

## A Study of the Two Alcohol Delivery Systems, the Online Aggregators Swiggy & Zomato, and the Individual Shop Deliveries, in India

Tirth Choksey<sup>1</sup>, Ayush Shah<sup>2</sup>

<sup>1</sup>Independent Researcher, Mumbai, India

<sup>2</sup>Independent Researcher, Mumbai, India

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**Abstract:** The purpose of this paper is to evaluate the two distinct delivery systems namely, the online aggregators (Swiggy and Zomato) and the delivery setup by individual alcohol establishments. The primary reason for the change in the method of procuring liquor was due to the current pandemic of Covid-19, which prevented consumers from purchasing alcohol from brick and mortar stores. The research follows a qualitative approach with surveys as a part of the primary research and online articles, research publications, and books as a part of the secondary research. Data Analysis was conducted using descriptive analysis weighing the pros and cons.

The following results were obtained. The delivery system operated by the online delivery aggregators allowed for bridging quite a few institutional voids that include 1) Credibility 2) Asymmetry of Information 3) Adjudication Methods 4) Illegal Consumption of Alcohol, which were unfulfilled by the delivery system set by individual shops. The market structure of the alcohol delivery industry with online delivery aggregators is that of a duopoly which could further transform into a monopoly and the market structure with individual alcohol deliveries is monopolistic. The market structure was analysed on the following factors 1) Price and Competition 2) Revenue and Research & Development 3) Productive efficiency 4) Economies of Scale. It was found that the online delivery aggregators had an overall beneficial impact as compared to its counterpart. Furthermore, it was found that the delivery system set by Swiggy and Zomato allowed for higher tax revenue but would reduce employment. At the same time, alcohol shop owners were cynical about the entry of Swiggy and Zomato, despite the potential for better visibility, their dominating business practices derived from their monopoly power were a matter of concern.

**Key Words:** Alcohol Delivery, Online Aggregators, Institutional Void, Market Structure, Swiggy, Zomato, Covid-19.

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### I. Introduction

The Indian Alcoholic beverage industry is the third-largest alcohol industry across the globe. The growing demand for alcohol is primarily due to the young demographics and widespread urbanisation. The liquor industry in India was valued at \$35 Billion in 2015 and is expected to grow to \$41 Billion by the end of 2022 with a CAGR (Compound Annual Growth Rate) of 7.8%. Previously before Covid-19, Liquor legislation in India strictly prohibited the delivery of alcohol in any form and the only way to buy alcohol legally was to purchase it at a brick and mortar alcohol establishment.

However, due to Covid-19 the previous alcohol purchasing system was deemed to be unfeasible as a complete lockdown had been put into place to control the spread of the virus which thus led to the shutdown of liquor establishments across the country. This, therefore, prompted the Indian government to permit the delivery of alcohol as it is deemed as an essential good. This led to the emergence of two different alcohol delivery systems. The first one was permitting the alcohol shops themselves to deliver which would thus create lakhs of individual delivery systems. This is the system adopted by most state governments in India. The second option was permitting Swiggy and Zomato to make the alcohol deliveries. Swiggy and Zomato are often regarded as pioneers of the food delivery system in India and have two of the largest market shares of the sector. This online delivery system was adopted by certain cities in Odisha and Jharkhand along with the individual liquor shop delivery. Swiggy and Zomato are looking to further expand into other states if this pilot program is successful. However, the question stands, which delivery system proves to be the most beneficial for the stakeholders of the Indian alcohol market?

The research paper analyses the above question through 4 primary aspects - the institutional voids, the potential market structure, its subsequent effects on the market, the effect on individual alcohol shops, and the

effect on the Indian government. This research analyses the effect of technological advancement and modernisation on the delivery of sensitive goods such as alcohol and if this change leads to a safer consumption of the same. Furthermore, it allows to analyse the effect that the size of the firm has on the market and the consumers. The paper assesses the effect on all the stakeholders involved in the 2 different delivery systems of liquor ranging from the consumer to the government, liquor shops, and Swiggy and Zomato.

## **II. Objectives**

- To evaluate the effect of the entry of Online delivery platforms, Swiggy and Zomato in the alcohol delivery market
- The institutional voids that would be filled in by the entry of these online aggregators in the delivery of alcohol as compared to the individual delivery system.
- To evaluate the different market structures that the alcohol delivery market would take on with the two different delivery systems (individual vs online aggregators).
- The potential effect of the two alcohol delivery systems on the Indian government and the alcohol shop owners

## **III. Research Methodology**

In this research paper, a descriptive and qualitative approach has been adopted for systematically analysing the effect of the two different alcohol delivery systems. The paper employs both primary and secondary data in order to gauge a better evaluation. The secondary data has been collected via reliable online articles from Indian newspapers such as Times of India and Economic Times. Furthermore, a scientific essay titled “The Role of Entrepreneurship In Emerging Economies To Curb Institutional Voids”, by Allen Joshy was utilised in order to better understand the concept of institutional voids which was then applied to the alcohol industry. Also, another research paper titled “Understanding consumer behaviour towards utilization of online food delivery platforms” was used in order to understand the consumer motive and was hence applied to the curbing of institutional voids. Moreover, books such as “Economics for the IB Diploma” by “Ellie Tragakes” was utilised in order to further evaluate the potential pros and cons of the various market structures that the Indian alcohol delivery market could adopt.

