FOREWORD

We started the research for this report before covid and finished it on the day that the vaccine roll-out started in India. Throughout this period, the delivery of food has been a hot topic. What happens to covid is unclear; that foodservice delivery is here to stay is undoubted.

Delivering food is one of the world's oldest trades but in the last decade it has been turbo-charged by the emergence of technology, ordering aggregators, the availability of high levels of investment, and a plethora of operators and business models.

Accordingly, we set out to answer three key questions:
1. what is the size of the addressable market in India?
2. who wins and takes the value?
3. what is happening on the ground and how is the sector developing?

This report is intended for operators, investors, commentators, and indeed customers. It analyses the foodservice delivery market, assesses its dimensions and provides commentary on how models have developed, and importantly will develop.

Our method is based on both qualitative and quantitative inputs and we have used interviews with experts and our own experience to understand the dynamics of the market and to allow us to take positions in this report. Our experience is totally complementary in that Samir Kuckreja and Jasper Reid are seasoned F&B operators in India and we have partnered with Peter Backman, one of the world's most respected analysts and commentators in the foodservice market. With this experience, we have been able to balance theory and data with practice and the realities of the Indian market.

The authors are solely responsible for the content, but the report would not have been possible without inputs and advice from key players across the Indian foodservice sector and from its most respected proponents. For this we are most grateful.

There are a multitude of views about delivery but one area of common agreement is that the market changes very quickly. To this end, we will be updating this report as the market develops.

Thank you for reading this report and we would encourage all feedback particularly on subjects which you would like to see covered in subsequent editions.

With warmest regards,
Samir Kuckreja, Jasper Reid and Peter Backman.

CONTENTS

1

INTRODUCTION

The evolution of the foodservice delivery market in India

Over the last five years, and before covid, foodservice delivery has arguably proved to be the most significant disruptor of the foodservice industry in India and globally. This disruption accelerated during 2019 and into 2020 driven by significant investment across the delivery value chain - from aggregators to cloud kitchen providers and logistics players. The impact of covid remains uncertain but the development of delivery is in its early stages and many years of growth lie ahead.

While the foodservice delivery market in India is relatively immature, the country is already globally among the top ten in terms of Gross Market Value (GMV) – a key metric that measures a value at the level of consumer spend (as opposed to aggregator income for example). Delivery aggregators, the companies that capture orders from customers and deliver the ordered items, are largely responsible for the recent rapid growth.

This growth has been powered by the rise of aggregators, cloud kitchens, logistics providers, own-brand ordering apps and a plethora of ancillary services that include enhanced POS software and innovation in technical fields such as AI, robotics and data analytics.

Currently, growth strategies being pursued by aggregators appear clear: acquire new customers, enter new markets and expand share primarily based on a “value” or discounting strategy. To this end, profitability has been a secondary issue but there are signs that this is changing especially as covid has had a very material impact on balance sheets.

The delivery market has grown rapidly in India and this pace raises questions around the business models, especially those of the key players as well as the market at large. How will the sector evolve in India? Will India behave like other international markets? Will the changing Indian economy affect the growth and dynamics of delivery? Who are the key players? What is the total size of the market and most importantly, who will win in the end.

These and many more questions are addressed in this report. Subsequent editions will track the foodservice delivery market as it evolves. How it will evolve remains to be seen; that it will evolve, is a racing certainty.

SPECIAL NOTE

As we publish this report the world is still gripped with the covid pandemic that has hit lives, lifestyles and the global economy very severely. The pandemic has significantly disrupted the foodservice industry in India especially the dine-in business and there has been a high restaurant closure rate.

Similar patterns are seen in other countries – the National Restaurant Association of the US has recently revealed that an estimated 110,000 restaurants have closed in the USA since the start of the pandemic. And along with these changes, delivery has evolved rapidly. In general terms it seems to have seen two or even three years’ growth squeezed into the last three quarters of 2020, driven by stay-at-home requirements and restrictions on restaurants’ ability to serve dine-in meals.

While these changes were going on, other trends in delivery emerged. Aggregators’ pivot to supplying groceries seen in many markets, including India and UK, was driven by the reduction in delivery demand in the early stages of lockdowns when anchor delivery brands on aggregator apps were closed because they felt unable to guarantee staff safety from covid. While these closures unwound fairly swiftly, the pivot to grocery supplies remains in many markets.

Another change that has been accelerated by covid has been consolidation in the foodservice delivery sector. In the US, Uber Eats acquired Postmates (the number 3 in the market) and Just Eat Takeaway (the leading European aggregator) acquired Grubhub. This process has left three aggregators in the US market – UberEats, Grubhub and DoorDash (which has had a successful IPO).

And in India, even as Swiggy, Zomato and almost all the other leading operators have stepped up safety processes in their kitchens and restaurants and implemented ‘contactless delivery’, there is still a fear in customers which increases with high case counts in cities.

The extent of the overall impact on foodservice delivery or the timeline by which things will become normal again are clearly not predictable. This is something that we will evaluate and report in subsequent editions of the India foodservice Delivery Report.

The data in this report was collected and collated by March 2020. We have not updated the projections for the current financial year as there is very limited information available from brands and other sources.

The purpose of this report:

This report provides a comprehensive overview of the foodservice delivery market in India and aims to bring clarity and rigour to the topic. The report analyses the scope of the Indian market and examines the challenges and trends that are likely to shape its future evolution.

The report is intended to achieve two clear objectives:

- To define and measure the foodservice delivery market and the various segments within it.
- To highlight the trends and drivers and to use them to provide a framework for thinking about the future of the market.

The report also provides comparisons with selected international markets to provide a wider global context for potential evolution of the foodservice delivery market in India.

Research authors

The report was commissioned by IMM and Tasanaya Hospitality. IMM specialises in developing F&B brands in India and international markets while Tasanaya provides a range of advisory services to the hospitality industry in India. The process for developing and validating the research has been led by Samir Kuckreja and Jasper Reid. Peter Backman provided input in terms of his international knowledge of the foodservice market in general, and the delivery segment in particular. He also introduced the principles of the market sizing exercise.

Samir Kuckreja is the founder & CEO of Tasanaya Hospitality, a boutique consulting company that advises restaurants, food tech and FMCG companies. He was the president and trustee of the National Restaurant Association of India from 2009 to 2019. The NRAI Indian Food Service Reports of 2013, 2016 and 2019 were led by him. He has worked with Yum Restaurants and expanded Pizza Hut and KFC int the Indian subcontinent. He partnered an international private equity fund while being CEO of Nirula's. Samir is a graduate of the Cornell University Hotel School, USA.

Jasper Reid is the founder of IMM, a UK investment, advisory and management firm specialising in F&B. He is also a director of Wendy's and Jamie Oliver's restaurants in India. Jasper is a regular writer and commentator on India, international expansion and F&B strategies and is published in the Wall Street Journal, the Economic Times, Business India and MCA (the leading UK restaurant trade journal).

Research partner and international domain expertise

The report has been published in partnership with Peter Backman, a globally renowned foodservice professional. Peter is an expert on the structure and dynamics of the foodservice sector and its supply chain in the UK and in many other countries. He advises key decision-makers including investors, operators and suppliers.

How we approached research for this report

Foodservice delivery in India as indeed in all countries, is dynamic and complex and no single approach provides all the answers. To this end, we have used a multi-faceted research methodology that has successfully been applied, by Peter Backman, to markets in the US, the UK, and other countries.

Primary B2B research

One-on-one primary interviews were conducted and discussions held with the leading foodservice delivery players ranging from operators to aggregators and cloud kitchens. A combination of questionnaires and qualitative interviews were used and in addition to carrying out multiple conversations and follow-ups. The outputs were aggregated and analysed to derive a comprehensive and balanced assessment of the drivers and the challenges faced by the parties. The interviews also provided a base data for calculating market size and scope for growth as described below.

Secondary research

Secondary research involved detailed analysis of published reports, data in the public domain, and data made specifically available to us, covering both Indian and international markets. We also carried out an extensive review of industry news, articles, and interviews from international, and national, business as well as trade media covering both industry and consumer perspectives.

Market sizing

A robust and credible research methodology has been followed based on an approach pioneered by Peter Backman. This involves a dual, top-down, and bottom-up approach to derive reliable figures for the size of the market. These figures were cross-referenced with other sources and checked with the leading industry players (both operators and aggregators) whose inputs have been based on their own data, knowledge, and experience.

Where appropriate, this report also references other reliable third-party sources. These include information from industry bodies (such as the India Foodservices Report 2019 published by the National Restaurant Association of India), restaurant and aggregator brand websites, self-managed business blogs, business data, information from statutory declarations and annual reports.

Footnote

The consumer perspective, wherever referenced in this report, is based upon published industry data, reports and information received from key players who participated in this research. We have not commissioned primary consumer research in this edition of the report. This will be addressed in subsequent editions of the India Foodservice Delivery Report.

2

EXECUTIVE SUMMARY

Overall size and growth of the Indian foodservice delivery market

The size of the Indian foodservice delivery market is:

- INR 4,62,013 crore (US$ 66 billion) in 2019.
- Forecast to reach INR 5,99,784 crore (US$ 88 billion) by 2022-23.
- The organised share of the market is 35%.
- Total size of the Indian foodservice delivery market in 2019-20: INR 37,440 crore (US$ 5.2 billion), growing at a CAGR of 33% over the last 3 years.
- We forecast that the foodservice delivery market size will reach INR 93,600 crore (US$ 13 billion) by 2022-23.

Based on the above, India, with 600 urban areas, is one of the fastest growing foodservice delivery markets in the world.

A wide range of factors are driving the growth of the sector. These include demographic and lifestyle factors, the rise of single person households, increasing urbanisation, changing models of urbanisation, growing consumer demand for convenience and speedy delivery, growing internet penetration, smartphone penetration, the proliferation of online services.

Total Addressable Market (TAM)

We estimate the Total Addressable Market (TAM) for foodservice delivery in India will be US$ 36.38 billion by 2024-25 and this is likely to increase as the market evolves into new segments.

Note: While 'Market Size' refers to the actual size of the market (or a forecast), 'TAM' is the total potential size of the market.

Consumers and foodservice delivery

The battle for consumer loyalty between the aggregator deliverers and foodservice operators is fierce. Issues such as deep discounting, terms of contracts and commissions, brand experience and customer perceptions have led to confrontation between aggregators and operators. This conflict is yet to be resolved.

Data on total spend by customers:

The total average spend per customer across all aggregator platforms and direct delivery channels was INR 320 per month in 2019-20.

We estimate this will increase by more than 4x to INR 1,256 in 5 years.

We estimate customer order frequency, for delivery, to increase three-fold from 1.2 per month in 2019-20 to 3.6 by 2024-25. Orders from home are five times higher than orders at work and we see very material upside for delivery occasions outside of the home.

Consumers in tier 2 and tier 3 cities order delivered food more frequently than in the major metros and tier 1 cities. With over 450 million active internet users in 2019, India is second only to China in online activity and the untapped market is vast.

Key players

Swiggy remains the biggest player in the market:

- Their GMV has increased from US$ 1.7 billion in 2018-19 to US$ 1.9 billion in 2019-20.
- Their market share has decreased from 57% to 46%.

Zomato has grown organically and through acquisitions:

- Between 2018-19 and 2019-20, the Zomato GMV increased by more than 130% from US$ 759 million to US$ 1.8 billion.
- Their market share increased from 25% to 42%.
- Much of this increase is as a result of the acquisition of Uber Eats India.

Investment and supply side growth

Investment in the sector has increased sevenfold over the last two years - from US$ 168 million in 2017 to US$ 1.2 billion in 2019. We are of the view that this will grow manyfold over the next few years.

Numerous other factors are driving the supply side of the foodservice delivery sector. These include a fertile funding landscape, aggressive discounting by deliverer aggregators, unorganised players becoming organised, improved logistics including the last mile delivery network, and the projected growth of the Indian economy over the next few years.

Projected growth of the different segments between 2019-20 and 2022-23:

- The size of the cloud kitchen market is estimated at INR 4,359 crore /US$ 0.61 billion in 2019-20 and projected to grow to INR 30,485 crore/US$ 4.20 billion by 2022-23. This represents a CAGR of 90.4% during this period.
- The QSR delivery segment is estimated at INR 16,658 crore/ US$2.34 billion in 2019-20 and projected to grow to INR 29,249 crore/US$4.12 billion by 2022-23. This represents a CAGR of 20.6% over this period.
- The Casual Dining Restaurant (CDR) foodservice delivery market is estimated at INR 12,778 crore/US$ 1.80 billion in 2019-20 and is projected to grow to INR 28,429 Crore/US$4.00 billion in 2022-23. This represents a CAGR of 30.5% over this period.
- The Cafe foodservice delivery segment is estimated at INR 2451 crore/US$ 0.34 billion in 2019-20 and is projected to grow to INR 4044 crore /US$ 0.57 billion in 2022-23. This represents a CAGR of 18.2% over this period.
- The Dessert & Ice cream segment is estimated at INR 1001 crore/US$0.14 billion in 2019-20 and is projected to grow to INR 1744 crore/ US$ 0.24 billion in 2022-23. This represents a CAGR of 20.3% over this period.

Regulatory and environmental issues

Regulation by the FSSAI is becoming more stringent: from mandatory certification of small/unorganised eateries to oversee advertising messages. There are a number of laws in the pipeline which will lead to an increase in delivery costs if implemented. Cost of delivery is likely to increase substantially in the coming years as minimum wages increase.

Industry reports indicate that health and wellness factors are changing the landscape of the foodservice sector and several healthy foodservice delivery start-ups are trying to build businesses around this trend.

As online foodservice delivery grows, environmental concerns are also growing. Industry estimates suggest that the delivery industry produces approximately 22,000 million tons of plastic waste per month.

Delivery – A global market

In 2019, the size of the global foodservice delivery market was approximately US$ 150 billion in terms of GMV growing at 17% CAGR from 2019 to 2025. The market is likely to at least double by 2025.

The fact, however, remains that despite increasing revenues and investment, foodservice delivery companies are struggling with profitability.

Cloud kitchens (known by many names – shadow kitchens, virtual kitchens, delivery kitchens, ghost kitchens and more) are attracting considerable investment and interest in India and globally.

Companies from outside the restaurant sector are also seeking opportunities in foodservice delivery. For instance, fintech firms are developing integrated payment gateways, such as digital wallets, thereby providing seamless ordering and payment experiences.

SuperApps (many apps within an umbrella app - doing multiple, often seemingly unrelated functions, within a single app), is a format that various companies are adopting for profitability.

Effects of covid

Industry estimates suggest that between 10-15% of organised restaurants have closed down due to covid and in total between 30-35% of the industry may be closed by June 2021. The NRAI estimates that over 2.2 million people employed within the industry will lose their jobs as financial losses rise to as much as US$ 14.3 billion.

The silver lining of covid for the Indian F&B industry may be similar to the effects of demonetisation in 2017 in that it will drive the adoption of digital innovation. To this end, there are a plethora of digital initiatives underway across the Indian F&B market. Covid has also led to many changes including:

- Casual and fine dining restaurants focusing on their delivery business.
- Innovation in delivering unique customer experiences.
- Growth in DIY kits – food, cocktail mixes and desserts.
- Setting up of cloud kitchens by leading F&B groups.
- Consolidation with both takeovers and closures.

3

HOW WE DEFINE THE DELIVERY MARKET

What this report does and does not cover

Delivery is defined as the process by which a customer orders food or beverage by phone, app or online, and receives the delivered order in person. Our definition of foodservice delivery does not include takeaways, meal kit delivery services, and ingredient delivery.

This report primarily covers the organised foodservice delivery market and the sub-segments within this market because it is in this segment that all the advances have been made in delivery. For the forecasted period at any rate, the organised segment will continue to be the only source of delivery as defined for the purposes of this report.

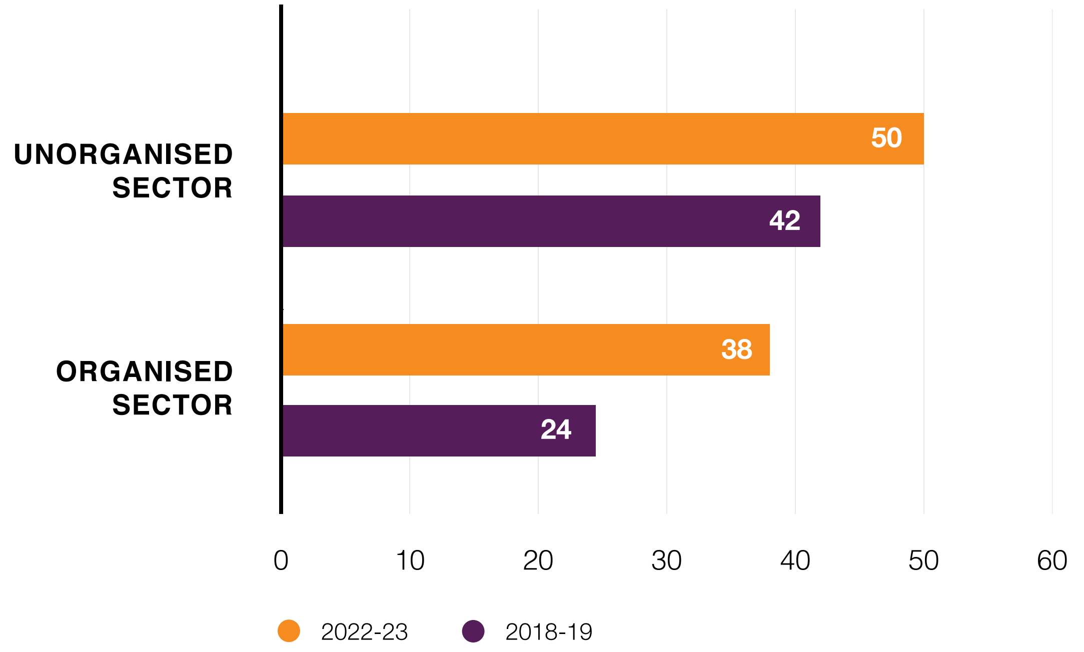
Background

The foodservice market in India, including both the organised and unorganised segments, was worth INR 4,62,013 crore (US$ 66 billion) in 2018-19 and was forecast to reach INR 5,99,784 crore (US$ 88 billion) by 2022-23. This implies a CAGR of % between 2019 and 2023.

The organised foodservice market in India was estimated at INR 1,69,971 crore in 2019 (US$ 24 billion) - 35% of the total market. The unorganised market was estimated at INR 2,92,042 crore (US$ 38 billion) - 65% of the total market. Growth in the organised segment, at CAGR 12.17% is predicted to increase faster than the market as a whole and by 2022-23 the organised segment share is forecast to account for 43% of the total market. The unorganised segment is expected to grow at a CAGR of 4.46% between 2019 and 2023 when it's share will have fallen to 57% of the total market.

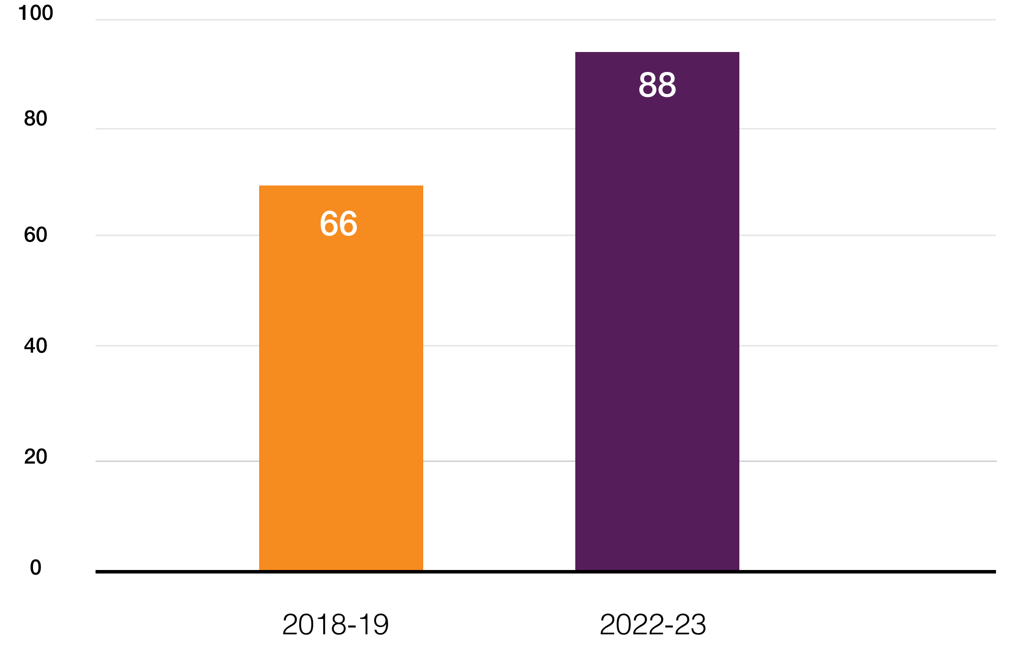
The organised segment is increasing its share due to a range of reasons, especially enhanced consumer demand for branded offers, much greater access to capital by organised players, the ability of larger players to scale more rapidly, and an increasing level of regulation (such as food safety) which plays to the strengths of the more organised businesses.

Organised market vs unorganised (US$ billion)



Source: Tasanaya analysis based on NRAI data

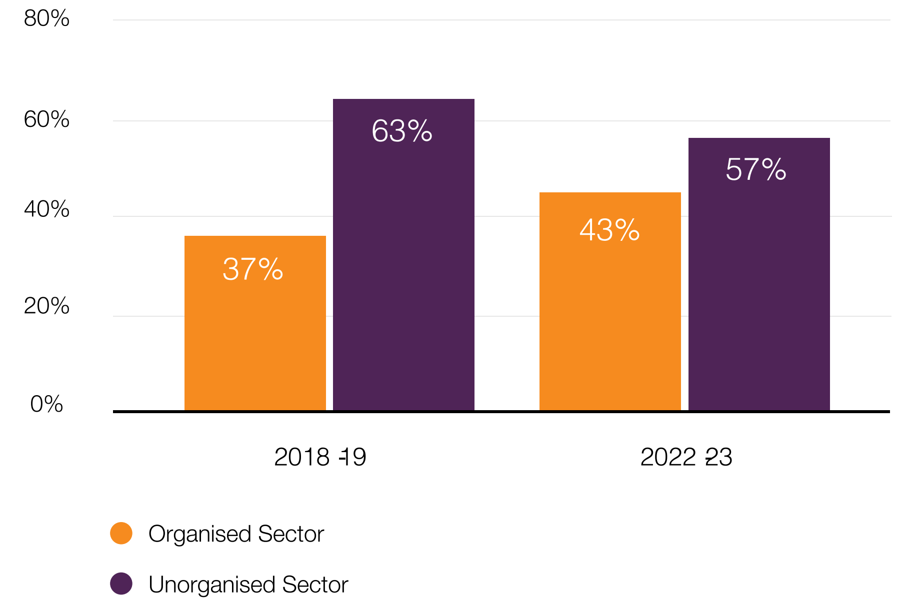
India's foodservice market (US$ billion)



Source: Tasanaya analysis based on NRAI data

The NRAI estimates the Indian foodservice market to grow from US$ 66 billion to US$ 88 billion at a CAGR of 9%

Share of the market



Source: Tasanaya analysis based on NRAI data

In 2018-19 the organised sector was worth US$ 24 billion (37%) and the un-organised sector was US$ 42 billion (63%). The organised sector is estimated to double to US$ 42 billion, whereas the unorganised market will increase to US$ 50 billion, reducing to 57% of the market.

Foodservice delivery segments

This report explores the three key elements of the foodservice delivery value chain:

Aggregators

These are order aggregators (also known as marketplaces) that offer access to multiple F&B outlets through a single app (or website). They charge fees to the outlet operator who provides the food to be delivered. Aggregators in India also manage delivery using proprietary logistic solutions (riders, technology, processes). The key aggregators in India are Swiggy, Zomato and, formerly, Uber Eats which was acquired by Zomato during the course of our research in January 2020.

Cloud kitchen operators

Also known under various other names:

Shadow kitchens, virtual kitchens, delivery kitchens, ghost kitchens and more

We have identified three models:

1. Single format brands that operate their own cloud kitchen facilities.
2. Delivery-only operators with multiple brands on the same platform, such as Rebel Foods.
3. Operators that host third party brands including Swiggy Access and Zomato Kitchens.

Restaurants that also deliver

These are restaurants whose operating unit is primarily intended for dine-in or takeaway but which also provide delivery services (executed on a proprietary basis or by a third party). These units are found across all formats (QSR, casual dining, cafes etc).

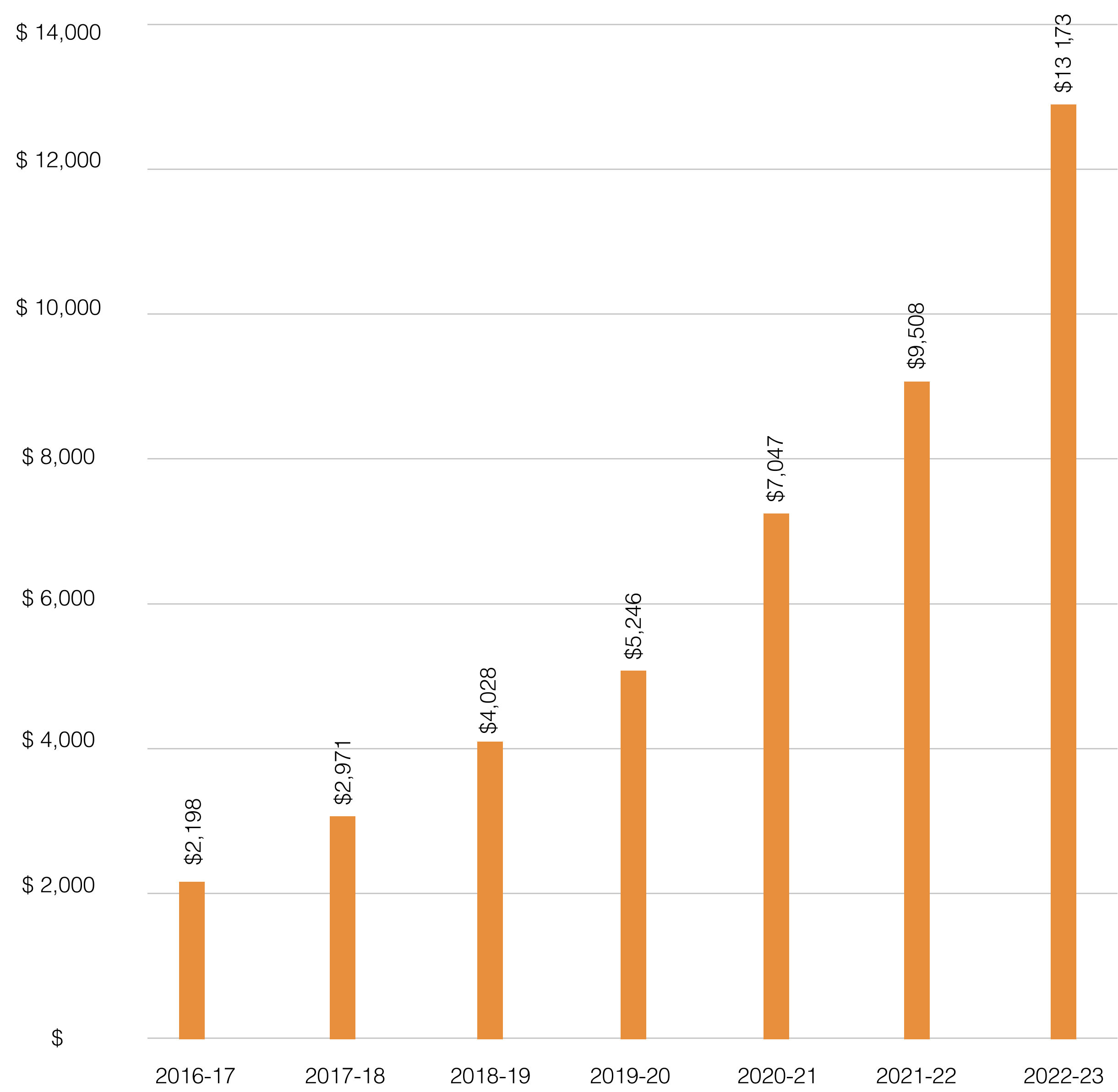
4

THE INDIAN FOODSERVICE DELIVERY MARKET

Size and context

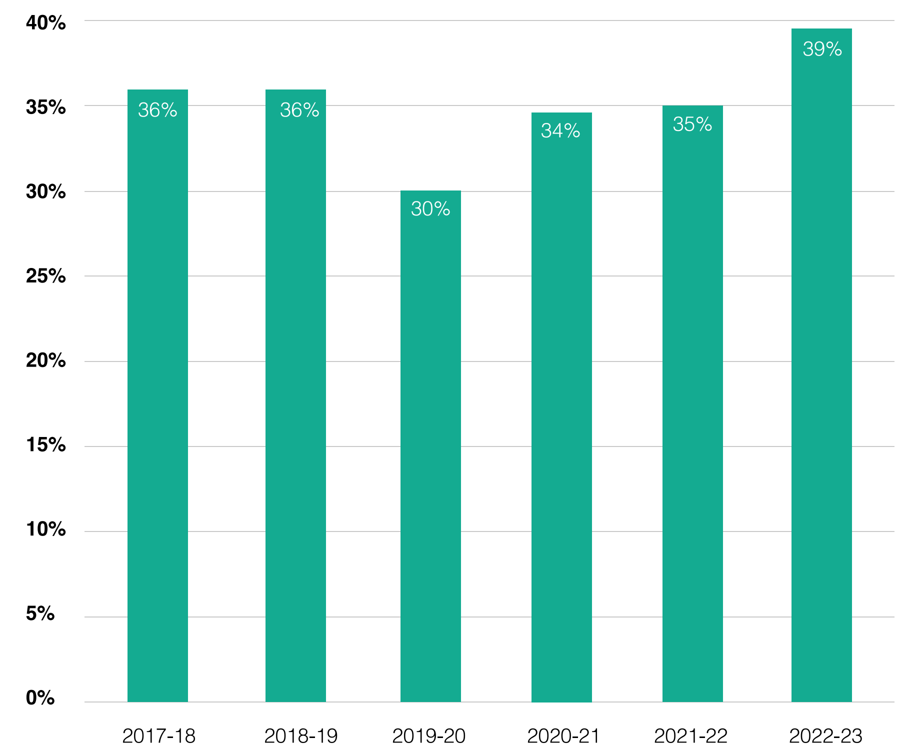
- We estimate the total size of the Indian foodservice delivery market in 2019-20 to be INR 37,440 Crore (US$ 5.2 billion), growing at a CAGR of 33% over the last 3 years.
- We forecast that foodservice delivery will reach INR 93,600 Crore (US$ 13 billion) by 2022-23.
- India, serving 600 urban areas, is one of the fastest-growing foodservice delivery markets in the world.
- Investment in the sector has increased eightfold over the last two years - from US$ 168 million in 2017 to US$ 1.2 billion in 2019.

