

# Impact of Food Aggregators on Conventional Restaurant Business: An Empirical Study

Dr. Shagun Srivastava, Assistant Professor, NMIMS Mumbai, India,

shagun.srivastava@nmims.edu

Yash Joshi, Student, NMIMS Mumbai, India, yashjoshi.nmims@gmail.com

Kushank Jain, Student, NMIMS Mumbai, India, kushankjain.nmims@gmail.com

**Abstract** The study examined the impact of food aggregators with the aim of gauging their impact on the conventional restaurant business. The umbrella of these food aggregators has brought almost every restaurant in India under the same roof in the hands of the consumer. The advent of the food aggregators along with cloud kitchens have completely changed the food industry, forcing the restaurants to diversify and bring in widespread changes to their business. For the study to be able to correctly gauge the impact, restaurant owners across three major Indian cities were interviewed. Factor Analysis was then carried out based on the responses of the owners to identify the factors affecting the restaurant business the most. The impact was largely positive with restaurants finding new customers and witnessing growth in profits. It was found that six factors hold the key to gauge the impact of the aforementioned food aggregators on the restaurants. The impact was largely deemed as positive with majority of the restaurants witnessing a spike in profits. These profits have also signaled a warning and questioned the validity of the present model of deep discounting in the long term.

**Keywords** — *cloud kitchen; food aggregators; food industry; online food delivery*

## I. INTRODUCTION

There is no doubt that the e-commerce has completely changed the way of life, its ability to transact business in just a click along with the scalability factor associated with [6]-[9]. E-commerce is seemingly everywhere and its recent foray into the food industry has brought in momentous changes in the industry. Suddenly, restaurants are now facing the prospect of completely overhauling their operations and focus on home delivery as eating-in is now the flavour of the season.

### A. Background of the Study

Dine-In customers are falling rapidly, thanks to the deep discounts offered by the food aggregators, making home delivery not only convenient but also cost effective to the consumers [18]. As a result, large restaurants at posh localities are now facing stiff competition from small restaurants with little infrastructure. Let us look at the example of popular restaurant chain Faasos. Faasos started as a full-fledged restaurant but its main revenue came from online food orders. When its owner, conducted a survey, he found that about 73% of his customers had never seen an inside of a Faasos restaurant [16]. This finding prompted him to do away with dining spaces altogether, which meant no overheads for serving staff, décor etc. The chain shifted to cheaper location and operated on a kitchen only model

and its menu and pricing revised to suit home deliveries. This is a classic example of a cloud kitchen. Numerous cloud kitchens like InnerChef, Freshmenu, Biryani Blues to name a few, have sprung up now to take advantage of e-commerce. Swiggy on its part, is betting big on the cloud kitchen model. Swiggy Access, the cloud kitchen business of Swiggy already has 100 partners spread across 6 cities in India and aims to take the number up to 300 by June itself. UberEats too has partnered with Café Coffee Day to launch multiple cloud kitchens across India. As a result, Swiggy will have a huge lead in the cloud kitchen business once it formally completes the takeover of UberEats India. Sensing this, Zomato has moved swiftly and invested a whopping Rs. 100 crores in cloud kitchen business. For a restaurant to switch to a cloud kitchen model require complete restructuring and hence, has resulted in a tectonic shift of sorts in the restaurant industry.

### B. The Research Problem

Just when everyone thought that Dine-in only restaurants are no longer attractive and feasible, except on weekends, the advent of Zomato Gold completely changed the outlook of Dine-in restaurants. Dine-in restaurants were leased a new life but it came at a cost. The deep discount offered by Zomato Gold is often bore by the restaurant. However, Zomato Gold does provide an opportunity to capture new customers and subsequently increase customer retention,

which is of course at a steep cost. Whether the cost is worth it as compared to the prospect of attracting new customers is a difficult decision many restaurant owners are forced to make. New customers and customer retention are important aspects of every restaurant but what matters in the end is the feasibility of such model. Most restaurant owners do not have deep pockets to continue bleeding money in form of deep discounts in order to attract new customers. The discounts dished out by these aggregators online are huge and often borne by the restaurateurs. Hence, the question arises that whether being listed on the food aggregators has come as a boon or a bane to the restaurant business. Whether to move to cloud kitchen model or not is another question faced by the restaurateurs. A physical restaurant on an average registers 5-6% year-to-year growth whereas some cloud kitchen like Faasos have been growing 90% year-to-year. Additionally, a physical restaurant requires four times more investment as compared to cloud kitchens. These facts have certainly given some food for thought to the restaurateurs.

