FOOD TECH STARTUPS: THE EVOLVING INDUSTRY

Lydia Marina[1], Sidra Afreen[2] and Shabreen Naaz[3]

[1]Faculty, St. Ann's College for Women, Hyderabad, #9502180657
[2]UG Student, St. Ann's College for Women, Hyderabad, #9550478699
[3]UG Student, St. Ann's College for Women, Hyderabad, #9700912657
E-mail: [1]marinadimple@gmail.com, [2]sidraafreen732@gmail.com, [3]pashamdahmed23@gmail.com

Abstract—*Business Analytics and Big Data are being discussed everywhere right now. The objective of this paper is to provide a research about Food Technology Companies. Big Data is the buzzword in the IT industry these days. Food and beverages industry can largely benefit from big data. Be it, manufacturers, retailers or restaurants chains all of them can leverage big data analytics for their business. The applications of big data in food industry are so extensive that from production to customer service everything can be optimized. Almost every corporate enterprise is exploring opportunities to perform Big Data. Some start-ups in the Indian Food & Beverages industry have revolutionized the way we look around for places to dine. Today, choice for the best places to have food is only a click away. One can choose the best rated place and then decide to enjoy. This paper includes the uses of Big Data in Food Technology companies.*

1. INTRODUCTION

Business Analytics is an emerging phenomenon which reflects the increasing significance of data in terms of its growing volumes, variety and velocity. Big data analytics is the process of examining large and varied data sets i.e., big data -is to uncover hidden patterns, unknown correlations, market trends, customer preferences and other useful information that can help organizations make more-informed business decisions. The Indian food industry is the 6th largest in the world, has seen unprecedented growth in terms of size and revenues over the past five years. Food processing companies account the balance of 30% in the country's total food market.

A high-growth sector, the Indian food industry is poised for even greater growth with the use of technology. We all know Zomato, Swiggy, Foodpanda and FreshMenu are the market players of Food Technology. The country has a large base of young consumers who form majority of the workforce and due to time constraints barely get time for cooking. Initially, the Food Tech Industry in Indian began with companies like Zomato trying to solve the problem of finding a high-quality restaurant via a simple user-friendly platform. The next stage saw companies like FoodPanda trying to address the issue of "ordering/booking" on these restaurants by working as an aggregator. The next stage had players like Swiggy tackling the issue of "delivery" in the value chain. The players are mere clones of one another completely lacking in any

differentiation and innovation. There are many popular business models in the Food Tech space such On-demand delivery, Restaurant and food discovery, Home cooked food models etc...

2. PURPOSE

The main purpose of this case study is to demonstrate how Food Techies like Zomato, Swiggy, Foodpanda and Fresh Menu are using business analytics in their respective businesses. Firstly, these brands have a wide spread social media presence. Social media management is crucial for any brand or e-commerce business. These companies have come along way from assisting the users to find various restaurants

in the nearby locality or a specific location to engaging with them on social media.

3. ANALYTICS USED BY FOOD TECH COMPANIES

This is the way how Food Technology Companies do the online business using analytics.

- Machine learning and big data analytics: Together, these can help in mapping customer behavior patterns. Brands can categories existing and potential customers based on their preferences. This can then be used to intelligently recommend options or cross-sell products. Further, it helps to streamline operations at the back end and seamlessly manage quick and reliable delivery by factoring in the logistics.

- Structuring data to get relevant insights: Online food delivery platforms are sitting on a bulk of customer data. Analyzing and structuring these into useful information such as average wait time, experience with the delivery, menu availability, loyalty card points helps in building greater traction on the platform.

- Increasing customization: Every customer is unique in their choices and ordering patterns. With the power of data collected from the customer's behaviour on the platform, developing customized offerings for every customer can go a long way in building a loyal and highly engaged customer base.

- Enhancing product search: This can be done by leveraging machine learning algorithms and adding relevant search results or keywords can help in creating a better consumer experience. While this requires heavy dependence on data, machine learning and big data analytics have a potential to increase efficiency and build a seamless user experience.

4. THE USE OF BIG DATA ANALYTICS IN FOOD TECH COMPANIES

4.1. Why the Food Service Industry Needs Big Data?

- To Understand Customer Needs and Preferences.

- For Marketing and Advertising.

- For Operations, Supply Chain and Security.

4.2. Uses of Big Data in the Food Tech Companies.

4.2.1. On time delivery: Food delivery can be highly optimized and timed using various big data analysis tools and techniques. While this comes more under the role of big data in planning. Big data can collect data from various sources like road traffic, weather, temperature, route and to provide a proper estimate for the time taken to deliver food. Food ordering companies try their best possible ways to deliver food

to their customers in minimum time depending on the locations.

