants in our area. Zomato reports that its the best on-demand food delivery platform in India. Swiggy was established in 2014 with the goal of enhancing urban consumers' quality of life through convenience. The food delivery service is a go-to option for anyone wishing to order food online and has more than 5,000,000 app downloads. Swiggy currently offers a



single window for ordering from a variety of restaurants and delivering delectable cuisine to your home across 200 cities in India by connecting customers with over 1,00,000 restaurant partners. (Zomato's success story, 2022) Swiggy has made the decision to offer hassle-free, quick, and dependable delivery by utilising cutting-edge technologies.

4. Literature Review:

Demand

There are various factors that determine the demand and these are as follows:

- Income of consumers
- Price of substitutes
- Price of complementary goods
- Changes in taste/ fashion
- Seasonal or not
- Advertising of a product or service
- Price

Supply

There are various determinants of supply and these are as follows:

- Price of the commodity
- Price of related goods
- Price of Factory Production
- Technology
- Producers
- Taxes and subsidies

It is important to understand that demand and supply go hand in hand. Generally, if there is demand for a product, the supply for that product will increase and if the product's cost is less and so supply is more, demand will decrease.

5. Book review-

There is an accessible print guide that highlights Zomato's top features. The guide will actually tell you what's best for each occasion you desire and provide you with more than ten options as lists to help you decide. Most people visit the web to find information about what they already know (such as phone numbers, menus, or user reviews of a particular restaurant). The only guide with QR (Quick Response) codes that provide quick access via mobile devices and double the information of the guide.

Authoritative restaurant guides are available from India's leading food, drink and restaurant guide websites (Zomato has over 3 million users).

The selection of the best content on the web created by real users, the best restaurants on a site that has thousands of them. The most typical categories that individuals like you and me use are covered by the maximum number of "use cases".

The best deals in categories like Beer at the Bar, Romantic Dinners, Girls' Night Out, Pure Vegetarian, Sunday Brunch, Seafood, Italian, Business & Travel and many more (as chosen by many real users, not just one biased view of a critic).

Zomato was founded with the intention of helping users find new restaurants, whether they were traveling or living near their destination or place of employment. Since launching online in 2008, Zomato has grown to become the country's largest online restaurant directory, serving more than three million unique users every month across its mobile and web platforms. Zomato offers menus, ratings, reviews, photos and maps of restaurants in 10 Indian cities: Delhi NCR, Mumbai, Kolkata, Pune, Bangalore, Hyderabad, Chennai, Ahmedabad, Jaipur and Chandigarh. The website is fairly easy to use and foodies can quickly explore a wide range of restaurants based on their preferred cuisine, region and price range. (B. 2022)

6. Marketing strategies of food delivery apps

Food delivery businesses use incredible marketing and advertising techniques to build a home in our imaginations. With the rise in smartphone usage and the availability of online food delivery services, consumers are now converting to products that make their lives simpler. Therefore, it is crucial to comprehend customer preferences and adapt your marketing and advertising techniques accordingly if one wants to be successful in selling your online food delivery servicesapp.

Our daily activities, including how we communicate and pass our time, have all changed as a result of technology. With the expansion of the economy and the rising use of smartphones, start-up food delivery service firms therefore turned all of their focus from marketing to digital advertising.

The popularity of internet ordering is actually rising quickly. Market growth rates have exploded as a result of the millions of customers who have demonstrated their extreme satisfaction with food delivery at the touch of a button.

Today, one can order a variety of meals prepared just how you like it and have it delivered right to your house in a short amount of time for a low cost. A Statistic analysis projects that the online food delivery market will generate US\$28,486 million in revenue in 2021.

• Strategy 1: Concentrate on Creating Quality Traffic (The Seamless Way)
SEO for delivery services for food. One of the most popular strategies to drive traffic when discussing

People look on Google to find the precise service that you're giving. Because of this, the traffic that is directed to a website through Google is extremely high.

• Strategy 2 : Do Google Search Advertising as a second strategy Google Ads for Food Delivery Services Done Effortlessly

You may take it a step farther and employ Google advertisements, just like Seamless did.

