



**ANALYSYS MASON**

# INTERNET MONTHLY

Consulting specialists in telecoms,  
media and digital (internet)

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## ***Featured in this issue***

The online home services market in India: UrbanClap's race to the top

Artificial intelligence: evaluating its scope for adoption in India

Recap: online grocery shopping and success factors in this space

Recap: the point-of-sale market is set for rapid growth

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# FOREWORD

Welcome to the fourth (September 2019) edition of Analysys Mason's monthly newsletter on the internet and digital markets in India.

Dear all

We are delighted to share with you the September edition of our internet newsletter, which builds on our series of newsletters that focus on the internet and digital space in India. In this edition, we assess two nascent but promising sub-sectors within the internet/digital space that have attracted significant interest from marquee investors across the globe. This month's articles focus on:

- the growth of the online **home services** market, within which **UrbanClap** has emerged as a particularly successful player
- the evolution and future of **artificial intelligence** in India.

The USD30 billion traditional **home services** market in India is fragmented and unorganised, which is creating significant potential for disruption by online players. Online home services players such as UrbanClap leverage the business principles of demand and supply aggregation through online marketplaces, which provide convenience, as well as improved transparency and service quality. This asset-light model has enabled players in this market to scale rapidly: transaction value in the online home services market is expected to grow at a CAGR of around 56% over the next few years to reach USD850 million by FY2023. UrbanClap, the clear market leader in the online space, has been favoured by investors as well. However, UrbanClap must exercise category diversification and strategic geographical expansion to deliver the next stage of growth.

Although the **AI market** in India is still nascent compared with leading technology hubs worldwide, it is set to grow significantly in the coming years because of the increasing volume of data traffic in the country, increased cloud adoption and the



government's focus on AI. The size of the AI market in India in 2018 is estimated to have reached USD230 million. If the Indian AI market keeps pace with global growth trends, it is expected to reach around USD5 billion by 2025 at a CAGR of 50–60%. Healthcare, location intelligence and conversational chatbots are examples of major applications that we expect to lead the growth of AI in the country.

This newsletter also provides a short summary of our previously published insights on the online grocery segment and the online Point of Sale (POS) market. Both articles have generated keen interest, new thoughts and appreciation from our investor clients.

I hope you enjoy reading this edition of the newsletter and find our insights as interesting as you have found our previous articles.

**Rohan Dhamija**

Partner, Head – India (South Asia), & Middle East

## The online home services market in India: UrbanClap's race to the top

*Just as Uber disrupted the taxi market and Oyo redefined hotel stays, a similar transformation is under way in the traditionally offline home services market in India. Online home services players such as UrbanClap leverage similar business principles of demand and supply aggregation through online marketplaces, which provide convenience, as well as improved transparency and service quality. This asset-light model has enabled players in this market to rapidly increase their revenue: transaction value in the online home services market is expected to grow at a CAGR of around 56% over the next few years to reach USD850 million by FY2023. This article assesses the state of the home services market in India, the drivers of its growth, unit economics and future prospects.*



**The traditional home services market is large but fragmented and unorganised; this creates a substantial opportunity for disruption**

### Total market size and structure

The size of India's home services market is estimated to be USD30 billion. This industry has traditionally been fragmented and unorganised. This market includes offline stores and professions that offer services in the following categories.

- **Beauty, salon and spa treatments:** skin care, hair care, spa therapy, massage, grooming and make-up for special occasions
- **Home repair and maintenance:** electricians, plumbers and carpenters
- **Health and wellness:** fitness, yoga, dieting and child and elderly care

- **Large home improvements:** projects such as painting, as well as architectural design and upgrades
- **Cleaning:** daily cleaning, professional deep cleaning and pest control.

### Pain points and friction in the customer journey in the offline market

The lack of scale and standardisation in the traditional home services market can lead to customer experience issues during each step of the customer journey.

- **Search.** The search and discovery of service professionals is often a time-consuming process, particularly for services that are only required on an infrequent basis. Consumers rely on word-of-mouth and trust their past experience when searching for service professionals in their local area.



**FIGURE 1:** KEY HOME SERVICES CATEGORIES [SOURCE: ANALYSYS MASON, 2019]

- **Pricing.** The pricing process can be non-transparent and non-standardised, often involving middle-men and aggregators.
- **Service delivery.** This stage often delivers a poor customer experience because the traditional offline home services industry lacks standardisation of materials, tools, processes and quality control practices.
- **Payment.** Cash is typically the only accepted payment mode, which can create challenges for both customers and service professionals.
- **Post-service support.** Unorganised markets such as this often mean that there is no follow-up support, assurance or warranty following service delivery.

### Online marketplaces can reduce the friction of offline markets

#### How online marketplaces add value

Players in the online home services market have a significant opportunity to add value to the traditional customer experience of the end-to-end sales process in the home services market. The online home services marketplace enables customers to use their mobile phone to conveniently book services from qualified professionals at transparent prices. The aim is to remove the friction associated with more-traditional home service shopping at every step of the customer journey (refer Figure 2).

- **Search.** The digital marketplace, which is supported with ratings and reviews, can make the search and discovery process easier and more reliable. The

ability to choose and book timeslots through an app provides further convenience.