The paper is organized in different sections as follows. The first section of the paper is introductory underlying the scope, novelty and the research problem. Thereafter, the objectives of the study were laid down, based on the gaps of literature reviewed in the subsequent section. The research methodology is being dealt in detail in the next section with a step-by-step approach. The Analysis and the Results thus obtained are given in the subsequent section. Discussion, Conclusion, Major Findings, Implications, Recommendation and Future Scope of the Study is summarized thereafter.

### C. Research Objectives

To gauge the exact impact of the food aggregators on the conventional restaurant business, the following objectives were defined:

- To systematically analyse whether it is prudent for a restaurant to get associated with the aforementioned food aggregators
- To systematically analyse whether the restaurant should look switching into a cloud kitchen model in order to expand to newer markets and increase their market share
- To suggest scope of improvement for both the food aggregators and the restaurants, based on the data analysis

## II. REVIEW OF LITERATURE

Although a lot of published work is available as far as Indian Food industry is concerned, but the studies on Online Food Delivery Industry is quite limited. As per a study, the online food aggregators are still at a nascent stage and most of them are burning cash due to deep discounts in order to enable customer acquisition [19]. However, the future

seems bright for the industry with the market expected to grow 40% annually on account of increasing disposable income. The expected revenue in the segment amounts to US\$9,207m in 2020 that is further expected to rise to US\$13,233m by 2024 with a growth factor of 9.5% [10]. In a different study four different aggregators, namely Swiggy, Zomato, FoodPanda and TinyOwl are compared with their SWOT analysis found that the aggregators operate on a very thin margin of operations (1-2%) which makes it paramount for the companies to reduce their variable costs in order to break even in the near future. TinyOwl crashed and burned thanks to dish-based and area-based aggregation failure coupled with the huge acquisition costs. Swiggy and Zomato are succeeding due to differentials like cloud kitchens and surge pricing. In times of cash crunch, it is important for the business models to reduce the cash burn and bottlenecks and move to the next stage after customer acquisition [1]. However, certain challenges such as availability of quality work force, high attrition rate, high real estate cost, fragmented supply chain, over-licensing act as hindrance for growth of the industry [5].

A different study explores the innovative strategies implemented by the online food delivery aggregators. Swiggy fulfils around 100,000 orders every day and its marketing strategy has a major role to play in its success. Social Media forms a major chunk of its marketing strategies especially the likes of Facebook and Instagram which witness huge traffic every day and enables it to create brand awareness. With everyday updates and quirky posts and campaigns like #Whatadelivery, #SingwithSwiggy etc., its social media marketing coupled with influencer marketing sets it apart from the competition. Zomato on the other hand focuses on blog sharing, especially, the likes of Pinterest in order to share food experience with great content so as to attract customers. Zomato also targets specific advertising through specific keywords which makes its advertising strategy hyper local. FoodPanda is looking to enter the high margin business by starting its own kitchen whereas Faasos has flipped its business model by associating with around 100 home chefs and relies on its own personnel for delivery. [2]. A study explored the factors which contributed to the rapid rise of online food aggregators and the satisfaction levels of the consumers with them. The biggest factor contributing to the popularity of online food aggregators was found to be lack of time to prepare food. The other factors were rewards, cash backs and availability of variety of food. The paper concludes that consumer satisfaction is high but there is scope of improvement through offering more attractive options while ordering food online [3]. There are many popular business models in the food tech space such as on demand delivery, restaurant and food discovery and home cooked food. The Indian Food tech start up companies like Zomato and

FoodPanda are here to examine and stabilize operations and processes, and pick up the right opportunities to grow [4].