The most efficient and beneficial technique for a meal delivery service to drive initial traffic to their website is by combining Google SEO with Google AdWords. These are forms of paid advertising where advertisers are charged for each ad click. This is another powerful strategy for driving traffic to your website.

• Strategy 3: Pay Attention To Mobile App Advertising Advertising for food delivery services within apps.

marketing for food delivery services is through Google.

These days, all of us use a variety of apps. Such apps present excellent chances for brand promotion and marketing. It goes without saying that food delivery firms may benefit the most from in-app marketing's marketing and advertising options.

In-app marketing is when businesses display their advertisements within a mobile app. These are paid adverts that clients can view when utilising specific apps. Adverts in games are a typical instance of ads in apps.

• Strategy 4) Use Email Marketing to Maintain Two-Way Communication Email Marketing for Food Delivery Services.

Email, like social media, is the first thing that many of your prospects check every day. Most businesses make the error of ignoring email marketing and assuming it is ineffective. In all honesty, email marketing can assist you increase your consumer base and order volume.

Make a list of subscribers and send out emails to them with information about today's specials, when their food order has been confirmed, when the food is being processed, when the deliveryboy arrives to pick up their food, etc.

Make use of several photographs to convey your gratitude to them for becoming your clients. By sending them notes, you can make them feel cherished and special. In this manner, your clients will also become devoted supporters.

^**``````**

• Strategy 5) Promote on Twitter using the Uber Eats model.

Utilizing Twitter to Promote Food Delivery Services

There is an infinite potential for audience involvement. If your Twitter advertising are well-liked by your audience, you may find yourself among the top trending hashtags very soon.

For instance, Uber Eats frequently posts marketing campaigns and other content on Twitter that is liked and shared by millions of users worldwide. This opens the door for your brand to become more well-known, which will increase sales.

Additionally, you may utilise sponsored tweets, search advertisements, and other tools to targetyour customers. Your adverts on Twitter may be more affordable in terms of cost per click. Additionally, you can use brief video advertising.

7. Demand of Zomato

As the term demand is explained previously, so demand for the Zomato app here is about how the consumers like this app and how the app functions keeping in mind the needs and the wants of the consumer.

Advantages of consumer that use the Zomato app-

The factors that are used by Zomato app to increase their demand in the market-

- <u>1</u>] Minimum delivery charge- To deliver the food from the restaurant to your door, Zomato charges a small delivery fee. The restaurant proprietor and Zomato also split the delivery charge. The delivery boy is then paid by Zomato a set amount as wages. As required by the government, the restaurant owner must charge an additional 18% GST on all food purchases. The cost of delivery is not subject to a separate GST. (Shastri, n.d.) Zomato also provides three, free delivery at the time when you join Zomato as a first time user.
- 2] They also provided a subscription of Zomato [premium]- The subscription of Zomato had various types of benefits to its consumers. A considerable amount of fees was charged and subscription was provided for a specific time period and people could renew their subscription also. Eg benefits by premium were- additional discounts on the order, fast delivery and many more. As of now Zomato has discontinued its membership that was provided previously and further posted a message saying "Zomato app thanked users for participating in the Zomato Proprogramme in a message to users. The membership cannot be renewed while we develop a newand improved experience for you. To keep up with the newest items, please visit the Zomato app."

Easy payment- Zomato users find it fascinating that they can directly pay through their phone without thinking and worrying about giving the exact change. If the online payment is done from a specific account of a bank, Zomato provides further discounts. Eg if done from axis bank it gives additional methods to save money by giving cashbacks.

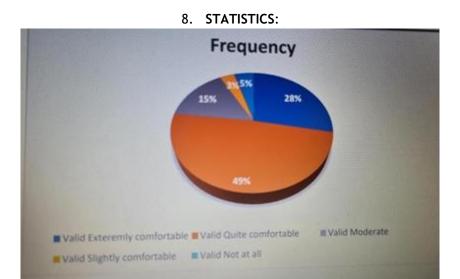
3]

It has a review and rating system for its consumers that helps in communication directly. (Gupta, 2019)

https://www.timesnownews.com/business-economy/companies/Zomatos-premium-membership-programmes-discontinued-here-are-full-details-article-93711608

^{4]} Easy access to the app or the website from any device that is a smartphone or tablet.