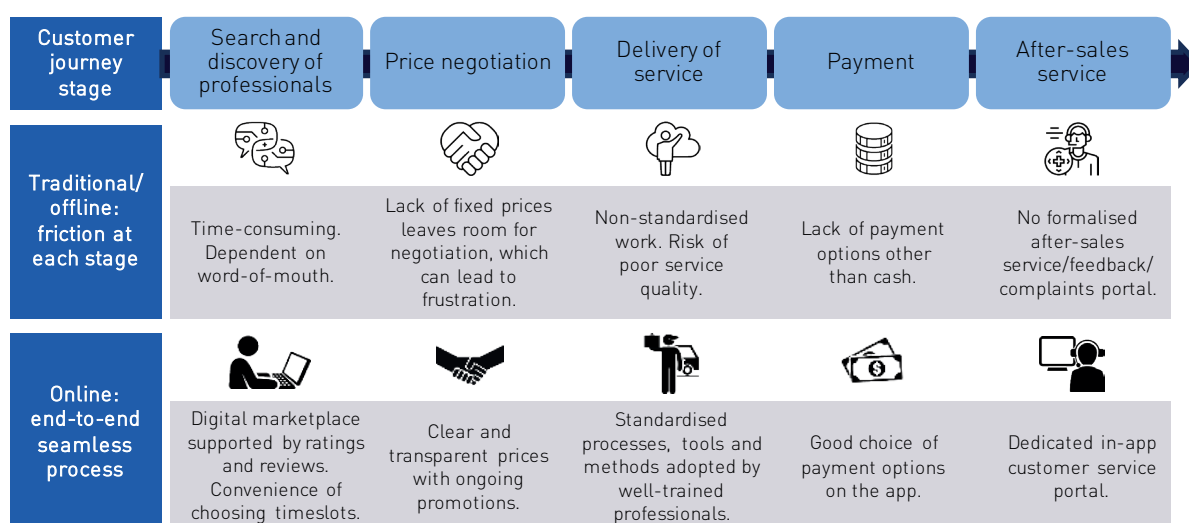
- **Pricing.** Digital platforms make pricing clear and transparent.
- **Service delivery.** Service quality can be improved in a digital environment by training service professionals and standardising processes.
- **Payment.** A range of payment options are available, including credit cards, digital wallets and cash.
- **Post-service support.** Customer satisfaction can be improved through systems for customer support and grievance redressal.

#### Demand-side drivers of growth

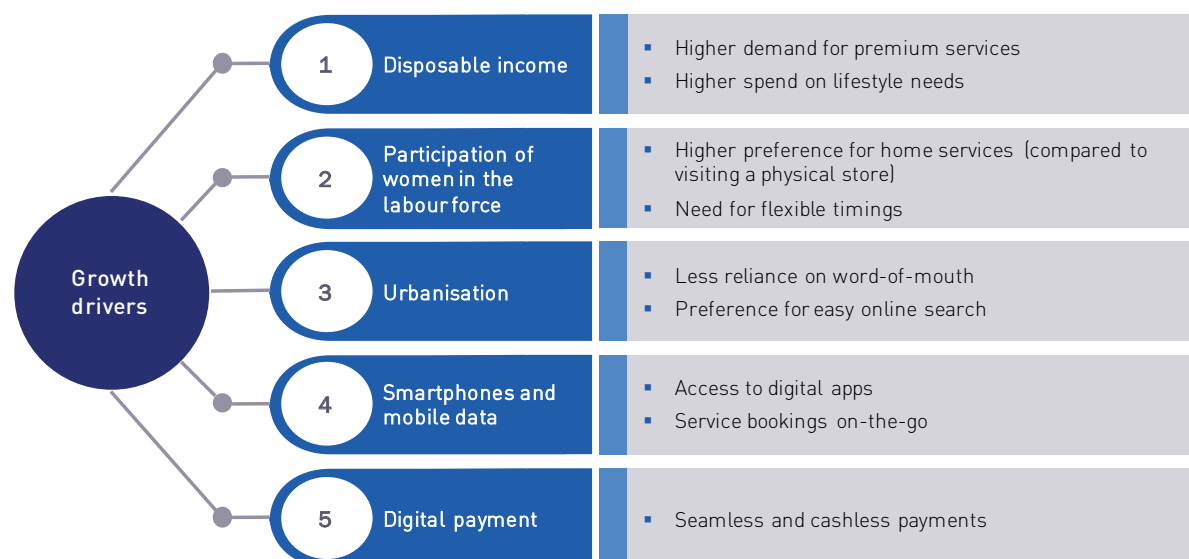
The penetration of online home services marketplaces is supported by macroeconomic, demographic and digital factors. The key drivers of this growth are illustrated in Figure 3, on next page.

#### Size of the online opportunity in India

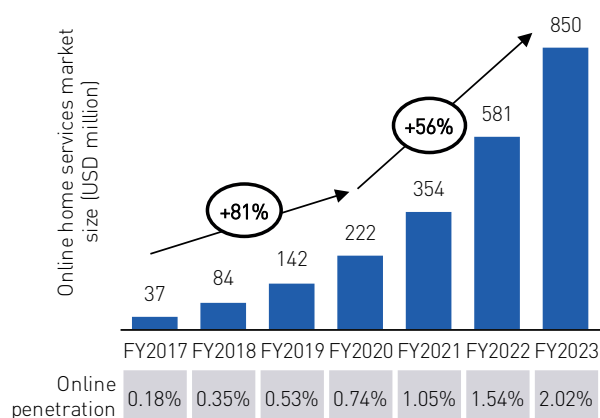
The online home service market is a nascent but rapidly growing segment of the overall home services market in India. With a total market size of around USD220 million, the online penetration of the overall segment is estimated to be just over 0.7% (an estimated total base of USD30 billion). The online market has grown at rate of around 80% year-on-year during the past 2–3 years. The online segment is expected to continue to grow quickly, reaching over USD850 million in FY2023. Even with such expansion, online penetration will still be just over 2%, which highlights a far greater potential for growth in future.