### III. RESEARCH METHODOLOGY

#### A. Participants

Participants included 32 restaurateurs from across 3 major Indian cities. Each participant was made to answer a detailed questionnaire which was mainly based on the Likert Scale containing over 30 questions. Every restaurant was personally visited and verified by the authors. Only those restaurateurs were interviewed who were listed on the food aggregators under study. Unlisted restaurants or restaurants who were not listed on anyone of Swiggy, Zomato, FoodPanda or UberEats were excluded from the purview of the study.

#### B. Procedure

Numerous restaurants were scouted for through the apps of Zomato, Swiggy, UberEats and Food Panda. The restaurants were shortlisted and visited by the authors for verification purpose which was followed by a meeting with the owner of the restaurant who was then made to understand the study and accordingly answer the questionnaire. Special care was taken to all type of restaurants to have a refined and diverse dataset. Since the impact of Zomato Gold, is also one of the focal points of the study, restaurants who are listed on Zomato Gold were visited to understand the impact of Zomato Gold. The primary source of data is solely based on the word of the restaurateurs.

#### C. Data Analysis and Results

The data hence obtained was mainly qualitative in nature and no clear dependent or independent variables were evident from it. Hence, Regression wasn't an option. Factor Analysis was seen as a prudent choice that is a data reduction technique that strives to explain correlations among multiple outcomes.

There were 16 different variables identified from the questionnaire which had responses based on the Likert scale. The responses were rated from 1 to 5, 5 being strongly agree to 1 being strongly disagree. By performing factor analysis, we have found that these variables can be described using 6 different components which were identified on the basis of how and which variable is dominating that component or factor by the extraction method called Principle Component Analysis. These six factors are named accordingly as:

- Customer Retention and its Impact on the Business
- Deep Discount and its Negative Impact on Staff Size
- Profit Variance in Listed and Unlisted Restaurants
- Impact of Zomato Gold on Inventory Levels

- Change in Size and Composition of Staff
- Competition Provided by Unlisted Restaurants and Cloud Kitchens

Before performing Factor Analysis, we have also checked the correlation between the variables by the help of Correlation Matrix. In the case of Rotated component matrix, we have considered Varimax of Orthogonal Rotation Matrix that signifies that the components are not correlated with one another. In total, 16 variables namely IFA\_1 to IFA\_16 were used for the analysis, where IFA stood for Impact of Food Aggregators. As we have considered two-tailed test, the single star on the value represents the significance at 95% and the double star on the value represents the significance at 99%.

Table 1 shows the descriptive statistics of all variables and mentions the mean and the standard deviation of each of the variables. Table 2 shows the Kaiser-Meyer-Olkin test used for sampling adequacy and the Bartlett's Test of Sphericity. We can see that the test is highly significant. In addition, it approximates a chi-square distribution, so we can consider the distribution to be chi-square distributed. It is actually testing whether in the correlation matrix; the variables are significantly different from zero. However, unlike the correlation matrix, it does not test each individual variable separately, but in one overall test, it assesses these lower triangle values in the Correlation Matrix taken as a group are significantly different from zero.

**Table 1. Descriptive Statistics**

	Mean	Std. Deviation	Analysis N
IFA_1	3.4063	1.21441	32
IFA_2	4.0000	.67202	32
IFA_3	3.0000	1.01600	32
IFA_4	3.2813	.77186	32
IFA_5	3.1875	.99798	32
IFA_6	3.2500	.67202	32
IFA_7	3.5625	.66901	32
IFA_8	3.9063	1.20106	32
IFA_9	3.9063	.99545	32
IFA_10	2.7500	.98374	32
IFA_11	2.9688	.99950	32
IFA_12	3.8750	.90696	32
IFA_13	3.5313	.84183	32
IFA_14	3.7813	.65915	32
IFA_15	3.0313	1.12119	32
IFA_16	3.2188	1.09939	32

**Table 2. KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.465
Bartlett's Test of Sphericity	Approx. Chi-Square	211.714
	df	120
	Sig.	.000