Delivery market size (US$ million)



Source: Tasanaya research and analysis

Delivery market size (YOY) growth (%)

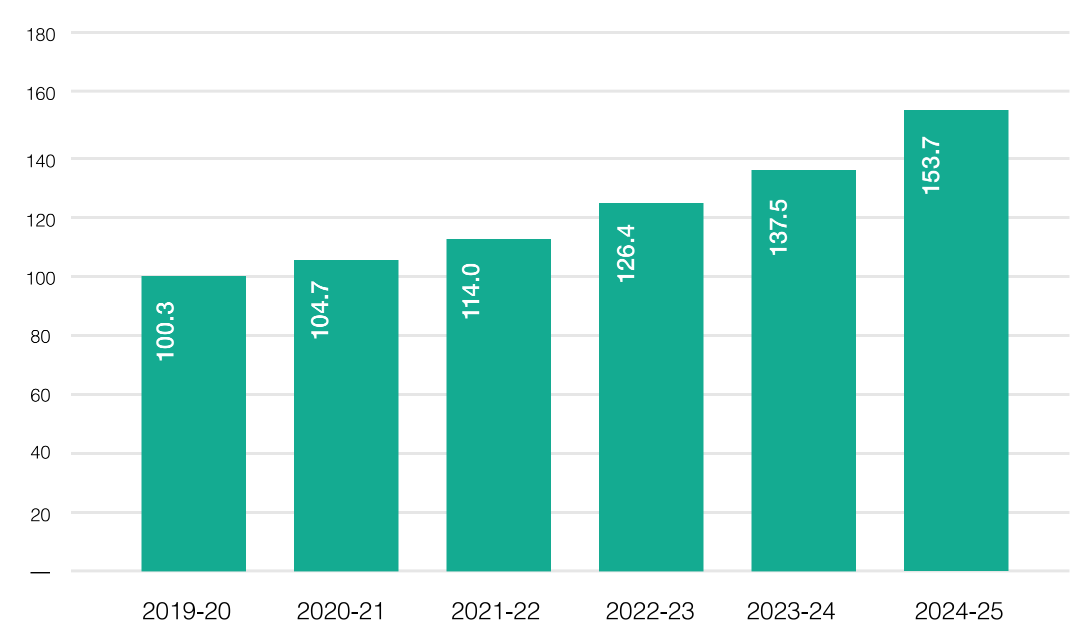


Source: Tasanaya research and analysis

The foodservice delivery market grew by 30% between 2019 and 2020. We forecast the market to have a CAGR of 39% by 2022-23.

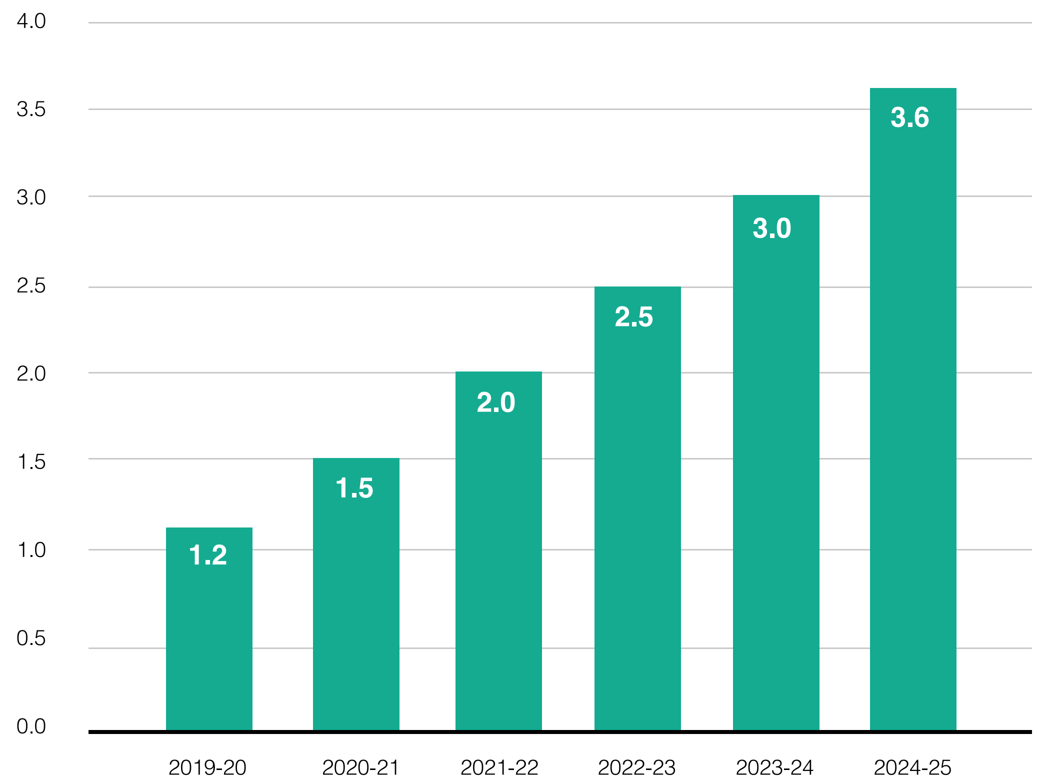
The Indian foodservice delivery market grew between 2017 and 2019 at a CAGR of 34% driven by high levels of investment secured by aggregators. The rapid pace of growth declined marginally to 30% in 2019-20 as aggregators focused on reducing the cash burn in their last-mile delivery operations and secured a stable base of long-standing customers, especially those who value non-price considerations, such as convenience and service. However, covid has greatly accelerated the growth of the delivery market once again.

Total delivery orders in a month (in millions)



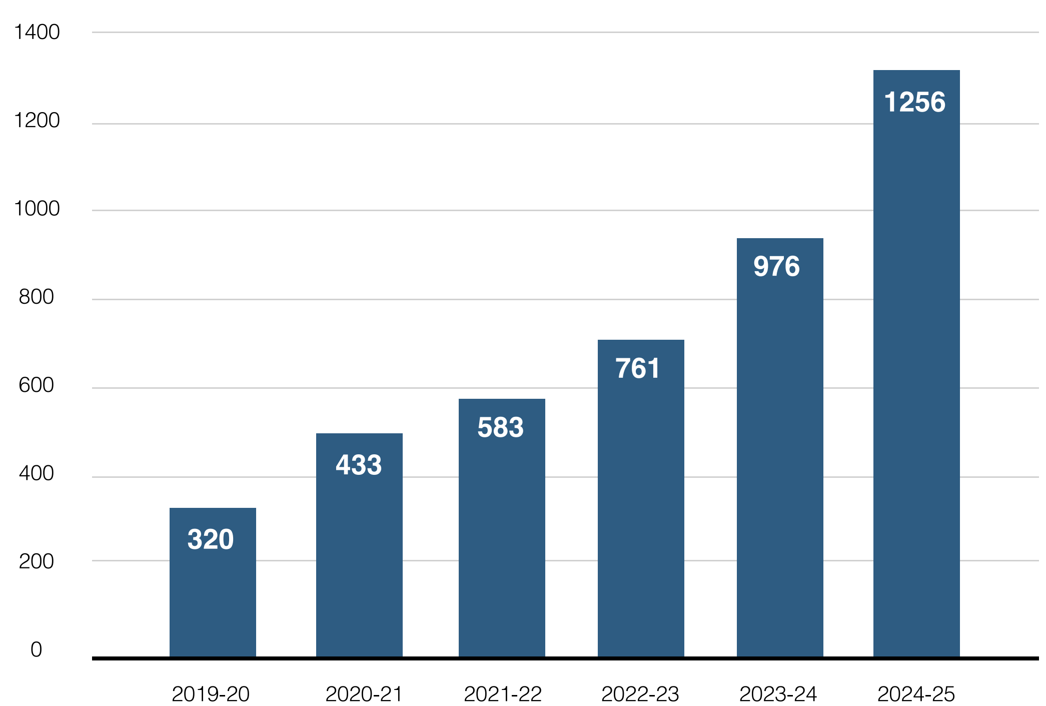
Source: Tasanaya research and analysis

Delivery frequency in a month



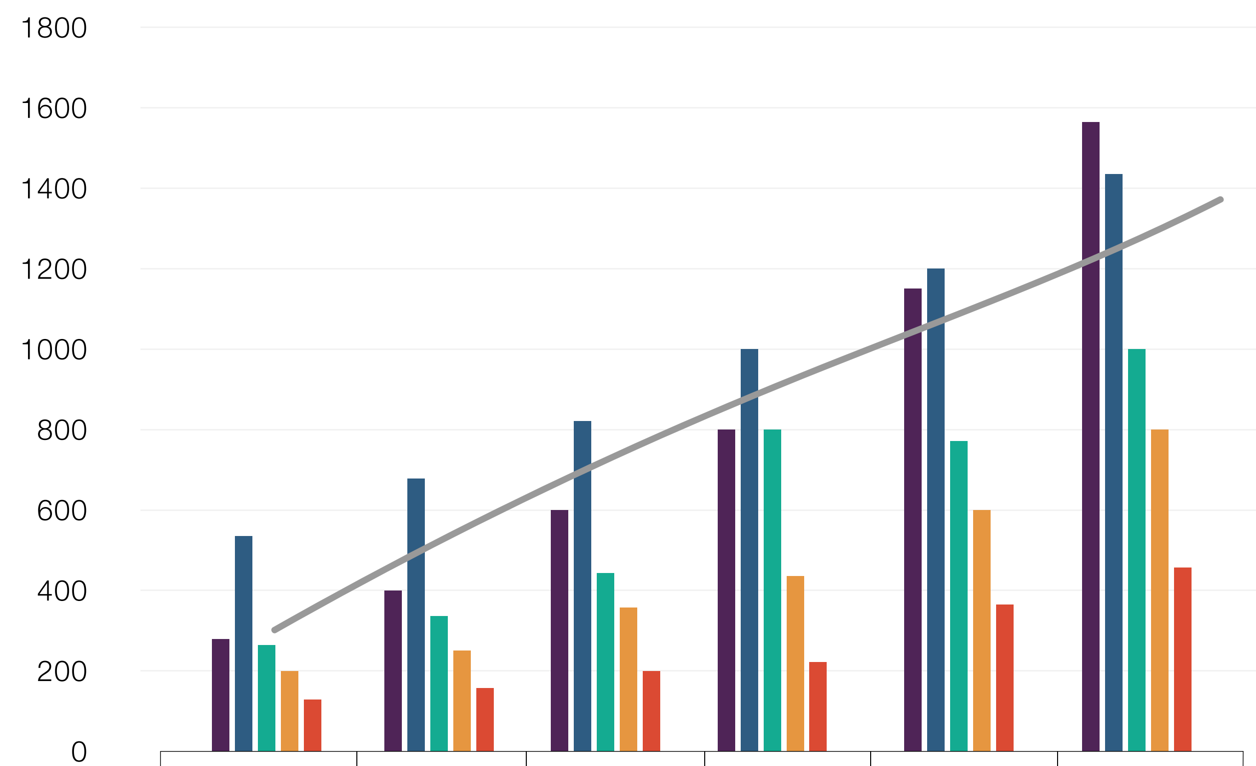
Source: Tasanaya research and analysis

Total average spend for a consumer in a month (INR)



Source: Tasanaya research and analysis

Average monthly spend per customer on delivery by segment



	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
QSR	324	443	605	826	1129	1542
Cloud Kitchen	560	676	817	986	1191	1438
CDR	274	354	459	594	769	996
Cafe	193	256	341	454	604	803
D&IC	117	154	202	267	352	464
Weighted Average	320	433	583	780	1002	1290

Source: Tasanaya research and analysis

There are a number of underlying drivers of the foodservice delivery market in India summarised in the following charts:

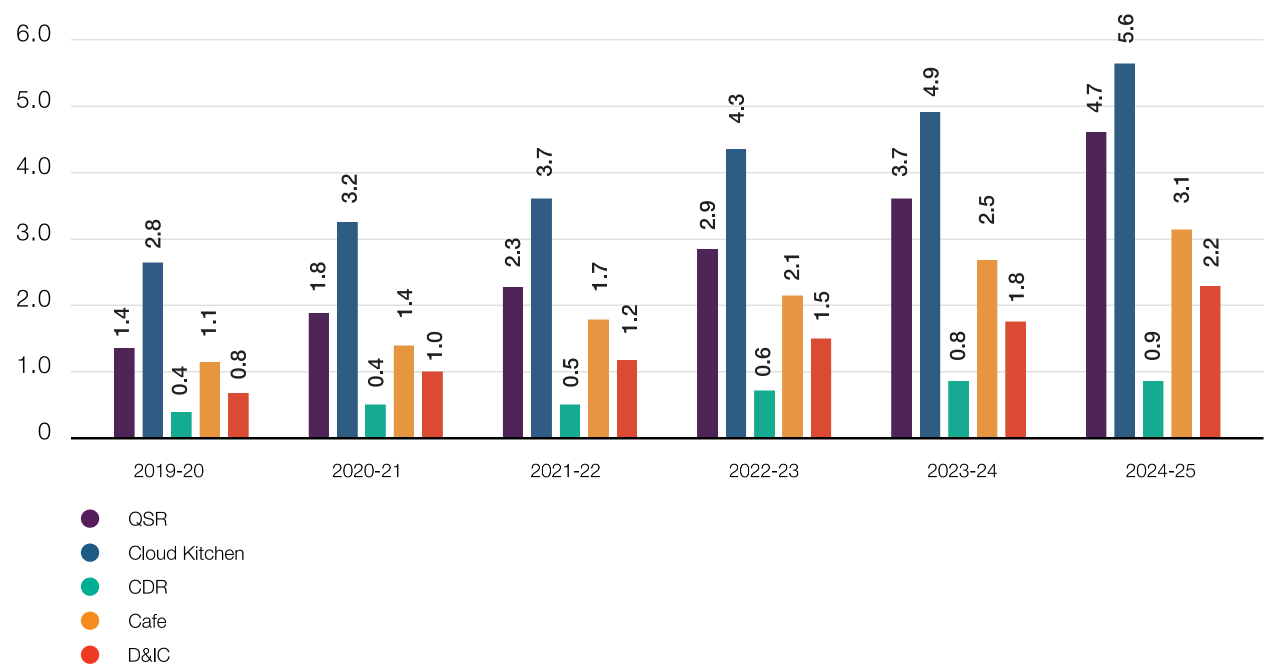
Our research shows that the total number of delivery orders per month is likely to increase from 100 million in 2019-20 to 153 million by 2024-25, an overall increase of 53%.

We forecast that customers will increase their monthly orders by a factor of three by 2024-25.

The total average spend per customer across all aggregator platforms and direct delivery channels was INR 320 per month in 2019-20. We forecast that this may increase more than four times to INR 1,256 by 2024-25, after accounting for inflation at 8%, as a result of increases in disposable income and demographic changes.

This graph shows the evolution of monthly spend per customer across key operator segments. We forecast the QSR segment to show the highest increase - from INR 324 in 2019-20 to INR 1,524 in 2024-25 - followed by cloud kitchens which we forecast will grow from INR 560 in 2019-20 to INR 1,438 by 2024-25.

Delivery frequency per month by segment



Source: Tasanaya research and analysis

This graph shows the frequency of delivery orders per month in the key operator segments. We forecast that cloud kitchens will see the highest increase - from 2.8 in 2019-20 to 5.6 in 2024-25. QSR outlets will see the next highest increase - from 1.4 in 2019-20 to 4.7 delivery occasions by 2024-25.

Key growth drivers

In this section, we explore both demand and supply-side drivers of the growth of foodservice delivery.

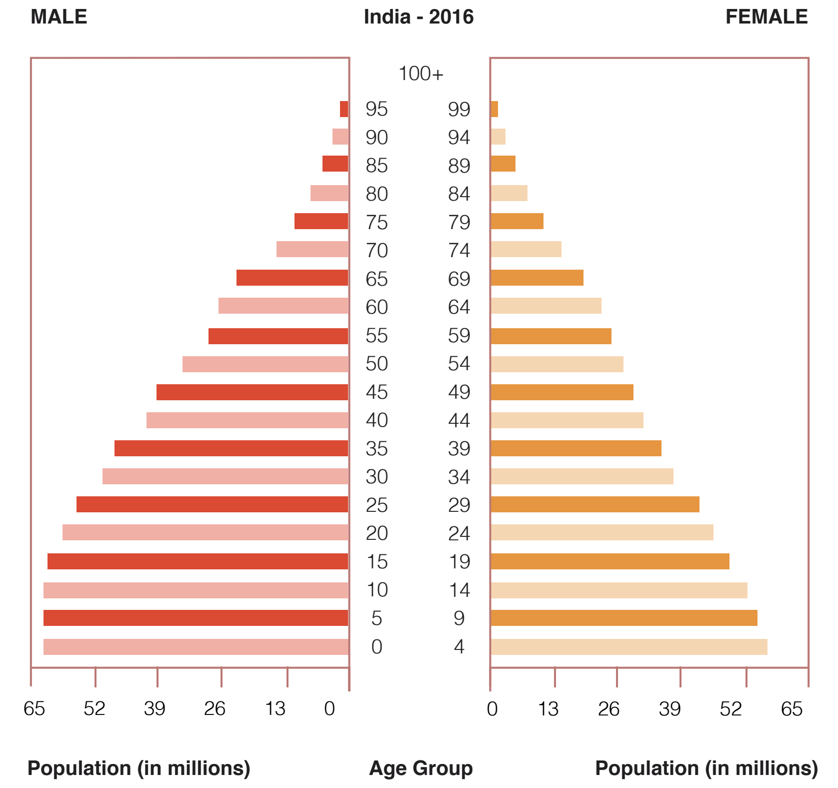
Demand drivers

A wide range of factors is driving the growth of the foodservice delivery sector. These include demographic and lifestyle factors (such as for example, the very large Indian youth population), the rise of single-person households, increasing urbanisation, changing models of urbanisation (such as the rise of small towns in so-called 'rurban' India), growing consumer demand for convenience and speedy delivery, growing internet penetration, smartphone penetration, the proliferation of online services.

Breaking down the factors:

1. The dividend of youth

This is the world's youngest country with a mean population age of 29. The World Bank estimates that 64% of the population is of working age (15 to 64 years) and starting in 2018, India's working-age population has exceeded its dependent population. This means that the elderly, especially those less able, or even unable, to look after themselves, are supported by their younger peers. This dynamic change towards the young will continue at least until 2055. This single factor is probably the most significant driver of India's economic growth, in general, and is a significant driver of growth in foodservice delivery, in particular.



Source: CIA World Factbook

{Exhibit 7.4 from NRAI: India's working age population share also needs to be recreated and used here.}

The 400 million Indian millennials represent 34%of the total population and 47% of the working-age population. The majority of their monthly income is spent on essentials (home, clothing, food) followed by education and utilities (electricity, water, transportation etc.). However, 65% of their remaining ('incremental') income is allocated to entertainment, eating out, apparel, accessories and electronics.

Millennials' spend as a percentage of incremental income	
Entertainment & eating out	32.7%
Apparel & accessories	21.4%
Electronics	11.2%
Essentials, Education and Utilities	35%

Today, savings account for 10% of millennials' overall income. But recent changes in spending and saving patterns amongst millennials mark a shift towards consumption and away from saving; which is a major departure from the habits of the preceding generations.

Within their total eating outspend, expenditure on delivery accounts for 26% amongst millennials and Gen Z. Older millennial groups, with higher disposable income, order food more frequently.

Frequency of ordering	Total (n=326)	Young millennials (N = 61)	Older millennials (N=112)	Middle age (N=46)	Gen x (N=107)
Multiple times a Week	26%	25%	31%	22%	22%
At least once a week	51%	46%	57%	46%	50%
Multiple times a month	59%	62%	68%	50%	53%

Source: Consumer Research by Azul Research Advisory.

326 interviews conducted across 20 cities in different town classes and zones with SEC A and B consumers who shop at malls and are active online. September-October 2018
*where N is sample size

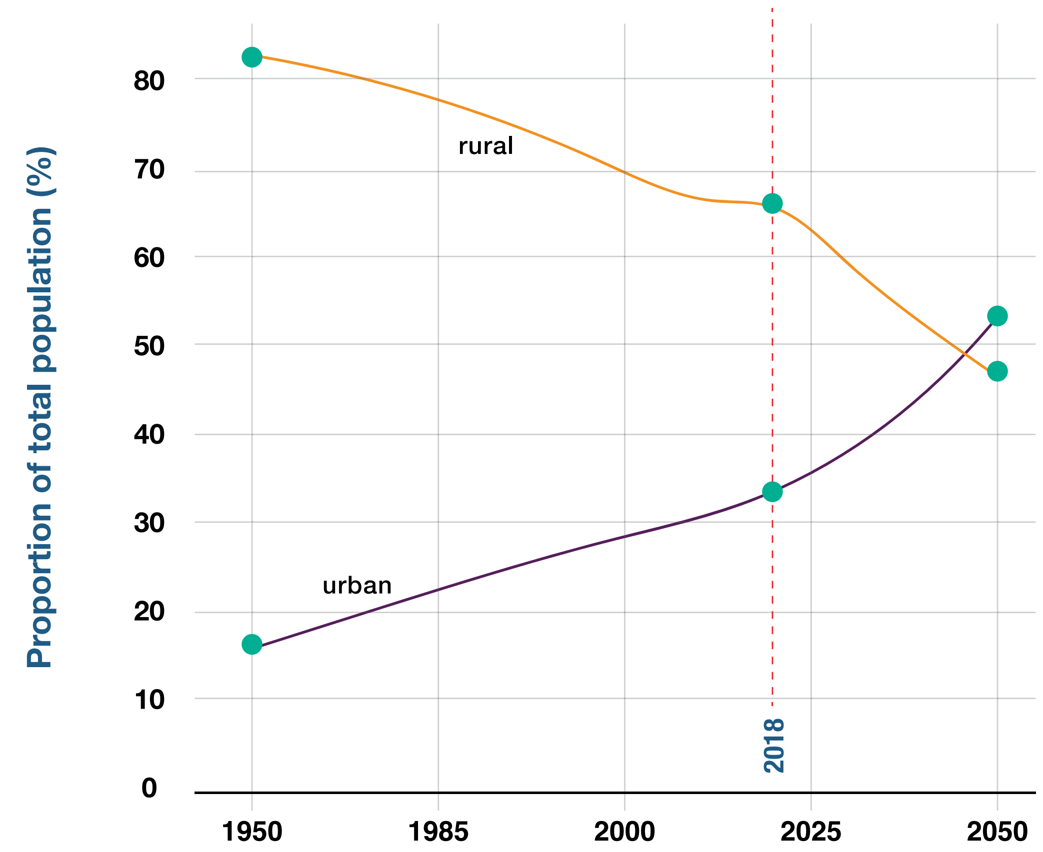
2. Increasing urbanisation and 'rurban' India

Official government data suggest that a third of Indians live in cities; the remaining 68% live in rural areas; city dwellers represent a growing share of the total population. However, urbanisation in India is being driven not only by villagers migrating to the cities but also by rural areas becoming urban in character. In this report, urban is defined by a population of over 5,000 with 75% of the population engaged in non-agricultural pursuits (such as in factories set up in the rural outskirts of cities. And crucially for delivery, these rurban environments represent new consumer markets with growing concentrations of people with some disposable income.

The World Bank estimates, on the foregoing definition, that 55% of India is urban, and the 2011 census recognised 3,894 census towns. The Indian government has committed a fund to develop 300 census towns as growth centres of rural India under the rubric of 'the spirit of villages with the facilities of cities'. These 300 towns represent a potential growth opportunity for all B2C businesses the vast majority of whom have yet to explore or understand these markets. The foodservice delivery market has the potential to be at the forefront of this development.

Urbanisation is undoubtedly going to be an ongoing trend and by 2050, the majority of Indians are forecast to live in urban areas – believed to be the fastest-growing scale of urbanisation compared to the rest of the world. This in turn creates and supports new consumer markets such as those ripe for the development of delivery services.

Percentage of population in urban and rural areas



Source : Times of India

But while much attention is focused on larger cities, many smaller cities are also emerging as major contributors to the growth of the foodservice delivery market.

According to research conducted by Azul Research Advisory in 2018, consumers in tier 2 and tier 3 cities order food 'multiple times a week' which is to say more frequently than in the major metros and tier 1 cities:

Frequency of ordering	Total (N=326)	Metro cities	Tier 1	Tier 2	Tier 3
Multiple times a Week	26%	25%	20%	32%	40%
At least once a week	51%	52%	47%	55%	53%
Multiple times a month	59%	65%	49%	55%	53%

Source: Consumer Research by Azul Research Advisory.

326 interviews conducted across 20 cities in different town classes and zones with SEC A and B consumers who shop at malls and are active online. September-October 2018
*where N is sample size

The major aggregators are expanding aggressively in these smaller cities with the result that some already exceed the metros in terms of orders per 100,000 population. For example, Patiala, with a population of over 400,000, generates as many orders per capita for Zomato as Bengaluru with its population of over 12 million.

Similarly, Anand, a small city in Gujarat with a population of around 200,000, generates three times the orders per capita versus Delhi-NCR whose population exceeds 22 million.

Media reports suggest that small cities now contribute 35% of Zomato's order volume; and that during 2020 forecasts are for that contribution to reach 50%. For Swiggy, the new cities currently account for about 15% of their business.

3. The rise of single-person households

Single-person households increased by 35% between 2007 and 2017; and projections are that by 2020, India will have 17.4 million single-person households (fourth-largest globally).

For previous generations, home cooking was part and parcel of family life. It was an embodiment of a culture in which decision over where one lived and to where one moved (if at all) was a collective matter. And when breadwinners relocated, their families relocated with them, or they went to live with relatives, or both.

Today, young workers or children at college are moving out of their family homes. Lacking the skills, desire and infrastructure to cook independently, delivery for them has become the new 'home cooking'.

Social factors, such as the growing rates of divorce, further contribute to the trend of single-person homes. The absolute number of divorces has increased from 1 in 1,000 to 13 in 1,000 over the last decade. Also emerging is a new segment of wealthy single urbanites defined as 28-42 year olds who represent 1% of India's population (13 million people). They earn upwards of INR 50,000 per month (US$ 714). This financially secure new segment – travelled, informed and financially liquid – has underpinned the growth of what was previously considered niche or unattainable in terms of cuisine and experiences.

In all of the categories discussed above, and in many others, there exist time-poor individuals often with limited culinary skills. According to experts in the RTC sector, pride in cooking resonates less with the current generation many of whom are now working females. In this way, delivery becomes a replacement for home cooking and represents a fast-growing occasion on practical grounds; and one which also enables customers to experiment with cuisines which were not possible in earlier times.

4. Increased penetration of the internet and smartphones

With over 450 million active internet users in 2019, India is second only to China in online activity. Users are evenly distributed between male and female users. And material headroom remains with more than 60% of potential internet users yet to log onto the internet. Urban India, with 192 million internet users, is equivalent in size to rural India. Further, given the disparity of population distribution, urban India has considerably higher internet penetration levels. Younger users, aged between 16 and 29 years, are already the most frequent users.

Increased internet penetration, together with the growing adoption of smartphones, has increased the reach of foodservice delivery services, particularly by enabling access to markets beyond tier 1 cities.