**FIGURE 2:** COMPARISON OF EACH STAGE OF THE CUSTOMER JOURNEY FOR TRADITIONAL, OFFLINE MARKETS AND ONLINE MARKETPLACES [SOURCE: ANALYSYS MASON, 2019]



**FIGURE 3:** KEY DRIVERS OF GROWTH IN THE ONLINE HOME SERVICES MARKET [SOURCE: ANALYSYS MASON, 2019]



**FIGURE 4:** MARKET SIZE AND PENETRATION OF ONLINE HOME SERVICES IN INDIA [SOURCE: ANALYSYS MASON, 2019]

### The competitive landscape in India: UrbanClap is emerging as a clear market leader in the online home services market

#### Evolution of the supply-side

Online home services start-ups were first launched in India in 2013 and 2014. During this initial phase, the online market was fragmented with multiple small players such as UrbanClap, Housejoy, Hometriangle, Local Oye, HandyHome, Zimmer and Mr. Right, all of which experimented with different business models. During the funding crunch of 2015–2016, many of these start-ups were either closed down or acquired by other players. A few remained in the market but struggled to grow fast.

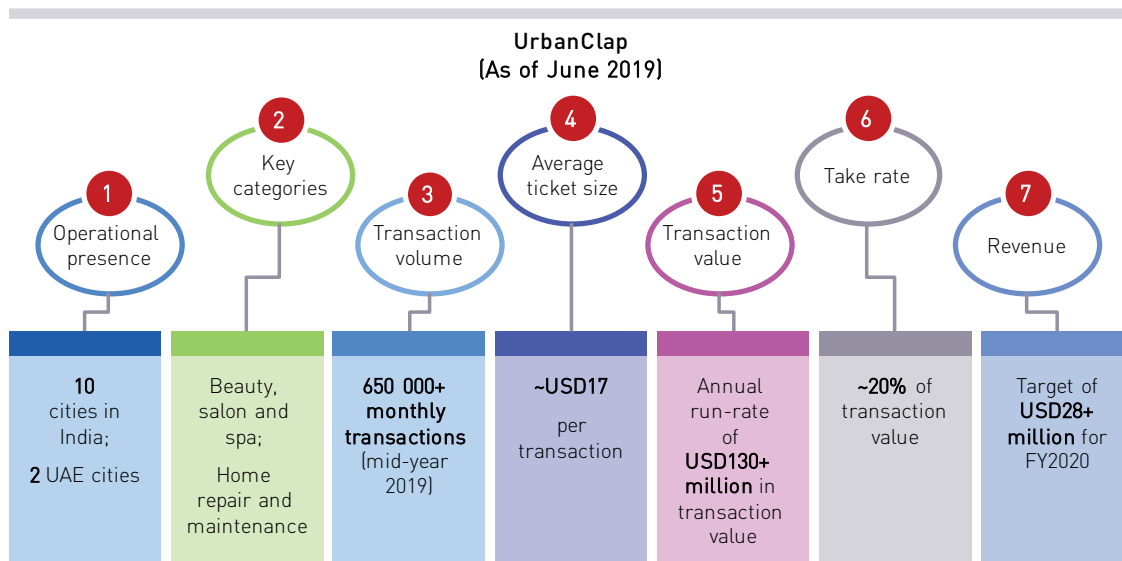
By 2017, UrbanClap and Housejoy emerged as the two main contenders in this growing market. However, Housejoy has since lost its traction and UrbanClap has emerged as the market leader. While online classified and listing platforms such as JustDial, Quickr and IndiaMart also compete within the online search and discovery space of this market, they do not have the same level of control as UrbanClap on the other parts of the supply chain.

#### UrbanClap – key statistics

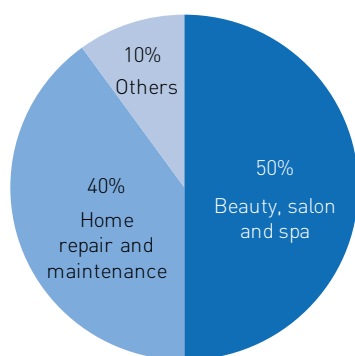
UrbanClap was founded in November 2014 and has since expanded as a managed marketplace to over 10 cities in India; internationally, it has expanded to two cities in the UAE (Dubai and Abu Dhabi).

The platform has been handling over 650 000 monthly transactions since mid-2019, which represents over 100% growth year-on-year. The average value of each transaction is estimated to be INR1200 (about USD17), with the platform charging 20% of the transaction's value as commission from the service professionals. The firm is aiming to reach an annual revenue of INR200Cr (or around USD28 million) in FY2020 (see Figure 5).

Beauty, salon and spa services account for over 50% of UrbanClap's transactions and revenue. The second-largest category is home repair and maintenance, which accounts for over 40% of transactions on the platform. The remaining 10% of transactions are spread across categories such as health and wellness, cleaning and large home improvements (see Figure 6).



**FIGURE 5:** KEY STATISTICS FOR URBANCLAP AS OF JUNE 2019 [SOURCE: ANALYSYS MASON, 2019]



**FIGURE 6:** DISTRIBUTION OF TRANSACTIONS ON URBANCLAP BY CATEGORIES, MID- 2019 [SOURCE: ANALYSYS MASON, 2019]

### UrbanClap's competitive advantages

#### UrbanClap's competitive advantages include:

- A strong focus on ensuring a **high quality of service** delivered by professions to the customers
- success in identifying and establishing an **anchor use case** in beauty and salon services at an early stage.

#### Quality of service

UrbanClap has built a robust model that enables it to deeply integrate with service professions' data and to control quality. This includes initiatives to:

- standardise training and operating procedures
- a feedback mechanism driven by ratings and reviews to reward high-quality customer service

- provide additional support to service professionals working in the areas of credit, insurance and bulk procurement of materials.

As a single platform that serves the full range of home services in a standardised and transparent fashion, UrbanClap has eliminated the trust deficiency, search friction and inconvenience from which the traditional market has long suffered.