Primary research was undertaken in order to evaluate the two different aspects in this research paper, the mutual interdependence of Swiggy and Zomato, and the existence of institutional voids in the alcohol delivery industry. The mutual interdependence was evidenced by the delivery prices offered by the two online aggregators. The same delivery location, same product, and the same outlet were chosen at the same time in order to search for the cost of delivering ensuring reduced systematic error. It was conducted over a period of 14 days in order to ensure that the data was reliable. Secondly, an online survey was undertaken in order to better understand the institutional voids that existed in the alcohol delivery industry and the effect of Swiggy and Zomato on the same. It was ensured that the questions were not biased and misleading and the sample size chosen was above 18 years old despite the legal age for alcohol consumption in India being 25. This is because the majority of alcohol is consumed between the age of 18 and 40. The sample size of the survey was 320 participants where 53% of them were above the age of 25 and 47% were between 19 years of age and 25. Among the participants in the survey, 52% consumed alcohol five times a week and 27% consumed alcohol more than equal to seven times a week.

## **IV. Institutional Void**

The potentiality of buyers and sellers to find one another and complete transactions as seamlessly as possible is the quintessential constituent in a market economy. Institutional voids are the gaps, inefficiencies or dysfunctional elements that exist within specific markets that serve as roadblocks to the seamless interactions and transactions between buyers and sellers. They have been found to exist predominantly in developing and underdeveloped countries in comparison to the developed countries.

The alcohol industry in India was revamped as a result of Covid-19 and for the first time in the country's history, the delivery of liquor has been legalised. The state governments of Odisha and Jharkhand gave permits to Swiggy and Zomato to deliver alcohol which unravelled a variety of institutional voids that existed as a result of deliveries made by individual shop owners. An example of the same was noted by the Indian newspaper “Indian Express” where they found several cases of fraud where people calling for home delivery of liquor were either scammed for credit card theft or lack of delivery even after making the payment.

While institutional voids are a deep underlying problem in a market economy, they also represent an entrepreneurial opportunity to fill in the missing institutions and gaps that exist. An example of such existing entrepreneurial efforts, albeit for a different sector in the food delivery industry, is by Swiggy and Zomato. The pilot program undertaken by Swiggy and Zomato in Odisha and Jharkhand gave an insight into how institutional

voids could be filled by their alcohol delivery model unlike their counterpart alcohol delivery model run by individual alcohol shops.

### **Credibility**

In this scenario, credibility is the consumer's trust and belief in the service and quality provided by the alcohol delivery platforms.

#### Illegal Shop Owners

Several states have permitted independent shops to deliver alcohol which has led to a regulatory problem in terms of regulating the delivery system. This is further amplified, due to the formation of black markets and illegal delivery of alcohol. Consequently, this compels the consumer to lose their trust and belief in the alcohol shops and their delivery as they may not know if the shop delivering the alcohol is legally sanctioned to do so and are following the health and safety regulations. This discourages the transaction to take place and this is a major institutional void.

Online alcohol delivery aggregators, Swiggy and Zomato have an intense vetting process for joining as a verified seller on the app. In order to become a seller on the app, a thorough scrutiny of the liquor establishment is conducted where a variety of checks are conducted which involve a verification of FSSAI licence, shop licence, liquor permit, cancelled cheques or passbook to ensure verifiability of the shops they are partnering. The two firms further conduct multiple checks based on consumer feedback and tips other than the initial checks conducted, due to the sensitive nature and the potential health risk that arise due to the product itself. Both these online delivery platforms have strong guidelines for quality control which ensures that all the establishments on their platform have set health and safety standards. An example of this was observed in their food delivery model when Swiggy and Zomato delisted a combined total of 10,500 restaurants from their platform due to those restaurants not complying to the FSSAI food quality and health checks. This ensures that even if the license is obtained through illegal means, a set health and quality standard is maintained by these online delivery platforms which reassures the consumers and bridges the institutional void. This void, however, cannot be fulfilled by the delivery made by individual shops because there is a lack of medium through which the shops can be regulated in this delivery system.

#### Adulteration

The alcohol shops in India further lose credibility when news of adulteration of liquor surface on news channels and other media platforms. An example of this was seen when a variety of alcohol shops in tier 2 and tier 3 cities were found to be adulterating imported liquor with the "desi" or homemade liquor which leads to further health risks and complications. This leads to consumers being discouraged to purchase alcohol. Thus, this lack of credibility represents an institutional void as it leads to the disruption of the interaction and transaction between consumers and sellers.

Swiggy and Zomato have provided a platform for the consumers to voice their opinion on the quality of the product and service at an establishment. This is easily made available to other consumers in order to help them make decisions by gauging the quality of a restaurant based on others' experience. According to the survey conducted, it was found that 23.75% rated the reliability of the rating offered by Swiggy and Zomato as 7 and 23.13% rated the reliability of these ratings as 8 on a scale from 1 to 10 where 1 represents not reliable at all and 10 represents completely reliable. One more way in which credibility is being measured through these online delivery platforms is to certify certain restaurants with the in-house tags and categories that they have built in their platform such as "best safety standards" and "premium". This allows for a transfer of trust and credibility from the shops to these online platforms to the consumers. Moreover, Swiggy has told Quartz that it uses leading third-party firms to audit restaurants randomly in order to ensure such illicit practices are not being undertaken. This practice performed by Swiggy and Zomato, allows the consumers to gauge the quality of the alcohol shops and hence build upon their trust ensuring the credibility of these online delivery platforms.

#### Covid-19 Precautions

Alcohol being an addictive good and hence having an inelastic demand, the local authorities were encouraged to begin the delivery of the same. However, a strong risk is associated with the delivery of alcohol in terms of the delivery executive being a carrier for the coronavirus. The government has mandated a set of procedures that need to be followed when deliveries are made. However, for the deliveries made by individual alcohol shops, following these rules might be difficult as they might lack the appropriate capital or expertise to translate these steps into practice. According to the survey conducted, it was found that 20.94% of people rated the precautions taken by individual shops as 4 and 18.75% of people rated the precautions taken as 5 on a scale of 1 to 10 where 1 represents not reliable at all and 10 represents completely reliable. Moreover, the risk of this pandemic is not only limited to the consumers but also the delivery executives who travel across the city and can come in contact with an infected person and can spread it further. This is a unique institutional void where there are factors that discourage transactions on both the consumer and supplier side which may lead to a breakdown of the supply chain of an essential product.