The number of smartphone users in India is growing annually at 13% and, according to our research, is expected to double from 468 million users in 201 to 859 million by 2022 highly competitive data tariffs have fuelled this growth and, on the back of this growth, installation of foodservice delivery apps increased by 7% between 2017 and 2018.

Industry reports indicate that penetration of these apps is higher in tier 2 cities than in the major metros. The availability of affordable smartphones, with features and storage space that compare with higher-end smartphones, has added to the drive to adopt foodservice delivery apps.

5. Growing value of convenience

While heavy aggregator discounting plays a crucial role in the appeal and use of delivery apps, the convenience of the service is a major driver of growth. Its allure is reflected in demand for many product categories. For example, online grocery purchases are reportedly growing by 14% a year, while grocery e-tailing is claimed to be the fastest-growing e-commerce category in India by Google India research conducted in 2016. Online ordering of food, both ready to cook and ready to eat, such as frozen paneer, vegetables etc is growing fast. Online sales of packaged pasta alone increased by 28% in 2019.

Supply drivers

Numerous factors are driving the supply side of the foodservice delivery sector. They include a fertile funding landscape, aggressive discounting by the aggregators with high levels of cash burn, increasing numbers of unorganised players becoming organised, improved logistics, an improved last-mile delivery network, and the projected growth of the Indian economy over the next few years.

1. A fertile funding landscape

Over the last few years, delivery aggregators such as Swiggy, Zomato and other players in the ecosystem, including cloud kitchen operators Rebel Foods and Dunzo, have raised billions of dollars in funding. The sector's dynamics and performance have also attracted national and international investors.

For example,

Prosus Ventures (who invested US$ 860 million for a 39% stake in Swiggy) has said "**foodservice delivery is less advanced in the US" and "US companies are learning from developing economies about how foodservice delivery can be made more accessible and profitable".**

Prosus also likened the advance of foodservice delivery to how mass production changed textiles and clothing: **"We don't know many people that make their clothes any more unless it's a hobby. The same thing is going to happen with food."**

PLAYER		SWIGGY
Investment raised (US$)	2017	80 million
Investment raised (US$)	2018	1 billion
Investment raised (US$)	2019	500 million
Major investors		Korea Investment Partners, Mirae Asset Management, STIC Investments Neoplus. The billion dollar funding in 2018 was led by Naspers along with DST Global, Meituan Dianping, Coatue Management, Tencent Hillhouse Capital and Wellington Management Company.
Valuation (US$)	2020	3.6 billion

PLAYER		ZOMATO
Investment raised (US$)	2017	20 million
Investment raised (US$)	2018	370 million
Investment raised (US$)	2019	600 million
Major investors		Singapore's sovereign fund Temasek put in a significant amount. A bunch of hedge funds are said to have pooled in about US$ 150-200 million as well. Alibaba affiliate Ant Financial has been backing Zomato since it picked up a 14.7% stake in February 2018. It followed that up by raising its stake to 23% in November 2018 . In 2019 Zomato raised a fresh round of investment from Ant Financials, worth US$ 150 million. Zomato closed a $660 million primary financing round at a post-money valuation of $3.9 billion in December 2020. There are 10 new investors including Tiger Global, Kora, Luxor, Fidelity (FMR), D1 Capital, Baillie Gifford, Mirae, and Steadview Capital.
Valuation (US$)	2020	3.9 billion

PLAYER		REBEL FOODS
Investment raised (US$)	2017	56 million
Investment raised (US$)	2018	100 million
Investment raised (US$)	2019	39 million
Major investors		Coatue PE Asia, Go-Jek, Goldman Sachs. Sistema Asia Fund Irving. Lightbox VC and Coatue are the two most substantial stakeholders in Rebel Foods after Sequoia.
Valuation (US$)	2019	525 million

PLAYER		DUNZO
Investment raised (US$)	2017	12 million
Investment raised (US$)	2018	
Investment raised (US$)	2019	45 million
Major investors		Google, Bloom Ventures, Aspada. Lightbox, South Korea's STIC Ventures, and US-based 3L Capital.
Valuation (US$)	2020	180-200 million

Amazon, with its considerable expertise in last-mile delivery, entered the Indian foodservice delivery market in 2020. In its pre-launch phase, Amazon tested a foodservice delivery service with select restaurant partners in Bengaluru. The company has the potential to disrupt the market with lower commission rates than those charged by market leaders Swiggy and Zomato. Industry analysts anticipate that Amazon will deploy its advanced predictive technology for delivering food orders and use their existing fleet of delivery agents to fulfil foodservice delivery orders. Developments will be watched closely by investors, competitors and operators.

At a time when Swiggy and Zomato are penetrating smaller cities, as well as major metros, Amazon has, theoretically, a head start in terms of e-commerce presence in these markets as well as a tested logistics solution. However, foodservice delivery in India is complex and highly competitive, and Amazon has a patchy record in this segment of the overall delivery market in other countries, having exited New York and United Kingdom, It has recently secured an investment in Deliveroo.

2. Aggressive aggregator discounting and epic cash burn

The aggregators are accused, perennially, of aggressive discounting, predatory pricing and of creating ‘discount addiction’ among consumers. Several sources report that both Zomato and Swiggy were burning approximately INR 210 to INR 280 crore (US$ 30 to US$ 40 million) every month on discounts, tie-ups, and operating costs. Cash burn increased by a factor of five in 2018 mainly due to aggressive promotions. In the fierce battle for market share, aggregators are spending heavily on winning customers. The question is can they hold on to them?

Investors seem willing to keep priming the pump given the huge potential of the foodservice delivery market, but it remains to be seen whether their appetite wanes as losses increase, especially noting the alarm raised by the WeWork model, its aborted IPO, and subsequent downward revaluation. In 2019, Zomato halved its cash burn by US$ 20 million slashing discounts and marketing. As of July 2020, Zomato had the lowest monthly cash burn in the past 5 years of less than US$ 1 million.

3. Unorganised market becomes organised

While the top 15 cities have a sizeable contribution from organised players, nearly 80% of the restaurants in emerging cities are very small in terms of operations - some no more than 150-200 sq. ft. For Zomato, small eateries and dhabas in emerging cities contribute up to 80% of orders. Smaller establishments and stand-alone restaurants drive 35% of Swiggy’s business.

The many thousands of small unorganised eateries, present in markets and streets up and down the country, rely on local customers for their trade. The NRAI estimates as of 2019, that although their share is falling, they account for 65% of the total restaurant market. As India’s organised foodservice delivery ecosystem grows, small format players - kulfi makers, paan sellers and dhabas - are benefiting from aggregators’ reach and scale. Zomato, for example, was adding 400 restaurants to its platforms daily with the largest share coming from smaller, so-called unorganised players pre-covid.

The unorganised segment provides opportunities for aggregators to intervene and form relationships with small players. For instance, in 2018, India’s food regulator - the Food Safety and Standards Authority of India - forced online delivery firms to delist restaurants that did not comply with food safety rules after the authority had received many consumer complaints over quality and hygiene. As a result, thousands of restaurants were removed from the platform. And since overall regulatory awareness among smaller vendors is low, Zomato and Swiggy started providing support to help small eateries become FSSAI compliant. Swiggy has also tied up with third-party vendors to facilitate the licence procurement process for new restaurants.

Local standalone food outlets often trump larger chains (both on price and quality) and signing up to organised delivery platforms enables a section of the population to order food more often from the smaller operator. This is no small revolution and provides a huge potential upside for aggregators and investors.

4. Improved logistics and last mile delivery networks

In 2019, Zomato covered about 500 cities and Swiggy about 600 out of India’s 7,950 cities and census towns across tiers 1 to 4. There is plenty of room to expand into many more sizable cities.

Swiggy speeded up its opening rate from launching in one city every two months (in early 2018) to launching in four cities a day in the month of September 2019. In tier 3 and tier 4 cities specifically, the company onboarded over 15,000 restaurants between May and September 2019.

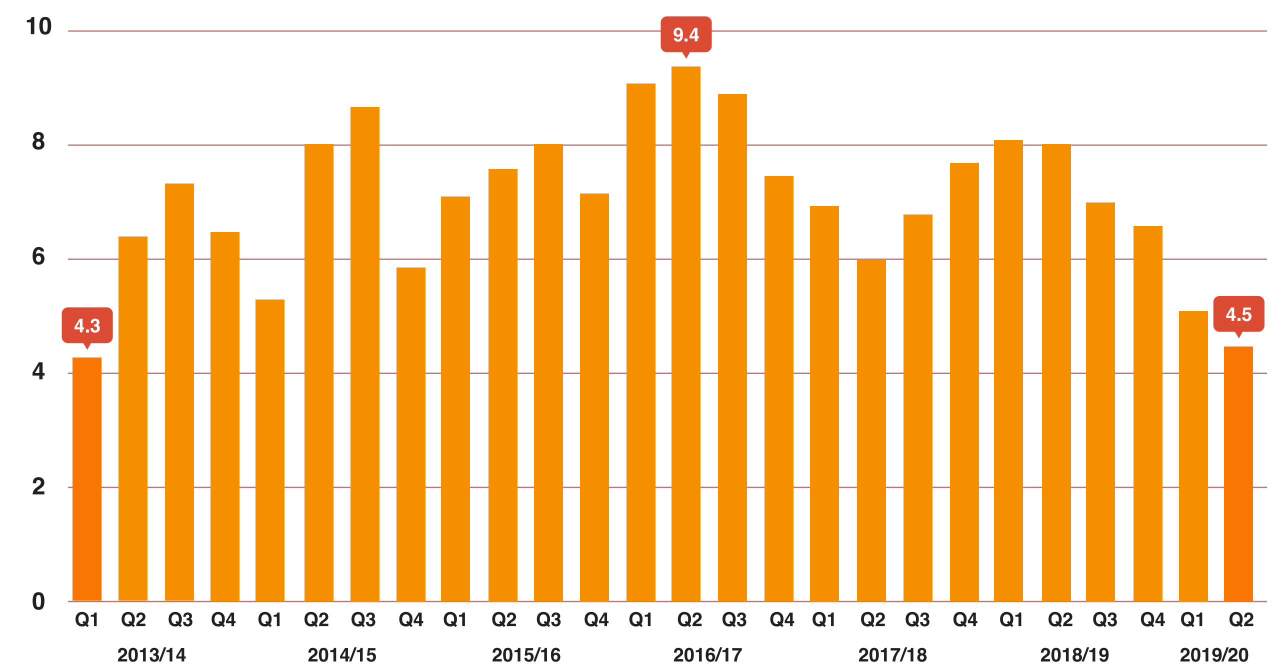
As for actual last mile delivery capability, in September 2019 Swiggy employed 210,000 and Zomato 230,000 delivery staff. This demonstrates their commitment to providing customers a complete delivery experience, together with increased demand for last mile delivery capabilities as the foodservice delivery business grows.

The Indian economy and impact on growth

The 2019 annual report of the Reserve Bank of India highlighted that the Indian economy was going through a difficult period with GDP growth at 4.7% in the October-December quarter of 2019 - a six year-low. However, in a world of very low growth, 4-5% remains respectable (albeit out of line with the assumptions driving investment in the Indian foodservice delivery sector).

Since April 2020, the risks associated with covid have further darkened the picture with the Indian economy contracting 23.9% in the first quarter over the same period last year, and 7.5% in the second quarter. Various estimates from international and domestic organisations peg the decline in the GDP for 2020-21 to between 8-10% due to the impact of the various lockdowns imposed by the central and state governments and the related impact of covid.

India's GDP growth slows to 6-year low



Source : Statista

In 2018, delivery entrepreneurs attracted investment valued at US$ 4.3 billion and US$ 1.2 billion in just the first seven months of 2019. Investment in Indian start-ups has yet to be materially impacted by the softer economy. However, Indian start-ups are heavily reliant on foreign investors and any uncertainty in the global market (arising from trade wars or covid, for example) is likely to impact investor sentiment.

The impact of the slowing and covid-affected economy on the Indian restaurant and foodservice delivery sectors is, as yet, unclear although the industry is largely accustomed to its cyclical nature and a certain amount of consolidation may benefit the stronger, longer-term players. Over the medium to longer term, the drivers of growth in India (demographics, supply-side deficits etc.) make for a promising picture.

5

MARKET DYNAMICS AND SEGMENTS

In the last five years or so, the foodservice delivery market in India has seen unprecedented change as new entrants - powered by sophisticated technology - have completely changed the market dynamics and innovative models, exemplified by cloud kitchens, have been created and have subsequently flourished. Today, the foodservice delivery market has a variety of players and business models, some that compete and others that are more symbiotic. The key categories are:

Aggregator deliverers

Food aggregators act as mediators between consumers and restaurants, offering consumers multiple choices of cuisines and restaurants on one platform. While some platforms began as order aggregators only (collecting orders and passing them on to the restaurants to fulfil delivery) in India all now operate as aggregator deliverers with their own delivery solutions. The key players in this segment include Swiggy, Zomato and Amazon (launched in 2020).

Cloud kitchens

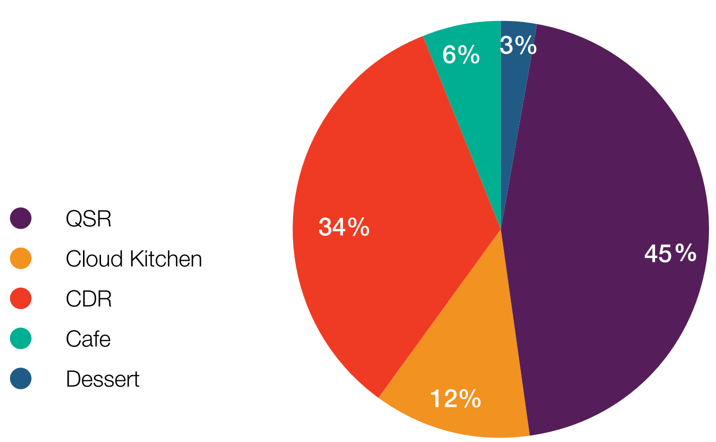
These are kitchens without dine-in spaces with orders captured and delivery generally executed by Aggregator Deliverers. These kitchens, with no front of the house and no serving staff, have become an important element of the foodservice delivery market. Delivery of 'own brand' home-cooked meals and chef-cooked meals have also become an integral aspect of this category in India. The key players in this wide category include Box8, Food Panda, Freshmenu, Innerchef, Rebel Foods, Swiggy Access and Zomato Kitchens.

Hyperlocal services (foodservice delivery and more)

These are players who deliver third-party food, groceries, household essentials or medicines on a 'hyperlocal' basis. Here, key players include Dunzo, Swiggy Go (operating across multiple cities), Scootsy (operating solely in Mumbai) and Shadowfax (present in 500+ cities). In addition to delivering products listed by stores and retailers, hyperlocal vendors may help consumers fulfil smaller tasks such as sending parcels from one location to another.

Restaurant operators are able to use hyperlocal services to make direct deliveries from their kitchens to supplement their direct delivery capabilities.

India foodservice delivery market by segments 2019-20 (%)



Source: Tasanaya research and analysis

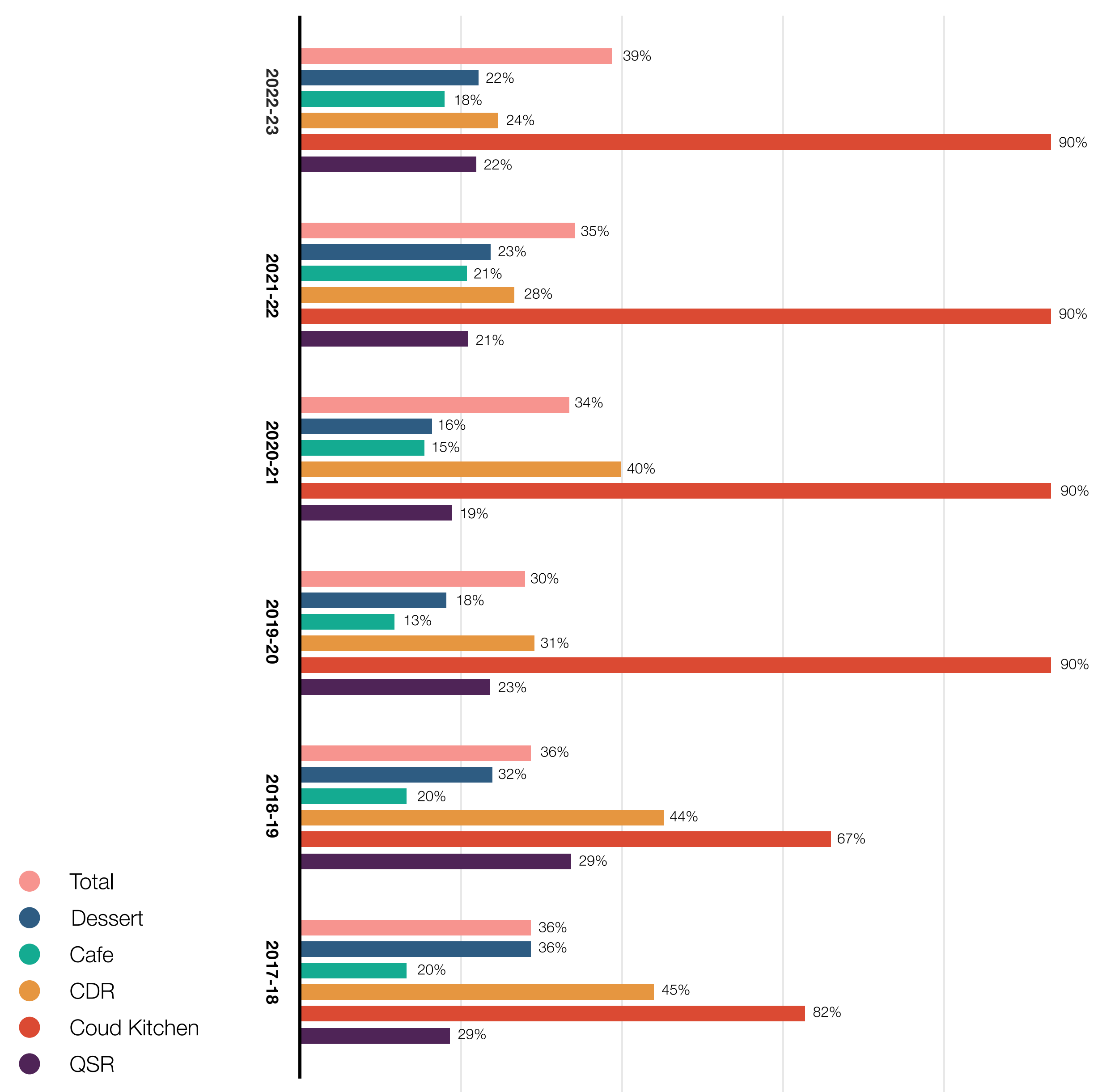
Restaurant partners

Restaurant partners – ranging from full scale restaurants to quick service - are independent players and chains that may have their own delivery solution or operate in partnership with aggregator deliverers. They are seen across formats and prices.

QSRs have the highest share of the delivery market at 45%, followed by casual dining restaurants at 34% and cloud kitchens at 12%. Cloud kitchens have seen significant growth over the recent years, taking a larger share of the pie.

The QSR segment has experienced similar growth but their contribution to the overall delivery market is likely to fall as a result of the rise of other segments, primarily cloud kitchens and casual dining restaurants (CDR). The CDR segment also benefits from customers' willingness to pay a premium for an enhanced delivery experience.

YOY growth (%) by segments



Source: Tasanaya research and analysis

A closer look at the players

The aggregators and their technology

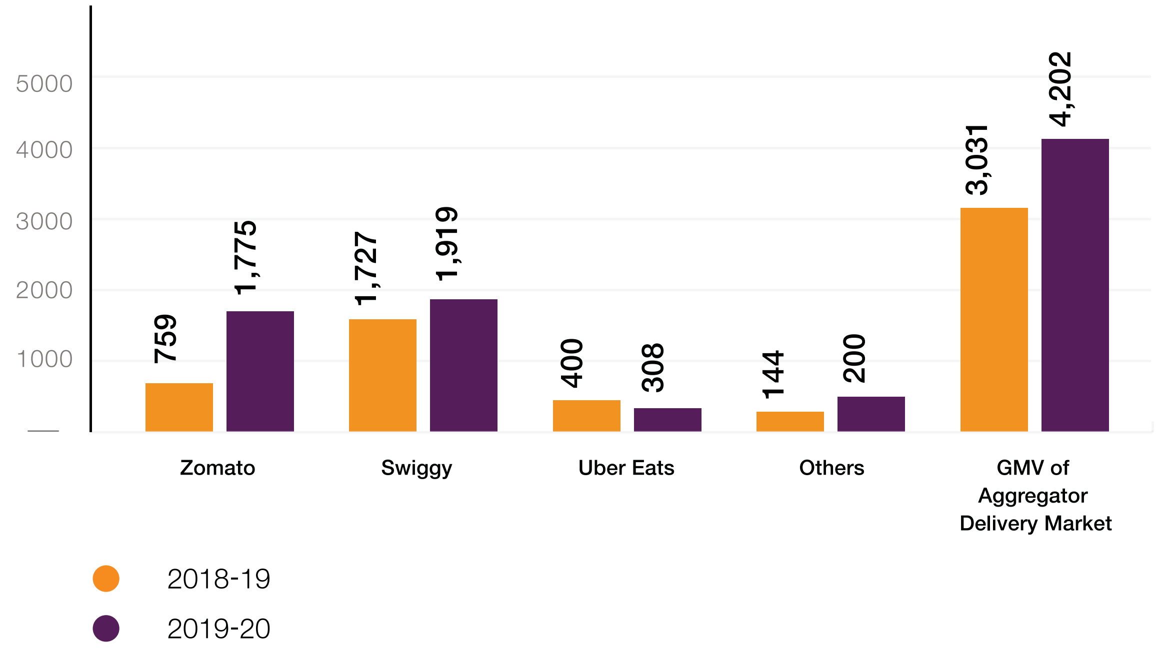
In the early days of foodservice delivery, aggregators in India were marked by many launches, acquisitions, consolidation and business closures. Just Eat, launched in 2006, was the pioneering aggregator in India signing up over 2,000 restaurant partners.

Food Panda followed in 2012 acquiring the Indian operations of Just Eat in 2015. While Food Panda first launched as an aggregator, it added last mile delivery to its offer in 2015. In 2016, the Indian ride-hailing major, Ola Foods, was launched but shut shop a year later in the face of stiff competition from Swiggy and Zomato. Tiny Owl failed to make the grade and was later acquired by Zomato.

Subsequently, Ola acquired the Food Panda business in India. In 2019, Ola scaled down Food Panda's foodservice delivery business, to focus on cloud kitchens. In January 2020 Zomato completed the acquisition of the Indian operations of Uber Eats.

Today, two major players remain: Swiggy and Zomato between them own 85% of the delivery market (based on GMV). The next graph shows the GMV of selected Delivery Aggregators (in India) in 2018-19 and 2019-20. Zomato witnessed an increase in GMV of more than 130% over the period, increasing its market share from 25% to 42%.

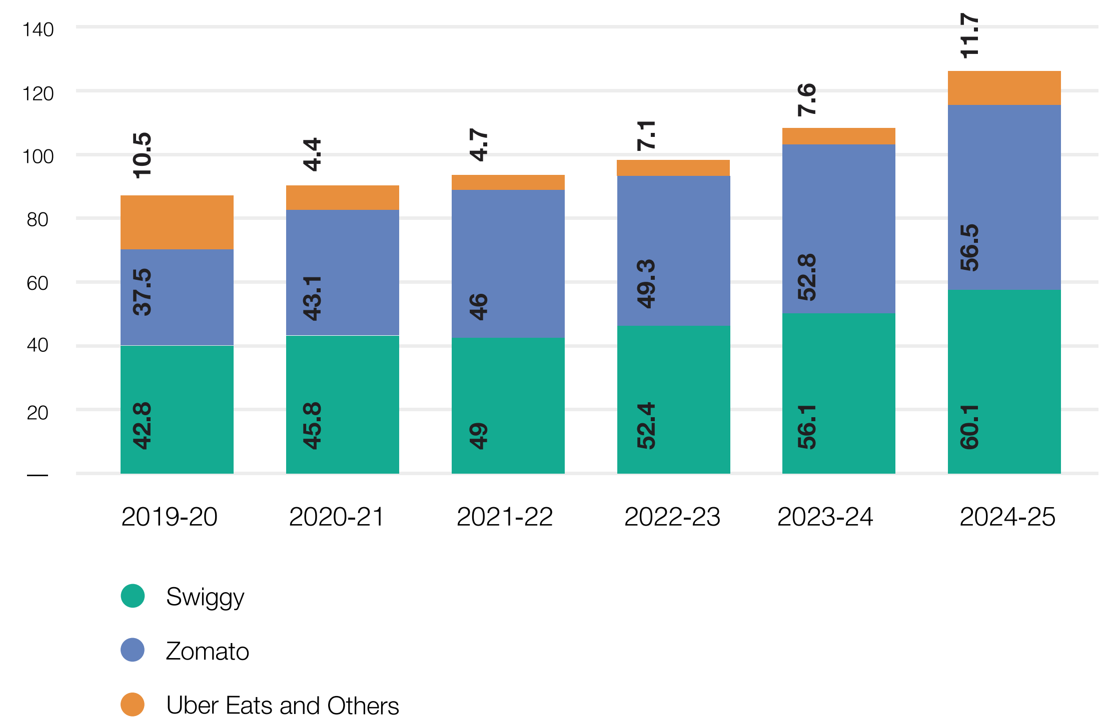
GMV delivery market for delivery aggregators (US$ million)



Source: Tasanaya research and analysis

They have gone on to acquire the Indian business of Uber Eats. Swiggy remains the biggest player in the market with an increase in GMV from US $1,727 million in 2018-19 to US $1,919 million in 2019-20, but a reduced market share from 57% to 46%.

Total number of orders in a month : aggregator platforms (in millions)



Source: Tasanaya research and analysis

The above graph shows the total number of orders in a month on aggregator platforms YoY.

Swiggy currently generates 42 million orders per month which we forecast will increase to 60 million by 2024-25, an increase of 43% in 5 years.

On the other hand, Zomato served 37 million orders per month in 2019-20 which we expect will grow to 56 million over the next 5 years, an increase of 51% in 5 years. With the acquisition of Uber Eats, and with the entry of other players, notably Amazon, we estimate other players will generate 11 million orders per month through their platforms by 2024-25.

The big guns

Swiggy

Launched in 2014, Swiggy is one of India's two largest foodservice delivery brands (in terms of consumer reach and revenue), despite its relatively late entry into the market. Amongst the most successful start-ups in India, Swiggy secured a valuation of over US$ 1 billion within four years of its launch.

The company pioneered the aggregator deliverer model in India with a strategy based on solving the challenges that existed in the market at the time, namely unreliable delivery times, incorrectly captured orders, high minimum order sizes, and a limited selection of restaurants. Within a year of launch, Swiggy convinced large numbers of restaurants to adopt their platform.

While most marketplaces originally outsourced delivery to either restaurants or third-party logistics providers, what has differentiated Swiggy is their focus on building a robust logistics network with a sizeable fleet of company-employed delivery riders.

By 2015, the company secured external investment and after initial teething problems and losses, Swiggy delivered 6x growth in 2017 largely by introducing disruptive and differentiated service offerings. Investment was increased across core engineering, automation, data sciences, machine learning and personalisation with a focus on building real-time prediction and optimisation systems to improve customer choice, introducing personalisation and increasing the speed of deliveries.

In 2020, Swiggy increased customer delivery fees and raised its restaurant commission charges to 18-23% of the total order value (up from 12-18%). The purpose of these new tariffs was to achieve profitability per order (after a period of concentrating on increasing market share). Swiggy has also started charging restaurant partners on a pay-per-click model for ads run on the Swiggy app, rather than on a fixed fee basis only.

Swiggy recently announced the launch of Brand Works, an initiative where they collaborate with restaurant partners to co-create delivery brands. In this model, restaurant partners leverage existing cooking platforms to offer new menu items under new brands.

When creating new brands, Swiggy shares data on supply gaps and works with partners on menu options, packaging, pricing, and promotion of the brands on its platform in exchange for exclusivity and a variable consulting commission (between 15% and 20%, according to industry executives) as well as a delivery fee. The attraction of this model for operators is based on being able to create incremental income from an existing operation.

Swiggy currently has 100 BrandWorks brands on its platform co-created with 95 restaurant partners across 13 cities, selected examples being: House of Chow from Berco's, New Delhi; The Story of a Chinese Chef from Chennai; and Baba Yega Burgers from Jaipur. Swiggy aims to co-create hundreds of such brands with multiple restaurant partners across the country by early 2021. The jury, however, is out on how many of these new brands are recognising that it takes time and customer loyalty to create true brands.