^{5]} Confidence and accessibility- Zomato was successful in providing a strong brand name and fulfilling its premise of confidence and easy accessibility. They also have an attractively designeduser interface and are appealing and user friendly comparatively to the other apps. (Frederick & Parappagoudar, 2022)



~~~~~~

The above graph shows us how at ease people are ordering food online, and we can see that most of them do so (49%), and some respondents are seen moderately at ease ordering food on Zomato (15%), while 28% of them are highly at ease ordering food on Zomato, and 5% of them are not at all at ease. (Shetty &S., 2020)

9. HOW DEMAND OF PEOPLE LEAD TO GROWTH OF ZOMATO

The business, which was originally renowned for restaurant reviews, gradually diversified into other food tech ventures, such as online food ordering and delivery, table reservations, and the creation of applications software for managing restaurant operations. Soon after dominating the Indian market, Zomato expanded effectively to other regions, particularly those in Europe, the US, the UK, and the Middle East. (Raman, 2018) The ways by which Zomato fulfilled the peoples demand of needs and wants of some people lead to increase in the number of people using the Zomato app.

10. SUPPLY OF ZOMATO

Basic understanding:

It is much simpler to grasp how the supply chain for Zomato operates now that we have established what supply actually means and have the necessary understanding of how supply operates. Since Zomato is one of the oldest online food delivery services in India, the growth of the app is clearly visible throughout the years. The supply of food and drinks has also seen a hugegrowth, especially in the recent few years. There are mainly three reasons for this growth that are not only in demand but also in supply.

- Penetration of Smartphones in India.
- Scarcity Premium.
- Market structure.

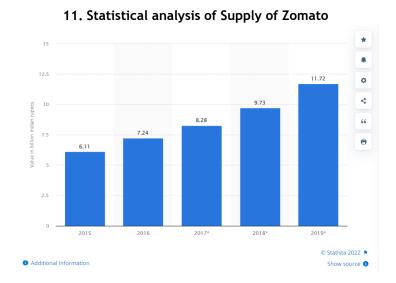
These three factors played a major role in determining the demand and supply. (3 major growth drivers that can make Zomato profitable in 3-5 years, 2021)

There are various schemes that Zomato Food delivery app has tried to use to increase its revenue. The major problems of Zomato not being able to increase its revenue are listed below:

- 1. Giving a lot of discounts. A lot of people prefer Zomato over other food delivery apps because of the discount that this app provides. The discount is so much that a majority of times the revenue earned from it is less.
- 2. A lot of people download the app and there are a lot of new users but still 9 out of 10 who

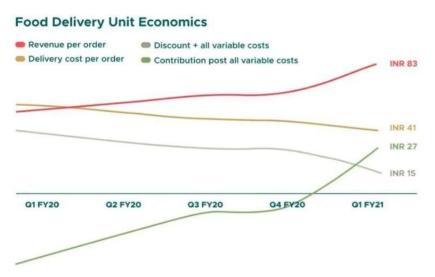
order using the app are the old users.

3. Inflation in India during COVID-19 Pandemic (Makwana, 2022).



(Keelery, 2022)

The above graph shows the revenue earned by Zomato using its food delivery app. This data shows the growth of Zomato through the years 2015- 2019. There has been a constant increase in sales. This means that the service provided by Zomato till 2019 was satisfactory and the supplyof food from various restaurants and cafes was also satisfactory for the consumers. As it can be inferred, the revenue generated by Zomato in Financial year 2019 was around 11.7 billion INR. Zomato went public in July 2021 with an IPO (initial public offer) worth over 90 billion Indian rupees.



(Mathur, 2021)

In the following year of 2020, because of the pandemic, the sales of Zomato dropped a lot. However, soon with a decrease in covid-19 rate, Zomato's sales increased. Although the deliverycost per order was reduced, since people were indoors, the number of orders shot up and revenue per order increased. As mentioned above, the discount rate was something that affected the revenue a lot. It can be clearly seen that Zomato realised this and decreased this discount rate. Overall, everything added up and the revenue increased in 2021.

So ultimately, it can be inferred from the above graphs and statistics that the company is growing but keeping in mind the rate of inflation, covid related circumstances, the introduction of Zomato in the



share market and various other reasons, there hasn't been a stark growth in the revenue earned by Zomato through supply.

12. Demand and Supply of Swiggy

A system for shaping supply in real-time to match demand while being constrained

1. Problem identification