#### Anchor use case

A key reason for UrbanClap's substantial growth is the company's success with identifying and establishing an anchor use case at an early stage. An anchor use case is the primary proposition of any digital offering that:

- enables customers to interact with the platform for first time with a low level of apprehension
- helps customers to utilise the platform's service and to develop trust
- gives customers a reason to returning to the platform frequently.

Successful internet firms have chosen and established different anchor use cases, depending on the local market context, to gain trust and a permanent share of the market. For example, Alipay's anchor use case was online payments on Alibaba's ecommerce website, while for M-Pesa, it was P2P mobile money transfers.

UrbanClap's anchor use case is the beauty and salon services segment. Beauty, salon and spa services have

been the growth engine for UrbanClap and still account for over 50% of transactions on the platform. This category offers clear benefits over traditional offerings, specifically in terms of convenience and standardisation, which encourages customers to return to the app frequently. A customer that is initially acquired through beauty services can slowly be encouraged to diversify their spending on the platform to other home services category as his/her trust in the platform grows through repeated usage.

**Potential risks to growth: despite its success, UrbanClap must overcome further challenges to unlock the next stage of growth**

UrbanClap has achieved reasonable success in metropolitan areas for specific sub-segments of the beauty and spa service category, as well as home repair and maintenance services. The next stage of growth is expected to come from:

- diversification into new categories
- expansion to tier-2 cities domestically
- constant control of disintermediation while undertaking the former two tasks.

**Diversification into new categories**

As UrbanClap diversifies into new segments of the online home services market, it may have to reinvent its business model for these categories. For example, daily cleaning is the largest category within the traditionally offline home services market, accounting for around a 40% share, however the firm is not yet active in this market segment. In contrast, the firm has entered home services segments such as yoga at home, fitness at home and dieticians at home, which are either premium-level services or those that are used infrequently, which represent a smaller addressable market.

For categories (such as daily cleaning) that involve regular interaction between customers and service professionals, it is unclear what sustained advantages UrbanClap's platform can offer to stakeholders on both sides. It is not typically difficult to search within a local area for daily cleaning professionals, and with fixed schedules, the platform offers minimal incremental convenience on a daily basis to keep disintermediation in check. Furthermore, the daily cleaning service professionals may not be willing to part with UrbanClap's fee of 20% of daily earnings, which the company charges as commission for other home services categories.

UrbanClap may also face tough competition from local offline stores when expanding its range of offerings in categories such as salon and men's grooming. These offline stores are able to build long-lasting relationships with customers and offer the opportunity for physical interfaces (at a store), unlike an app. Furthermore, customers may consider the average charge of each transaction on the UrbanClap platform (currently just over INR1200) to be unaffordable compared with the rest of more-traditional offline market. The challenge of expanding the supply of qualified service professionals while also lowering associated price points has parallels with similar challenges faced by the online cab aggregation industry.

**Geographical expansion**

Penetration in tier-2 cities can be more challenging than in metropolitan areas, particularly because of the difference in levels of income and the presence of stronger local links between customers and traditional service channels. In contrast, UrbanClap has expanded into developed cities outside of India, which potentially indicates an intention to use its strengths in terms of convenience and premium customer service experience while also relying on a large Indian diaspora. However, in developed international markets, it loses one of its key differentiating factors: the ability to bring standardisation and transparency to markets where trust is traditionally low.

**Disintermediation**

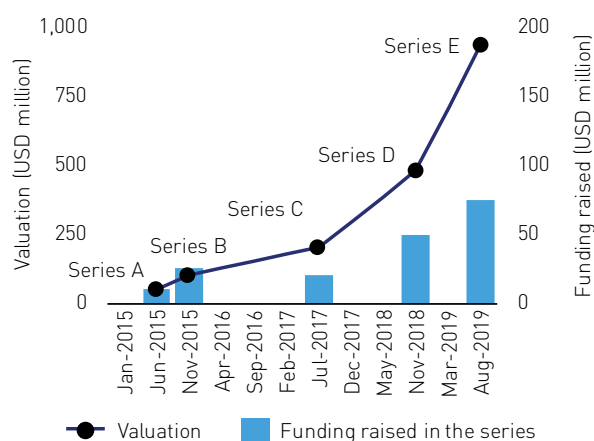
Disintermediation always represents a threat to UrbanClap but is one that it can manage. Disintermediation ensures that the platform's continued existence must always be justified and value-accretive for stakeholders on both sides of the managed marketplace. A further risk can emerge when service professionals that initially establish relationships with customers using the platform subsequently bypass the platform, but the firm seems to have managed this concern to date. The platform's key advantage is its large-scale, real-time supply and demand matching. It builds platform stickiness with service professionals by providing them with added value in various areas including pricing power, demand matching, timing flexibility, training and financial support. With loyalty programs and usage-based discounts for customers, it also incentivises customers to book services through the platform.



### Investor interest: UrbanClap's rapid growth and market dominance is under the scanner of many marquee investors

UrbanClap had raised over USD110 million in the last 4 years, led by reputed investors including Accel Partners, SAIF Partners, Bessemer Venture Partners and VY Capital. The latest round of investment of USD75 million from Tiger Global was agreed in August 2019, which means that the firm now boasts over USD185 million in fundraising to date.

There has been little interest in other players in the segment and UrbanClap has emerged as investors' favourite, reaching close to a unicorn status with investments from global marquee funds. The firm has



**FIGURE 7: INVESTMENTS AND THE SUBSEQUENT VALUATION OF URBANCLAP, JANUARY 2015 TO AUGUST 2019** [SOURCE: ANALYSYS MASON, 2019]

been valued at upwards of USD933 million (post-money) after the most-recent round (Series E), almost double its valuation of USD480 million (post-money) during its Series D function, which happened in November 2018. In early 2019, the three co-founders also decided to commit a total of USD15 million as a part of the Series D fundraising exercise, reinstating their confidence in the future prospects of the business.