Swiggy

Geographies & segments	600 cities and towns. tier 1 to 4. Over 75 universities situated in the outskirts of larger cities, which do not have ready access to convenient and safe food offerings.
Revenue	INR 1,122 crore (US$ 160 million) in FY 2019 (as compared to INR 841 crore/US$ 117 million in FY18).
Restaurant and delivery partners	Over 1,40,000 restaurant partners. Around 210,000 active delivery partners.
Penetration among smartphone users	10% in 2019.
Growth projection	Stated aim to have 100 million customers (7% of India's population, 21%of urban population) transacting with Swiggy over 15 times a month in the next 10-15 years. Swiggy believes 75% of the demand will come from the supply that does not exist today.
Marketing initiatives	**Swiggy POP:** offers a curated menu of single-servetmeals from neighbourhood restaurants. A single-pot dish that's affordable and is delivered faster than regular orders. Priced from INR 40 to INR 200. Swiggy SUPER: a subscription programme without delivery fees, making foodservice delivery more affordable provided the user signs up over time.
Brand expansion	**Swiggy Access:** provides cloud kitchen spaces, called 'pods', to restaurant partners. Delivery orders must be placed through the Swiggy app. Swiggy has also been expanding beyond food to leverage its delivery network, having defined "convenience" as their core proposition: **Swiggy Stores**, a service to deliver household items such as groceries, flowers, medicines, among others, at a customer's doorstep. Consumers can access 3,000 plus stores, order anything and have goods delivered within 30 minutes. **Swiggy Go**, a hyperlocal delivery service – pick up and drop service to enable consumers and businesses to instantly deliver laundry, forgotten keys, documents and just about anything else within a city. **Swiggy Daily**, daily, weekly or monthly subscription of simple homestyle meals prepared by home chefs, tiffin service providers and organised vendors.

Zomato

Zomato was the first aggregator to set up in India although it started as a restaurant-listing and discovery platform. Zomato started to expand globally in 2012 by acquiring restaurant listing companies in emerging and developed markets. The company entered the foodservice delivery segment in 2015.

Unlike Swiggy, where logistics were (and still are) core to the overall proposition, Zomato's strategy is focused on offering a range of food solutions across the value chain. This includes building supply chains for restaurants (under the brand Hyperpure) and services for the dine-out business (including Table Reservations and Zomato Pro). These offers are in addition to the food-ordering business upon which the brand was built.

Besides, 'food@work', Zomato's business-to-business (B2B) product, provides digitally-enabled cafeteria outlets within 70 organisations and which takes approximentely 3 million monthly orders.

Zomato

Geographies & segments	556 cities and towns. tier 1 to 4. The first to introduce large scale foodservice delivery in North East India, now active in 10 cities (Guwahati, Nagaon, Jorhat, Agartala, Silchar, Dibrugarh, Tezpur, Shillong, Tinsukia and Aizawl) in the region.
Revenue (delivery)	INR 1,116 crore/ US$ 155 million in FY19 (up from US$ 38 million in 2018).
Restaurant and delivery partners	Over 100,000 restaurant partners. 180,000 strong delivery fleet.
Penetration among smartphone users	12% in 2019.
Marketing initiatives	**Zomato Pro:** Zomato's flagship loyalty programme. 1.4 million members worldwide. 6,300 restaurants listed on Gold for Dining Out. The number of restaurants participating in Gold outside of India stands at 6,500. The offer is based on sizeable discounts An upgraded version of Piggybank (loyalty programme), is in the works.
Brand expansion	**Hyperpure** (currently operational in Bengaluru and NCR): provides fresh and safe ingredients to restaurant partners and reduces wastage and inefficiencies in the supply chain. Launched in August 2018, the business uses an end-to-end technology-driven platform to provide online access to ingredients to restaurants. Restaurants buying through Hyperpure are recognised through a 'Hyperpure Inside' tag on Zomato, allowing users to trust that the food they are eating is made using fully traceable, high quality and safe ingredients.
CSR initiatives	**Feeding India:** Working with Hunger Heroes who have developed innovative and sustainable programs to ensure excess food from restaurants and venues are donated to people in need. Feeding India has served 20 million meals with its 5 key programmes using 8,500+ volunteers working in 71 cities with 50+ community fridges, and 21 food recovery vans.

In January 2020 Zomato acquired the Indian operations of Uber Eats. This all-stock transaction gave the US-based ride-hailing company an approximate 10% shareholding in Zomato. Uber Eats is no longer a separate brand locally and users on its platform are redirected to Zomato's app.

The combination of Zomato and Uber Eats India is now believed to hold a market share of 50-55% in terms of the number and value of orders, putting them ahead of Swiggy. The acquisition also provided Zomato with increased access to geographical micro-markets that were strongholds for Uber, especially in the States of Tamil Nadu, Kerala, and Madhya Pradesh. This enabled Zomato to offer national coverage and compete more effectively with Swiggy.

Uber Eats entered the foodservice delivery business in India in 2017 and relied heavily on discounting to acquire and retain users. While it was able to establish market leadership in some small towns and cities, the two larger foodservice delivery companies had created very high barriers to entry which Uber Eats was unable to overcome ultimately being acquired by Zomato.

Uber Eats had a cash burn of approximately US$ 20 million per month in India and according to regulatory disclosures had projected a larger than expected operating loss of INR 2,197 crore (US$ 237 million) for the five months to December 2019.

Case study - Scootsy

Scootsy was a home-grown, Mumbai-focused discovery and delivery platform launched in 2015 when no single company was focused on delivery for a wide variety of products. Scootsy provided customers with the delivery of products from restaurants, gourmet food stores, bakeries, and gift shops. According to the Scootsy co-founder Rishi Khiani:

"There were a lot of companies focusing on food only. We decided in this age where our days are devoid of usable time, people are looking out for convenience and instant gratification not just for food but for items across the board. Scootsy came into being once we realised that need."

To be different in a competitive market category, Scootsy focused on premium brands and worked with vendors to create a delivery format of exclusive offerings plus Scootsy-specific menus. For example, Le15 Patisserie created a special macaroon for Scootsy, inspired by the popular nimbu mirchi (a popular symbol in India to ward off the evil eye). Scootsy's revenue was solely derived from the commission charged to the vendor; it did not charge a delivery fee to customers.

Scootsy was acquired by Swiggy in August 2018 and has now been rolled into Swiggy operations in South Mumbai.

Cloud kitchens

Using the cloud kitchen concept, food outlets or a group of food brands rent kitchen space without the cost and complexity of in-house dining/service. Customers may either order take-away or have orders delivered.

In comparison to more developed nations (such as Japan, USA, and UK), India remains an underpenetrated market for restaurants, even in competitive trade areas. Cloud kitchens are well placed to exploit this supply gap, largely due to ease of set-up, lower infrastructure costs, scalability and lower overheads.

Cloud kitchens are operated on several different models which can conveniently be divided as follows:

- **Single-brand cloud kitchen**:

  Single brand, single kitchen and no storefront
- **Multi-brand cloud kitchen**:

  Multiple brands and cuisines, a single kitchen and no storefront
- **The hybrid cloud kitchen**:

  Single brand, single kitchen and multiple outlets with a storefront
- **Delivery app owned 'shell kitchen'**:

  Aggregator owned, multiple restaurant brands, rented co-working kitchens, no storefront
- **Delivery app owned fully stacked cloud kitchen**:

  Aggregator owned, multiple restaurant brands, rented kitchens, with a storefront
- **Fully outsourced cloud kitchen**:

  Cooking and delivery are fully outsourced

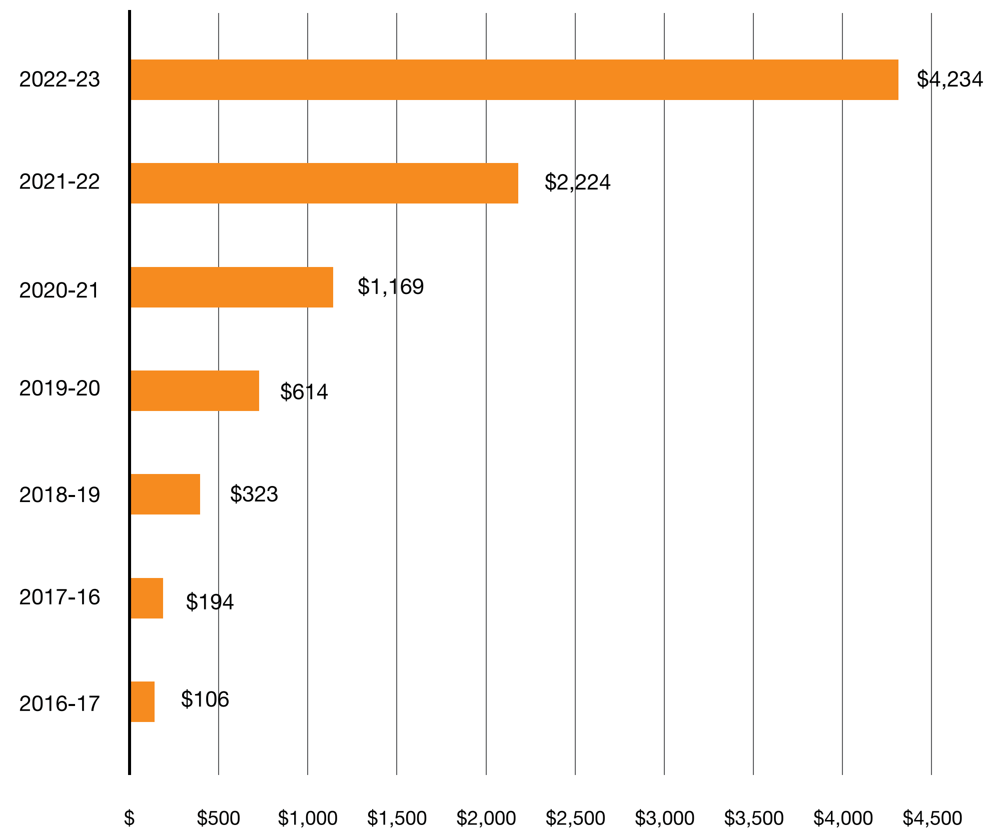
The growth of cloud kitchens in India has encouraged the leading aggregators (Swiggy, Zomato) to set up 1,500 delivery-only kitchens within the last two years. In addition to providing operational infrastructure, Swiggy (through its Swiggy Access option) offers its partners data analytics and a range of operational services and advice. Foodservice delivery firm Food Panda also introduced cloud kitchens in 2018 and Amazon is expected to enter the cloud kitchen market in 2020.

Brands such as Oyo (an Indian hospitality chain of leased and franchised hotels, homes and living spaces) have also opened over 20 cloud kitchens and listed them on aggregator deliverer platforms. Future Group (owner of the food and grocery retail stores) is also investing in cloud kitchens.

The restaurant industry believes that cloud kitchens will play an important role in the evolution of the food and hospitality sectors in India. However, like so much of the foodservice delivery sector, it remains to be seen which operating models will prevail and which brands will succeed. The conceptual economies of cloud kitchens may look compelling but many operators are finding it challenging to generate margins and a suitable return on capital employed. As they say, **'many will come, few are chosen'.**

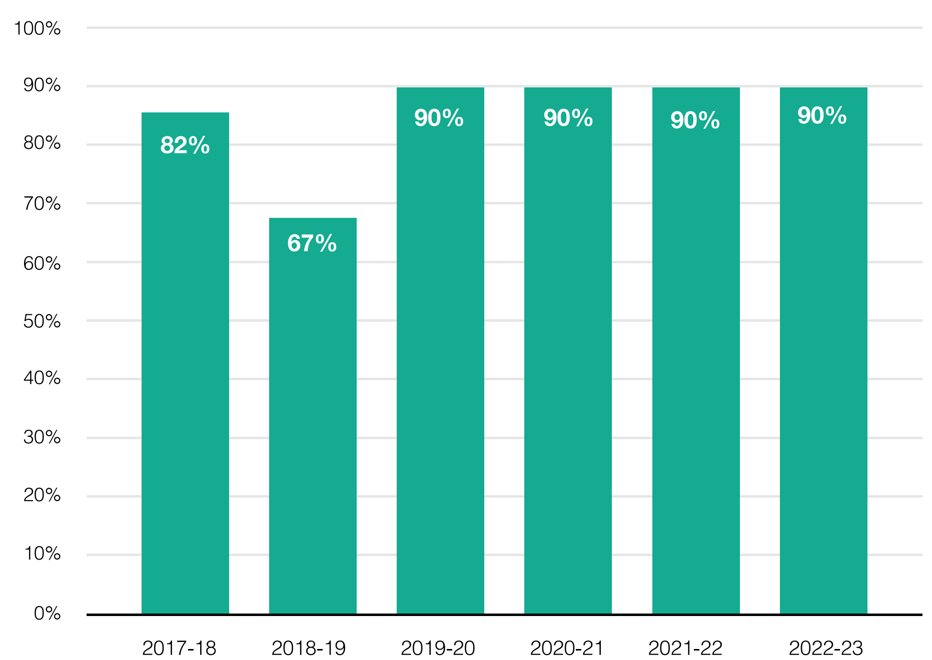
From INR 4,421 crore (US$ 614 million) in 2019 -20,11.7% of the delivery market, the size of the cloud kitchen market is projected to grow to INR 30,485 crore (US$ 4,234 million) by 2022-23, representing CAGR of 90.4% during this period.

Cloud kitchen segment growth (US$ million)



Source: Tasanaya research and analysis

Cloud kitchen YOY growth (%)



Source: Tasanaya research and analysis

We forecast that Cloud kitchens will see 90% growth YOY for the next 5 years.

Dine-in restaurants offer customers to physically experience the brand through the food, ambience and service offered; this degree of interactivity is difficult, if not impossible, for cloud kitchens to achieve. To overcome this limitation many cloud kitchen brands have switched to hybrid models by opening a few retail outlets in key catchment areas. Examples of such brands include Inner Chef – The Bombay Sandwich Company, Rebel Foods, Biryani by Kilo and Sushiya.

Extensive resources are being allocated to R&D in terms of using packaging to build experiential branding, to increase efficiency, and to enhance quality, for instance by ensuring that food is delivered at the right temperature. Moreover, with many brands offering similar menus, packaging can be used as a significant brand differentiator.

Due to a shortage of real estate space of the right quality, specification and location, together with the need to achieve operational optimization, cloud kitchen brands are collaborating for optimum utilisation of available real estate.

Cloud kitchens are currently able to operate with minimal regulation – and therefore at a lower cost compared with dine-in restaurants. While a traditional restaurant needs 10 to12 licenses and one serving alcohol needs up to 20 licenses, cloud kitchens only need an FSSAI and Municipal Health License to operate. Both of these are easy to obtain. We foresee that over the next few years, there will be more stringent standards for cloud kitchens in terms of food safety, sourcing of raw materials and other aspects impacting the customer experience.

Case Study - Rebel Foods (formerly Faasos)

Operating in 15 cities & 300 + locations

While India is home to myriad 'mom and pops' restaurants, the organised fast-food sector is dominated by western brands such as Domino's who sell more pizza in India than anywhere else outside the US. In 2011, Faasos was launched as a national, Indian quick-service pizza chain based on small-format restaurants and home delivery.

Over the next two years, Faasos expanded rapidly, opening 75 restaurants across India's major metros. While the strategy worked adequately given the lower levels of CAPEX and faster breakeven, the brand remained very dependent on a small number of stores delivering the required volumes and profit with a heavy emphasis on controlling rent-to-sales ratios.

During 2013, app-based orders and foodservice delivery became widespread and 2014 represented a point of inflection for both Faasos and the market. Uber pushed aggressively into India in 2014 while restaurant aggregators such as Zomato and Food Panda were on the march. Swiggy also made its entry into the market.

At this point, Faasos pivoted from a traditional fast-food format to a cloud kitchen model and changed the economics of the enterprise. The rent-to-sales ratio dropped from 15% to 4% over the next two years and more importantly, it enabled the business to secure multiple sites in non-prime locations. With this new structure, the business was able to grow rapidly with a low break-even model at the unit level.

Over time, Faasos customers came to see the brand as providing quick, 'desi' (local) food at affordable prices; this model created a challenge to raise the value of the average check. This challenge became the catalyst for launching Faasos own, higher premium brands on the same platform. To execute this strategy, the team developed new offers using the same or similar SKUs and cooked on the same platform.

The first new brand deployed was Behrouz Biryani. Today, Rebel Foods has 300 multi-brand kitchens that produce delivery meals under five distinct brands, including Faasos, Behrouz Biryani, Mandarin Oak (Oriental), Oven Story - a pizza brand, and Firangi Bake, which offers oven-baked dishes, e.g. lasagne, with an Indian twist.

By disrupting its original QSR model and adopting new technology, Rebel Foods has been able to build a new platform to drive demand, solving the scaling challenge and delivering superior site-level economics. The business generates approximately 80% of its demand via the online food ordering majors – Swiggy and Zomato.

Rebel Foods has raised a total amount of US$ 276.1 million from investors such as Sequoia Capital, Lightbox Ventures, Coatue Management, Go-Jek (the Indonesian delivery titan) and Goldman Sachs and is expanding its footprint across Southeast Asia, the Middle East and the UK.

In late 2020 Rebel Foods also announced a major partnership with Sierra Nevada Restaurants Pvt Ltd to licence Wendy's across 300 cloud kitchen facilities. In this manner, Rebel Foods has demonstrated the ability to operate top tier global brands on its platform.

Restaurant partners

Many restaurants, especially the major QSR brands, have developed their delivery systems from order capture to last mile delivery. The advent, however, of aggregator deliverers has created new dynamics, which create both threats and opportunities.

Restaurants today leverage various models of foodservice delivery depending on their requirement and the state of their delivery infrastructure. For those restaurants not operating self-managed delivery systems, aggregator deliverers mean additional revenue without capital investment. In general, restaurants manage foodservice delivery through a combination of arrangements such as:

- **Self-delivery**: Using the restaurant's own delivery fleets for orders generated and captured directly by the outlet/brand, through the brand's website, app or by phone. Primarily used by QSRs such as Domino's
- **Third party delivery services**: Outsourced to third party delivery services for orders generated and captured directly by the outlet/brand, through the brand's website, app, or by phone. Used by QSRs like McDonald's and certain casual dining restaurants.
- **Through aggregator deliverers**: Partnering with aggregator deliverers who capture the order and deliver to the customer, for orders generated by the aggregator deliverers on their apps. Used by restaurants across all segments such as Jamie's Pizzeria, Chilli's, Farzi Cafe, Wendy's etc.

Currently 87% of orders are generated from aggregator delivery platforms. In the next five years, the share of direct deliveries by operators is likely to grow to 20% to reduce costs and dependence on aggregator deliverers.

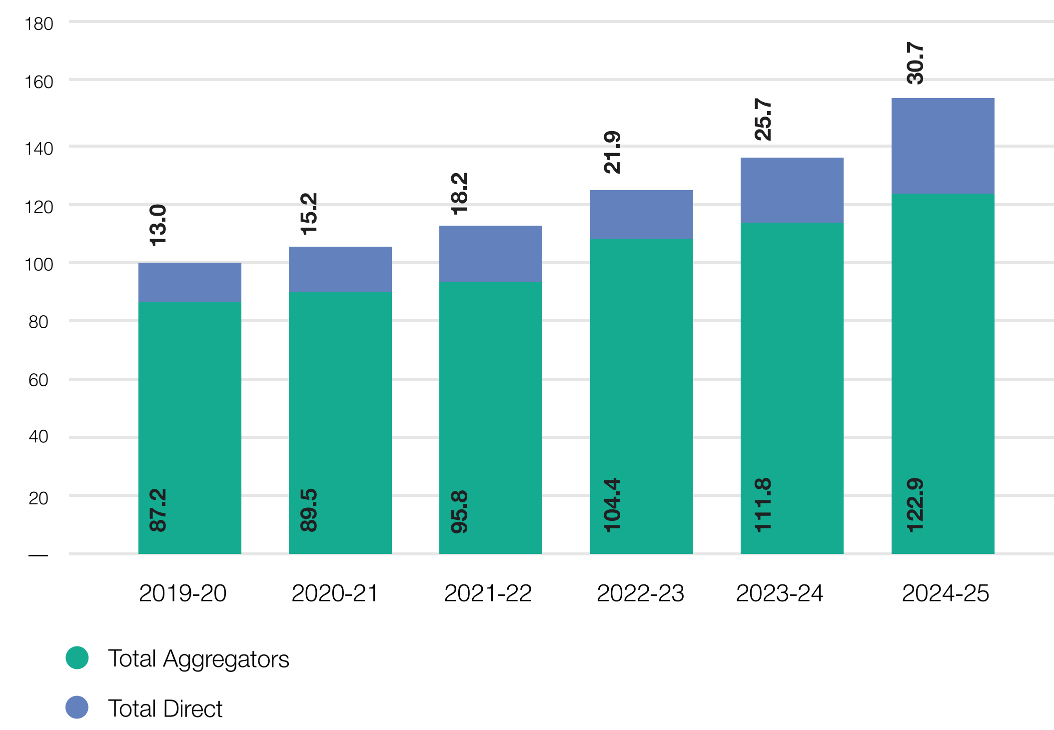
Highlights by operating format

Quick Service Restaurants – QSRs

QSRs enjoy the largest share of revenue in the foodservice industry as well as 44.7% share of the foodservice delivery market in 2019-20, INR 16,920 crore/ US$ 2.35 billion GMV. This segment in India is largely dominated by foreign-origin chains, including Domino's, KFC, McDonald's, Pizza Hut, Wendy's, Burger King, Subway etc.

Regional foodservice outlets have been successful in targeting local tastes and preferences, but India has only one national homegrown QSR chain, WOW! Momo. Most of the successful Indian QSR chains such as Haldiram's, Nirula's, Burger Singh, Jumbo King, have only a regional presence.

Total delivery orders in a month (in millions)



Source: Tasanaya research and analysis

The evolution of aggregator deliverers in India has challenged QSRs who previously dominated the delivery market and consumers now have a plethora of F&B options that can reach them swiftly. QSRs are somewhat cautious of being overly reliant on aggregator deliverers given, in part, that none of the aggregators are yet profitable. Therefore, there is a latent interest in maintaining control over delivery and all aspects of its value chain.

The size of QSR delivery market is estimated to increase from US$ 1,149 million to US$ 4,120 million in 3 years.

The QSR foodservice delivery market is projected to grow at a CAGR of 20.6% from 2019 to 2022-23.

Case study - Domino's Pizza

Domino's Pizza opened its first outlet in India in 1996 and by 2017 it had opened its 1,000th outlet making India the second country after the United States to reach this milestone. With the boom of fast food in India in the past decade, Domino's, with its innovative products (including a variety of Indianised toppings), frequent new product launches (including new crusts, sauces and other items), and its dine-in and delivery experience gained a formidable leadership position in the country.

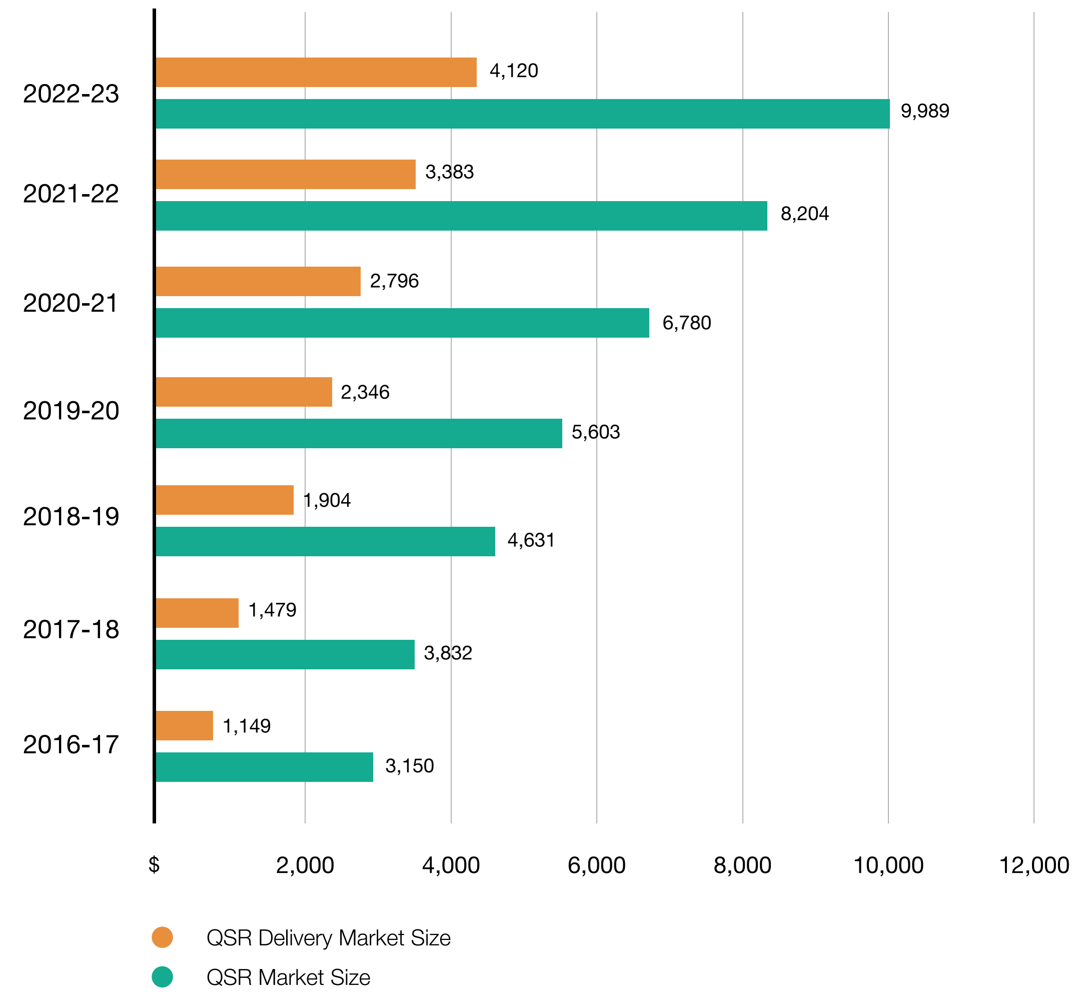
The past few years, however, have become more challenging for the brand due to increasing competition from other fast-food brands - international and homegrown - as well as the emergence of aggregators deliverers who enable competitors to replicate Domino's formerly dominant offer. In terms of foodservice delivery, Domino's can take full control of the end-to-end pizza delivery experience. While the brand uses aggregators deliverers, this is limited to order capture, with last mile delivery fulfilled by Domino's.

As a sign of its commitment to constant improvement, Domino's started to pilot a 20-minute delivery guarantee offer from selected stores across the country. The brand believed this would provide an edge over its competitors. This was enabled by data-driven, structured ways to reduce delivery time including GPS for riders, splitting stores, or opening more than one store at high delivery localities to cut down the delivery time.

In early 2018, Domino's entered into a contract with the Indian Railway Catering and Tourism Corporation (IRCTC) to deliver pizzas across 12 stations around India.

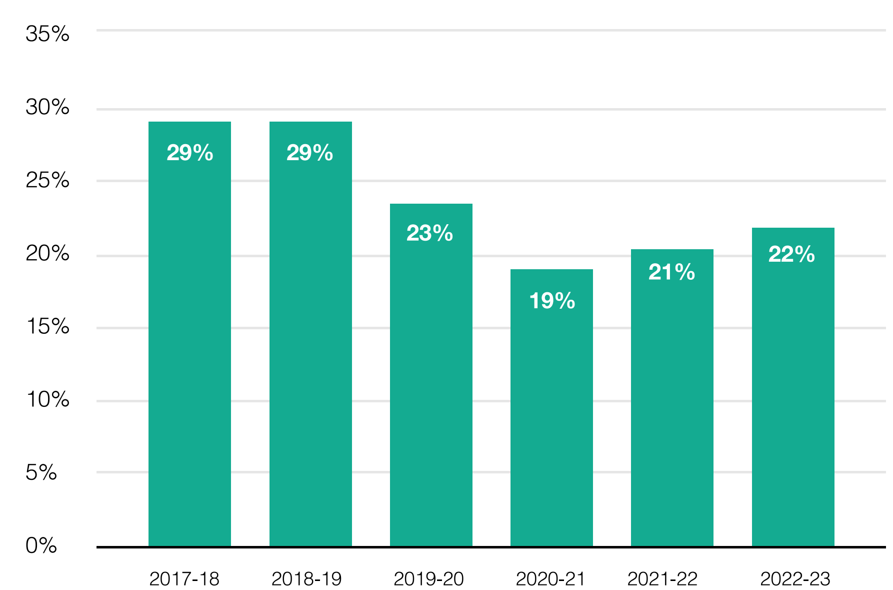
Over time, there may be other innovative means for the brand to leverage its substantial infrastructure and national reach.

QSR segment growth dine in and delivery (US$ million)



Source: Tasanaya research and analysis

QSR YOY growth (%)



Source: Tasanaya research and analysis

Casual and premium dining restaurants

Few casual dining or upmarket restaurants operate self-delivery solutions and most partner with aggregator deliverers or hyperlocal third party services such as Dunzo. In general terms, revenues from delivery are seen as incremental although the jury is out on whether customers may be reducing dine-in occasions. Besides according to Food Panda, customers are also becoming interested in international cuisines. For example, online delivery for Lebanese food has increased by 19%, European by 18% and Japanese by 14% since 2018.