Swiggy and Zomato have once again used their entrepreneurial expertise to solve this problem and thus safeguard both the supplier and the consumer. The large scale at which these online alcohol delivery platforms operate, allows them to undertake large capital expenditure in order to resolve these problems which will then be amortized over a larger unit as compared to that of an individual shop. Steps undertaken include but are not limited to :

- Temperature checks of the staff are to be conducted periodically which is easily accessible to the consumer on the platform
- Cleaning and sanitising of all possible surfaces in the establishment every 4 hours
- Educating the delivery executives about the various steps they have to follow such as contactless delivery and social distancing
- A delivery algorithm that periodically requires the delivery executive to upload a selfie with a mask, enforcing the government's mandate
- A further improvement in their delivery algorithm is JIT (Just in Time Delivery) where the delivery executive reaches the establishment once the order is ready. This is quite different from their previous methodology where the delivery executive was required to wait in the restaurant while the order is being prepared in order to ensure "lightning-fast delivery". This led to the crowding up of delivery executives at the restaurants which in this scenario of the pandemic could be harmful and is also against the government laws of social distancing.
- They have been following the standard demarcation rules as mandated by the government in order to implement the social distancing norms
- Cash on delivery has been completely eliminated in order to reinforce contactless delivery

By undertaking these steps, they can further guarantee the safety of the alcohol shop, delivery executive, and the consumer thus mending the institutional void. According to the survey conducted, it was found that 23.75% of people rated the precautions taken by Swiggy and Zomato as 7 and 21.88 % of people rated the precautions taken as 8 on a scale of 1 to 10 where 1 represents not reliable at all and 10 represents completely reliable.

#### **Asymmetry of information**

Lack of information is the principal factor that contributes to the exploitation of consumers by these alcohol establishments which thus deters consumers from completing the transaction. Swiggy and Zomato are often credited by consumers for increasing the transparency and bridging this asymmetry of information. According to the survey conducted, 74% of consumers found that Swiggy and Zomato increased their knowledge and 26% of people found that it made no difference to their knowledge of the product they are ordering.

#### Lack of Price Transparency

There exists an asymmetry of information since consumers lack the appropriate tools or medium to search the MRP (maximum retail price -a manufacturer calculated price that is the highest price charged by a seller) for the liquor that they purchase. This has led to a variety of local alcohol sellers selling liquor at a much higher price than MRP where it was found that they charge an extra ₹ 10-30 for hard liquors and ₹ 5 per bottle of beer. This institutional void is further augmented when the Indian Government permits local alcohol shops to conduct the sale and delivery of liquor as it was observed that the seller overcharges the consumer. This exploitation of consumers occurs as alcohol is an addictive good and subsequently has an inelastic demand which thus reduces the price sensitivity of consumers. Swiggy and Zomato are inherently tools that facilitate price transparency as the consumers can easily compare the prices of the different types of liquor amongst liquor shops in the area itself. This is when the entry of Swiggy and Zomato helps in filling this institutional void.

#### Lack of Shop Information

There are numerous liquor shops in every locality however a consumer may not have information about the type of brands, or the quality or the price range available at each shop. According to the survey conducted, it was found that only 17.5% of the consumers rated their knowledge of alcohol as a 4, and 20.94% of consumers rated their knowledge of alcohol as 5 on a scale from 1 to 10 where 1 represents no knowledge and 10 represents extremely knowledgeable. This depicts how the majority of people lack the sufficient knowledge to make informed purchases for their liquor. Also, when it comes to physical purchase a person would prefer shops near their homes, however, these online delivery platforms display shops in the 5 Km radius offering more variety to the consumers. Thus, the comprehensive apps of Swiggy and Zomato make it viable for consumers to view all the shops and make an informed choice on their purchase.

The lack of information in terms of price, alcohol brands, new liquor shops opening in your area was the reason consumers were exploited. But with these online delivery platforms there is a higher level of transparency as the consumers have complete information of all the different liquor stores around them, their prices, their quality (based on feedback) and hence they can make an informed choice on where to make their purchases from.

A research based on “Understanding consumer behaviour towards utilization of online food delivery platforms” showed that consumer’s ease of information is a key factor in choosing online delivery platforms such as Swiggy and Zomato, due to the greater consumer satisfaction received. This is because the delivery system of individual shops provide data for only one shop which thus limits the information and transparency for the consumer. This highlights how the entry of Swiggy and Zomato in the online delivery of liquor makes the process more transparent and hence attracting more consumers towards it.

### **Adjudication Method**

A major impediment occurs in a transaction when the terms of the contract are not honoured and there exists no manner through which the consumers can ensure sufficient correction or compensation. This institutional void was observed across the alcohol industry in India where consumers were duped and scammed by shop owners. Scams include but are not limited to credit card fraud by shop owners, adulteration of alcohol, and not delivering what was promised. Quoting from the Indian newspaper “Indian Express”, there were cases where the consumer had placed an order for liquor and also made the payment but failed to receive it. Similarly, another consumer was scammed for 1.5 Lakh Rupees. There are a variety of reasons why the consumers believe that they do not have an apt manner in which they could adjudicate themselves. Particularly it has been observed that getting justice for these frauds is highly time consuming and stressful due to the immense amount of procedures that have to be followed. It was also found that 41% of crimes are yet pending investigations in Maharashtra despite having 89% of the legal posts filled, primarily due to the police personnel being overworked and, hence losing efficiency. Moreover, according to the Indian newspaper Economic Times “SC has nearly 61,000 pending cases, HC have a backlog of more than 40 lakh cases, and all subordinate courts together are yet to dispose of around 2.85 crore cases. On an average, cases take three years and nine months to get disposed”. The primary reason for the delay is the lack of sufficient number of judges available. Moreover, there is a strong social stigmatization against alcohol and thus Indians are inherently embarrassed of approaching the authorities. This therefore means that the consumers effectively lack the appropriate adjudication method and are worried if they will have any respite if they were treated wrongly which thus discourages the transaction process.