### Unit economics: UrbanClap's asset-light business model means that profitability can increase as economies of scale are realised

UrbanClap boasts a lean business model: the primary source of revenue is the commission (or take rate) is charged to the service professionals, and the firm has limited direct costs at the unit level, with the exception of direct promotional discounts and payment gateway charges. The largest costs for the firm are primarily overheads such as marketing expenses, employee salaries and other general and administrative expenses. The firm's business model is asset-light, and it does not own any major fixed assets across the supply chain.

As is the case for other ecommerce businesses with similar asset-light business models (for example, online cab aggregators), the unit economics are expected to improve with scale. As UrbanClap acquires more customers and captures a higher share of wallet per customer, discounting and marketing spend as a proportion of revenue is expected to reduce. Furthermore, scale efficiency will lower the costs associated with other overheads.

Metric	Current percentage of revenue	Expected evolution
Revenue	100%	Revenue is expected to grow over time, driven by both the growth in transaction volume as well as commission margins to service professions (with larger scale).
Direct cost: Promotional discounts	5-10%	Discounts are expected to reduce as the market matures.
Direct cost: Payment gateway charges	3%	Direct cost on transactions paid via digital modes. Not a significant cost (typically around 1-2% of transaction value).
Marketing expenses	40-50%	As a fast-growing market, spend on customer acquisition and ATL marketing is high. This is expected to reduce to ~10% as seen in mature internet verticals.
Employee costs	60-70%	Currently a significant cost, given the lower base of revenue. Expected to reduce as the scale of the firm grows.
IT and other G&A costs (including software, bandwidth and G&A)	15-25%	Overhead costs would benefit from economies of scale
EBITDA margin	(40-60%)	Efficiencies in marketing, employee costs and G&A costs and reduced discounts are likely to improve the future contribution margin, which is expected to be positive in the medium term (around 3-4 years).

**FIGURE 8: ANALYSYS MASON'S ESTIMATE OF THE CURRENT UNIT ECONOMICS OF URBANCLAP** [SOURCE: ANALYSYS MASON, 2019]

# Artificial intelligence: evaluating its scope for adoption in India

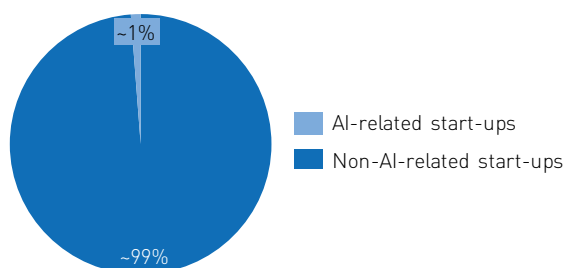
*The success of Amazon's Alexa, Apple's Siri and other artificial intelligence (AI) assistants has ensured that the technology now forms a part of people's daily lives around the world. In addition to global tech behemoths such as Google and Amazon, start-ups such as Toutiao, UiPath and Waymo are creating ripples in the AI market. This article analyses the take-up of AI in India compared with other countries, identifies enablers for the industry and highlights some key AI use cases and start-ups in India.*



## What is artificial intelligence?

Artificial intelligence is defined by the ability of a system (such as a computer or robot) to perform functions that are commonly associated with living, intelligent beings. A typical system is said to be using AI if it can reason, discover meanings, generalise/draw conclusions and learn from past experiences. AI in its current form does not match the intellectual flexibility of a human being, and is instead developed for specific tasks or functions. Despite this, it still has wide applications in areas as diverse as speech recognition, voice assistants, medical diagnosis and autonomous driving.

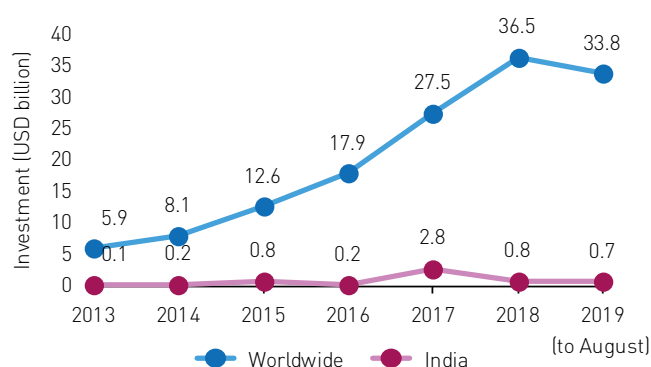
## Take-up of AI in India and worldwide



**FIGURE 1:** FUNDING FOR AI-RELATED START-UPS AND TOTAL FUNDING IN INDIA, 2018 [SOURCE: ANALYSYS MASON, PUBLIC SOURCES]

Despite the recent surge in investment in start-ups in India, AI remains a slightly neglected sector. In 2018, AI-related start-ups only attracted 1% of the total funding raised for start-ups in India.

The patterns for investment in AI-related start-ups in India do not follow the global trends in these start-ups. The patterns in India are unpredictable, especially compared with the worldwide trend for increasing investment.