Even upmarket hotels brands such as The Lalit, Claridges and Vivanta have marketed their in-house restaurants on platforms such as FooDrool and Swiggy. Previously it was considered unthinakable for these brands to offer anything other than a high-end, dine-in experience. With the rise in disposable incomes, changes in consumer tastes and enhancements of standards, demand has evolved and customers now demand the same premium experience of great food (and with their drinks) in the comfort of their homes.

FooDrool, an online food order and delivery platform in Delhi, allows customers to order food from five-star hotels and premium restaurants up to a radius of 12 km.

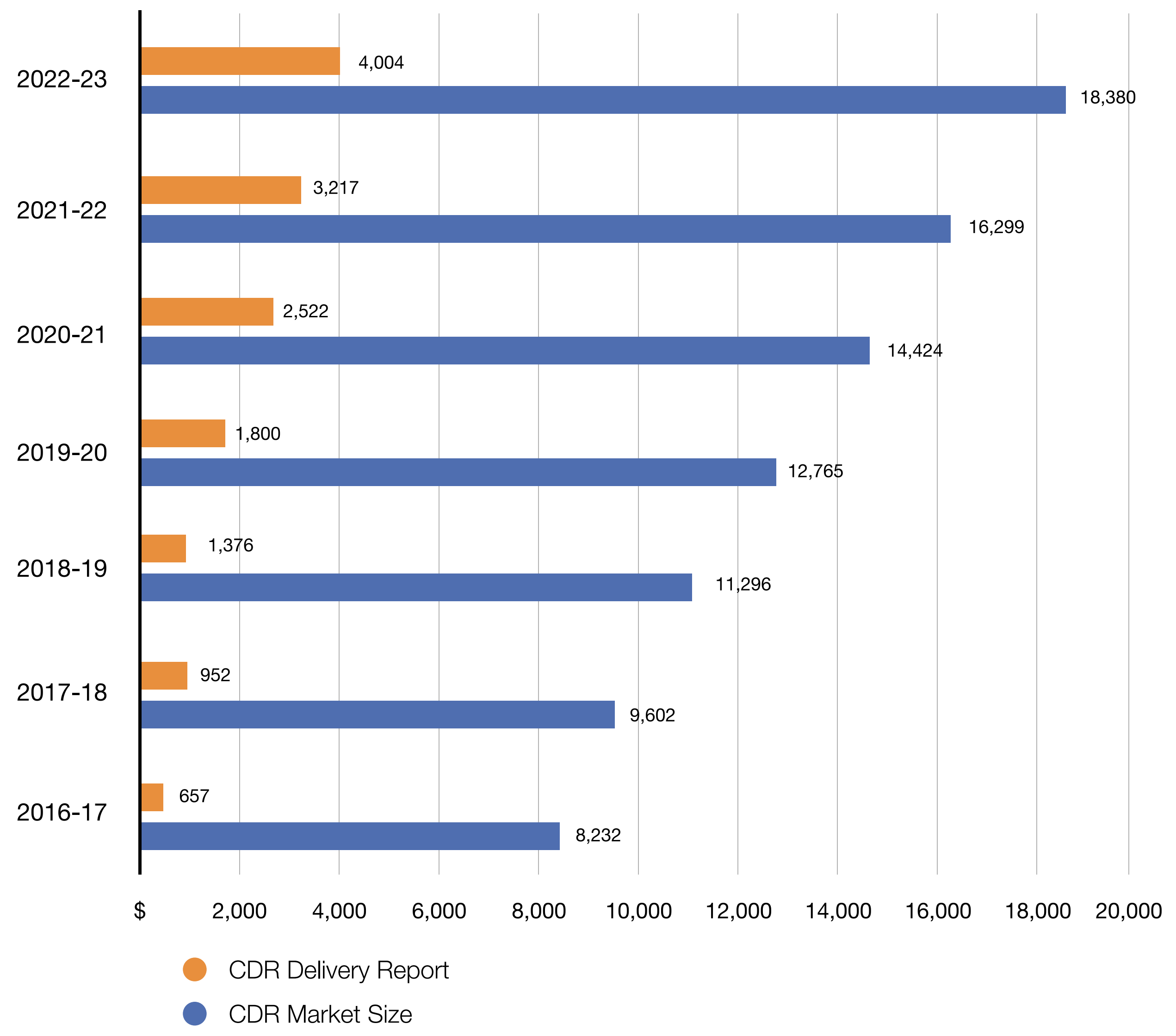
The size of foodservice delivery through CDRs is estimated at INR 12,960 crore/US$ 1.8 billion in 2019 -20 (34.3% share of the total delivery market) and is projected to grow at 30.5% CAGR from 2019 to 2023.

Case study - Berco's

Berco's, a popular home-grown Chinese and Thai food restaurant chain, has been in business for 35 years. Currently, the brand operates 28 stores and aims to reach 100 in the next five years. Delivery represented 4-5%of their business in 2015; today it is close to 30%.

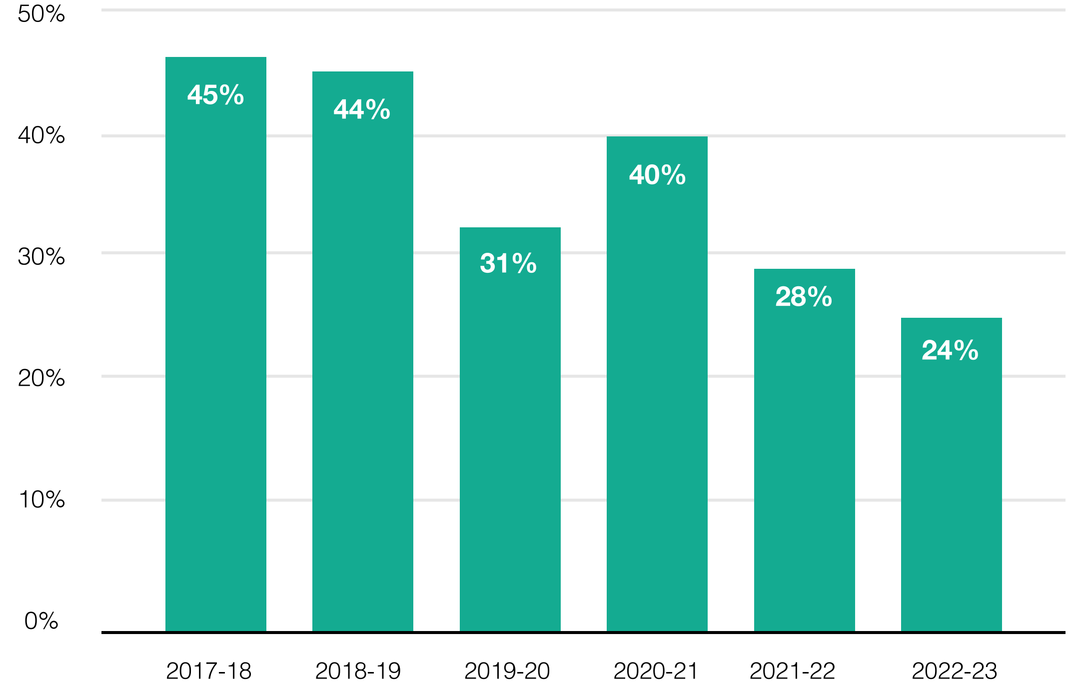
Technology has played a significant role as Berco's invested in building a superior analytics system and merged all delivery platforms into a single-window making it easier and faster to execute orders. The brand's loyalty programme also enables customers to earn and redeem points ('Bercoins') on delivery orders which in turn increases repeat business.The analytics capability also helps Berco's to better control the business and enables direct engagement with consumers.

CDR segment growth (US$ million)



Source: Tasanaya research and analysis

CDR YOY growth (%)



Source: Tasanaya research and analysis

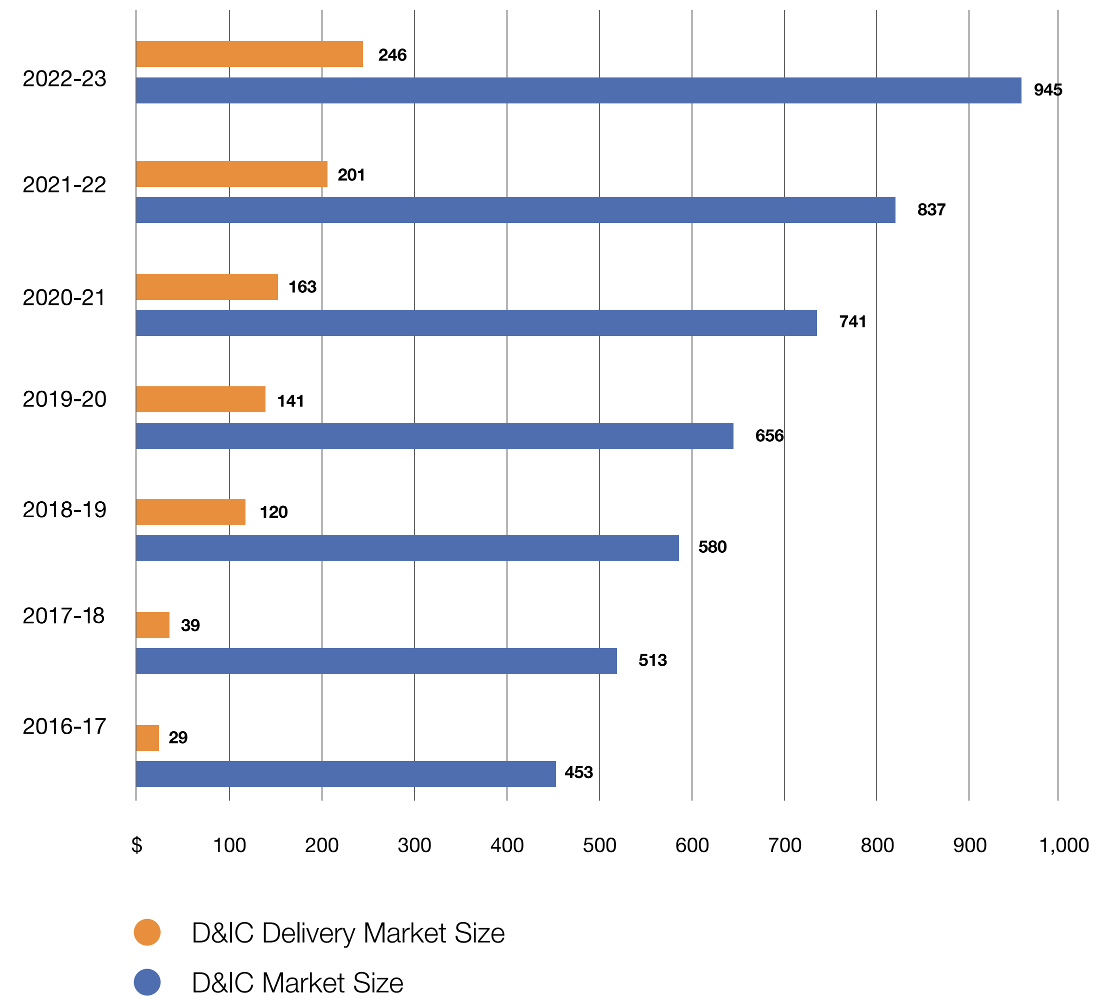
Desserts and ice cream

Desserts and ice creams are popular orders for home delivery. According to an earlier Uber Eats survey, smaller towns prefer Indian desserts and more familiar ice cream flavours such as pineapple and nuts while the metro cities have higher orders for different ice cream flavours, for example, coconut-flavoured ice-cream in Bengaluru, strawberry flavoured in Mumbai and Belgian chocolate in Delhi.

Case study - Naturals

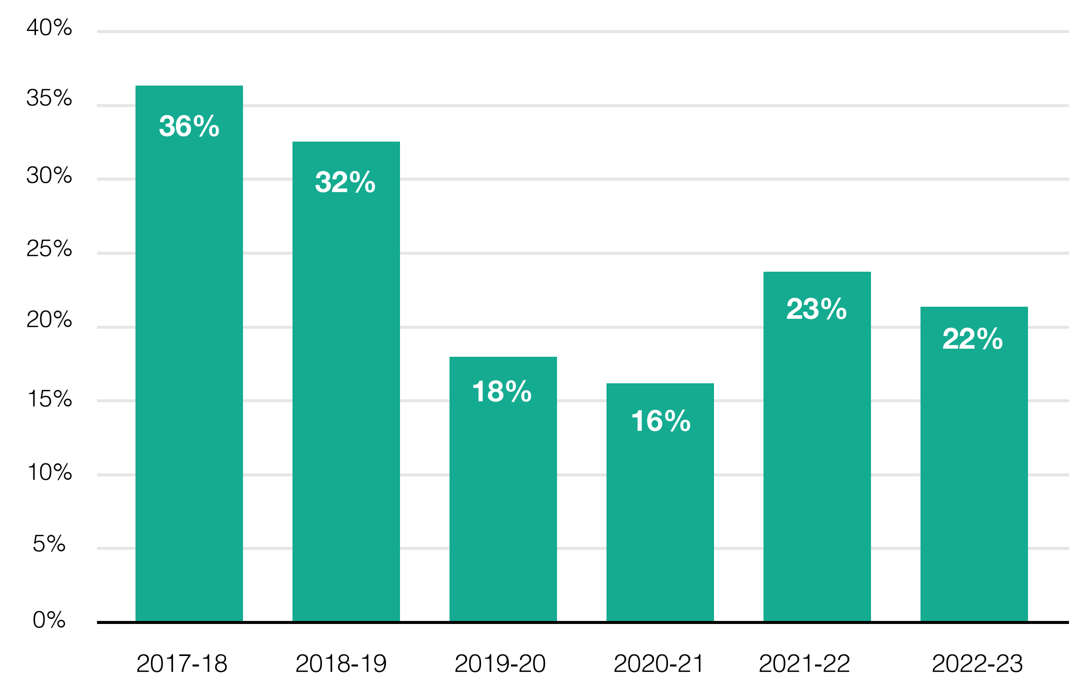
Naturals ice creams has 135 stores across 30 cities in India and is planning to enter its third major metro, Kolkata, having covered Mumbai and Delhi and certain other tier 2 cities. Overall, the brand plans to launch 125 new stores over the next five years. For Naturals, the share of takeaway and home delivery has grown from 10-15% to 30% over the last 2-3 years. The brand has increased its delivery from a 1 kilometre radius to 3 kilometres.

Desserts & ice cream segment growth (US$ million)



Source: Tasanaya research and analysis

Desserts & ice cream YOY growth (%)



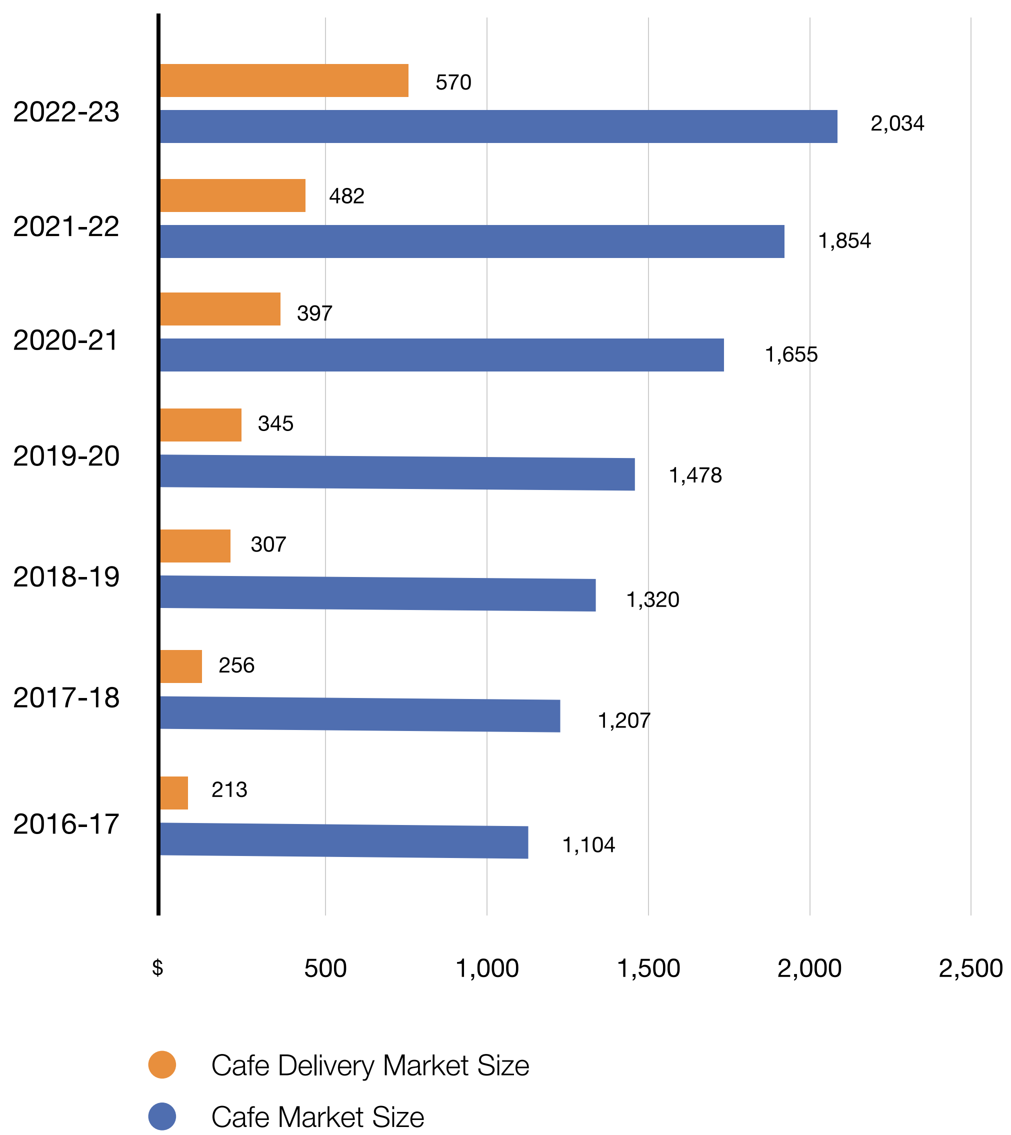
Source: Tasanaya research and analysis

Cafes

Partnerships with aggregator deliverers are transforming cafe businesses. For instance, in July 2018, tea retailer Chai Point launched a new cafe in Bengaluru with an area demarcated for food-delivery aggregator personnel. The chain now plans to replicate this design at most of its new outlets.
Café Coffee Day, India's largest homegrown coffee chain, launched a 'virtual restaurant' at existing outlets to cater only to orders from Uber Eats.

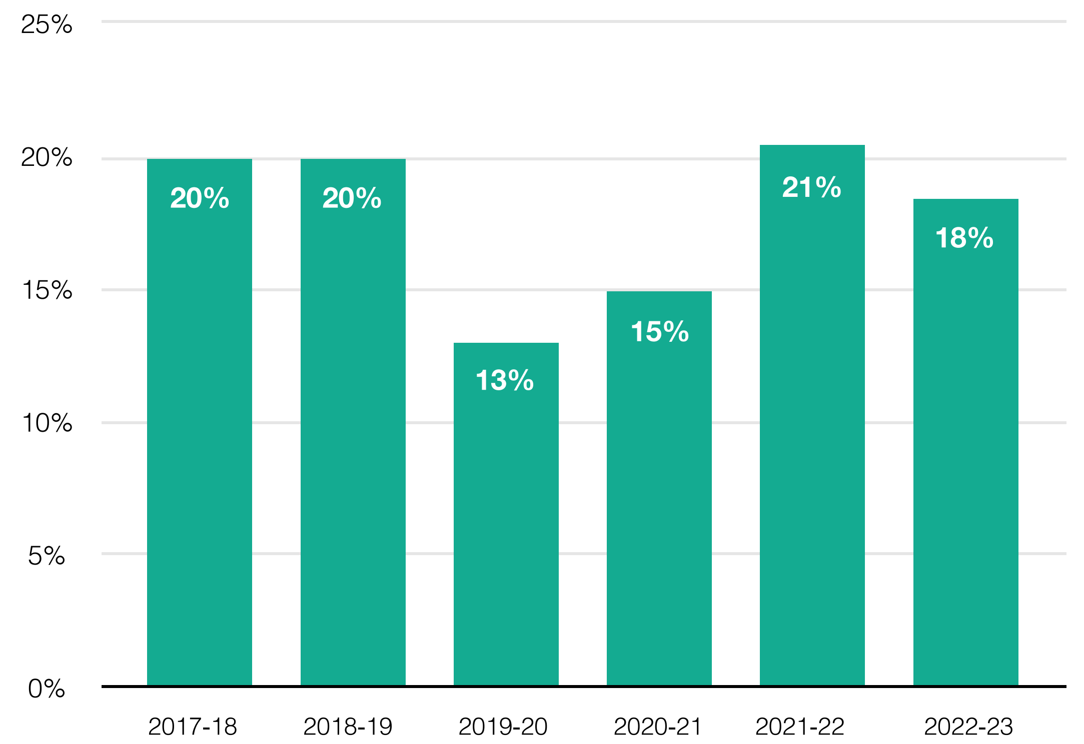
The cafe delivery segment is estimated at INR 2,484 crore/US$ 345 million in 2019-20 (6.6% of the total delivery market) and is projected to grow at 20.3% CAGR from 2019 to 2023.

Cafe segment growth (US$ million)



Source: Tasanaya research and analysis

Cafe YOY growth (%)



Source: Tasanaya research and analysis

Case study - Chaayos

Chaayos was launched in November 2012 to address the demand for a hygienic, personalised cup of chai (tea) outside the home. Chaayos runs 85 stores across Delhi NCR, Mumbai and Bengaluru. While chai is the unique value proposition for Chaayos, sales from food now total approximately 40% of sales. With a large variety of innovative chais served in-store at Chaayos, the idea of personalised chai on demand led the company to start delivery with Chaayos offering piping hot beverages in innovatively designed kettles that keep chai hot for up to 75 minutes. 'Chai on demand' now contributes over 20% to overall brand revenues. Half of all delivery orders are delivered to homes and half to corporate offices.

Hyperlocal Delivery Services

Dunzo, Shadowfax, Delhivery and other hyperlocal delivery services are being used for restaurant foodservice delivery by operators who find aggregator deliverers too expensive to work with. This rationalises delivery transaction costs for restaurants. Swiggy has spun off a hyperlocal service - Swiggy Go - for increased utilisation of its delivery fleet and media reports suggest that Zomato may be interested in acquiring Dunzo.

Case study - Dunzo

What started as a hyperlocal, WhatsApp-driven personal task management platform in Bengaluru is now a fully-fledged automated app-based service also operating in Gurugram, Hyderabad and Pune and soon to start in Chennai. Dunzo is the first Indian company in which Google invested (a sum of US$ 12.3 million).

Dunzo enables customers to schedule any type of pick-and-drop task be it forgotten keys, fetching dry cleaning, sending documents or collecting photocopies etc. Dunzo has also partnered with a variety of restaurants, grocery stores, pharmacies, pet supply stores, meat shops, etc from where the customer can shop directly with Dunzo and have the goods delivered.

In terms of foodservice delivery, Dunzo's advantage lies in delivering from restaurants located anywhere in the city whereas most foodservice delivery start-ups deliver only within a limited radius of 3-5 kilometres from the kitchen location. In addition, Dunzo's charges are lower than the typical commission rates charged by aggregator deliverers.

The company has regularly raised funds and is backed by investors such as Google, Deep Kalra, Blume Ventures. Dunzo last raised US$ 45 million in its Series D fund raise. Interviews with Dunzo's executives suggest that the company has seen 40x growth in 18 months with over 2 million deliveries month on month.

6

WHO OWNS THE CUSTOMER?

Key challenges

The battle for consumer loyalty between the aggregator deliverers and restaurant operators is fierce. Issues such as deep discounting, contracts and commissions, brand experience and customer perceptions have led to confrontation between the two parties. Aggregators are able to mask customer data which means that the operators do not have their customer's data. When customers place an order on the aggregator deliverer's app their contact details are not passed on to the operator and all that they receive are order details. This is a bone of contention.

In the absence of data sharing, it is not possible for the operator to understand its delivery customers, market to them, measure loyalty etc. On the other hand, it means that the aggregator deliverer owns valuable information about customer habits and preference which they can use to improve the customer experience.The aggregator is, potentially, able to drive business from one operator to another based on the preferences of the customer. A very limited e-commerce governance policy in India makes it difficult for any monitoring of the rules being followed and data privacy being kept. This is a live debate and worth watching.

The collaboration between restaurants and the aggregator deliverers has its advantages as the aggregator deliverers present an easy way of accessing new customers and increasing sales by utilising existing third-party resources. And aggregators generally do a good job of impacting consumer habits by making it convenient and easy for the customer to order a variety of cuisines. They also offer scale in terms of expansion to a greater number of cities.

Compromised brand experience

There are concerns around the possibility that delivery through aggregators could change, or entirely remove, the brand experiences that restaurants have spent so much time and effort creating.

When the customer orders through a third-party app and is updated on the status of the order via the app, has the order delivered by a driver with third-party branding, and eats a meal at home or work desk from third-party branded packaging, how does a restaurant communicate its brand values and experience? Moreover, any lapse or error on the part of the aggregator deliverer can affect the image of the restaurant brand. This is a very big debate.

Maintaining order values and margin

Customers in a brick and mortar restaurant can be influenced several times during a meal to upgrade their order. The delivery option placed via an app only has one chance to do that at the time the order is placed. Additionally, beverages, with their high margins, are unlikely to be ordered as the customer often opts for drinks at home. And not all menu items lend themselves well to delivery so operators may well be working with a reduced delivery menu.

There are also issues around food items that do not arrive in the condition the restaurant brand requires. Compromises must be made over the format of delivery packaging which must not only protect the product but also its appearance and aroma so that the customer receives the correct level of experience. A shortfall here can impact the price-value equation upon which customers judge their orders, often diminishing the difference between a restaurant-made item and one sold off the supermarket shelf, for example.

Aggregator deliverer owned private labels

The major delivery aggregators are using sales and customer data they generate to develop cloud kitchens and their own brands. This may give rise to conflict of interest between their role as a marketplace and that of a brand owner/partner. For example, an aggregator's own brand may not compete with the same cost structure as restaurants – commission, advertising etc. - on the platform, thus providing an unfair advantage.

The way forward

There are multiple ways in which restaurant brands can minimise risks of losing control to aggregators.

For example,

Restaurant chains have invested in self-managed delivery programmes for direct connection with customers to provide greater control over quality, branding and other marketing imperatives. Examples of such brands include Impresario Hospitality, Fat Lulu Pizza and Cold Love ice cream. Restaurant brands including Domino's Pizza, McDonald's and Pizza Hut are also developing algorithms on their apps to increase their visibility to customers in order to reduce customer acquisition costs and to foster sustainable business models. This does not mean they will eliminate their presence on aggregator platforms rather the two systems will coexist.

With many last mile deliverers, operators are also able to execute direct deliveries from their kitchens. Here there is a move towards 'pull marketing' rather than the 'push marketing' upon which the aggregators largely rely. In a word, a brand can enhance its unique proposition to gain customer attention and target customers who are motivated by the experience and the food, not just the price.

Another approach to maximise revenues is to use information, underpinned with algorithms, to determine optimal selling prices. Many brands have already started leveraging big data analytics and regression models to determine seasonality, forecast sales and predict selling prices. These insights can then be used to establish optimum pricing strategies.

Unlike hotel chains and cinemas, dynamic pricing on excess-demand days (e.g on the weekend) is seldom applied in the restaurant industry. Currently, operators only use differential pricing over dine-in and delivery based on the commission charged by different aggregator platforms. They can do much more.

Aggregator deliverers will also find ways in which both they, and the restaurant, can both benefit from customer knowledge while retaining the control of data. Swiggy Brand Works is an example of this evolution where data on supply gaps is shared with restaurants and Swiggy works with brand partners on menu options, packaging, pricing and eventually co-promote brands on the Swiggy platform. Zomato and Swiggy also assist restaurant operators with new locations through the aggregator managed cloud kitchens estates.

All players in the delivery market – operators, aggregators and customers - are on a steep learning curve and models are constantly being adapted and changed. The tensions, issues and challenges have a long way to go. We shall follow this dynamic and debate matters in subsequent editions of this report.

How covid is changing the industry

The rapid spread of covid has made Indian consumers skeptical about ordering food online (compared with other national markets where restaurant delivery increased substantially during covid). The overall result of covid led to a 70% drop in overall revenues from March 2020 to the end of 2020 with the better brands recovering to 50-60% of pre covid sales towards the end of the period.

Foodtech, innovation and a focus on health and sanitation are aspects that will help revive the industry along with, of course, the return of consumer confidence. All in all, we remain bullish on the potential of the Indian F&B industry and see very material upside in delivery, particularly where this is associated with organised players and proven systems.

Most restaurants in India (and indeed the world) work on 10%-15% EBITDA margins but sometimes with limited free cash flows. One of the largest among the service sectors, the restaurant industry contributes approximately 3% to India's GDP and is the service sector's single largest employer with more than 7.3 million people on it's payroll.