Of the hyperlocal food delivery industry, maintaining appropriate supply-demand distribution across zones in a city in real-time is crucial. Zones are smaller geographic areas that are regarded as clusters of operations in this city. Delivery Executives (DE) are linked to a zone, and all decisions regarding how to close the gap between the supply of DEs and demand (orders placed) are made at the zone level. There are many other factors that might cause a gap between supply and demand, from an unexpected increase in demand to a decrease in DE logins due to bad weather, competition, etc.

Therefore, a method for making real-time DE movement recommendations among zones is needed to manage the imbalance in supply and demand at the zone level. If not, the Stress system will gradually reduce taking new orders to avoid delays and cancellations, which in turn leads to unfulfilled demand and poor CX for our customers. These recommendations should be proactive and predictive (typically 15 minutes ahead).

2. Method

Our answer is divided into four sections (schematic below).

3. Establishing superzones

- Clear definitions of supply and demand that take system stress into account
- ML models for 15-minute-ahead real-time supply and demand forecasting
- Matching supply surplus and shortfall zones with an optimization engine to produce DE movement advice.

An overview of our approach where we calculate the deficit from supply and demand forecast, which is passed to Optimizer along with Free DEs which generates the final DE movement recommendation.

Candidates for zone demand definitions included the following:

- Demand: the overall quantity of batched orders
- Demand equals the sum of all batched orders plus the backlog of pending batches.
- Demand is the sum of all batched orders plus the backlog of all unassigned batches plus the number of batched orders that are still awaiting assignment. (Tiwari, 2021)

13. High Demand And Limited Supply: The Story Of Foodtech In India

Online food delivery is one of the other foodtech sub sectors that is driving the sector's expansion as a whole. The primary factor driving this sector's rising popularity is the nation's rising internet usage as a result of the availability of smartphones and low-cost 4G mobile internet. As a result, there are now many market competitors offering comparable services with little to distinguish them from one another.

The supply base, or the total number of restaurants in the market, is increasing, but at a slower rate, and it can be said to be finite. Restaurants do not perceive any major value proposition in any of the market leaders in food delivery, namely Swiggy, despite the growth of the industry. If the restaurant is forced to select, it again chooses the platform with the lower commission rate.

14. Young People Drive Demand

India has one of the youngest populations in the world, which is no secret. Indians are 27 years old on average, vs 32 years for the other BRICS countries.

Young demographics and high disposable income combine to produce a market with an enduring need for new-age goods. The client persona developed in this circumstance is more inclined to make

irrational, unconsidered decisions than reasoned purchases. Additionally, compared to the population that is somewhat older, this age group is more eager to try out new goods and services.

The number of internet users in the country is growing, which has increased the addressable market for consumer-facing foodtech applications and made it possible for businesses to target potential clients outside of the country's urban areas.

Overall, food delivery businesses must concentrate on capturing the supply side of the industry in order to maximise profit margins. This would enable businesses to avoid the phenomena of perfect competition, in which all participants may compete on an equal basis since they each own an equal share of the market's supply. Due to the proliferation of comparable goods and services, the onset of perfect competition may eventually result in lower profit margins for market participants as they are obliged to make considerable investments in client retention. That also explains why startups that provide meals are attempting to dominate the supply by enabling cloud kitchens.

However, if Swiggy keeps growing at the same rate as other suppliers or restaurants, the food delivery industry may need to revert to its playbook of discounts in order to keep clients. (Singh, 2019) The \$10 billion GMV milestone is predicted to be broken by the Indian food delivery market by 2025, and this sector is once more undergoing a significant strategy change. Swiggy and Zomato, the two industry leaders that essentially control a duopoly, are focusing on a new market area that may ultimately determine their future market shares.