This however is bridged by Swiggy and Zomato’s own adjudication and customer service helpline where they have solved a variety of problems that consumers have had ranging from replacement, cashback, and other appropriate compensations at times. Due to the intense competition between the two firms, they strive to provide the best consumer experience in order to retain them. According to our survey, 57% of consumers have had an interaction with the Swiggy and Zomato customer service, among which 30.22% consumers rated their experience with them as 9 on a scale of 1 to 10 where 1 represents unsatisfactory and 10 represents excellent service. Moreover, the efficiency and scale at which they run allow them to have an expert call team to deal with consumer complaints and thus offer them the best services. Thus, this bridges the institutional gap that exists allowing for the transaction to take place seamlessly.

### **Illegal Consumption of Alcohol**

Illegal consumption of alcohol refers to the issue of underage drinking, which is a problem across the globe including India where, 88.8 percent of the youth drink alcohol before the legal age of 25. Secondly, the issue of underage drinking would reduce as Swiggy and Zomato ask for age verification and government ID before purchasing alcohol.

Swiggy has partnered with HyperVerge an AI-based company, in order to enable AI-face recognition to ensure further age-verification. This AI-enabled verification system ensures user authentication as well, taking care that it is the same person ordering liquor whose age proof has been submitted. Moreover, these online platforms also ask for age verification proof, to safeguard the issue of underage drinking. However, deliveries made by individual alcohol shops lack the capital to put such practices in place. Earlier, people consumed alcohol without having a liquor permit which is compulsory in order to consume alcohol. However, with the entry of Swiggy and Zomato, such consumption shall reduce as they require the consumer to submit their liquor permit in order to be eligible for the delivery.

## **V. Market Structure**

Market structure is the characteristics and features of a market which influence the behaviour of firms in that industry in terms of competition and pricing strategies. The alcohol delivery industry can adopt two quite

different market structures depending upon the alcohol delivery system chosen (individual alcohol shops or online delivery aggregators) where each have their merits and drawbacks.

### **Market Structure with individual alcohol shops facilitating the delivery**

The primary option adopted by state governments, that have not authorised Swiggy and Zomato, was to sanction local liquor establishments to facilitate the home delivery of liquor. The primary means through which this facility has been provided by individual alcohol shops is through telecommunication mediums such as WhatsApp, SMS, and phone calls. The observed characteristics of this subsequent delivery system mirrors that of a monopolistic market structure.

The immense number of liquor stores throughout the country have subsequently led to several individual systems where each firm has a small share of the market and acts independently of the others. It has been observed that gaining a liquor license and bypassing all the legal barriers such as obtaining the FSSAI license, alcohol delivery permit, and shop license are relatively easier due to the presence of corruption, leading to lower legal barriers to entry. Moreover, it has been observed that individual alcohol shops have been unsuccessful in branding themselves and their delivery system due to a variety of reasons. The primary reason is due to the legislation and the Indian constitution which does not permit the shops to advertise their product or the alcohol delivery system since it is considered immoral. Moreover, due to their small size, they lack sufficient capital and expertise to undertake a branding campaign for their delivery system. Similarly, the small size of the firms and the relatively small market share leads to achieving negligible economies of scale. Therefore, no liquor stores can lower their price per unit or as in this case, the price per delivery in order to eliminate competition. Hence, there are reduced barriers to entry in the alcohol delivery market conferring to the Monopolistic market structure. Due to the locations of each shop, their delivery is exclusive to their particular area. Moreover, the type of liquor is different from shop to shop as influenced by the socioeconomic status of the locality. Therefore, product differentiation exists in the alcohol delivery system operated by individual establishments. Product differentiation occurs when firms in an industry try to make their product different from that of the others.

### **Market Structure with Swiggy and Zomato**

The market structure of the alcohol delivery industry with Swiggy and Zomato would be a duopoly and a possible monopoly too, should one of the two firms outperform the other or the losses propel a firm out of the market as seen in the case UberEATS. The reasons for the two firms being a duopoly are as follows:

- Swiggy and Zomato have an established consumer base that emerges from their original business of food delivery. This has been primarily because of them developing their brand early on as a reliable and trustworthy method of delivering meals to consumers. Moreover, they have created a loyal consumer base through the use of unmatched deals and discounts which allows for excellent customer retention.
- Swiggy and Zomato have developed an extensive amount of goodwill due to their reliable service in the food delivery industry which will thus prompt consumers to choose their platform over others.
- Swiggy and Zomato have existing infrastructure in terms of the delivery executives as well as the technical requirements to successfully run an online delivery platform. Moreover, through their experience in the food delivery platform, they have built a bug-free app that ensures the consumers' ease of use. Furthermore, they have built an algorithm from their existing database which allows for faster and more efficient deliveries. This level of data analysis and experience is unmatched by any other platform-based delivery system as they lack the required data in order to build such an algorithm and perform data analysis.
- The immense capital available and entrepreneurial expertise from the highly qualified employees available at their disposal helps them provide the excellent service they are known for. With a huge endowment, they are able to implement technological advancements making the process simpler for consumers. This is difficult for new delivery firms, as procuring the level of funding earned by these stalwarts is difficult at the beginning. For instance, Naspers invested \$1 Billion in Swiggy in 2018, which for a new company to earn is difficult seeing the current uncertainty in the economy as well the existence of these giants.
- Economies of scale, they are the lower costs obtained by a firm due to their large scale of operation where cost per unit output decreases in this case, cost per delivery made. There are several types of economies of scale achieved by Swiggy and Zomato which make these two the dominant firms in the market:
  - Technical Economies of Scale: a large amount of capital allows these firms to heavily invest in the technological aspect which is a key requirement for such a business model. Thus, they can enjoy reduced cost per unit or as in this case, reduced cost per delivery. Moreover, investment in technology aids Swiggy and Zomato to better their consumer experience by ensuring better matchmaking which increases their consumer base and loyalty making it difficult for new firms to enter.
  - Financial Economies of Scale: being a large firm they attract lower interest rates, which hence makes obtaining capital cheaper as compared to small firms entering the market. Moreover, due to their size, they are deemed to be more "creditworthy" and thus have greater access to other financial tools such as

an overdraft. This allows them to obtain capital easily in order to help them adapt to the sudden shock such as the pandemic unlike that of small liquor establishments who cannot obtain appropriate financial help in order to implement the delivery system.