4.2.2. Sentimental Analysis: Sentiment analysis is the monitoring of customer emotions over social media networks. They attract the people through their advertisements and get their interest towards them. The food tech companies use techniques like natural language processing, data analysis tools to categorize the emotions of the customers on scale. Using Natural language processing through social media the companies have an opportunity to know what their customers are talking about their business on social media.

4.2.3. Better quality: The consumer always expects the same taste in food at the places they love. Big data analysis can analyze such changes and predict the impact of each on the food quality and taste. Data analysis can also analyze the impact of factors like storage and transportation on quality of packaged foods. The insights from such analysis can be used to understand main points and suggest measures for improvement.

4.2.4. Customer Service: Big Data in food industry can help to analyze customers experience and his level of satisfaction through mobile apps, websites, social media and review sites because customer service is one such part which is hardest to optimize. During the festive seasons these companies gives offers, coupons and discount to users to gain their interest.

4.2.5. Personalization: The aim of many big data projects is the same - provide a personalized, customer-centric experience to every buyer. This involves essential analysis of customer views like - what they like, how much they are willing to pay, what they share on social media, the reviews they make, the stories they resonate with etc. Today big data analytics has made tracking, collection and analysis all this data possible.

4.2.6. Market Basket Analysis: It is a technique which predicts most obvious item that a customer is likely to purchase next and his analysis is based on the purchase history of the consumer and the items currently in his chart.

## 5. REASONS WHY FOOD TECH COMPANIES ARE GAINING POPULARITY THESE DAYS.

Large share of young population	Changing consumer lifestyle
Increasing disposable income levels	Increasing urban working women population

Age distribution of population in India (Percentages depict population in that age group)
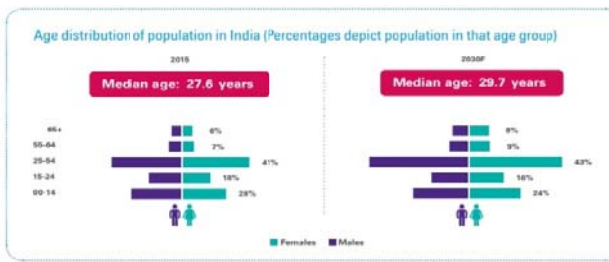
The country has one of the youngest markets with more than 45% of population below 25 years. The countries youngest median age in 2015 was 27.6 years and it is estimated to 29.7 years in 2030. Ordering food and eating is often seen as a habit among youngsters, rather than eating home cooked food. In such cases the food tech companies are gaining popularity these days.
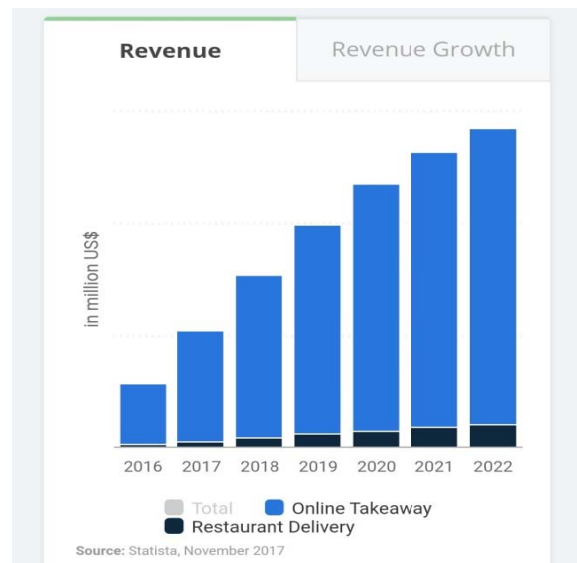
6. FUTURE OF FOOD TECH COMPANIES