**Table 3. Communalities (Extraction Method: Principal Component Analysis)**

	Initial	Extraction
IFA_1	1.000	.777
IFA_2	1.000	.802
IFA_3	1.000	.806
IFA_4	1.000	.633
IFA_5	1.000	.615
IFA_6	1.000	.732
IFA_7	1.000	.668
IFA_8	1.000	.892
IFA_9	1.000	.710
IFA_10	1.000	.727
IFA_11	1.000	.868
IFA_12	1.000	.621
IFA_13	1.000	.836
IFA_14	1.000	.685
IFA_15	1.000	.912
IFA_16	1.000	.689

The results indicate that the 6 factors account for 74.83% of the total variance recorded by the variables. The sum of squared values of the Component or Pearson loadings give us the communalities of each variable. This represents the variance that was accounted for by each of the Components in the 16 variables. As it is visible from table 3 that IFA\_15 has the highest variance accounted by the Components.

**Table 4. Component Matrix (Extraction Method: Principal Component Analysis)**

	Component					
	1	2	3	4	5	6
IFA_1	.161	.135	.427	.352	.537	.372
IFA_2	.383	-.220	.765	-.121	.084	-.018
IFA_3	.570	-.394	.134	-.529	-.159	-.054
IFA_4	.547	-.258	.035	-.015	.304	-.416
IFA_5	.409	-.532	-.077	.277	-.127	-.259
IFA_6	.521	-.084	.062	-.553	-.256	.280
IFA_7	.657	-.114	.308	.217	-.198	-.207
IFA_8	.390	.644	-.251	-.241	.270	-.362
IFA_9	.329	.661	-.074	-.253	.235	-.200
IFA_10	.663	.147	-.425	.222	-.151	-.116
IFA_11	.411	.688	-.080	.177	-.390	.192
IFA_12	.560	.277	.109	-.258	-.074	.382
IFA_13	.451	.357	.336	.543	-.311	-.036
IFA_14	.738	.012	.013	.068	.363	.061
IFA_15	.501	-.292	-.519	.134	.240	.480
IFA_16	.497	-.529	-.373	.146	-.017	.046

Table 4 explains how each variable performs in each component mentioned. The decimal values mentioned under the component columns are called as Factor Loadings and they represent how strong the relationship is between the variable and the component or the factor. The values are the Pearson correlation of the variable with each factor. The Component matrix is used to name each factor on the basis of how and which variable affects that component the most.

By this we get the following Components or Factors for this particular study:

- Customer Retention and its Impact
- Deep Discount and Negative Impact on Staff Size
- Profit Variance in Listed and Unlisted Restaurants
- Impact of Zomato Gold on Inventory levels
- Change in Size and Composition of Staff
- Competition Provided by Unlisted Restaurants and Cloud Kitchens

The results indicate that these 6 factors account for 74.83% of the total variance recorded by the variables. The sum of squared values of the Component or Pearson loadings give us the communalities of each variable. This represents the variance that was accounted for by each of the Components in the 16 variables. As it is visible from the table 4 that IFA\_15 has the highest variance accounted by the Components.

**Table 5. Total Variance Explained (Extraction Method: Principal Component Analysis)**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.094	25.591	25.591	4.094	25.591	25.591	2.340	14.624	14.624
2	2.507	15.667	41.258	2.507	15.667	41.258	2.135	13.341	27.965
3	1.680	10.498	51.756	1.680	10.498	51.756	2.044	12.774	40.739
4	1.456	9.101	60.857	1.456	9.101	60.857	2.034	12.711	53.450
5	1.129	7.055	67.912	1.129	7.055	67.912	2.006	12.538	65.989
6	1.108	6.926	74.838	1.108	6.926	74.838	1.416	8.849	74.838
7	.941	5.883	80.720						
8	.743	4.646	85.366						
9	.608	3.803	89.169						
10	.444	2.773	91.943						
11	.406	2.537	94.480						
12	.324	2.023	96.504						
13	.225	1.406	97.910						
14	.154	.960	98.870						
15	.119	.743	99.613						
16	.062	.387	100.000						