Industry estimates suggest that between 10-15% of organised restaurants in India have already closed down due to covid and in total between 30-35% of the industry will be temporarily or permanently closed by June 2021. The NRAI estimates that over 2.2 million people employed within the industry will lose their jobs as losses rise to as much as US$ 14.3 billion.

The situation has been exacerbated by the lack of support by the Indian government to support struggling restaurants even though many other countries have treated restaurants as businesses eligible for government funds. In addition, insurance companies do not cover events such as lockdowns. Many bars and restaurants have launched appeals to customers to buy vouchers for future meals at attractive discounts to keep cash flowing.

With companies giving employees the option to work from home, there has been something of an exodus from metros to other cities across India with 1 in every 5 Zomato metro customers (pre-covid) opening their app from smaller towns. Out of those that relocated, one third have resumed ordering food from their new location. Interestingly, the ordering frequency of customer's today is the same as pre-covid, which indicates that customers are now over the hump of safety concerns.

As of August 2020, of the 83% of restaurants that were not open for business, 10% have shut down permanently; Zomato anticipates an additional 30% of restaurants will not reopen. Of the remaining, 43% closed due to local restrictions, and are likely to open as the situation improves.

Many foodservice delivery brands have employed outreach programs to assure customers of food safety and have diversified into grocery delivery due to increased revenues and optimised operations. For example, Zomato, Swiggy, and Box8 have launched online grocery delivery either by tying up with grocery stores or by partnering with existing grocery delivery platforms.

Last-mile delivery companies such as Shadowfax and Delhivery are partnering with FMCG companies, modern retail, and grocers to support the delivery of essential products. Restaurant chains with large delivery fleets are partnering with FMCG brands to supply essential commodities. For example, Domino's India has partnered with ITC to deliver essential goods and groceries.

"Every relationship in the restaurant value chain will need to be redefined and realigned", says the NRAI's President, Anurag Katriar, **"whether it is with customers, clients, the government, landlords, or partners. The dining world will be looking at new rules of engagement as we will have to hit the ground running with new protocols."** To this end, the NRAI wrote to mall owners to "urgently resolve" commercial concerns, asking for a waiver of rentals and for variable revenue share models. Anurag Katriar, who is also the CEO of Degustibus Hospitality says, "We will walk out of any operationally high-risk location."

The pandemic, in some cases, is starting to reverse the trajectory of modern retail in India. The big shift from streets to malls which started in the early 2000s and now certain major brands are looking at moving back to leading high streets from malls, including McDonald's, Speciality Restaurants, Jamie's Pizzeria, Degustibus Hospitality and Lite Bite Foods.

On the other hand, malls can be seen as safer, more controlled and with superior covid security measures. To this end, malls are presenting themselves in the Indian market as the retail environments of choice for the modern Indian consumer with a focus on covid protocols, on parking (cars being seen as a safer form of transport) and on the underlying quality of their brand tenants.

Some restaurant chains are also focused on alternative trade areas, in the particular drive-throughs (which have performed very strongly in the US during covid). For example, Starbucks has opened its first drive-through in India during covid and many of the large QSR brands continue to expand this business including McDonald's, Wendy's, KFC, Burger King, Haldiram's, among others.

Slow but steady recovery

According to Zomato's mid covid report, recovery trends are strong and they estimate the industry to reach pre-covid levels of business by November 2020. We are not as bullish as Zomato and see full recovery after Q1 2021. The pandemic, of course, has had a major impact on the restaurant industry and despite the tough macroeconomic environment (and lack of subsidy/support), restaurants and their management are reimagining operations to accommodate new social engagement norms.

Whether these remain necessary or current after covid is an open question and it may well be that consumers revert to pre covid habits.

Zomato has delivered 70 million food orders since the lockdown started on March 25th 2020 and estimates that between other food aggregators and direct restaurant channels, Indians have ordered 200 million times since the lockdown. During this period, there have been zero reported cases of covid transmission due to food-delivery and the number of restaurants offering foodservice delivery is at 70% of pre-covid levels. Out of this, approximately 5% of restaurants did not offer foodservice delivery services before covid. According to the Zomato report, most of these are dining out-centric restaurants that have created specific delivery offers (e.g from five-star hotel outlets).

Most of the customers plan to decrease spending on dining out and some of this spending will shift to foodservice delivery. 60% of restaurateurs said they estimate to retain less than half of their original business volumes for a few months even post-covid.

Even before covid started to make headlines around the world, online foodservice delivery was reaping the benefits of widespread digitisation and the growth of delivery apps. In addition, the general trend towards e-commerce increased urban living and changing social behaviours have all served to accelerate the evolution of the foodservice delivery market. The silver lining of covid for the Indian F&B industry may be akin to demonetisation in 2017 in that it will drive the adoption of digital innovation. To this end, there are a plethora of digital initiatives underway across the Indian F&B market.

For example,

The NRAI is working on a digital platform that will offer online ordering, foodservice delivery, loyalty programs, and contactless payment options to diners. To achieve this, the association is partnering with alternative delivery and logistics companies as well as using social media platforms such as WhatsApp, Facebook, and Instagram to provide visibility and ordering facilities for restaurant partners.

The pandemic has also compelled operators to look at new models. These include ethical dining, optimal utilisation of resources, respect for local produce and farmers and zero-waste practices. In addition all and any costs are under the microscope. Zorawar Kalra, CEO of Massive Restaurants says **"food costs will surge as we will invest a lot in food safety and hygiene, right down to the source of procurement of material, food preparation and delivery aspects."**

With supply chain disruption expected to continue, chefs will also concentrate on local and seasonal produce. With certain ingredients -especially imported items - out of reach, menus are being designed based on what is local, fresh, and available. In addition, more vegan and vegetarian options will be available to cater to those who are newly focused on healthy options from known sources.

The Q2 2020 results for Jubilant Foods–operators for Domino's Pizza and Dunkin' in India showed some positive data. For Domino's, system sales recovery stood at 82.3% year-on-year while the delivery channel registered growth of 5.8% year-on-year. Takeaway channel registered growth of 49.8% year-on-year and online delivery orders have risen to 99%, thereby reducing cost and improving efficiency.

However, Jubilant closed 100 stores in Q2 which were largely dine-in or stores in locations where management did not see traffic returning or which were previously weak performers. Jubilant has stated their intention to re-open in some cities and trade areas where the closures have taken place but the new stores will be optimised for the new demand pattern and take advantage of the growth of delivery and takeaway. Discounting on delivery aggregators has been lower year-on-year. Domino's, for example, has calibrated their discount structures which have helped them increase gross margins. The brand has also introduced delivery charges which further strengthens margins.

Many restaurant and cloud kitchen brands now include packing/delivery charges to help offset the additional costs of aggregator commissions and special packaging materials. Q2 2020 results for Westlife Development – the master franchisee for McDonald's in South and West India also showed positive trends. Sales through convenience channels (delivery, drive-thru and on-the-go) exceeded pre-covid levels. Their new on-the-go service multiplied by more than four times in three months.

McDonald's has also moved quickly to launch a range of convenience services including contactless delivery, digitally-enabled contactless take-out and the innovative on-the-go service that has transformed all its restaurants into "digital drive-thrus".

7

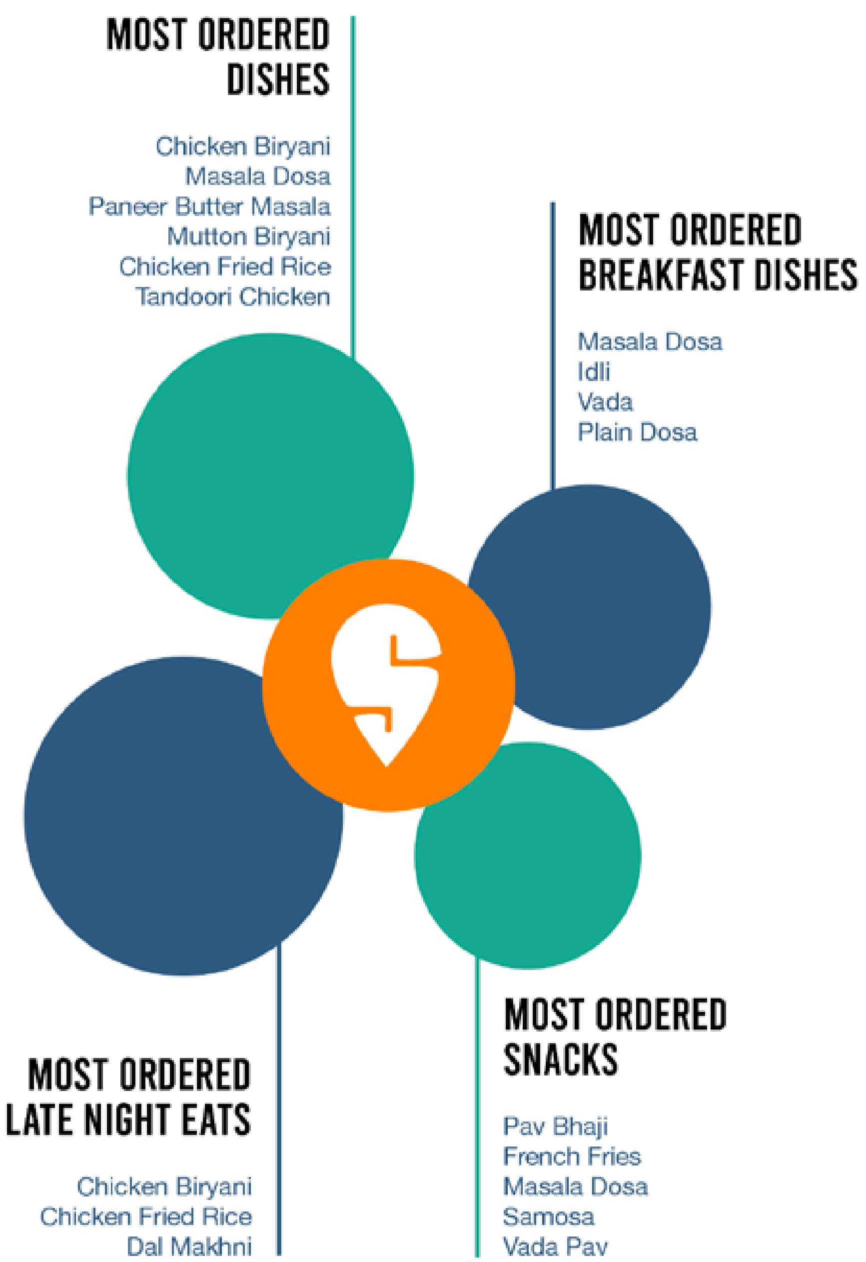
FOOD ORDERING TRENDS

Most ordered cuisines

In this section, we provide snapshots of items ordered online:

Chicken biryani is the most ordered dish on the leading aggregator platforms and biryani topped the list of most ordered dishes in 2019 for the third year in a row. On Swiggy, Indians ordered an average of 95 biryanis per minute or 1.6 biryanis every second by way of 35,056 biryani varieties and combos with prices that range from INR 19 to INR 1,500 an order. The most ordered items are boneless chicken biryani, chicken dum biryani, mutton biryani, egg biryani, veg biryani and paneer biryani. Biryani remains the most ordered food item all year round as well as the most popular categories in dayparts as well as during festivals. A clear winner!

In 2019, orders for vegetarian items placed with Swiggy increased by 19% year on year. This was a continuation of the 2017/18 trend where sales of vegetarian items increased by 20% year on year.
In terms of regional cuisines, North Indian items are the most popular both for ordering in or eating out.

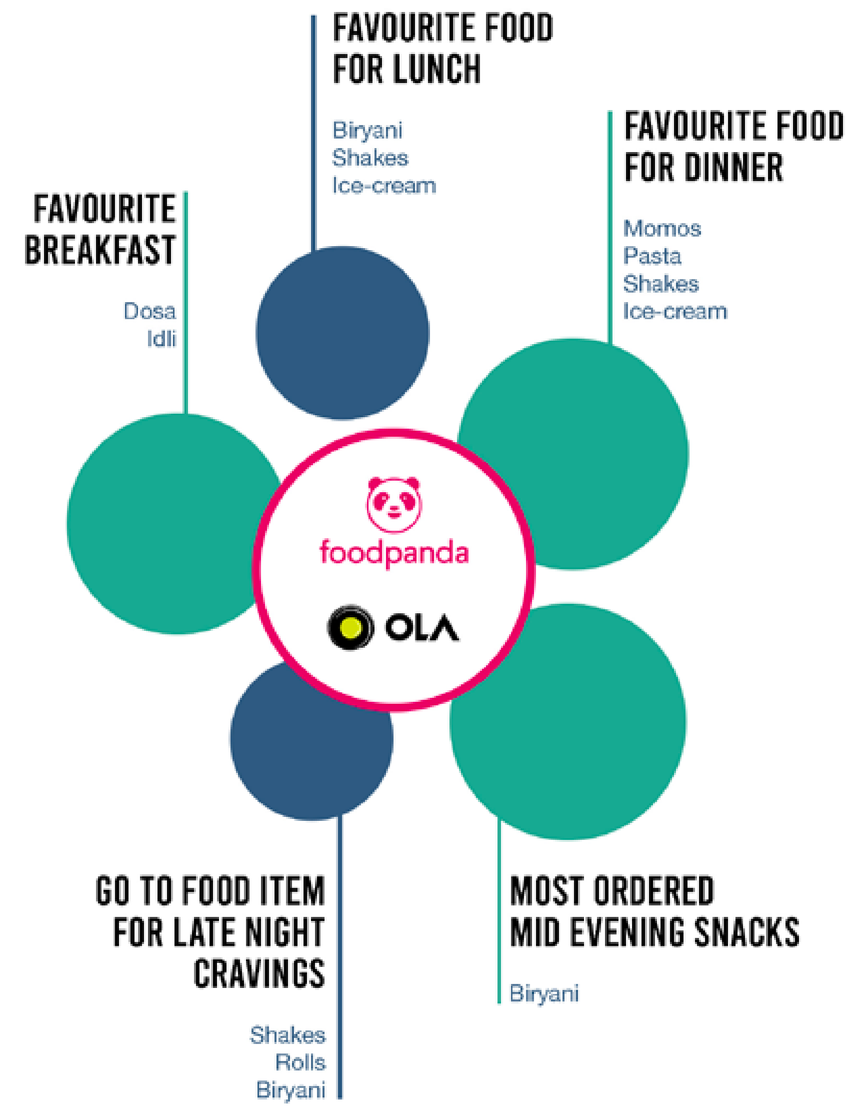


Source : Swiggy

Idli has also emerged as the staple breakfast of India with data from Uber Eats showing that it is most ordered between 7.30 am and 11.30 am. The top five cities that are ordering idlis are Bengaluru, Mumbai, Chennai, Pune and Hyderabad. And most customers ordered extra chutney, sambhar and the spicy 'podi' to accompany their idlis. The most ordered beverage with Idlis is fresh lime soda followed by masala lassi and jal jeera.

Pizza is the most ordered international cuisine item nationwide. Among North Indians, butter chicken was the most ordered regional cuisine, tandoori chicken was the favourite starter for both online, dine-in and across day parts, including late night orders and mutton biryani was the most ordered item for dinner.
During cricket IPL matches, delivery orders increased by 30% and shareable menu items such as pizza, french fries, and ice cream are the most popular orders.

Food trends 2019



Source : Foodpanda and Ola

Ordering trends in the cities

On Zomato, Delhi NCR has the largest number of orders in tier 1 cities while Ahmedabad is top in Tier 2 and Tier 3 cities. In a surprising trend, customers in Indore (a tier 3 city) ordered more food from Zomato around midnight than Mumbai (the 'city that never sleeps'). The following are noteworthy data points:

- Vijaywada in Andhra Pradesh has the highest breakfast orders nationwide.
- Manipal has the highest incidence of repeat orders.
- Chicken biryani is the most searched item in Madurai.
- Pizza is the most ordered item in Anand (Gujarat).
- Jammu has the highest tier 3 city order rates of fast food.
- Customers in Ooty pay the highest average bill per order.
- Kota in Rajasthan is the fastest growing market.
- Tuni in Andhra Pradesh has the most cashless orders.
- Butter naan and dal makhni are the most ordered snacks in Delhi NCR.
- Bengaluru, Chennai and Hyderabad customers ordered more healthy food than any other cities. Orders of healthy food were greater during weekdays than at weekends.
- Consumers in Bengaluru and Chennai consumed fruit juices five times more than aerated drinks.
- The most bowl meals were ordered in Bengaluru with the majority at dinner time.

Orders from home out score orders from the workplace

Orders from home are five times higher than orders at work and we see very material upside for delivery occasions outside of the home.

Cash is not king

Online customers in India have evolved since the days when cash on delivery was the most popular online payment method and in 2018, only 28% of orders on Zomato were settled in cash.

Source : Zomato

Source : Ola

Source : Ola

8

FUTURE GROWTH OF THE MARKET

In this section, we examine factors that are driving growth and make forecasts for the period up to 2022-23. We also make forecasts of TAM for the period 2024-25.

Current market penetration

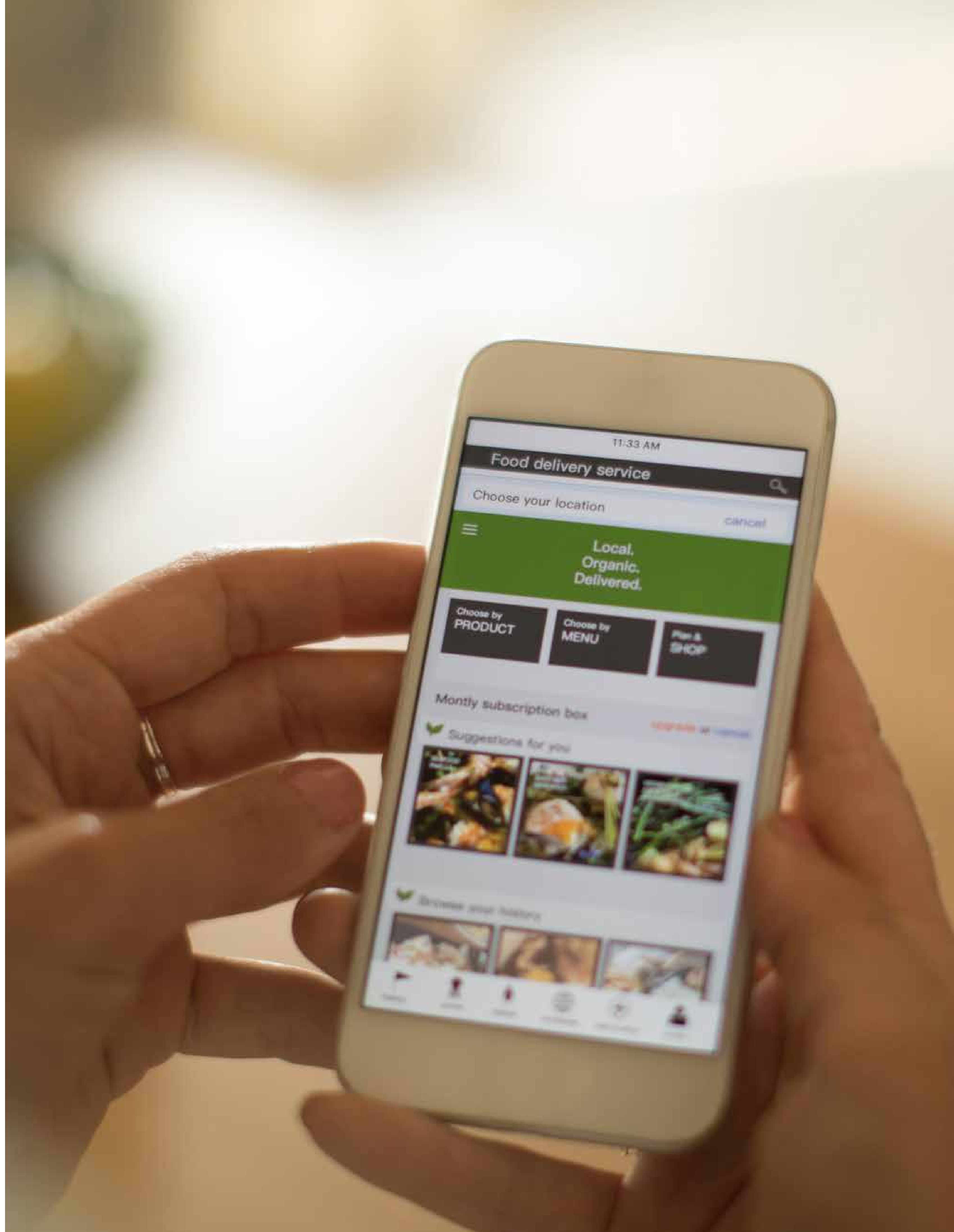
Today, the foodservice delivery market has a 15% share of the total foodservice market based on a 10% penetration among 597 million smartphone users. This share is similar to the share in the UK and somewhat higher than in the USA. In common with these countries, there is considerable potential for growth as restaurant delivery starts to eat into the retail market's share of wallet.

Year 2019	Foodservice market size (US$)	Organised foodservice market size (US$)	Foodservice delivery market size (US$)	Foodservice delivery as % of foodservice market	Foodservice delivery as % of organised foodservic market
	66 billion	24 billion	3.6 billion	5.5%	15%

Year 2019	Smartphone users	Penetration of aggregator deliverer apps
	597 million	10%

Year 2019 Total cities and towns in India	Tier 1	Tier 2	Tier 3	Rurban	Current penetration of aggregator deliverers
	18	35	418	3894	600 cities

India's vast population, intense urbanisation and a number of rapidly developing small towns offer new markets for growth. There are a total of 4,365 cities, towns and 'rurban' centres and foodservice delivery is available in only 600 locations. This of course represents an enormous potential for further penetration.



Scope of growth and total addressable market (TAM)

In developing our forecasts, we have considered a wide range of issues and we believe the following factors will impact the growth of the foodservice delivery market, either positively or negatively in the course of the next five years:

	Parameter	Timeframe	Delivery frequency	Delivery spend	New customers
Economy & infrastructure	GDP growth and increase in per capita and disposable income	Long term	+	+	+
	Increase in internet penetration	Medium term			+
	Increase in smartphone penetration				+
	Urbanisation and new markets in small cities	Medium & long term			+
	Large youth and working age population	Medium & long term	+		+
Consumer behaviour	Preparation and consumption time for meals goes down due to fast-pace urban lives. The need for instant meals goes up.	Medium term	+		
	Young working people switch from home cooked food to delivery subscription meals (home style food).	Medium term	+		+
	The growing number of health-conscious consumers turns to healthy foodservice delivery platforms that are beginning to emerge.	Short term	+	+	+
Regulatory policy	Cost of delivery goes up due to stringent labour laws; increasing minimum wages. This would lead to an increase in selling prices.	Short term	-	-	
Market forces	Emergence of new aggregator-deliverer players such as Amazon	Short term	+		+
	Aggregators act as catalysts to convert the unorganised players (dhabas and home chefs) into the organised	Medium term	+		+
	Pace and quantum of investment in Zomato/Swiggy stagnates or reduces	Medium term	-	-	-
	Restaurant operators enhance their delivery systems.	Medium term	+	+	

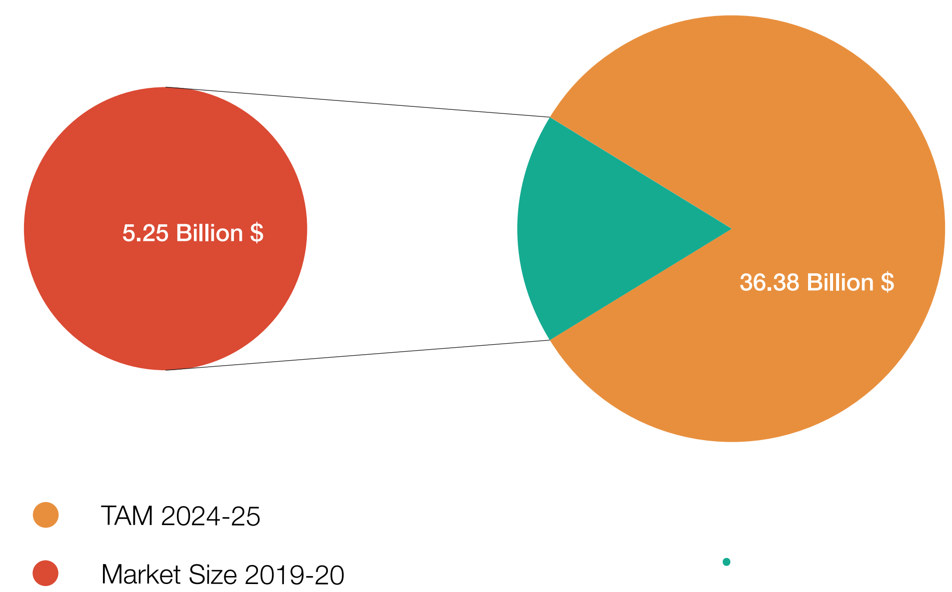
\+ Positive Impact — Negative Impact

We have used the assumptions above as inputs into our forecasts of how the three following measures might change over the next five years from 2020-25. And we have used these forecasts to arrive at our estimate of the total addressable market (TAM) for foodservice delivery in India.

1. Frequency of delivery orders: how many times a customer orders from a restaurant.
2. Average spend per customer: how much a customer spends on an order.
3. Number of delivery orders: the absolute number of customers ordering in the market. Note that the number of orders might increase as penetration across India increases but this is likely to increase as the market evolves into new segments.

We estimate the TAM for the Delivery Market to be US$ 36.38 billion by 2024-25, but this is likely to increase as the market evolves into new segments.

Total addressable market



Source: Tasanaya research and analysis

Key factors that influence TAM

1. Growth of small cities

Smaller cities are a new and major focus of geographic expansion for aggregators and cloud kitchen operators. These new locations offer a large scope for growth provided the infrastructural challenges are managed. Small cities require creative approaches. For instance, Swiggy follows a two-step process when expanding in a small town: first, providing more training to restaurants and delivery partners and second, focusing on building scale in operations and thus increasing the restaurant's reach to a larger consumer base.

60% of urban India

LARGE CITIES : 35 CITIES, 1-2 MILLION POPULATION STRATA (10L - 20L)

49.1 MILLION POPULATION / 13% URBAN India / 10 MILLION HHS

E.g. Srinagar, Ludhiana, Amritsar, Faridabad, Varanasi, Patna, Dhanbad, Ranchi, Vishakhapatnam etc.

SMALL TOWNS : 418 TOWNS, 0.1-1 MILLION POPULATION STRATA (1L - 10L)

100 MILLION POPULATION / 27.4% URBAN POPULATION / 21 MILLION HHS

30% of urban India

METRO India : 18 CITIES, STRATA 2 MILLION+ POPULATION (20L +)

112 MILLION POPULATION / 30% URBAN India / 22 MILLION HHS

	No.	Population strata	Population (mn)	% Population
Megalopolis (Mumbai, Delhi, Kolkata)	3	10 million + (1 Cr +)	48.8	13
Metros (Bengaluru, Hyderabad, Ahmedabad, Chennai, Pune)	5	5 million + (50 L +)	36.2	10
Mini metros A (Kanpur, Jaipur, Coimbatore, Kochi, Surat)	5	2-5 million (20L - 50L)	14.8	4
Mini metros B (Lucknow, Nagpur, Indore, Patna, Ghaziabad)	5	2-5 million (20L - 50L)	11.8	3

10% of urban India

that caters to a large cluster of rural India

RURBAN TOWNS : 3894 TOWNS, 0.01 - 0.05 MILLION POPULATION STRATA (10,000 - 50,000)

39 MILLION POPULATION / 10% URBAN India / 8 MILLION HHS

E.g. Paddapai (30kms from Chennai), Boisar (a few minutes drive from India's first nuclear power plant. It hosts factories run by Tata Steel Ltd. and JSW Steel), Bibhutpur (Samastipur District, Bihar), Guntur in Andhra Pradesh, Choryasi in Gujarat, Kartikapall in Kerala, Villupuram in Tamil Nadu, Dindori in Madhya Pradesh.

Industry experts have questioned the viability of markets with low purchasing power where logistics and customer acquisition costs are on par with more mature cities. The aggregators counter these arguments as follows:

1. Delivery times are three minutes faster on average than the larger cities (due to lower traffic congestion).
2. The cost of hiring is lower.
3. Staff churn is lower.
4. Lower levels of competition mean lower costs to acquire customers.
5. Operating costs can be 50% of operating costs in the big cities.

But challenges in the smaller cities remain, for example, the relative lack of available people with driving licenses to work as foodservice delivery riders. To this end, solutions such as a fast-track registration programme for driving licenses and use of manual and electric bicycles for delivery have been adopted. In addition, approximately 20% of the delivery fleet in tier 2 and tier 3 cities use bicycles for delivery.

Social issues such as lack of customer respect for delivery personnel, may have a negative impact on recruiting delivery personnel, may also be typical today in smaller cities.

Business supply is another challenge, for example finding enough restaurants and making sure these can scale up in line with demand. Leading aggregators are also engaged in bringing restaurants from other cities to the smaller towns; they also assist smaller operators to register with FSSAI so that they can demonstrate and maintain hygiene and food safety standards.