Going by the statistics of the past 3-4 years and comparing it with international markets, India is a competitive market for Food Technology Startups and offers huge opportunities in the scaling of the businesses. As the generation is passed by the women are getting educated and more likely to do jobs, so they don't find time to cook. As we are getting urbanized we hardly find time to cook. So here comes the future of Food Technology companies. With just one click the food is at our doorstep. Indian cities getting familiar with ordering food on an app and there is a positive response so the Food Tech companies will find their growth in future.
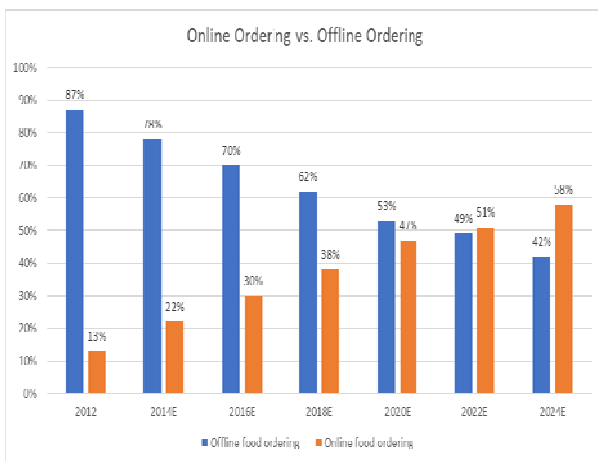
Technology and innovation is going to play a key role in the growth of the food sector. Technology provides significant cost and efficiency improvements for restaurant partners. To be able to be profitable, it is important to focus on building scalable revenue streams and capabilities with a long-term goal and evolve extremely quickly on the technology side to leverage efficiencies internally. Thus, it is important to focus on devising multiple technology solutions for better

management of food discovery, order processing and timely and seamless food delivery. In the food-aggregator business, technology not only makes ordering and order management easy for consumers, but also creates efficiencies in the supply chain. It is critical for food aggregators to deliver the right food at the right time. Investing in a company-owned fleet would be a better option to ensure reliability on the ground, faster deliveries and real-time tracking. It is only through this, that the companies will be able to drive reliability, quality and sustainability in their businesses. Hence, Business analytics has a high scope as everything is going to be online in future.

Source: Statista, November 2017

Source: Statista, November 2017

Revenue in the "Food Delivery"

"Online Takeaway" segment

7. TOP MOST PROMISING FOOD TECH COMPANIES USING BUSINESS ANALYTICS

Let us look at some of the promising as well as successful Indian food tech companies which are not just playing the business game but winning it as well!

7.1. Food Panda: The Big Daddy of all the apps! It is India´s most popular Food Tech startup. They have an efficient operational process and use proprietary technology to track food order deliveries till customers door.

7.2. Zomato: Zomato is one of India's leading food tech companies. Their strategy is to be content driven with very low market or customer acquisition costs and a bulk of their revenues come from advertising.

7.3. Swiggy: They want to change the way India eats and be at the top of mind recall for the users. The customer gets timely deliveries and real time tracking of their orders booked via their app at no extra delivery charge. Swiggy does not have a minimum order policy accepting online payments for every restaurant they are tied up with.

7.4. Faasos: Customers have the flexible option of eating in house, the options for pick up or delivery thanks to their own efficient logistics team. Apart from its own app, they also have a very strong social media presence.

Basis Of Comparision	Zomato	Swiggy	FoodPanda	Faasos
Foundation	2008	2014	2012	2011
Employees	2000+	1700+	1500+	2800+
Instagram Followers	97.6k	36.7k	18.5k	7k
Twitter Followers	1.39M	27.9k	119k	58.5k
Facebook Followers	1.39M	424k	739k	164k

8. CONCLUSION

The future of food will look very different from what it is today. Restaurants and food delivery businesses are using real-time analytics which is a beneficial opportunity to increase their return on investment and gain customer satisfaction which is the core of this industry. Hence, we conclude that food and beverages industry are developing using Business Analytics and Big Data Analytics.

REFERENCES

[1] https://inc42.com/resources/foodtech-startups-growth/

[2] https://www.statista.com/outlook/374/119/food-delivery/india#market-arpu

[3] https://www.forbes.com/sites/deborahweinswig/2016/07/20/taking-a-bite-out-of-the-food-industry-startups-change-the-game/#7ad0521ea318

[4] https://www.google.co.in/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwi9l5G2jLXZAhUKWrwKHX8BCO8QFggmMAA&url=https%3A%2F%2Fassets.kpmg.com%2Fcontent%2Fdam%2Fkpmg%2Fin%2Fpdf%2F2016%2F11%2FIndias-food-service.pdf&usg=AOvVaw3sQ4lQcSONqF6OeBhjXGkf

[5] https://yourstory.com/2017/11/foodtech-zomato-freshmenu-freshtohome/

[6] https://www.newgenapps.com/blog/7-uses-of-big-data-in-food-and-beverages-industry

https://smartbridge.com/why-the-food-service-industry-needs-big-data/

[7] https://www.dezyre.com/article/how-food-delivery-apps-are-leveraging-big-data-analytics/197

[8] http://www.firstpost.com/tech/news-analysis/food-tech-is-a-growing-segment-which-needs-to-capitalise-on-data-and-analytics-to-scale-up-4224173.html

[9] https://www.reviewsxp.com/blog/best-food-startups/