- Risk Bearing Economies of Scale: Swiggy and Zomato are able to survive downturns due to their size, capital, and their entrepreneurial expertise on board. These three factors allow for augmented adaptability to a new situation. On the contrary, small firms entering the market find it difficult to survive and adapt to any recessions or sudden shocks. This example was seen during the pandemic where Swiggy's board immediately made apt changes to the delivery system algorithm in lieu of the new rules set by the government. This is unlike the small liquor firms and their delivery model, which could not quickly augment to the new rules. Thus, allowing Swiggy and Zomato to capture the market faster and becoming a duopoly.
- Specialisation: having the infrastructure and expertise, these large firms are able to divide labour and specialise into the delivery of alcohol and hence become more efficient. This will allow for lower cost per delivery.
- Managerial Economies of Scale: The exponential growth of Swiggy and Zomato and the immense capital that they have at their disposal has allowed them to attract specialised managers for their teams. This allows them to develop a specialised knowledge pool that during times of shock such as the pandemic can efficiently mobilise the new plan. Moreover, their knowledge and experience can allow for new practices to be put into place which may help further reduce the cost per unit.

The product that they will be delivering through their system is essentially homogeneous as the same alcohol types and brands would be provided through both the apps, albeit through different stores. The economies of scale achieved by Swiggy and Zomato create a barrier for entry as no small firms can compete with them with the advantages these two firms gain. This has allowed them to bring down their cost per unit which in this case is the cost per delivery. They can offer the services at such low prices that it would dissuade other firms from entering the market as they cannot match the prices these firms offer their consumers. Moreover, various governments are only licensing Swiggy and Zomato to conduct the deliveries due to their experience, connection and recognizability in their industry, which acts as a legal barrier for entry as well. Also, some governments have extensive rules which many delivery systems fail to adopt other than Swiggy and Zomato. Thus, this forms a legal barrier to entry which restricts other firms from entering the alcohol delivery market.

Mutual Interdependence refers to the strategic behaviour of a firm which depends on the profits and actions performed by another firm in an Oligopoly market structure (Duopoly is a type of an Oligopoly Market Structure). In the case of Swiggy and Zomato, this form of mutual interdependence is primarily observed through the prices and discounts that have been offered through their platform. Over a period of 14 days, the same item from the same restaurant was ordered and the price difference was noted. It was observed that there was a difference of 5.423% on average between the two delivery platforms, which is a highly negligible difference and hence shows how the two firms are mutually interdependent on each other. This is a result of the game theory which is the branch of mathematics concerned with the analysis of strategies for dealing with competitive situations where the outcome of a participant's choice of action depends critically on the actions of other participants. This is because no participant can gain by a unilateral change of strategy if the strategies of the others remain unchanged.

## **Evaluation**

The possible market structure that the alcohol delivery market takes on, depending on the delivery system chosen, have a variety of pros and cons in comparison to its counterpart.

### Price and Competition

The market structure when alcohol is delivered by individual alcohol establishments is that of a monopolistic market. It may be expected that the price of delivery remains low due to the presence of a large number of small firms and the intense competition. On the contrary to expectations, the prices may be higher due to product differentiation and inelastic demand for the delivery of alcohol. Due to the lack of competition, it may be expected that the price of the delivery of alcohol may be higher in a duopoly. However, counterintuitively in the scenario of Swiggy and Zomato, lower prices will be maintained due to their intense competition. The primary distinction in the monopolistic market that allows for the competition is the range of delivery and the brand of liquor. This differentiation is however eliminated by the virtuoso of Swiggy and Zomato and thus they will be inclined to compete on price as that is the only distinction available between the two in order to capture the majority of the alcohol delivery market share. However, as dictated by the Nash equilibrium, an incentive to collude may occur where these firms may overcharge the consumers which translate into higher profits for both the firms. Thus, there is a fall in the consumer surplus as they are forced to pay

higher prices. Due to the lack of competition in a monopoly, the single firm is free to charge the price for the delivery of alcohol that maximises profit and thus a lower quantity of goods is being sold i.e. lower deliveries are being made but at a higher price, provided there is no form of government intervention.

#### Revenue and Research & Development

In a duopoly and a monopoly, there are significant barriers to entry imposed due to the high economies of scale achieved by the firms and the legal requirements imposed by the government. Hence, due to the lack of newer entrants in the markets the existing firms, Swiggy and Zomato could possibly earn abnormal profits in both the short and the long run. The possibility of earning abnormal profits allows the firms to invest in Research and Development and thus technologically advance their liquor delivery systems. Moreover, a firm in these two market structures may be further encouraged to invest into research and development in order to maintain the high barriers to entry and thus safeguard their abnormal profits. This thus benefits the consumers as they can use the most advanced and efficient delivery system to order alcohol. However, firms in a monopolistic market are unable to invest in research and development since they earn normal profits in the long run due to the lack of barriers to entry and may thus lack the capital to invest in research and development.