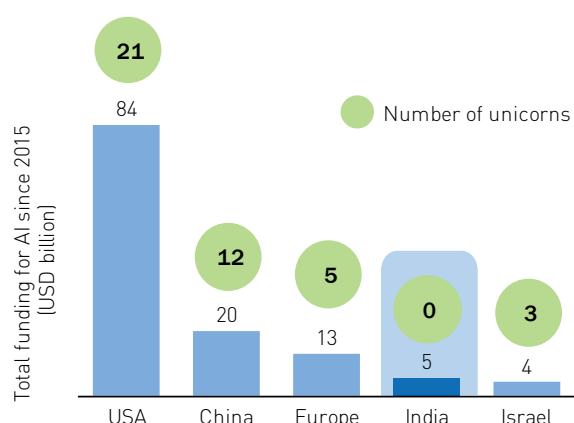
**FIGURE 2:** COMPARISON OF WORLDWIDE INVESTMENTS IN AI-RELATED START-UPS WITH THOSE IN INDIA, 2013-AUGUST 2019 [SOURCE: ANALYSYS MASON, PUBLIC SOURCES]

The difference becomes even clearer when you compare India with leading tech-hubs in the world, both in terms of funding and the number of unicorns (that is, companies with a valuation of more than USD1 billion).

When Indian start-ups that use AI in their operations are compared against their global counterparts, it is clear that Indian AI start-ups have a long way to go.




## Reasons for low take-up of AI in India

The clear gap in adoption of AI between India and countries that lead the AI market (China and USA) can be explained by several factors.



**FIGURE 3:** TOTAL FUNDING FOR AI SINCE 2015, AND THE NUMBER OF UNICORNS IN SELECTED COUNTRIES/REGIONS, AS OF 2018  
[SOURCE: ANALYSYS MASON, PUBLIC SOURCES]

- **Lack of resources.** As of 2018, India accounted for less than 2% of the world's PhD educated researchers in AI (386 out of 22 000). Moreover, serious research work in India in the field of AI is limited to less than 50 researchers, most of which are concentrated in institutes such as IITs<sup>1</sup>, IIITs<sup>2</sup> and IISc<sup>3</sup>.

	Application	Valuation of a global firm	Valuation of an Indian firm
1	News aggregator 	Toutiao USD20 billion (2017, China)	Dailyhunt USD 525 million (July 2019)
2	Voice recognition 	M*Modal USD1 billion (2019, USA)	Uniphore USD 125 million (July 2019)
3	Healthcare 	BenevolentAI USD2 billion (2019, UK)	SigTuple USD 90 million (May 2019)

**FIGURE 4:** VALUATION OF INDIAN AI FIRMS COMPARED TO THEIR GLOBAL COUNTERPARTS [SOURCE: ANALYSYS MASON, 2019]

- **Lack of data in an SME-dominated ecosystem.** AI and its applications need enough data, something which is lacking in the SME market. If there is less data to process, adoption of AI is lower.
- **Fear that AI will destroy jobs.** In an economy in which labour is in surplus supply, such as India, there is a fear that AI will replace jobs that are performed by humans. With unemployment already at very high levels in India, there is a feeling that adoption of AI would create further problems on the jobs front.

### Potential applications of artificial intelligence in India

Several factors could help to drive the adoption of AI in India, including demographics and government initiatives. In addition, investment in this space has increased, with several AI-based start-ups gaining the trust of marquee investors. Furthermore, the market is composed of several other start-ups that are working on a wide variety of interesting use cases.

### Drivers of AI adoption in India

We outline the main drivers of AI in India in the table below.

### Recent investments in the space

There has been a recent surge in investments in the AI space in India with leading investors such as Greater Pacific Capital, Greycroft Partners, March Capital partners and Tiger Global Management making significant bets in the artificial intelligence start-up ecosystem.

To date, around 100 investments have been made in the AI space in India in 2019, which are worth over USD700 million. Figure 6 highlights the amount of funding provided by key investors.

AI start-ups that have received funding in 2019 cover a variety of use cases. Start-ups are working on use cases such as enterprise solutions (contract management and sales productivity), analytics, conversational services, location intelligence (real-time information on places, people and products based on location) and FinTech, all of which have raised significant capital in 2019 as shown in Figure 7.

The following start-ups have benefited from recent investment and cover a variety of use cases enabled by AI.

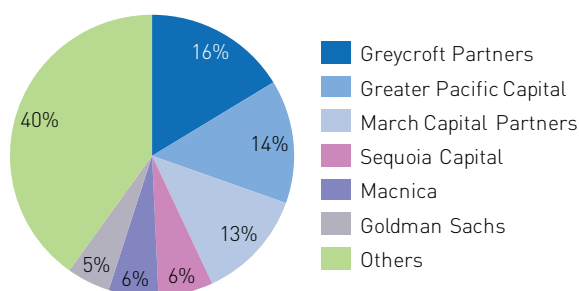
<sup>1</sup> Indian Institute of Technology.

<sup>2</sup> International Institute of Information Technology.

<sup>3</sup> Indian Institute of Science.

	<b>Volume of data and cloud adoption</b>	India accounted for 2.6% of the world's data traffic in 2017 and India's share is expected to grow at a CAGR of 48% to reach a global share of 5% by 2022. To complement this data boom, the cloud services industry is experiencing significant growth in India, with major players (AWS, Azure, GCP, IBM and Alibaba) opening local data centres (10+ in aggregate). This is expected to drive SMEs' adoption of cloud in India.
	<b>Government focus</b>	NITI Aayog complied with the government directives (Budget 2018-19) and published a discussion paper in 2018 as a precursor to crafting the national strategy for AI. It has identified five sectors to focus on, which are prioritised based on the benefit they bring to the society: healthcare, agriculture, education, smart cities and smart mobility and transportation. Having a formal policy in place along with a mission statement from the government will help to evolve and drive the AI market in India.
	<b>Growth of AI talent</b>	While there has been a paucity of AI-focused talent in India, recent developments suggest a potential reversal in this trend. CBSE and Microsoft have joined together to build AI learning for schools. IIT Kharagpur has adopted AWS's Educate program, which will accelerate cloud and AI-related learning. There have been several other initiatives that are expected to develop AI talent in India (for example, two IIT Madras start-ups have partnered to create 100 000 AI and deep-learning experts in India by 2020).
	<b>B2C is driving the market for AI</b>	India is home to several B2C unicorns (Ola Cabs, OYO, Swiggy and Zomato) that have seen immense growth owing to the increase in the volume of data traffic in the country. The rise in the number of interactions on their platforms has encouraged them to look beyond human intervention to keep pace with this growth. For example, in February 2019, Swiggy acquired Kint.io, which is a developer of image recognition solutions. In addition, in 2018, PayTM acquired Cube26, OYO acquired AblePlus and Flipkart acquired Liv.ai.
	<b>Potential to reach a global clientele</b>	Similar to the B2B market, the addressable market for Indian AI firms is not limited to India. Near, a start-up in the AI location intelligence space, has an impressive global client portfolio, which includes Audi, BMW and WeWork.