**Table 6. Scree Plot**

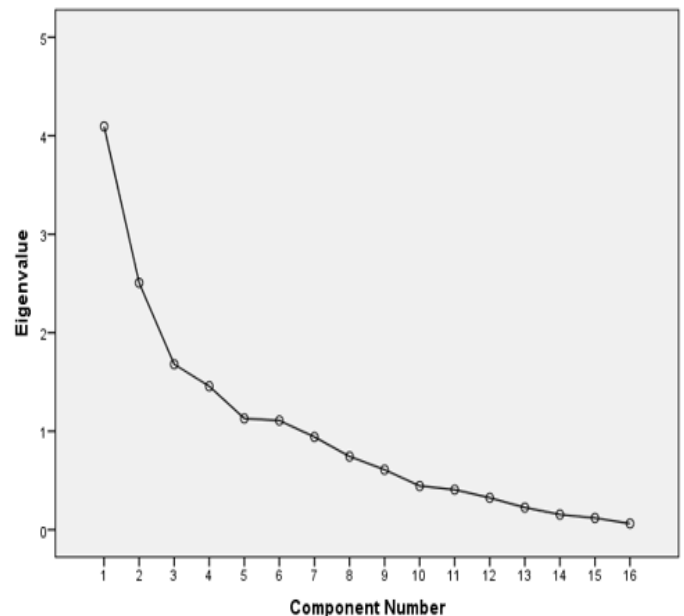




Table 5 and 6 deal with the Factor Extraction Methods. We have considered Eigen values greater than 1 rule. These 2 Tables help us decide the number of components or factors. As we can Table 5, there are 16 variables in the initial Eigen values. Here we have considered all components with Eigen values greater than 1. We can also see this in the Extraction Sums of Squared Loadings that there are 6 components considered. We can also note that these 6 components have done a good job in explaining the relationships between the variables, as the cumulative percentage of variance accounted for by the components is very high at 74.838%.

Also, the Sum of Eigen values is equal to the number of variables that is 16. In table 6, we can see that the Eigen value beyond component number 6 tends to not drop much, that is, the slope of the plot becomes nearly close to constant. Hence, we retain the components up to 6 only, as there is a notable change in slope till that point. This can also be confirmed based on our interpretation of Eigen value greater than one rule from Table 5.

#### IV. DISCUSSION

The online food market place has shown a huge spurt in growth with average daily orders having crossed the six figure mark. Some campaigns like 'No Cook Sundays' by Zomato saw its server crash due to the sheer volume of orders. FoodPanda who was on the verge of becoming extinct have been revived through the efforts of its parent company Ola and its recent brand campaign 'Crave Party' generated orders by the heaps for the aggregator. However, FoodPanda has to rely on extremely deep discounts, which is unsustainable in the long run. The market has been thrown into a frenzy with the news of the expected acquisition of UberEats by Swiggy in an estimated \$330 Million deal [11]. UberEats was still at a nascent stage in India but quickly gained customers as UberEats offered deep discounts beating the discounts offered by the aggregators already present in the market. This acquisition would give Swiggy an edge in the market while the aggregator also plans to diversify its business by delivering items from nearby general stores. So much is the influence of these aggregators that restaurants like Chai Point launched a new café which had a clearly demarcated area for the food-delivery apps personnel. Café Coffee Day has launched a virtual restaurant at its existing outlets to exclusively cater for UberEats [12]-[14]. The online food-delivery market is currently valued at \$7 Billion. It may touch \$12.53 billion by 2023 [15]. Google is the latest multi-national corporation to enter the fray with Aro. However, Zomato and Swiggy continue to dominate the market with a combined share of almost 80% and hence, continue to be bankrolled. In 2017, Zomato posted a turnover of Rs. 333 crores while Swiggy saw its revenue grow six fold to post a turnover of Rs. 133 crores in the

same year. All the aggregators possess cutting edge analytics and restaurants are taking advantage of the same by opening new stores on the basis of the data obtained from the aggregators. Fast food corporations like Burger King, McDonalds, Pizza Hut are seeing a huge change as the aggregators are taking them to tier-2 and tier-3 cities. McDonald's especially is facing the change with over 70% of McDonald's deliveries come through online food ordering apps.