#### Productive Efficiency

Productive efficiency is when a firm achieves the most efficient and economical way to produce a product and thus in the case of alcohol delivery systems, productive efficiency is achieved when the lowest cost of delivering alcohol is achieved. In the monopolistic market structure, the firms usually attain higher productive efficiency as compared to the other market structures due to the presence of a certain degree of competition which would force out all inefficient alcohol delivery systems. However, this may not be achieved in the case of alcohol delivery systems because the individual firms may lack sufficient capital in order to invest into the delivery system itself and in hiring the appropriate manpower to build and run the delivery system. Thus, a monopolistic market structure may not achieve the highest productive efficiency. In a monopoly or a duopoly due to the lack of incentive to compete, the firms may not achieve productive efficiency. However, the incentive to invest in research and development as mentioned earlier will lead to a highly efficient alcohol delivery system which will have a higher productive efficiency. Moreover, Swiggy and Zomato have funds from several financial institutions which enables them to augment their existing food delivery model to make it suitable for liquor delivery. Furthermore, Zomato and Swiggy are aiming to have a larger market share in the delivery of alcohol and retain their current consumer base hence, incentivising the two firms to attain the cheapest delivery price possible thus augmenting productive efficiency. X-inefficiency occurs when the firm lacks an incentive to control costs, primarily influenced due to the lack of competition. In the monopolistic market structure, chances of X-inefficiency to exist is the lowest due to the high degree of competition that exists between firms for the delivery of liquor. Similarly, in the case of a duopoly there exists an intense competition between Swiggy and Zomato, and hence there exists a reduced chance of X-inefficiency occurring. However, in a monopoly (only if Swiggy or Zomato outperform the other) due to the lack of competition, there are high chances of X-inefficiency seeping into the system, which would reduce the overall productive efficiency which leads to an increased price for delivery of alcohol.

#### Economies of Scale

The large scale of operations undertaken by Swiggy and Zomato in an oligopoly or a monopoly market structure allows for economies of scale to develop which allows for per unit cost or as in this case per delivery cost to reduce primarily due to the amortization of fixed cost. This allows for several benefits for the consumers which may not be found in a monopolistic market due to the lack of ability to achieve economies of scale. The consumers get cheaper delivery of alcohol due to the lower cost per delivery to Swiggy and Zomato. Moreover, due to the managerial and technical economies of scale, a better quality of service and delivery can be provided to consumers as compared to that of a monopolistic market system. Furthermore, Swiggy and Zomato have the incentive and sufficient capital (stemming from financial economies of scale) to invest into research and development which further augments the consumer experience.

### **VI. Effect on Existing Alcohol Shops**

Several liquor stores throughout the country have shown disdain towards the entry of the online delivery aggregators Swiggy and Zomato for the delivery of liquor. This resistance stems from the previous experiences of restaurants that are a part of Swiggy's and Zomato's current food delivery model. The primary problem that emerges is the dominating business practices undertaken by these online delivery aggregators as is seen in the case of Zomato Gold. The Zomato Gold membership allowed consumers to pay a small fee to Zomato and then obtain a variety of deals at select restaurants. However, the cost of these deals was borne by the restaurants itself whereas the consumer fee was taken by Zomato. Initially, the model was supposed to be an invite-only model which would lead to exclusivity as only 80 to 100 restaurants per state would have the gold tag. This would have allowed for the restaurants to gain marketing and branding advantages which would offset their cost of offering deals to the consumer. However, later, Zomato certified almost every restaurant for a select



fee which made the gold “tag” no longer exclusive which hurt the profit margins of the restaurateurs. Furthermore, it was found that there was a lack of transparency in the calculation of commission for Swiggy and Zomato which usually overcharged the restaurants. The same problem can possibly occur for alcohol shops who can be overcharged for the delivery of their wares. Moreover, alcohol traders fear that the entrance of Swiggy and Zomato will eliminate their already wafer-thin profit. In states like Odisha, the wholesale liquor supply is controlled by the government and thus there are fixed margins for the alcohol shops. However, Swiggy and Zomato have been repeatedly accused of forcing small firms to provide discounts which can worsen the already deteriorating margins of alcohol shops which may thus be detrimental to their financial health.

Liquor shops around the country are anxious about Swiggy and Zomato entering the delivery of liquor due to their authoritarian style of dealing with establishments once they gain control. The same issue was observed with the restaurant industry where these two delivery firms were seen reducing commissions received by the restaurants. Furthermore, store owners feel that allowing Swiggy and Zomato for the delivery would lead to a loss of their consumer database and subsequent data from their sales.

Swiggy and Zomato have an expanded range of delivery as compared to the delivery system set up by individual alcohol shops. Thus, the delivery system of Swiggy and Zomato will allow for the alcohol shops to target a wider range of audience which will translate into higher sales. Additionally, it allows the alcohol shop owners to tap into the existing consumer base of Swiggy and Zomato which will further help boost their revenue. Furthermore, Swiggy and Zomato act as a form of marketing as it allows the consumers to check the products the alcohol shop has to offer which thus allows for an increased visibility for the shop itself and allows them to target new consumers. Furthermore, Swiggy and Zomato have developed an expertise in the delivery business model and have unmatched knowledge of the market itself. Thus, an alcohol shop can get an expert performing an important aspect of the business i.e. delivery which thus reduces the potential mistakes that could occur which could end up costing money for the firm.