Following the pandemic, the restaurant business in India has rekindled its interest in spending money on tech items and software that will increase their revenue. In an effort to increase demand that they lost due to the pandemic, restaurants are utilising SaaS-based CRM systems, inventory management software, reservation automation tools, and point of sale (PoS) solutions.

According to Mehrotra, the number of restaurants listed on Dineout's online reservation system has increased from 20,000 to 40,000 since 2020. "Our customer base has more than tripled sincesince the pandemic, dine-in consumption has increased at a rate that exceeds what it was before the outbreak. It is unmistakably evidence of a revenge dine-in trend. Prior to Covid, in February 2020, we had about 2.2 to 2.5 million reservations a month on the platform; as of February 2022, that number had increased to 6.5 million, said Mehrotra. In addition, Tier-2 cities are expanding much more quickly than Tier-1 cities, which has resulted in a significant shift in demand patterns for Dineout. The average transaction value (ATV) per reservation has increased from Rs 1,000- 1,500 as of February 2020 to approximately Rs 2,000-2,500 at this time in tier-2 and lower cities, according to Mehrotra. The ATV has increased from Rs 2,000-2,200 to Rs 2,500-3,000 in Tier 1 and metro areas at the moment. These figures clearly show a growing market opportunity for entering the restaurant software management arena, and Swiggy might desire to gain a competitive edge by entering the market first. (SH, 2022)

15. COVID-19 and associated Challenges

People are shifting from dining out the trend to home delivery foods. Food delivery apps such as Zomato and Swiggy changing the way people used to eat, and people's interest in online food delivery apps increasing per day. Whenever the consumer wants food to eat these online food delivery apps deliver it within a maximum of forty-five minutes. In recent years some of the big market players like Swiggy and Zomato faced a lot of challenges due to covid-19 pandemic and lockdown, like an increase in demand for foods due to restrictions of lockdown. Food delivery apps like Zomato and Swiggy faced a lot of challenges like an increase in the price of food but now they have to overcome these difficulties, the covid-19 pandemic had placed a lot of pressure and challenges on these food delivery apps. Let us study the challenges faced by food delivery apps such as Swiggy and Zomato during the time of the pandemic as follows.

16. Covid-19-related issues

The food delivery sector in India had completely stopped due to the pandemic. The food delivery riders come to a standstill due to the lockdown in the entire country. Almost every doorstep delivery platforms were not able to access the market for a long time. Covid-19 was an extreme challenge for bike riders of delivery platforms who used to earn daily for their livings. Food delivery platforms



like Swiggy and Zomato lockdown were forced by the pandemic to lay off thousands of employees.

The Increased Competitions

Pressure on Food delivery apps was increased due to covid-19 challenges. Due to the high demand for foods by customers, the price of food was increased. there was tough competition between delivery platforms.

Job Termination

Due to Lockdown during the pandemic, all the businesses were in stand-still mode. They had suffered huge losses due to the lockdown which had led to the termination of jobs of employees and also a cutdown of salry of remaining. Swiggy had terminated around 1100 workers during the pandemic by the end of 2020 and also along with Swiggy, Zomato had laid off 1060 employeesduring the Lockdown.

Adhering to Food quality standards

With online ordering becoming more and more common, delivery services now face the difficulty of delivering meals from far-off restaurants without sacrificing quality. Receiving food at a restaurant is very different than having it delivered to one's door. It is time for delivery service businesses to fill this gap.

An examination of Swiggy and Zomato's Pandemic Challenges Strategies

Everyone and everything faced difficulty during the time of the pandemic all businesses were in shutdown mode for months. While at the time of Lockdown grocery stores and medical shops were in huge profits as the demand for these things was at its peak. Despite regulations put in place by the government, online food platforms were able to satisfy the demands of their clients. In search of the service that suited their demands, customers switched platforms. As a result, the brand suffered a loss of credibility and goodwill. However, there was a new period of transition, which was a bright spot.