2. New challengers and benchmarks

New players are seen across the delivery value chain. The Future Group (a major retail operator) is developing a cloud kitchen proposition that leverages its digital wallet, Future Pay, in order to deliver affordable meals (starting at INR 40). The food offer is focused primarily on rice-based meals and the operation is managed end-to-end.

"We will manage the entire value chain. We have our rice and flour mills, we have our factories, our own supply chain companies and we have our brands" says Kishore Biyani, CEO, Future Group. By leveraging their food retail store brand Aadhar, the Future Group is also able to target towns with populations below 50,000.

Amazon has finally entered the foodservice delivery market, signing up restaurants at a commission rate of 6-8% and much lower than the 20% to 30% typically charged by Swiggy and Zomato. Undercutting by Amazon has, in turn, given operators higher bargaining power with Swiggy and Zomato, despite their larger market shares. Amazon has also started delivering groceries, disposable cutlery, cleaning products and other daily needs to more than 100 restaurants in Bengaluru, Delhi and Pune. And prices have been discounted. The plan is to further expand this offer to 7,000 to 8,000 restaurants across the country in a short period.

To achieve this, Amazon is in a strong position by leveraging its existing extensive supply chain and building on its economies of scale. For restaurants, reliable Amazon supply at competitive prices could be a valuable benefit to counter reduced margins resulting from increased competition and from stiff economic headwinds. While Amazon acts as a marketplace between vendors and restaurants, Zomato sources and stores a variety of food and beverage ingredients and raw materials for its Hyperpure in Bengaluru and Delhi NCR. The company has also announced plans to expand this service to other large cities. At a time when the leading delivery aggregators are reducing discounts to improve margins while looking for new sources of growth in smaller cities, lower priced entrants, and Amazon, in particular, pose a potential threat to Zomato and Swiggy.

However in the Indian sub-continent – turning conceptual leverage into practical advantage can be easier said than done.The entry of new big entities in the market will lead, in our opinion, to an overall expansion of the delivery category.

3. Stricter Food Safety and Standards Authority of India (FSSAI) norms

Regulation by the FSSAI is becoming more stringent:

FSSAI is becoming more stringent with mandatory certification of small/unorganised eateries and oversight of advertising messages. This places greater responsibility on aggregators and helps smaller players meet and maintain standards. The FSSAI Act provides details about penalties levied on food businesses for illegal activities.

For example,

Penalty for sub-standard food:

If someone is found selling food of a poor quality that has been produced or imported there will be a penalty levied up to INR 0.5 million.

Penalty for misleading advertisement:

Misleading advertisements will make restaurants liable to pay a penalty up to INR 1.0 million.

Penalty for food that contains extraneous matter:

Any article of food for human consumption containing extraneous matter shall be liable to pay a penalty which may extend up to INR 100,000.

Penalty for failing to comply with the strict directions of the food safety officer:

If a food business operator or importer fails to comply with the requirements of FSSAI, the operator may be liable to a penalty up to INR 200,000.

Penalty for the commercial use of unhygienic or unsanitary processing or manufacturing of food:

Any person who is involved in the manufacture or processing of food items meant for human consumption under unhygienic or unsanitary conditions may be liable to a penalty up to INR 100,000.

Amongst other requirements, aggregators are required to mention all mandatory information in the Food Safety and Standards Act on their websites to make customers aware of their rights. Operators are also required to ensure that only trained personnel undertake delivery roles and that the safety of food products is not compromised at any stage.

4. Minimum wage legislation

There are several laws in the pipeline which, if implemented, will lead to an increase in delivery costs. Cost of delivery is likely to increase substantially in the coming years as minimum wages increase. The Code on Wages (2019) proposes a uniform base wage across the country below which industry/state-specific minimum wages cannot fall. The new Code on Social Security merges as many as eight laws covering social security and benefits in different industries with a uniform law.

Beyond these initiatives is a proposal to mimic the California Assembly Bill 5 and convert India's millions of 'gig workers' into employees and require companies like Swiggy, Zomato and Ola to recognise their 'independent contractors' as staff with the commensurate social security benefits such as Provident Fund and Employee State Insurance.

5. Homestyle meals

In addition to the large number of home chefs listed on aggregator platforms or associated with cloud kitchens, new platforms such as Homely are emerging to help customers find home chefs or cuisine within their neighbourhood. Other similar services include FoodBuddy, WhatsUpChef, Homefoodi, WhatsCooking, Oota Box, Masala Box etc. In this model, rather than mass production and mass marketing, food is prepared in very limited quantities and is more personalised.

For example,

On Homely, the menu is based on what the host/cook is preparing for their family on any given day for lunch, dinner, snacks, etc. When a customer places an order, the meal is dispatched from the home chef's residence and delivered directly to the customer.

Swiggy has also launched a subscription-based home-style meal service called Daily. The Daily proposition is to give consumers access to a variety of home-style meals prepared by home chefs, tiffin service providers and organised vendors. Customers can opt for a daily, weekly, or monthly subscription. Zomato is also said to be working on a subscription plan. There is also a daily meal subscription market that is highly unorganised with multiple tiffin services and home chefs operating independently with the help of local chat groups (mostly on WhatsApp) and word of mouth.

As the demand for outsourced meals grows (from working professionals, time-pressured working women, single person homes etc.) and meal ordering becomes habitual, the demand for healthy, value-priced home-style meals is likely to rise given that consumers prefer not to eat restaurant food on a daily basis. To this end, convenience, reliability, healthiness are all important drivers.

6. Delivering healthy meals

Industry reports indicate that health and wellness factors are changing the landscape of the Foodservice sector and several healthy Foodservice delivery start-ups are trying to build businesses around this trend. KetoRoo Bakes serves low carb, ketogenic, sugar free, grain free and diabetes friendly food. Healthie is the first Foodservice delivery platform to have a complete "Black" range (with activated charcoal for detoxification), the range includes Black Beast (sandwiches), Black Rice Bowl, Black Hole (healthy desserts) and Black Beauty (juices and smoothies).

Newer platforms such as Mumbai-based Calorie Care has chefs and nutritionists working together. From gluten free to keto friendly, customers can tailor make their own meal plans. Companies like FreshMenu, Eatonomist, Nutritious Nation, and Eat to Fit are also promoting subscription-based and customised packages.

Many restaurants have created 'healthy' categories and Swiggy has reported a threefold increase in ketogenic diet items ordered in 2019. Dishes like Keto brownies, Keto friendly tuscan chicken and healthy red rice poha were some of the most ordered items.

7. Reducing the environmental impact of foodservice delivery

As online foodservice delivery grows, environmental concerns are also growing. Industry estimates suggest that the delivery industry produces approximately 22,000 million tons of plastic waste per month. Delivery aggregators are working on reducing their carbon and plastic footprints. For example, Swiggy operates a Packaging Assist programme for restaurant partners that aims to provide access to a variety of recyclable aluminium and paper solutions at various price points. The company has plans to introduce eco-friendly meal trays and other items made of materials such as corn-starch and bagasse.

Zomato is working with research firms and specialised consultants to introduce high quality, eco-friendly packaging. The packaging offered will include 100% naturally biodegradable items made from sugar cane bagasse, bamboo, palm leaf and paper.

Organisations catering to biodegradable packaging solutions are also emerging. For example, Saattvik Ecocare Products, Green Nature, Pappco Greenware, Ecoware etc. And zero waste cafes like Eat Raja in Bengaluru have adopted several novel practices including unsweetened fruit juices in fruit shells whose waste is composted. The use of shells also means that 200ml of water is saved (being the requirement to wash a single glass). Just Be (Bengaluru) packs takeaway orders in biodegradable and compostable packaging made of bagasse and cutlery is made of wood.

Tender coconut water is a favourite across India and in Tamil Nadu, coconut sellers have switched to innovative straws made of papaya stalks. Banana leaf is also an intrinsic part of Indian food culture and it remains common practice to serve traditional food on a banana leaf. The banana leaf is emerging as an innovative, eco-friendly packaging solution.

8. Carbon emissions

In addition to reducing waste from packaging, the foodservice delivery industry is also working to reduce its carbon emissions. For instance, Swiggy is adopting E-Vehicles which are 40% more efficient than gasoline vehicles and will be piloting them in 10 cities And Swiggy and Zomato already have thousands of delivery partners operating on bicycles especially in the smaller towns as noted above.

What's trending with covid?

Aggregators are working hard to reassure customers of food safety and covid security. For example, Zomato and Swiggy are offering contactless delivery while cloud kitchen company Rebel Foods has introduced a live body temperature tracker on its application. The companies are also sending out advisories to consumers to transfer food to other receptacles before heating or eating. Safety and hygiene have, we believe, become a permanent addition to the customer's decision-making process and mind-set. In other developments, certain large hotel chains, such as the Leela, Ritz-Carlton, and JW Marriott are planning to launch foodservice delivery businesses operating out of centralised kitchens with customers ordering through the usual digital channels.

Meanwhile, Hyatt Hotels and Oberoi Hotel groups have appointed 'hygiene managers' to ensure adherence to new operational protocols. "Care By Roseate," launched by the New Delhi based Roseate Hotels and Resorts, will allow guests to book tables online through an app, scan the menu, order from it, and see their food being prepared in the kitchen.

To put customers further at ease, fewer chefs will be working in kitchens and the number of guests per table will be carefully regulated. Disposable crockery and cutlery and tableside sanitisation will be prioritised using high technology instruments for surface cleaning, especially during table turnovers.

Amid the pandemic, many restaurants and hotel chains have started live streaming from their kitchens to gain customer trust. This increases accountability of staff to ensure deep sanitation and health checks. For the consumer, it gives a sense of security. InstaPizza, a QSR chain in Delhi NCR, started live streaming from their delivery kitchens during the lockdown and claims that it inspires consumer confidence.

The industry is also finding innovative ways of interacting with customers through DIY meal kits which come with pre-portioned ingredients to recreate a restaurant quality meal at home. According to some operators, DIY kits are a form of encouragement for amateur cooks.

"Not everyone's a great chef and can cook from scratch. It's a start as something half-done is provided. We'll send spice mix and curry and you have to add chicken, butter, etc.," says Amit Bagga, co-founder and CEO of Daryaganj, a North Indian cuisine restaurant which prepares kits for dishes such as dal makhni and butter chicken.

Many restaurant brands such as Café Diva and Being Chef provide DIY kits and now others are following suit. Kimono Club at Chanakya Mall, New Delhi has started providing a range of 10 cocktail pre-mixes from whiskey spiced old fashioned's to tequila espresso martini's. Other restaurants have developed FMCG products based on their "hero products" including Kylin and Mamagoto while Nando's has globally been bottling and branding their sauces through modern retail channels.

9

OVERVIEW OF THE GLOBAL FOODSERVICE DELIVERY MARKET

Market size

In 2019, the size of the global foodservice delivery market was approximately US$ 150 billion in terms of GMV growing at 17% CAGR from 2019 to 2025. In this way, the market is likely to at least double by 2025.

The top ten countries for foodservice delivery are USA, China, UK, South Korea, India, Australia, Germany, Japan, Brazil and Canada.

Asia accounts for 55% of the global market and China alone accounts for about a quarter, having registered over US$ 34 billion in foodservice delivery revenues in 2018 with two of its biggest players, Ele.me and Meituan Waimai sharing almost 10 billion deliveries between them.

Nationally, each country tends to have a dominant player while globally there is no single leader. Instead, the global market has several strong players and competing business models.

Some of the major players operating in the global delivery market are Delivery Hero, Deliveroo, Door Dash, Ele.me, Food Panda, Grubhub, Glovo, Just Eat Takeaway, Meituan Waimai and Uber Eats.

The USA is notable for the regional nature of the delivery aggregators with the largest player, Grubhub, accounting for over a third of the market, and particularly active in New York City.

Europe has over 10 major providers: the newly formed company, Just Eat Takeaway, operates in 18 countries. Other significant European companies include Deliveroo, Delivery Hero and Glovo.

Investors and funding

In 2018 more than US$ 9.6 billion was invested in foodservice delivery companies of which those based in Asia received almost 60% of these funds. Major investors such as Prosus, Alibaba, and Softbank have been among the leading investors. Investment has provided financial resources needed for marketing, capturing new customers and bringing new operators on board and has also funded a diverse range of M&A activities.

Examples include the acquisition by Takeaway.com of some of Delivery Hero's business in Germany. Delivery Hero in turn successfully expanded its reach and has a market share of over 70% in the Middle East, acquiring local brands such as Talabat, Carriage and Zomato's UAE unit.

Amazon invested US$ 57 million in Deliveroo in 2019 and in 2020 the newly formed JustEat Takeaway acquired Grubhub while Uber Eats acquired Postmates.

Ancillary players jump in

Companies from outside the restaurant sector are also seeking opportunities in foodservice delivery. For instance, fintech firms are developing integrated payment gateways, such as digital wallets, thereby providing a seamless ordering and payment experience.

Companies in the automotive and transportation industry are looking to tap into the large growth potential offered by last mile delivery. Autonomous technology companies are already using ground robots to make commercial deliveries within closed environments such as university campuses and downtown locations. For example, Nuro, an autonomous robotics company is testing such deliveries in Houston, Texas. Drone and robot deliveries could be the next wave given the cost and time efficiencies gained compared to conventional methods although their viability in crowded spaces is questionable. Automotive manufacturers such as Ford, Toyota and GM have trialled autonomous foodservice delivery vehicles in USA. Door Dash recently acquired Scotty Lab, an autonomous vehicle start-up creating remote-controlled cars. Postmates is using autonomous foodservice delivery robots to make deliveries in San Francisco. Currently, in its testing stage, these small robots (known as Serve) are navigating the densely populated city. With its 'social-aware-navigation', Serve is also learning to interact with elderly and disabled individuals on sidewalks while making deliveries.

Amazon is testing autonomous deliveries with Amazon Scout. This robot can make same-day deliveries as well as one and two-day shipping. The use of autonomous vehicles and robots leads to many questions and issues and there is an ongoing debate as to whether these advancements in technology replace or complement human activity. Either way foodservice delivery will likely have robotic assistance in the delivery fleet of the future.

But where are the profits?

The fact, however, remains that despite increasing revenues and investment, foodservice delivery companies are struggling with profitability primarily due to their high rates of cash burn in marketing (to customers and partners) as well as the inherent low profitability of last mile delivery. Most delivery firms operate more loss-making markets than profitable markets.

For example, in 2018, Deliveroo reported a loss equivalent to US$ 302 million (up 16%) on the previous year. Postmates delayed its IPO in October 2019, citing market conditions. Uber Eats announced plans to exit markets where it failed to become one of the top two players - a material change from the previous 'serve-all-cities' strategy.

Delivery aggregators face other day to day challenges. Logistical reliability and product quality are often beyond their control being contracted out to other parties. However, if a customer is unhappy with either of the elements, the online food company may bear the reputational or financial risk. In addition to operational risks and challenges, fraud across the value chain whether through restaurant manipulated 'ghost' deliveries or cybersecurity loopholes related to digital payments is emerging as an increasingly important factor and risk.

As a result of the above challenges, several players have exited the market notwithstanding their substantial levels of funding. In 2019, USA based Munchery closed operations after securing more than US$ 120 million in funding, due to an extremely high cash burn rate and over-ambitious expansion plans that failed to attract new investors.

Constrained by a limited customer base, Five Point Four, an Australian company delivering bespoke healthy food, closed shop. In June 2019 Amazon Restaurants shuttered its operations in New York and London due to intense competition and an inability to improve its penetration. This said Amazon's recent investment in Deliveroo is thought by many (including the UK's Competition and Markets Authority) to presage a return to restaurant delivery first in the UK and then globally.

Foodservice delivery companies have been more focused on expanding their addressable market rather than profit in the near term and there is a global race to dominate the market in as many countries as possible. Once a market is dominated, there is the hope that prices can be increased, while keeping costs low, thereby becoming profitable.

Investor sentiment has already shifted to profit and growth and operators are finding ways to increase margins. For example, Deliveroo in the UK is planning to implement a 49p service charge and employ surge pricing when demand is high. Whether these new tactics and targets impact demand remain to be seen.

The rise of cloud kitchens

Cloud kitchens operate under many monikers – Shadow Kitchens, Virtual Kitchens, Delivery Kitchens, Ghost Kitchens and more and are attracting considerable investment and interest globally. These kitchens are dedicated to preparing and delivering online orders and are essentially kitchens without a front of house presence.

Cloud kitchens require significantly lower capital investment compared to a complete restaurant facility and in terms of profit and loss this is effectively a trade-off between the front of house cost with the cost of delivery. This dynamic has resulted in many players that offer dark kitchen facilities, for example Rebel Kitchens raised an additional US$ 50 million in April 2020 as a part of an extended Series E round at a valuation of US$ 820 million post-investment, while Deliveroo Editions, cloud kitchens (an investment by Travis Kalanick, the co-founder and former CEO of Uber), Kitopi (based in Dubai and recently raising US$ 60 million) and Keatz (a European cloud kitchen start-up recently raising €12 million) have all secured further financing.

Cloud kitchens investors and operators are investing not only in the actual practice of foodservice delivery but also in the property assets needed to support dark kitchens. Since many restaurants struggle to operate delivery activities profitably when using aggregator deliverers, cloud kitchens appear to be a means to acquire as much of the 'menu production' revenue as possible. In addition to the basic economic premise, cloud kitchens offer other important benefits:

- The ability, in certain models, to operate multiple formats, brands and menus from the same cooking platform.
- The ability to market in a more focused manner.
- The ability to bring the offer to trade areas where demand is inadequate for an economically-viable restaurant.
- The ability to pack up equipment and move on should the proposition fail to meet expectations.

Karma Kitchen and other players offer different combinations of facilities and services. Eccie Newton, the co-founder of Karma Kitchen (UK), likens her concept to 'WeWork for kitchens': renting out space to different F&B players at different times of day and has recently raised over £250 million to invest in dark kitchens internationally. Kitchen United, a Google-backed start-up, plans to open more than a dozen delivery kitchens across the US charging a monthly membership fee that includes the premises, back-of-house services such as dishwashing and access to its technology system for processing online orders from a range of delivery apps.

Door Dash launched a commissary kitchen in Redwood, California, for traditional restaurateurs to experiment within. These concepts are exclusive to Door Dash, which deliver the food from the commissary kitchen and calculate rent on a percentage of gross sales. Uber Eats has more than 1,600 virtual restaurants internationally and a focus on using kitchens from restaurants that have existing storefronts and are able to create a delivery-only concept exclusive to Uber Eats.

Brands such as Chick-fil-A are testing delivery-only concepts leveraging Chick-fil-A's branded app and their delivery partner Door Dash. By removing delivery and catering orders out of dine-in locations, Chick-fil-A can focus on providing convenience and quality to diners who want the option for both. To this extent, delivery may be seen as a core business in its own right and different in terms of skills and knowledge from traditional restaurant operations. Wendy's in India has also created a cloud kitchen offer with Rebel Foods using 250 kitchens under license, from Rebel in 3-5 years. This is one of the most eye-catching and ambitious transactions anywhere in the world and is an early example of QSR brands allowing cloud kitchen owners to operate the brand format under license.

Deliveroo Editions are a cluster of small professional workspaces that allow established eateries to service delivery orders without over-stretching existing sites. This offer enables Deliveroo to exert control over it's food preparation process, thereby increasing it's revenue and profit capabilities. The different restaurant brands have their staff and cookers but share space and other facilities and therefore benefit from reduced operating costs. Restaurants pay commission to each order and there may be a premium to join the kitchen, which may be amortised within the commission.

The first wave of kitchens began in 2017 in London from a portable building near Canary Wharf financial district. Newer sites are in a permanent warehouse on trading estates. Deliveroo Editions has also opened sites in Singapore, Dubai, Australia, Spain, France, and the Netherlands.

Panda Selected, a leading cloud kitchen provider in China, opened 103 kitchens across the country over the last three years of which 40 were in Shanghai alone. In cities with high rents, the low barriers to entry and the low-cost nature of the dark kitchen model have clear and attractive benefits.Cloud kitchens in India and China are also known to offer discounts on rent to attract chefs and restaurants to set up. They also offer a revenue share model. Named brand operators are also getting in on the action. In China, Starbucks tied up with Alibaba to operate its brand of cloud kitchen called Star Kitchen out of the latter's Hema supermarkets in Hangzhou, Shanghai and Beijing.

The cloud kitchen market is likely to attract more investment as the industry develops. For example, Malaysia's leading cloud kitchen start-up Dahmakan is funded by Silicon Valley veterans Y Combinator and Partech Partners. Alibaba is investing in Hong Kong cloud kitchen start-up Nosh. Gojek, together with Rebel Foods, is looking to build 100 cloud kitchens in Indonesia over 18 months. Meanwhile, Grab plans to start 50 such kitchens in Southeast Asia within the year.

Given the large investments being made in dark kitchens, we believe their numbers will continue to grow rapidly over the next few years. Many different players will enter the market, entrepreneur chefs who see cloud kitchens as a way to develop their offer; independent operators who want to grow their business without the costs of investing in a brick and mortar site; larger scale operators who see dark kitchens as a way to establish a presence in new geographic areas or as a way to grow their existing business without the complexity (and disruption) caused by delivery from a brick and mortar site.

However, there are still many questions that surround the development of dark kitchens. Experience will provide the answers to questions such as are dark kitchens sufficiently profitable for operators? For restaurants that have an existing brick and mortar presence, do cloud kitchens adversely impact existing reach? Will enough operators make sufficient returns from dark kitchens? What are the geographical limitations or limits to growth in areas where consumer demand is less concentrated?

From digital to physical

While Deliveroo Editions' sites feature delivery-only kitchens with no seating, the firm's 'Food Markets' feature additional walk-in and dine-in areas. For example, their Food Market in Singapore, launched in March 2019, has a 40-seater dine-in space. Food Market is Deliveroo's third Editions site in Singapore with the other two situated in Katong and Lavender. The location was chosen to attract working adults in the area based on data collected by Deliveroo.

In collaboration with San Francisco-based technology automation company Eatsa, Food Market offers diners a futuristic completely automated experience, eliminating the need to interact with human servers at all. Orders are placed at the self-serve kiosks onsite, that accept cashless payments and a digital status board indicates which 'locker' to collect food from. The whole site also acts as a base of operations for Deliveroo's primary function - foodservice delivery. There are dedicated pick-up and waiting points for riders.

SuperApps in Asia

SuperApps (many apps under an umbrella app performing multiple, often seemingly unrelated functions, within a single 'super app'), is a format that many companies, especially in Asia, are adopting for profitability. The concept was pioneered in China with WeChat and has now been adopted by foodservice delivery players. For example, Meituan Waimai provides delivery services for fruit, flowers, vegetables, groceries, clothing and more apart from foodservice delivery.

The Chinese tech giants Alibaba and Tencent are not just competing for the Foodservice delivery market in China, but are racing to gain new users who can be guided to other Alibaba or Tencent services. Grab (Singapore based) and Gojek (Indonesia based) have multiple sources of revenue in other areas such as transportation, logistics and payments.

In most emerging markets in the Asia-Pacific region, customers/users access the internet primarily through mobile phones. With the widespread penetration of smartphones, a 'mobile-first' culture means that app developers have to find ways to capture a variety of services in the simplest way possible and SuperApps are an extension of this dynamic.

In most Western markets, widespread internet availability preceded smartphone adoption resulting in connectivity-based solutions first developed on other platforms, such as PCs.

SuperApps have succeeded in China to an extent because they are encouraged by the ruling Party whereas privacy is a more pronounced issue and is highly regulated in the West compared to certain Asia-Pacific regions and China.

Cultural differences also impact the use of the SuperApp model on a global scale. SuperApps work in China and certain Southeast Asian regions because of relatively similar cultures within each sub-region. Uber Technologies acknowledged that in other markets, the solution was not to incorporate more functions in its app, but to break these into separate, less cluttered apps such as Uber Lite in India and Uber Bus in Egypt.

Global foodservice delivery initiatives delivery: top 3 markets

USA, China and UK are the largest global markets for foodservice delivery.

Highlights

1. USA

Market overview and size

The total size of the US foodservice delivery market in 2019 was US$ 39.2 billion and has been growing at a CAGR of 4.2% since 2015.

Historically, delivery (along with take away and kerbside pickup) has played a significant role in the US restaurant sector. In the early 2000s, Domino's first deployed a website-based delivery service on the back of an earlier, successful telephone ordering model. Today, the market is also heavily populated by aggregators notably Postmates, Door Dash, Uber Eats and Grubhub.

These companies are in turn following the model pioneered by Amazon and their vision is based on the long-term goal of 'anything, anytime, anywhere' delivery.

Key players

The market can be further segmented as follows:

US$ billion at current year prices GMV (Gross Market Value)	2017	2018	2019
Traditional pizza	10.6	10.6	11.0
Traditional independent	13	14.2	15.2
Aggregator	4.6	5.2	6.9
Aggregator deliverer	2.8	4.6	6.1
Total delivery	**31**	**34.6**	**39.2**

Dynamics

The delivery market in USA was built on three pillars. First, delivery of casual and fine dine offers predominantly in the major metros and second, in the fast food segment led by brands such as Domino's.

The third pillar is the technology-enabled, customer capture and delivery model deployed by Postmates, Door Dash, Uber Eats etc. While these models were originally based on discovery or simple ordering functionality, the leading aggregators are now disrupting the entire restaurant sector.

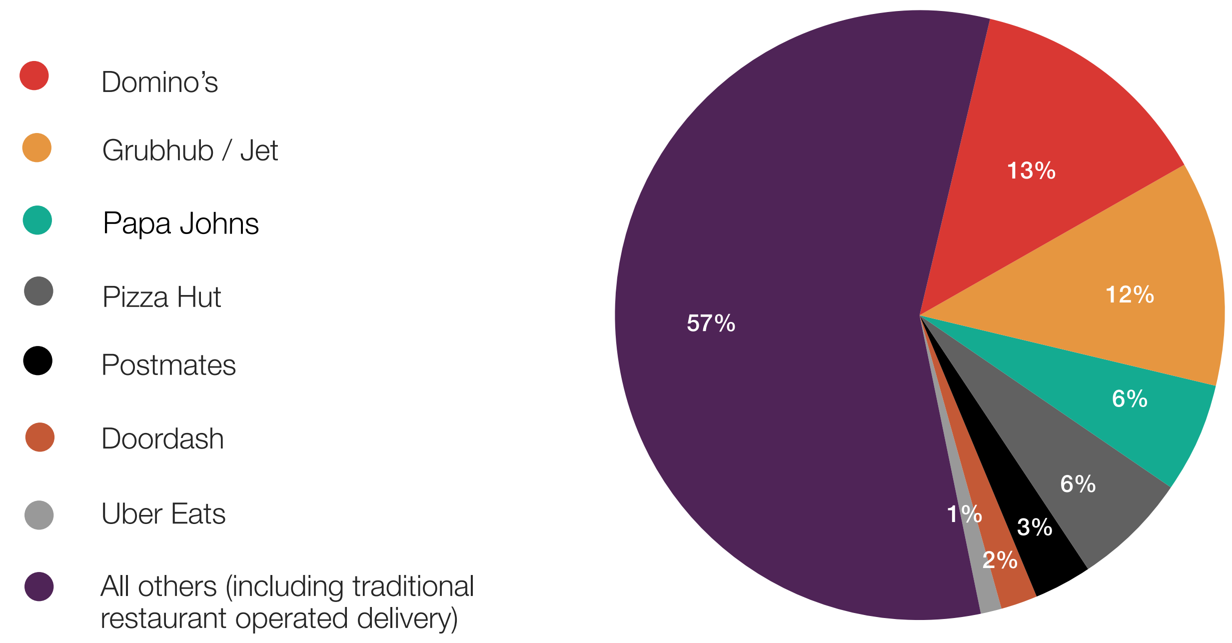
An example of the disruptive nature of the aggregators is the dark kitchens either operated by aggregators or by third parties. The facilities are changing the US industry by:

- Materially changing site level economics (e.g. cost of occupancy).
- Enabling brands and operators to reach new customers.
- Enhancing the ability of operators to deploy multiple brands/formats from the same kitchens.
- Enabling an analysis of the customer and transactional data which can be hard to secure from traditional Point of Sale systems.

Commission levels

- Aggregator deliverers (such as Postmates) typically charge operators 25-30% of order values received through their apps and websites. Keystone restaurants chains pay significantly less. Consumers pay a delivery fee per order of typically US$ 2.50 which may be waived during marketing campaigns.
- Aggregators who do not deliver (Grubhub etc.) charge operators 12-15% of order value.
- Aggregators and aggregator deliverers in USA seldom operate membership schemes.

USA: Market share by GMV



Source: Peter Backman

There are six major players in the foodservice delivery market

Key Challenges

The key challenges for operators in the US are similar to those in the other regions, including China and UK:

- High commission rates charged by aggregators and challenges for operators in building profitable units or units which deliver the target ROCE.
- Operators can experience a loss of relationship with their customers due to aggregators as they seldom know who they are and may have limited understanding of their preferences.
- The quality of the product, including its temperature and appearance when delivered to the customer continues to be a concern to restaurants across the board.
- Low rates of pay for riders. Riders are usually paid a minimum wage and may have limited job security. There is pressure from riders and lobby groups to increase pay and improve benefits.
- This is turn creates upward pressure on costs for both aggregators and operators.