**FIGURE 5: KEY DRIVERS OF AI ADOPTION IN INDIA** [SOURCE: ANALYSYS MASON, 2019]

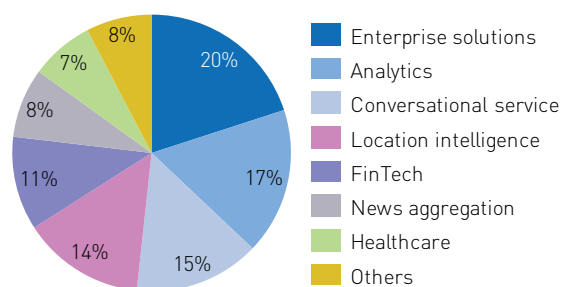


**FIGURE 6: AI INVESTMENTS IN INDIA BY LEAD INVESTOR, 2019** [SOURCE: ANALYSYS MASON, PUBLIC SOURCES]

- **INDwealth.** In August 2019, Tiger Global invested USD15 million in INDwealth, which is a wealth management platform based on machine learning, AI and data science technology. The firm focuses on high-net-worth individuals (HNIs) and enables consumers to track and organise their investments, expenses, loans and taxes.
- **Locus.** In May 2019, Blume Ventures, Exfinity Venture Partners, Falcon Edge and Tiger Global invested approximately USD26 million in Locus. Locus is a

developer of cloud-based, real-time tracking solutions including on-field management for on-demand businesses. The company also helps to provide live order tracking, customer interaction and on-field workforce management through the use of analytics.

- **Vue.ai.** This start-up enables fashion ecommerce websites to offer product recommendations and visual search options. It uses AI to provide features such as personalisation, duplicate detection,



**FIGURE 7: AI INVESTMENTS IN INDIA BY USE CASE, 2019** [SOURCE: ANALYSYS MASON, PUBLIC SOURCES]

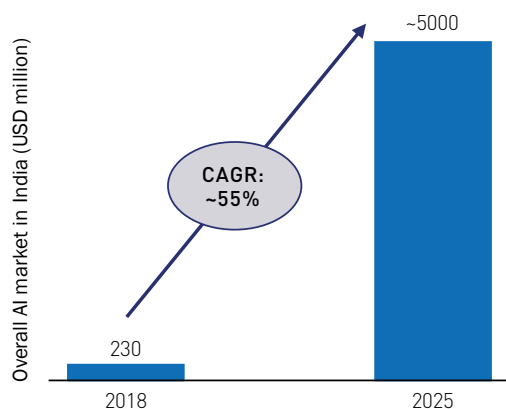
auto-tagging for catalogues and cross-product recommendations. The firm raised USD17 million in April 2019, led by Falcon Edge, as well as other investors such as Iobal Brain and Sequoia Capital.

- **vPhrase.** This company offers a data conversion tool that reads and understands unstructured data and converts it into a natural language report. It raised USD2 million in August 2019 led by Bharat Fund and Falcon Edge.

### *Exciting AI use cases and start-ups in India*

The artificial intelligence market in India was valued at USD230 million in 2018. The global AI market is expected to grow at a CAGR of 50–60% between 2018 and 2025. If India can keep pace with the global market, its domestic market could reach around USD5 billion by 2025 (see Figure 8).

Numerous AI start-ups in India have gained significant traction in the market and created interest among leading investors. We have selected three use cases that we expect to lead the AI space in India, based on the government's focus on specific sectors for AI, as well as the current market landscape. These are discussed in more detail below.



**FIGURE 8:** FORECAST OF THE ARTIFICIAL INTELLIGENCE MARKET IN INDIA, 2018 AND 2025 [SOURCE: ANALYSYS MASON, 2019]

### *Healthcare*

NITI Aayog highlights healthcare as one of the key focus sectors for AI. In addition, several AI start-ups that are focused on the healthcare sector have emerged and have invited significant funding as well. Two of the leaders in this segment include SigTuple and Niramai.

### **SigTuple**

SigTuple's claims to fame include an investment by former Flipkart CEO Binny Bansal in 2015 and the company's selection for Google's fourth launchpad accelerator programme in 2017. Valued at USD90 million in May 2019, this startup offers multiple AI-aided, near-runtime healthcare diagnostic solutions. Manthana, its AI engine, churns out insights from the data collected from retinal scanners, urine scanners and blood smear analysis, and has the capability of predicting the probability of a person suffering from a disease in order to generate detailed reports in near-real time. While Manthana has already had three successful clinical trials, SigTuple's other products, which include a semen analyser for infertility detection, a chest X-ray analyser and a standalone blood smear analyser, are under clinical trials.

SigTuple wants to offer these solutions at a low cost to hospitals and clinics in rural and semi-urban areas, where parity to afford high-cost equipment is low and where the rate of fatality is high because of late detection of disease. If they can make the unit economics work, they have the potential to disrupt the USD100 billion+ healthcare industry in India.