Ensuring Safety

Zomato and Swiggy both followed the safety procedures. They have "Health & Safety" as their top priority. The number of restaurants open and the volume of orders placed decreased in the early months of the pandemic. To allay customer concerns and rebuild consumer trust, key safetyregulations were implemented, including no-contact delivery, improved delivery partner sanitation, and best safety standards labeling for restaurants. Consumers were also informed about these policies and basic food handling techniques.

17. Analysis

This section of the research paper analyses the demand and supply of Swiggy and Zomato along with their marketing strategies keeping in mind the COVID-19 related issues.

Owing to the largest youngest population, this young population is open to try out new food varieties available in the market. Also, they are much aware about food delivery apps because of tight schedules and easy to use platforms.

The number of people using Swiggy to order food is less than the number of people using Zomatoas the growth of Zomato users is much more and people are shifting to this platform. This is mainly because the pricing of Zomato is lesser than that of Swiggy. Plus, the tax imposed by Swiggy is also more than that of Zomato which in turn increases the supply of Zomato.

In addition to this, Zomato provides a lot of discounts that does attract consumers. However, Swiggy looses its consumers because of failure to provide discount. Even though Zomato has increased its consumers, because of the discounts and other reasons like less tax, its not the highest earning food delivery app in India. So, although Zomato has more loyal consumers, Swiggystill earns more profit. Zomato recently discontinued its 'Pro membership.' Earlier, people who bought the membership could avail a product at a lesser price than that was available to any other person who was not a member. This option of membership was also available to Swiggy users. Since Zomato discontinued a service



that other food delivery platforms provide, it might have to face its consequences.

Reasons for increase in demand and supply of both the apps is primarily because of increase in use of smartphones, availability, quality and accessibility of the food delivery apps and user friendly interface technology. Both the apps have used various schemes to promote and advertise their service. These schemes used by these apps have not only increased demand in tier 1 cities, but also have efficiently created demand in tier 2 and tier 3 cities. Plus, introduction of contactless delivery during the pandemic assured safety of people which added to the increased demand.

Since demand was increased through the use of effective advertisement, as a result, supply also escalated. This can be inferred from the research paper as the average transaction value saw an increase in the year of 2020.

Overall, the main increase in usage of food delivery apps was because of technological advancement and availability of internet. This created the demand and to satisfy that demand, supply was increased.

Conclusion

As we have seen, the demand and supply of food delivery apps like Zomato and Swiggy have been explained in this research paper. This research paper is a compilation of the study of how demand and supply work amongst consumers in the Indian market.

Along with this, the paper explores the basic understanding of the notions of demand and supply and how it was affected during the pandemic of COVID 19.

Various schemes have been deployed by Zomato and Swiggy to create demand and attract more consumers, and this paper tried to analyze that. Along with that, marketing strategies and pandemic related issues have been discussed thoroughly. The research paper gives an analysis of the whole research that answers all the research question in an apt manner.

It can be concluded that food delivery apps like Zomato and Swiggy have efficiently used the latest technologies and the internet in order to create and increase demand among the people. The availability, accessibility and the quality provided by these apps are at par with the consumer's needs and wants which results in the increased demand. Since demand and supply are closely related to each other, supply also increased as and when there was escalation in demand. The app has proved to be successful in satisfying demand and supply.