#### V. CONCLUSION

The study had set out to gauge the impact of food aggregators on the conventional restaurant business. The study is unique because to the best of our knowledge, no study has been conducted with the aim to gauge the impact of food aggregators. Perhaps, this is the first study which has also taken into account the impact of Zomato's flagship scheme, Zomato Gold. For the data collection, face-to-face meetings had been set up with the owners of the restaurants in Jaipur, Ahmedabad and Mumbai. Major data of Zomato Gold is based in Mumbai due to the fact that Zomato Gold has the most customers and restaurants in Mumbai as compared to other cities. Multiple cities were chosen to gauge the Pan-India impact instead of restricting it to one city. Special care was taken to all type of restaurants so as to have a refined and diverse set of data. The primary source of data is solely based on the word of the restaurateurs. The data was analysed through Factor analysis, a component of Principal component analysis based on the questions which were on a Likert scale and hence presented. We have also used Pie charts and Bar graphs for visual statistical analysis in detail for better understanding of the response pattern of our target respondents, that are the restaurants, and how they react to each variable mentioned in the questionnaire.

#### VI. MAJOR FINDINGS

After conducting a thorough analysis, it was found that six factors are significant when it comes to the impact of food aggregators on the restaurants, which are as follows:

- Customer Retention and its Impact on Restaurants
- Deep Discount and its negative Impact on Staff Size
- Profit variance in Listed and Unlisted Restaurants
- Impact of Zomato Gold on Inventory levels
- Change in Size and Composition of staff
- Competition provided by Unlisted Restaurants and Cloud kitchens

It was found that these six factors would decide the future and feasibility of online food-delivery start-ups and whether the deep discounting model is sustainable or not. The proposal to move to cloud-based kitchens was also examined and has been detailed in the next section.

## VII. IMPLICATIONS

The study is successfully able to conclude that the impact of food aggregators has been largely positive with almost every restaurateur seeing a rise in profit.

But this success comes with a rider that the present model of deep discounting has a short term validity and steps must be taken to ensure that the industry doesn't fall prey to companies with deep pockets having the ability to bleed money and hence lead to the elimination of small time restaurateurs. Worryingly, not a single restaurant was checked for quality by any one of Zomato, Swiggy, UberEats and FoodPanda. The aggregators can't act as mere conduits between restaurants and customers as a customer places its faith in the aggregator when ordering from a restaurant and the aggregator is liable to ensure quality and safety to the consumer. The issue of food quality has become even more relevant with recent instances of food of questionable quality being delivered to the customers. Merely replacing the food item is not enough and the aggregators stand at an impending disaster if steps are not taken to contain this issue. FSSAI has found thousands of restaurants having no proper license or permission listed on these aggregators. FSSAI has instructed them to delist such restaurants [17]. The aggregators have been successful in bringing the customers and the restaurants closer and it is clear that this partnership is a win-win situation for all the parties involved. During prime time, the rush of orders generated through these restaurants have been so huge that most restaurants that were interviewed, had a dedicated team of chefs and service staff which swung into action hours before the rush of orders so as to cater to customers in the minimum time possible. This fact has of course led to a job restructuring of sorts in the industry. Service Staff is being downsized and chefs are in high demand so as to meet the volume of products. The efficiency with which the restaurants collaborate with the aggregators is encouraging and has opened new avenues like 'cloud' or 'dark' kitchens who often operate on a much larger margins than the physical restaurants. Majority of restaurateurs found cloud kitchens as a tough competition and the study confirms their fears that Cloud Kitchens are the one to look out for due to larger margins and minimal overheads. As Chinese investment in the industry touches new high, funding has never been a problem for these aggregators. The industry remains a loss-making industry but it is a matter of time before profits show up. This can only happen when the deep discounting model is evolved and special care must be taken to not make consumers addicted to deep discounts, which would otherwise make the industry unsustainable. The online food-delivery industry in India is still at a nascent stage but has the potential to become a multi-billion dollar generating industry.