Sustainability & legislation

In the USA, there appears to be relatively limited activity over the environmental sustainability of restaurant delivery. Ethical concerns are more widespread when it comes to protecting delivery riders who have very little by way of employment protection. Unlike full-time employees, gig workers are not entitled to benefits such as holidays and sick pay and their employment is not guaranteed. There are also concerns over whether tips are correctly shared between riders, restaurants and aggregators.

As far as packaging and other ecological issues are concerned, most operators content themselves with use of recyclable materials such as paper and cardboard. To this end there is opportunity for innovation.

2. China

Market overview and size

China's foodservice delivery market in 2019 is estimated at US$ 37.2 billion, an increase of more than 50% over two years. The top five cities by value are Shanghai, Zhejiang, Guandong, Jiangsu and Beijing.

China's strong economic growth, urbanisation, changing lifestyles, increasing penetration of internet/ smartphones are the key growth drivers for the foodservice delivery market. In terms of users, the market is dominated by the youth. Growth opportunities in China include tapping tier 3 and tier 4 cities as well as building data-centric practices that lead to cost saving for restaurants which may in turn increase operators ability to absorb higher transaction fees.

China's urban areas have an average of over 2,400 people per square kilometre, almost eight times the comparable USA population density. While USA has 10 cities with 1 million or more people, China has 156. The average cost of a delivery is about US$ 1.00, compared to $5.00 in USA.

Key Players

The foodservice delivery market is, in effect, a duopoly between Chinese tech giants Alibaba and Tencent, who own Ele.me and Meituan respectively. Combined, these delivery apps control approximately 90% of the market share with Meituan at 60% market share (2019). Meituan has 600,000 delivery agents serving 400 million customers a year in 2,800 cities. Other key market players include ENJOY, Daojia and Home-cook.

Dynamics

Intense competition between leading delivery apps has resulted in coupons and steep discounts to consumers becoming a common practice. The rivalry has hit both the dominant operators in terms of operating losses. Ride-hailing app Didi entered the food-delivery market in March 2018, further intensifying the subsidy war and necessitating the local authorities to step in to demand an end to "extreme" marketing practices. Players are also expanding product offerings and targeting non-peak eating times such as afternoon tea or late-night snacks.

Commission levels

Commissions charged by Ele.me and Meituan vary on the location, type and size of a restaurant. Both businesses have been raising commission rates in order to improve margins. Commissions have grown from zero initially to 10% and now to 20%.

Sustainability & legislation

Most foodservice delivery businesses in China rely on single-use plastics and every day their 256 million users collectively discard 65 million food containers, 20 million chopsticks, and 20 million plastic bags. Environmental experts estimate that it takes over 30 years for the polypropylene used in Foodservice delivery tableware to break down if buried in landfill.

Delivery app giants are taking steps to tackle this issue, such as encouraging the use of paper bags, using edible chopsticks and optimising search algorithms to reward merchants using environmentally friendly packaging.

Pressure is also mounting on the government to make the use of biodegradable tableware mandatory to reduce the sector's environmental footprint.

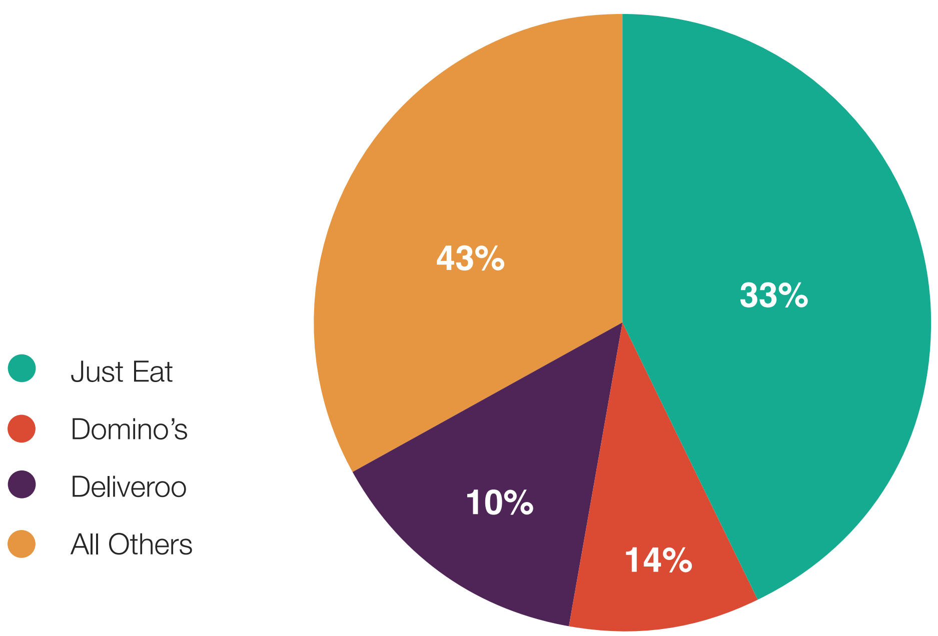
3. UK

Market overview and size

In 2019, the foodservice delivery market in the UK was £8.6 billion (US$ 11.2 billion) and is growing at a CAGR of 16.9% since 2015.

US$ billion at current year prices GMV (gross market value)	2017	2018	2019
Traditional pizza	2	2.2	2.3
Traditional Independent	1.9	1.6	1.5
Aggregator	2.9	3.8	4.2
Aggregator deliverer	1.1	2.1	3.2
Total Delivery	**7.9**	**9.7**	**11.2**

UK: Market share by GMV



Source: Peter Backman

Dynamics

A major disruptor is the growth of dark kitchens. The model operated by Deliveroo who own or have long leases on their sites gives them considerable flexibility to develop their own, Deliveroo Brands which are operated by a third party. Dark kitchens not only take business from restaurants but also from supermarkets and it is this market (much larger than restaurants) that holds significant potential for operators of dark kitchens. Other dark kitchens models are being rolled out by operators such as Reef, Karma Kitchens and Rebel Foods.

Sustainability and legislation

Food quality and hygiene ratings bring a measure of transparency into the market. For example, every outlet serving food in the UK is given a Star rating (5 being the highest). Following media pressure, aggregators now show the star ratings of restaurants on their platforms.

Although there are concerns about the environmental impact of delivery in the UK, these concerns are fairly muted at the moment, and when they are voiced, they are almost exclusively concerned with the use of plastics.An article in the Sunday Times in January 2020, based on research they had commissioned, showed that on average, 6.2 items of plastic (excluding cutlery but including plastic portion packs) are included in every delivery. This amounts to over 1 billion plastic items per year – and growing in line with overall restaurant delivery.

In line with overall concerns about the impact of packaging on the environment, operators are trialling a number of alternatives and highlighting their activities with widespread social media mentions. For example, Just Eat trialled take away boxes lined with seaweed (rather than plastic) in February 2020 to follow its trial of seaweed-based sauce sachets with Hellmann's.

Future outlook

Globally only 11% of the world's population has access to foodservice delivery platforms leaving very material upside for all players. In addition, the industry is likely to become ever more efficient which may lead to the emergence of economic models which generate superior cash returns. In the future, it may be possible to live a life without kitchens where every food and drink experience is delivered. Watch this space.

In India only 12.5% of the urban population has access to foodservice delivery apps. With factors already outlined in this report, such as a growing young population, urbanisation, increased penetration of internet and smartphones etc, there is clearly high potential for growth.

What happens next?

The same issues are playing out across geographies and at speed. The key question that faces delivery companies and investors across the world is: where is the market going? Whilst we can point to the general direction of travel, we can also foresee a time when there is a complex mega market for foodservice delivery to consumers wherever they are – at home, at work, at leisure – one that blurs the lines and stretches from delivering groceries, all the way through to meals cooked to order.

Market consolidation is one clear trend. We are seeing this in the case of the merger of Takeaway.com and Just Eat, and the subsequent acquisition of Grubhub, Zomato's acquisition of Uber Eats in India, and the investment by Naspers (via its Porsus investment vehicle) in delivery companies as widespread as Mail.Ru (in Russia), and iFood in several Latin American countries. Another development is the attempt to increase prices on the basis that higher prices and static costs leads to profits. So far, the consumer has been somewhat relaxed about paying for the costs of delivery whether in the UK, or Brazil or India. The question is: how high can these prices be raised? The aggregator deliverers are finding out.

Deliveroo, for example, has started to levy a delivery charge on all its orders even those from subscribers to its Deliveroo Plus subscription service which promised, when it launched in late 2017, to provide "free delivery all day, every day". There is clearly a limit to how much consumers will pay. The question, though, is it enough to provide the necessary profits and investor returns? Or will demand start to fall away? Deliveroo is also instituting surge pricing in selected areas to drive up prices when demand is high. But there are downsides to this, especially when consumers come to believe what appear to be random price changes are an attempt charge unfairly; then they will surely react against such companies.

In Bengaluru, Zomato has added a surge fee of up to INR 25 on orders during peak hour, and a delivery fee of INR 11 on its meal-for-one offering, which was previously free. Swiggy has increased its delivery charges in select small towns and cities, and increased night-time delivery charges in select locations. Swiggy has also raised its delivery fees, charging INR 31 for delivery of orders under INR 98, and INR 21 for deliveries beyond that limit in Bengaluru. Previously, the company had a maximum delivery charge of INR 20 and did not charge for orders over a certain price.

In the later part of 2019, the two dominant players have also started passing on restaurant packing charges and certain taxes to consumers and cut down on losses per order. The average discount on food tech platforms has dropped by 200 basis points since the middle of 2019.

The big question…

The core question is whether restaurant delivery is the 'whole' market it appears to be? Or is it part of a much larger ecosystem?

Consider this: it is possible to get food by going to a shop. It is possible to have groceries delivered within twenty four hours to the customer's home. It is possible to receive so-called "ultra-fast" delivery of groceries (that is, on the same day). It is possible to get freshly prepared sushi delivered from a local supermarket as if it was from a sushi restaurant.

What all of this tells us is that there is a grocery food ecosystem which aligns with the restaurant delivery ecosystem. Are they about to merge? Are the big players in each of the different foodservice delivery options (from grocers to full-service restaurants) about to encroach on each other's spaces in this ecosystem? Or are new players about to emerge? Who will win?

A profitable delivery model

Despite the challenges involved in the delivery ecosystem, some operators have shown that it is possible to execute a profitable model. One example, if not the only one, is Domino's, which has fully integrated discovery, production and last mile delivery. For the outsider at least, it is not possible to identify the profit or loss of each of the individual elements but the whole, leavened with a large dose of successful franchising, delivers a business model that delivers superior investor returns.

Is this fully integrated model the goal for the aggregator deliverer? Up until now, delivery models haven't included the physical production of the food; this has been outsourced to restaurants. Consequently, there is a battle between the aggregator and the restaurant over the profits from "food production". The aggregator deliverer has a large interest in grabbing much more of this profit, because it is seen to offset the losses from last mile delivery.

The formula for profitable success in restaurant delivery

High profits from discovery – losses from last mile delivery + profits from the kitchen = overall profitability

We are now starting to see the leading players in the market 'play out' this formula. So, how are they doing it?

- **Consolidating discovery**
  With high fixed costs and moderate running costs, the discovery element of the delivery journey benefits hugely from scale. The result is a battle for market share, not confined to a city or country, but on a global scale.

- **Outsourcing last mile delivery**
  Third parties, like Stuart, Glovo and Quicup, (Dunzo, Swiggy Stores etc. in India) are specialists in their field and therefore inherently more efficient than an aggregator deliverer. Last-mile specialists usually make their economics work by offering their services to a number of "verticals". Most focus on the food vertical from restaurants (but also retailers); other verticals include medicines (delivered to residential addresses as well as to pharmacies), clothes and office supplies.

  Having multiple verticals on their platform, means that last mile specialists have a flow of business throughout the day that maximises demand for riders' time. This allows the company to offer relatively attractive financial conditions to their riders; and, in turn, allows the deliverer to ensure much more reliable rider availability, and more reliable delivery times, to platform partners (such as restaurants) and customers.

- **Operating kitchens**
  Gaining profits from operating kitchens is being achieved through dark kitchens. In concept this is easy to understand; remove the front-of-house offer from a restaurant, move it to a location with low running costs, and concentrate offers and delivery in a single place for enhanced profitability. As a result, dark kitchens are attracting considerable interest from investors.

10

CONCLUSION

India's Foodservice delivery service market is, evidently, on an upward growth trajectory. The market stands to benefit from a combination of factors such as rapid urbanisation, a young population, increased internet and smartphone penetration as well as changing lifestyle and habits.

Continuous access to investor funding especially by aggregator deliverers, has worked in favour of the category, allowing it to acquire new customers and expand to small cities at a rapid pace. With the emphasis on profitability coming to the fore, the aggregator deliverer led growth will continue but at a moderate pace compared to the exponential growth witnessed in the past five years. Operators building/ enhancing their own delivery programmes will contribute to the growth of the market in the future as will the rise of cloud kitchens.

Availability of home-style and healthy meals could catalyse growth as tiffin services are already a popular unorganised market trend. With tiffin services coming into the fold of the organised market this could lead to an increase in delivery subscriptions among convenience-seeking millennials and single person homes.

New players, that are established names in their own categories, entering the Foodservice delivery market will lead to category expansion as well as setting of new benchmarks in terms of commissions and pricing. How this aspect of the market evolves will be one of the key developments to watch in 2021-22.

Several issues, ranging from aggregator-operator relationship dynamics to the search for a profitable delivery business model, will shape the future of delivery, not only in India but globally, and new solutions will emerge across the world. For instance the SuperApps route as a step towards building profitability emerged in China, and has been embraced across Asia including, India, to some extent. Both Swiggy and Zomato have expanded their businesses beyond just food delivery to gain from intermediary businesses that address various aspects of the food delivery value chain.

The Indian food delivery market has consistently attracted foreign investors, however, any uncertainty in the global market (currently top of the list are trade wars and covid) may impact investor sentiment. How the Indian economy shapes up in the next year will be a very important trend to watch.

And watch it we will!

Thank you for reading this report and please send your feedback and questions to:

samir.kuckreja@tasanaya.com
jasper.reid@immassociates.com
peter@peterbackmanfs.com

11

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Samir Kuckreja, Jasper Reid and Peter Backman

12

APPENDIX

Glossary of terms

Average Spend Per Check (APC)
Total sales divided by total transactions. We have also used Average Spend per Customer (ASC).

Average Spend Per Customer (ASC)
Refer to APC defined above.

Compound Annual Growth Rate (CAGR)
This is the average annual growth rate between two dates that are more than one year apart (e.g Y1 and Y3, Y1 and Y5).

Census towns
Census towns are areas that are not defined as a town by state governments but have urban characteristics (a minimum population of 5,000, at least 75% of the male main working population in the town engaged in non-agricultural activities, and a population density of at least 400 persons per square kilometre).

Cash burn
Cash burn is the rate at which a company uses up its capital to run its day-to-day operations. Cash burn rate is a metric that measures how the company's net cash position has changed over a time period, usually in a month.

Financial year
India's financial year is 1st April to 31st March: For example: "2019-20" is April 2019 to March 2020.

Food Safety nd Standards Authority of India (FSSAI)
FSSAI is an autonomous body established under the Ministry of Health & Family Welfare, Government of India The FSSAI has been established under the Food Safety and Standards Act, 2006, which is a consolidating statute related to food safety and regulation in India. FSSAI is responsible for protecting and promoting public health through the regulation and supervision of food safety.

Foodservice market formats
These are based on definitions used by NRAI (National Restaurant Association of India) as follows:

Cafe
Offer a variety of beverages with features of parlours, bakeries or chai bars with a typically relaxed atmosphere. Examples are Starbucks, Cafe Coffee Day, Chaayos.

Quick Service Restaurant (QSR)
Offer fast food and are focused on convenience. Features are: affordable items, speed of service, deliveries and take-aways, with minimal table service. Examples include: Wendy's, McDonald's, Burger King, Domino's.

Desserts and ice cream
Offer ice creams, frozen yoghurts and a limited variety of snacks/ beverages. Smaller formats with limited dine-in and often more geared to take out or grab and go. Examples include Baskin-Robbins, Red Mango

Affordable Casual Dining Restaurant (ACDR)
Offer a casual ambience and serve as a bridge between QSR and premium casual dining restaurants. They provide moderately priced food with table service and a range of often popular menu items. Example brands include Copper Chimney, Made in Punjab, Mahabelly, Jamie's Pizzeria, Pizza Hut.

Premium Casual Dining Restaurant (PCDR)
These are focused on quality, presentation and service and offer comparatively high-priced food. Characterised by an upmarket environment with quality interiors. Examples include Farzi Café, Jamie's Italian, Yum Yum Cha.

Fine Dining Restaurant (FDR)
Specialised/multi-cuisines offered with focus on quality, ingredients, presentation and service are symbolic of this format. Highly trained staff, premium interiors, upscale service and offering characterise the format. Examples include: Olive Bar & Kitchen, Masala Bar, Indian Accent, The Table.

Cloud kitchen
Various cuisines and menus designed on a delivery-only basis kitchen-only operation sometimes leveraging the same equipment platform for multiples brands and offers. Examples are Rebel Foods, FreshMenu, Box8.

Gen Z
People born between 1997 and 2015.

Gross Market Value (GMV)
Gross Market Value is the total value of merchandise sold through a particular marketplace over a specified time, and typically refers to the total value of the transactions on aggregator platforms. Note that GMV is not the same as aggregator sales which only include commission, and other sources (e.g. advertising).

Home chefs
Women (primarily in India) and men who work from their personal kitchens to cater to the demand of home cooked and regional cuisines. Their services are listed on aggregator platforms and many of them collaborate with cloud kitchens and also operate their independent businesses offline.

India Foodservice Delivery Report (IFSDR)
IFSDR analysis indicates our analysis of data that we collected and organised from a variety of sources detailed in the Annexures of this report.

Market share
Market share refers to the portion (generally expressed as %) of a market participated in by a named company or restaurant.

Metros
In India, the Census Commission defines the qualification for metropolitan city as, the cities having a population of more than 10 lakhs or one million and above and a Megacity as the cities having a population of more than 10 million and above.

Millennials
People born between 1980 and 1996.

National Capital Region (NCR)
Covers Delhi and certain districts of Haryana, Uttar Pradesh and Rajasthan.

National Restaurant Association of India (NRAI)
As the voice of the Indian restaurant industry, they represent the interests of 500,000+ restaurants in India. NRAI India Foodservices Report is the industry's most credible source of information, trends, opportunities and challenges.

Number of tickets per month
Refers to the number of tickets/bills generated by a restaurant in a month.

Frequency of delivery orders
The number of times a customer orders from a restaurant over a specified period.

Urban
The official definition is:
All municipalities, corporation, cantonments or notified town areas.

All other built up areas which satisfy the following criteria:
- Minimum population of 5,000.
- At least 75% of the working population is non-agricultural.
- A density of population across at least 400 square kilometres.

Total Addressable Market (TAM)
TAM refers to the total market demand for a product or service. It is the estimate of the market size that could theoretically be served by a specific product or service in a specific market.

Organised segment
The organised segment includes registered and licensed operators who may be a standalone business or part of a chain.

Ready To Cook (RTC) and Ready To Eat (RTE) market and foods
Third-party manufactured foods or ingredients used in primary food production and include frozen and non-frozen items. For example, dessert mixes (gulab jamun mix, kheer mix, rasagulla mix, rasmalai mix etc), snack mixes (rava idly mix, dhokla mix, puttu mix, idly dosa mix, biryani mix) and curry-making ingredients (gravy mix, masala mix etc).

Ready To Cook (RTC) Foods:
Foods that include all of the ingredients, where some preparation or cooking is required through a process that is given on the package. RTC frozen food includes items such as chicken nuggets, fries, vegetables, etc.

Ready To Eat (RTE) foods:
Group of food products that are pre-cleaned, precooked, mostly packaged and ready for consumption without prior preparation or cooking. According to the 2009 US Food code (FDA, 2009), RTE foods should be in an edible form without an additional preparation step to achieve food safety. RTE food include hot dogs, luncheon meats, cold cuts, fermented or dry sausage, and other deli-style meat and poultry.

Tiers of cities in India
Tiers are officially classified as centres based on population, as per 2011 census:
Tier 1: Population of 1,00,000 and above
Tier 2: Population of 50,000 to 99,999
Tier 3: Population of 20,000 to 49,999
Tier 4: Population of 10,000 to 19,999

Unorganised segment
The unorganised segment comprises small scale, often unregistered or unlicensed players. These include roadside eateries (dhabas), street side stalls, hawkers and small food establishments.

Working age population
People between 15 and 64 years.

YOY growth
Year on year growth being growth over consecutive years.

Market sizing methodology

The size of the market in India was estimated by a combined approach: bottom-up and top-down with the final result being a triangulated estimation which was shared with a number of industry leaders before publication. The methodology was based on the methodology developed by Peter Backman for delivery markets in the UK, USA and France, and adapted for the Indian Market.

Bottom-up approach

The bottom-up methodology was based on three coordinated stages which are described here:

Segmentation and identification

Divided the entire industry based on the NRAI (National Restaurant Association of India) India Foodservices Delivery Report, 2019 segmentation: QSR, CDR, Cafe, Dessert, Cloud Kitchen and FDR.
Used the NRAI data as a benchmark to calculate the total market size for each of the segments from 2015-16 to 2022-23.

Identified major players (8-10) within each of the segments based on insights from Industry experts and those who are dominant in the segment.

Extrapolating revenues

- Used publicly available data for Listed Companies: Jubilant Foods, Westlife, Burger King and Speciality Hospitality and Barbeque Nation which has filed for an IPO.
- Obtained feedback from restaurant brand CEOs.
- Used published data from credible sources - SSSG%, CAGR% data for remaining brands.
- Multiplied number of outlets x APT x Average number of monthly tickets for each of the brands to estimate revenues.
- Used Same Store Sales Growth (SSSG)% and CAGR% data to confirm data for selected brands.

Example: QSR Brand: For 2018-19: 214 outlets x 190 APT x 2500 Tickets per month x 12 months = Rs. 121,98,00,000 or Rs. 1220 million annual revenue for the brand.

Assumptions related to revenue estimates

For number of outlets

Used data available through various sources: desktop research, NRAI Reports and by getting feedback from CEOs of the identified brands to calculate the number of outlets from 2015-16 to 2019-20.

For brand APC

Used data available on Zomato to calculate APC for each of the brands for 2019-20 and assumed a 5% deflation YOY for the previous years.

For number of tickets

This is a derived figure which was calculated based on the brand's revenue for a specific year (from credible sources). Given that we know the APC, we thus calculated the number of tickets for that year. Subsequent/past years were extrapolated based on the brand's SSSG in those years.

Estimating delivery market size

Applied data from insights from CEOs of identified brands and industry experts, brand annual reports, and desktop research, to calculate delivery revenue % for each of the brands to calculate their delivery revenues from the extrapolated total revenue.

Example: QSR Brand: total revenue for 2018-19 is INR 1,220 million. Delivery revenue is 18% of total revenues and we have assumed that 100% of the total numbers of outlets offer delivery. Thus the delivery revenue is INR 220 million.

Divided total revenue for each of the brands by the total market size benchmarked through NRAI size of each segment to calculate the market share % for each of the brands.
Example: The NRAI 2019 Report gives a QSR market size of INR 328,800 million. Thus this QSR brand's market share is 0.5%.

- For each of the segments we made informed assumptions of the delivery revenue % for the non-identified brands from various sources including insights from CEOs of identified brands and Industry experts, brand annual reports and desktop research using insights from CEOs of identified brands and Industry experts, brand annual reports, desktop research. Calculated the Total Delivery Market Size for a segment by using the data mentioned in Points a-c above for 2015-16 to 2019-20.

Estimating delivery market size for 2020-21 to 2022-23:

We divided the total delivery market size by the total market size from 2015-16 to 2019-20 to arrive at the delivery share % for each of the segments for each year. We then rationalised the delivery share % for the next 3 years based on historical growth and future growth prospects to extrapolate the delivery market size for future years.

Top-down approach

Aggregated the total number of orders and the average order value to extrapolate the GMV of Delivery on aggregator platforms (Zomato, Swiggy, Uber Eats and others) through various sources including insights from CEOs of identified brands and Industry experts, brand annual reports and desktop research.

Example: For 2019-20 Zomato's AOV was INR 280 and the total number of annual orders was 450 million. Thus, the Zomato GMV is INR 126,000 million.

Extrapolated the size of direct delivery that all brands are doing on the basis on industry Insights andmeetings with various brands to extrapolate the GMV of Delivery through direct channels.

Example: We have assumed the direct delivery is 20% of the overall market in 2019-20.

Added a and b to derive the GMV of the Delivery Market and then validated this information with various Industry Leaders.

Example: Overall GMV of the delivery market in 2019-20 is INR 372,935 million.

Cross referenced with the Total Market Size from the bottom up approach.

Note:
There was originally a gap between the top-down and bottom-up approaches for the market size which is due to home bakers and chefs, unorganised players including cloud kitchens (without Municipal Health Licenses) that are active on the aggregator platforms, but not included in the NRAI data.

The size of the cloud kitchen segment has been increased by 150% from the NRAI Report in 2018-19 (we have taken INR 22,898 million as the size instead of INR 9,159 million estimated by NRAI). This was due to under-estimation of this segment by NRAI and also discussions with some of the key CEOs about this segment. After doing this, there was only a difference of 0.13% between the bottom-up and top-down approaches to the market size.

TAM Methodology

Summarising the entire process:

1. **Frequency of delivery orders =** Frequency of orders x Market size of delivery (%).

2. **Total average spend of a customer per month =** Total average spend for each segment x Frequency of delivery orders (a).

3. **Weighted average spend of a customer per month:** Weighted average of total average spend of a customer in a month by using (%) revenue contribution of each segment to the total delivery market as weights.

4. **Total number of delivery orders =** Total number of aggregator orders + Total number of direct orders.

5. **Tam =** Weighted average spends of a customer in a month (c) x Total number of delivery orders (d)

Frequency of delivery orders: Frequency of orders x Market size of delivery (%).

- Used customer data from the NRAI India Foodservice Delivery Report 2019 to get the average monthly order frequency for dine-in and delivery for each of the segments for 2019-20.
- Since the frequency of customer orders presented by the NRAI is a cumulation of dine-in and delivery, we multiplied the market size of delivery (%) in each segment, extrapolated from the data IFSDR 21 has compiled, by the frequency of orders to segregate the frequency of delivery orders per month.

Example: Frequency for the QSR segment is 4.8 times a month in 2019-220. Thus, the frequency for delivery in QSR has been calculated as 1.4 which is 30% of 4.8. This is based on the delivery being 30% of the QSR segment as per the IFSDR research.

- Projected these ordering frequencies over the 5 years 2020-2025 using judgement based on our knowledge and insights, and industry trends.

Average spend per customer: total average spends for each segment x frequency of delivery orders

- Took the average spend per customer from the IFSDR for each segment.
- Projected spends for the next 5 years. Again, our projections were based on our judgement, knowledge, insights and on industry trends.
- Multiplied the average spends per customer for each segment by the frequency of delivery orders in that segment to arrive at the average spend of a customer in a month for each segment. Example: For the QSR segment the average spend per order is INR 225 in 2019-20. We multiplied that by the delivery frequency for QSR which is 1.4 to get the average monthly spend of INR 324 for the QSR segment.
- Derived a weighted average spend per customer for each segment by using (%) revenue contribution of each segment to the total delivery market from IFSDR 2021 research to the delivery market size as a weight to arrive at the weighted average spend per customer per month.

Total number of delivery orders: total number of aggregator orders + total number of direct orders.

- Identified the total number of delivery orders on all aggregator platforms through various sources (Zomato blogs, online articles and industry experts).
- Projected total delivery orders through the aggregator platforms for the next 5 years on the basis of parameters such as the effect of the acquisition of Uber Eats by Zomato, and the influx of new aggregators like Amazon.
- Our research based on talking with multiple delivery operators indicated that 15% of total orders were direct delivery for 2019-20.
- Projected the total number of direct orders on the basis that brands are promoting direct delivery to increase margins.
- Added direct orders to the orders through the aggregator platforms to get the total number of delivery orders.

Finally, the TAM was derived by multiplying **Average spends per customer** by the **Total number of delivery orders.**

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Managing Director, Jumboking
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Managing Director, Berco’s
Country head, Subway
CEO Foodservice delivery Unit and Co-Founder;
Associate Vice President - Corporate Development and CFO, Zomato
Founder and CEO, Chaayos
Senior Brand Manager, Pizza Hut

Owner, Nizam's
CEO, WOW! Momo
Managing Director, KFC
CEO, Nirula's
Co-Founder, Mahabelly
Executive Director, Haldiram's

Industry forum

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Managing Director, Jumboking
Founder and CEO, Ghost Kitchens
Chief Eating Officer , The Bohri Kitchen
Director, Mint Hospitality
Co-founder, Smart Kitchen
Co-founder, Dine-Out
Founder, Mahabelly
Founder and CEO, Smart Co Kitchen
Senior Research Analyst, Euromonitor