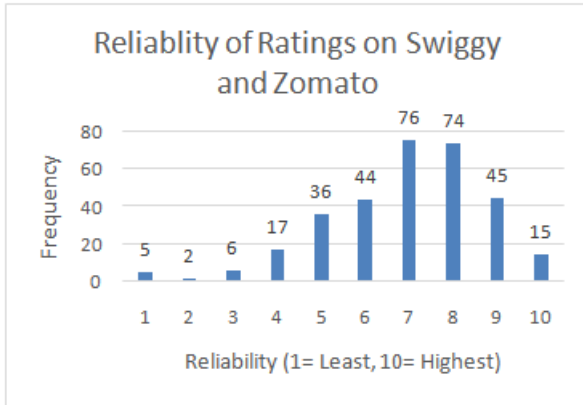
## **VII. Effect on Indian Government**

There will be a strong level of pressure from the current alcohol shops in order to regulate Swiggy and Zomato and allow for them to have greater control and transparency. Furthermore, alcohol shops believe that they will be able to carry out the deliveries themselves and hence are lobbying to the government to prevent the entry of Swiggy and Zomato. However, the entry of Swiggy and Zomato will allow for a potential increase in tax revenue as they can be easily regulated unlike that of the black-market alcohol shops and illegal deliveries. Furthermore, there will be an increased demand for alcohol due to greater accessibility provided by the online aggregators which will subsequently lead to a higher tax revenue for the government. Moreover, it becomes easier for the government to monitor the alcohol shops through Swiggy and Zomato as a platform, allowing for easier regulation and thus providing safer means to buy alcohol. However, there would be an increase in employment if the government allowed the liquor stores to deliver themselves, as the shops would require the added workforce to cater to the additional aspect of the alcohol delivery.

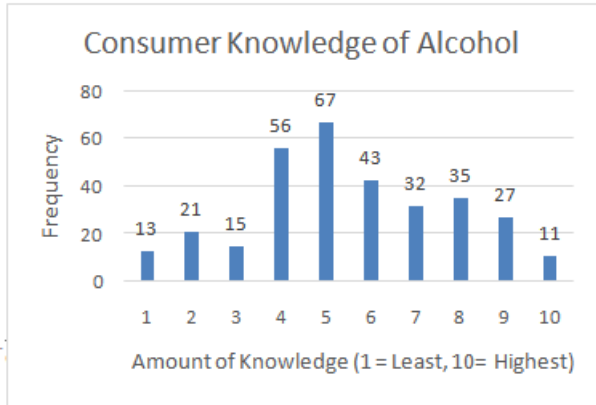
## **VIII. Conclusion**

To conclude, Swiggy and Zomato allow for the bridging of a multitude of institutional voids such as illegal consumption of liquor, adjudication methods, asymmetry of information, and credibility which will be unfulfilled by the delivery system of individual alcohol establishment. Furthermore, a market structure with the delivery system of individual alcohol shops is that of a monopolistic and a market structure with Swiggy and Zomato is that of a duopoly that could further transform into a monopoly. Taking into consideration all the points discussed above, a duopoly market structure would be highly beneficial for the market as consumers would benefit from the high level of technological advancements. Also achieving economies of scale would be in the better favour of the consumers. Moreover, their entry will result in higher tax revenue for the government due to the higher demand. However, allowing individual alcohol establishments to conduct delivery will lead to higher employment. In terms of the existing liquor stores, the entry of these platforms is disadvantageous as they may lose their profitability and consumer database. However, they have the benefits of being able to serve a wider base that stems from the aggregators’ expanded delivery and its consumer base.

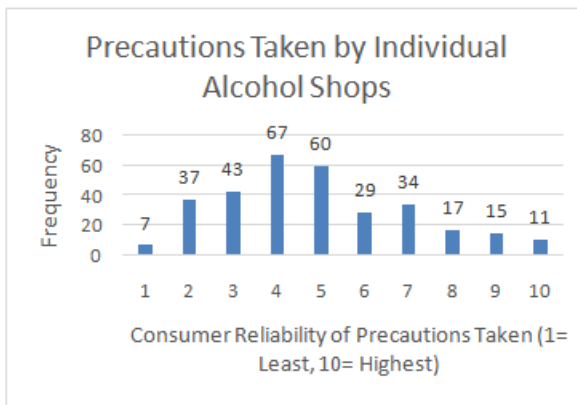
## **IX. Appendix**



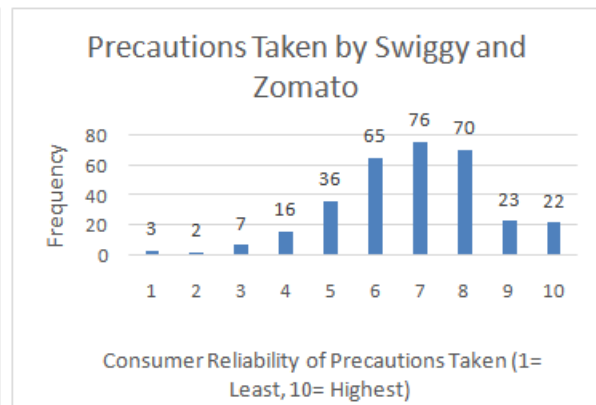
**Graph 1:** Reliability of Ratings on Swiggy and Zomato



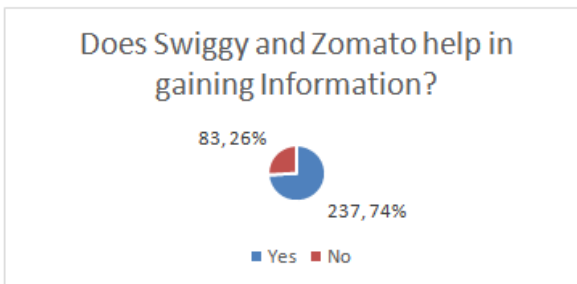
**Graph 2:** Consumer Knowledge of Alcohol



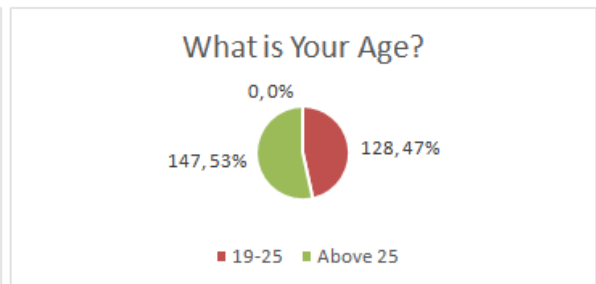
**Graph 3:** Precautions Taken by Individual Alcohol Shops