## VIII. RECOMMENDATIONS

Majority of the restaurateurs replied in the negative to the question whether the food aggregators awarded them with incentives for continue being listed on the aggregators platform. Incentives must be provided to the restaurants to keep them motivated. One shocking information that was received by the authors during a visit to the restaurant, was that most bestseller food items was precooked and just reheated and packed at the time of the order. Let's take the example of the widely popular food item Pav Bhaji. This item is heavily discounted and available under Rs.50 in most restaurants. The peak time of this item is during the evening but it was found that Bhaji was precooked in large quantities beforehand. Same was the case for thalis and pizzas. Items were cooked beforehand and the consumers were delivered precooked meals. This was down to the fact that the restaurants are under pressure to deliver in the least possible time from the aggregators. Schemes like 'Swiggy Super' which promised to deliver food inside 38 minutes put huge pressure on the restaurants and hence they resorted to cooking items well in advance. Consumers would be happier if they were served freshly cooked meals albeit with a small delay in delivery. Worryingly, restaurants are at a great disadvantage due to unfair market practices of some aggregators. It is no secret that data is the new oil and some aggregators are leveraging the consumer data hence gathered with the help of restaurants in order to further newfound business in cloud kitchens and in turn cannibalise the existing restaurants listed on the aggregators. Almost all the aggregators have their own private venture now and there is a feeling that the aggregators are biased towards them. Aggregators can't have best of both the worlds. Furthering their private ventures will only bleed out the restaurants listed on their platform as their private ventures will end up competing with the restaurants, the same restaurants who are a part of their growth story. There is a need to strike balance between their private ventures and listed restaurants and ensure transparency. The major attraction or the restaurants to associate with the food aggregators is the prospect of finding new customers. Yes, restaurants have acquired new customers and seen a spurt in customer retention but now that seems to be ending as customers are increasingly becoming discount addicts, making customer loyalty is a thing of past as once the restaurants stop offering deep discounts, customers simply don't return, which makes the business unsustainable in the long term.

With increase in disposable consumer incomes, it has positively impacted the food startups. Cloud Kitchens increasingly look like the one for the future with margins as high as 35-45%. However, flagship schemes of Zomato and Swiggy, like Swiggy Access are finding it difficult to expand their cloud kitchen business. There have been no

takers for this model in small towns. Thanks to the inability of the cloud kitchen model to win customer stickiness in small towns. This has restricted this model to just the metro cities for the foreseeable future. The study in order to gravitate these challenges, proposes a model that sees aggregators and cloud kitchens combine forces to expand geographically. This will help solve both - order volumes for the former and scale for the latter.

## IX. LIMITATIONS OF THE STUDY

The study wasn't able to gauge the exact spurt in profits since the arrival of food aggregators as the owners weren't willing to disclose this critical information for obvious reasons. Since, Zomato Gold is in its infancy stage in most restaurants, more time is needed to have a more accurate impact of the scheme but this study does conclude that Zomato Gold has helped in customer acquisition albeit at a price.

## X. SCOPE FOR FUTURE RESEARCH

Further studies can be conducted on the supply chain aspect of the food aggregators and how they can help restaurants source fresh raw material for their orders. The importance of Cloud Kitchens in the near future cannot be stressed enough and a study solely dedicated to explore the opportunities and pitfalls of the Cloud Kitchen model is the need of the hour.