From the paper, it can be inferred that the main cause for the disproportionate consumers and revenue in both the apps is due to the issues with their discount policies. Zomato, on one hand gives excessive rates of discount which results in its revenue getting decreased inspite of the increase in the number of consumers. On the other hand, Swiggy provides lesser discounts as compared to Zomato which results in a decrease in customers but an increase in the revenue rates. So while providing discounts, the apps should keep in mind that there should be a balance between the discounts provided and their profit margins.

The apps in order to increase demand and supply can also provide the customers with complementary goods, like cutlery.

Ultimately, the research paper critically analyzes the demand and supply of food delivery apps like Zomato and Swiggy in India and also provides effective suggestions in order to escalate the demands and supply of the consumers in these contemporary times.

References

B, A. (2022). Startup lessons form Zomato by Ashish B. Thinker Views. https://thinkerviews.com/books/english-books/startup-lessons-from-Zomato-by-ashish-b-book-review/.

Frederick, D. & Parappagoudar, S. (2022). SWOC analysis of Zomato - a case of online food delivery service. International Research Journal of Modernization in Engineering Technology and Science, Volume 3. (3), 540.

https://deliverypdf.ssrn.com/delivery.php?ID=116093024026073127086080012076003018057036007092012071117087091029013003100087087075097052026037044058003014082092082115085124042081

Gupta, M. (2019). A Study on Impact of Online Food delivery app on Restaurant Business special reference to Zomato and Swiggy. IJRAR Volume 6. (1), 891. http://ijrar.com/upload_issue/ijrar_issue_20542895.pdf

IBEF. (2021, April 30). India's processed food market to grow to US \$ 470 billion: KPMG. Indian Economy News. https://www.ibef.org/news/indias-processed-food-market-to-grow-to-us-470- billon-kpmg.

Jackson, E. (2021). History of food delivery and how its changed. Thistle. https://www.thistle.co/learn/thistle-thoughts/history-of-food-delivery-and-how-its-changed.

Keelery, S. (2022, March 24). Net sales of Zomato in India from 2015- 2019. Statista. https://www.statista.com/statistics/744366/Zomato-net-sales-

india/#:~:text=Zomato's%20net%20sales%202015%2D2019&text=In%202016%2C%20the%20net%20sales,billion%20Indian%20rupees%20in%202019.

Makwana, B. (2022, January 9). Zomato's path to profitability in the next three years requires two things, say analysts. Business Insider. https://www.businessinsider.in/business/news/Zomato-can-show-ebitda-profitability-in-the-next-three-years-but-only-on-one-partition/articleshow/2005/000 growth staut While/2007-particles/2005-les/2006-page 7

condition/articleshow/92095600.cms#:~:text=While%20Zomato's%20sales%20have%20been,nearly%2050%25%20since%20last%20year.

Mathur, S. (2021, August 10). Zomato statistic: usage, revenue and key facts. Feedough. https://www.feedough.com/Zomato-statistics-facts-user-counts/.

Raman, P. (2018). Zomato: a shining armour in the foodtech sector. Journal of Information Technology case and Application Research, Volume 20, (3-4), paragraph 3. https://doi.org/10.1080/15228053.2018.1552396

SH, S.(2022, March 21). Driving demand: Swiggy, Zomato betting big on SaaS play. Financial Express. https://www.financialexpress.com/industry/driving-demand-Swiggy-Zomato-betting-big-on-saas-play/2466047/.

Shastri, A. (n.d), In depth business model of Zomato - 360 degree analysis, Retrieved August 31,2022, from https://iide.co/case-studies/business-model-of-Zomato/#1_Zomato_Advertising.

Shetty, D. & S, J. (2020). A study on impact of covid-19 on buying behaviour of consumer on online food delivery with reference to Zomato. International E Conference on Adapting to the New Business Normal- The way ahead, 13-14.

https://www.sdmimd.ac.in/incon_cd_2020/papers/MR116.pdf

Singh, S. (2019, December 27). Massive demand and finite supply: the conundrum for India's food delivery startups. INC. https://inc42.com/datalab/massive-demand-and-finite-supply-indias- food-delivery-startup-market/.

Tiwari, A. (2021, October 29). A real-time supply-shaping system to meet demand under constraints. Swiggy bytes. https://bytes.Swiggy.com/a-real-time-supply-shaping-system-to-meet-demand-under-constraints-ff449a73874b.

Zomato Success Story - How is it Delivering Delicious Happiness to Your Doorsteps? (2022, August 20). Startup Talky. https://startuptalky.com/zomato-success-story/ .

(2021, July 05). 3 major growth drivers that can make Zomato profitable in 3-5 years. The Economic Times.

https://economictimes.indiatimes.com/markets/expert-view/3-major-growth-make-Zomato-profitable-in-3-5-years/articleshow/84136344.cms?from=mdr