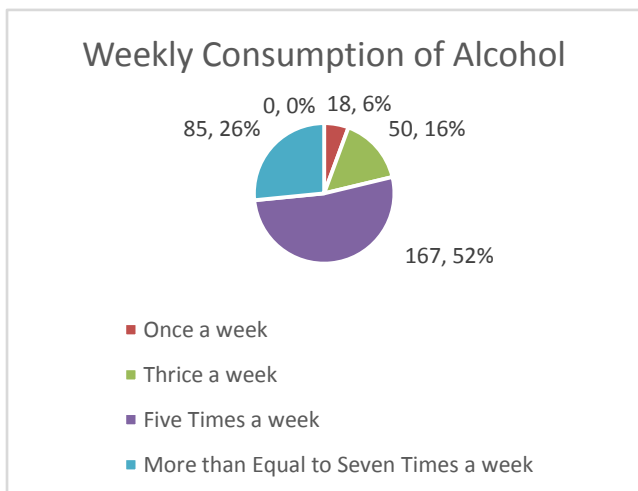
**Graph 4:** Precautions Taken by Swiggy & Zomato



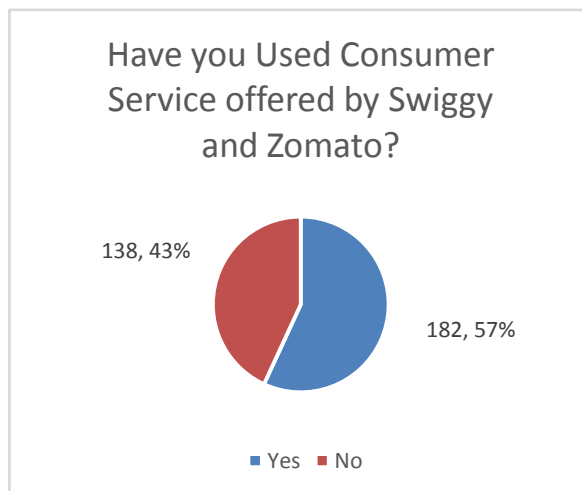
**Graph 5:** Ease of Information on Swiggy & Zomato



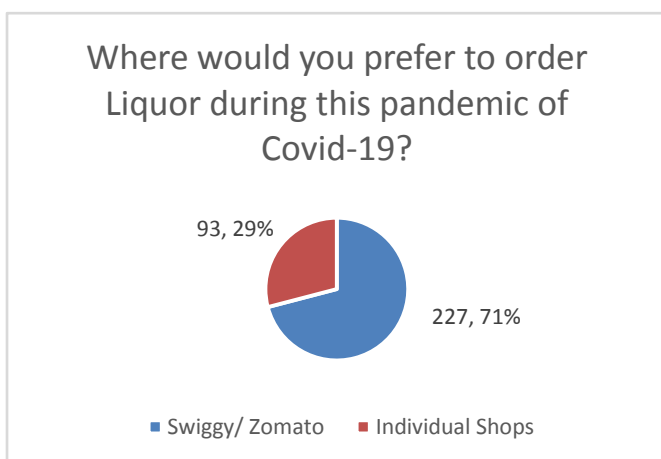
**Graph 6:** Age Distribution of the Sample



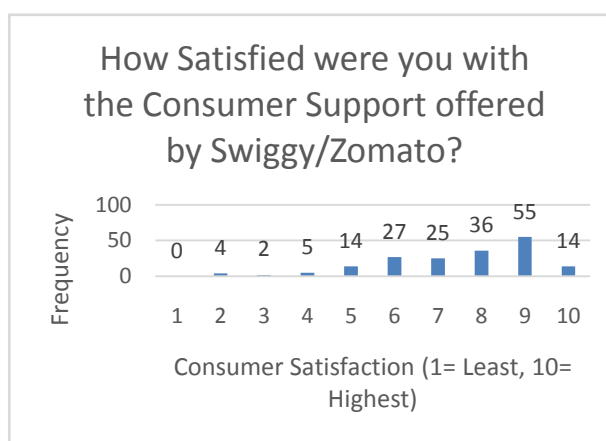
Graph 7: Weekly Consumption of Alcohol



Graph 8: Usage of Swiggy/Zomato Consumer Service



Graph 9: Consumer Opinion on Where to Order Alcohol



Graph 10: Consumer Satisfaction on Consumer Support by Swiggy and Zomato

Price Comparison Between Swiggy and Zomato														
	17th June		18th June		19th June		20th June		21st June		22nd June		23rd June	
Time	15:00	21:00	15:00	21:00	15:00	21:00	15:00	21:00	15:00	21:00	15:00	21:00	15:00	21:00
Swiggy (₹)	290	290	290	290	290	290	290	290	290	290	290	290	290	290
Zomato (₹)	287	294	289	297	276	300	290	287	290	306	284	298	284	298
% change	1.045	-1.361	0.346	-2.357	5.072	-3.333	0.000	1.045	0.000	-5.229	2.113	-2.685	2.113	-2.685
	24th June		25th June		26th June		27th June		28th June		29th June		30th June	
Time	15:00	21:00	15:00	21:00	15:00	21:00	15:00	21:00	15:00	21:00	15:00	21:00	15:00	21:00
Swiggy (₹)	290	290	290	290	290	290	290	315	290	290	290	290	290	290
Zomato (₹)	278	305	281	294	287	300	284	324	284	290	267	280	285	270
% change	4.317	-4.918	3.203	-1.361	1.045	-3.333	2.113	-2.778	2.113	0.000	8.614	3.571	1.754	7.407

Table 1: Price Comparison Between Swiggy and Zomato (Mutual Interdependence)

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