## REFERENCES

- [1] Bhotvawala, M., Balihallimath, H., Bidichandani, N. and Khond, M.P. (2016). Growth of Food Tech: A Comparative Study of Aggregator Food Delivery Services in India. Proceedings of the 2016 International Conference on Industrial Engineering and Operations Management, Detroit, Michigan, USA, September 23-25.
- [2] Kanteti, V.L. (2018). Innovative Strategies of Startup Firms in India - A Study on Online Food Delivery Companies in India. International Research Journal of Management Science & Technology, 9 (3), 17-23.
- [3] Bagla, R.K. and Khan, J. (2017). Customers' Expectations and Satisfaction with Online Food Ordering Portals. Prabandhan: Indian Journal of Management, 1 (10).
- [4] Adithya, R., Singh, A., Kanade, V. and Pathan, S. (2017). Online Food Ordering System. International Journal of Computer Applications, 180 (6), 22-24.
- [5] Rashmi (2018). SWOT Analysis of Food Industry in India, International Research Journal of Management and Commerce, 5 (1).
- [6] Song, L., Zhou, Y., & Hurst, L. (2019). The Chinese Economic Transformation: Views from Young Economists. Australia: ANU Press. Retrieved January 7, 2020, from [www.jstor.org/stable/j.ctvp7d4j8](http://www.jstor.org/stable/j.ctvp7d4j8).
- [7] Khan, A.G. (2016), Electronic Commerce: A Study on Benefits and Challenges in an Emerging Economy. Global Journal of Management and Business Research, 16 (1).
- [8] Kumar N., Anusara, J., Hossin, M. A., Sarkar, M. K., Chanthamith, B., Shah, S., Russel, M.I.H. (2018). Challenges and Opportunities of E-Commerce in India: Pathway for Sustainable E-Commerce. International Journal of Engineering, Business and Management (IJEEM), 2 (2).
- [9] Panigrahi, A., Upadhyaya, R. and Raichurkar, P.P. (2016). E-Commerce Services in India: Prospects and Problems. International Journal on Textile Engineering and Processes, 2 (1).
- [10] Statista (2019). A report on Online Food Delivery. Retrieved January 7, 2020, from <https://www.statista.com/outlook/374/119/online-food-delivery/india>
- [11] Shrivastava, A. (2019). Swiggy, UberEats Can't Tally Numbers for a Deal. Retrieved January 5, 2020, from <https://economictimes.indiatimes.com/small-biz/startups/newsbuzz/indias-online-food-aggregators-are-taking-lessons-from-china/articleshow/63740650.cms?from=mdr>
- [12] PTI (2018). Retrieved on January 5, 2020, from <https://economictimes.indiatimes.com/industry/services/hotel-s/-restaurants/uber-eats-ties-up-with-cafe-coffee-day-to-create-indias-largest-virtual-restaurant-network/articleshow/66381138.cms>
- [13] Ahuja, A. (2018). Uber Eats Forays into Virtual Restaurants with CCD. Retrieved January 5, 2020, from <https://www.livemint.com/Companies/UWNK2SUJ4JHE5MI50yAoPP/Uber-Eats-Forays-into-Virtual-Restaurants-in-partnership-wit.html>
- [14] Srinivasan, S. (2018). Retrieved January 5, 2020, from <https://tech.economictimes.indiatimes.com/news/internet/uber-eats-cafe-coffee-day-to-launch-virtual-restaurant-chain-in-india/66378360>
- [15] Bureau, FE. (2019). Retrieved January 5, 2020, from <https://www.financialexpress.com/industry/online-food-delivery-may-touch-12-53-billion-by-2023/1732353/>
- [16] Dhar, S., (2019). Retrieved January 5, 2020, from <https://timesofindia.indiatimes.com/home/sunday-times/these-restaurateurs-dont-own-any-restaurants/articleshow/68065971.cms>
- [17] Business Line (2018). Retrieved January 5, 2020, from <https://www.thehindubusinessline.com/companies/food-aggregators-delist-over-10000-restaurants-on-fssai-directive/article25160153.ece>
- [18] Bhushan, R. (2019). Retrieved January 5, 2020, from <https://economictimes.indiatimes.com/industry/services/hotel-s/-restaurants/food-aggregators-like-swiggy-zomato-making-consumers-discount-addicts/articleshow/67447097.cms>
- [19] Bengaluru, G. (2018). An Open Letter to the Food Aggregators of India. Retrieved January 5, 2020, from <https://qz.com/india/1512013/indias-swiggy-zomato-gear-up-to-meet-new-food-delivery-norms/>