### **Niramai**

Niramai (another notable investment by Binny Bansal) is developing an AI-based, early-stage breast cancer detection device called Thermalytx. This healthtech start-up, which was launched by IIM Bangalore and IISc alumni in 2016, raised investment of USD6 million in February 2019 based on a valuation of around USD20 million. Its breast cancer detection solution has currently been made available in more than 23 locations across 10 cities, and more than 7000 women have been tested using this solution. Niramai currently operates two business models: end-to-end breast cancer screening solutions using their technology in the hospitals and a group screening service under its screening outreach program in corporations and academic institutions.

Niramai is also working on AI-based software for detecting river blindness or blindness due to infection. Notably, this project is supported by the Bill & Melinda Gates Foundation.

### *Location intelligence*

With the advent of cab aggregators, India has become a focus for the ride hailing market. The ride hailing market for 2019 is estimated to be USD30 billion, and is expected to increase to USD54 billion by 2023. Artificial intelligence can supplement the service by providing locational intelligence. Location intelligence can also benefit from AI-aided marketing. Near leads this segment in India.

#### **Near**

It made headline news when Near raised USD100 million fund at an undisclosed valuation in July 2019. However, this is not surprising given that this AI-aided marketing and engagement solutions provider counts big names such as Audi, BMW, P&G, Unilever group and WeWork) as its clients, among others. Near uses location-specific data, such as location, weather and time, to drive specific audience-targeting for advertisers across mobile devices. Near does not require GPS or operator assistance for providing this information, which makes it an independent and agile solution. The company provides real-time engagement analytics for its clients, which allows it to analyse the behaviour of end customers and draw insights in real-time.

Near is truly a global start-up, with a presence across Asia-Pacific, the USA and Europe, with offices in Bangalore, Singapore, San Francisco, New York, London, Tokyo and Sydney.

### *Conversational service/chatbots*

Business Process Outsourcing (BPO) is one of the key sectors in India and contributes over 5% to the national GDP. It accounted for about 22% of total IT exports in FY2018 and has become increasingly important in the domestic segment because of the many regional languages spoken in India. AI can play a significant role in this space by providing conversational analytics through speech recognition and by helping to drive business improvement. Two exciting start-ups that are working on this AI use case are Uniphore and Niki.ai.

#### **Uniphore**

Founded in 2008 at IIT Madras, this start-up has come a long way. Uniphore recently won the prestigious Aegis Graham Bell Award and Nasscom AI's Game Changers Award for its flagship product auMina. It raised a series-C funding of USD51 million at an undisclosed valuation in August 2019. It offers AI-enabled

conversational service automation for enterprises and its suite of products includes auMina (conversational analytics: real-time analysis of customers conversations with the customer service agent), akeira (conversational assistant: automation of customer service conversations) and amVoice (conversational security: a voice-based user authentication service). The company claims to have worked with more than 70 enterprises serving more than 4 million end customers. The company is aiming to generate revenue of USD100 million in the next 3 years by targeting industries such as BPO, healthcare and agriculture.

#### **Niki.ai**

A notable investment of Ratan Tata, Niki.ai offers an AI-based virtual shopping assistant, which can communicate with the user in their preferred language and help them to complete financial transactions. Niki, its chatbot, can fulfil tasks such as hotel and taxi bookings, bill payments, home utility payments (including power and gas), among others. The company was valued at USD30 million in February 2019 and earns a fixed fee per transaction made via its partners, which include HDFC bank, ICICI, OXigen and Google Pay (its latest addition).

Niki currently supports only English and Hindi languages, but it plans to support other regional languages soon in order to target illiterate and semi-literate consumers living in tier-2 and tier-3 cities and who have trouble accessing ecommerce websites.

### **Conclusion**

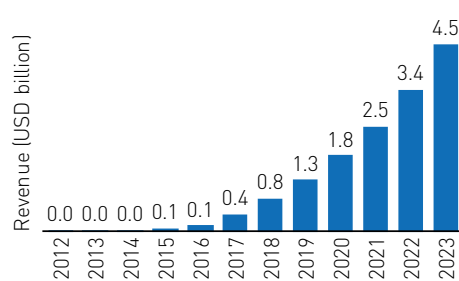
Although the AI market in India is still nascent compared with leading tech hubs worldwide, it is set to grow significantly in the coming years because of the increasing volume of data traffic in the country, in combination with the government's focus on AI, plans to develop local talent and the recent surge in investment activity. The industry has many interesting start-ups that cover a wide variety of AI use cases such as healthcare, location intelligence, conversational service/chatbots and FinTech among others. The potential for attracting a global clientele adds to the appeal of the AI market in India.



# Grocery shopping in India is moving online but success for retailers will depend on five critical factors

*We have received a lot of interesting feedback on our article about online grocery shopping in India, which was part of our August newsletter. A summary of the article appears below. The full article delves into the two broad business models that the market players follow – the marketplace and the inventory led model – and analyses the current competitive landscape. It also presents the five critical success factors that online grocers should follow to gain competitive advantage and increase market share.*

## The online grocery market in India is gaining traction

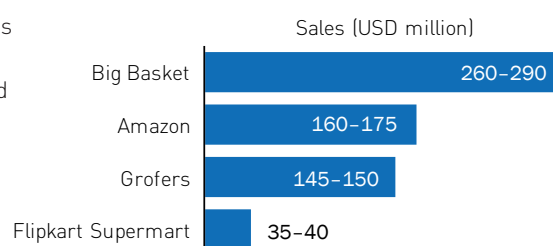


**FIGURE 1: ONLINE GROCERY MARKET IN INDIA**  
[SOURCE: ANALYSYS MASON, 2019]

The online grocery market is experiencing rapid growth in India, driven by increasing broadband penetration and changing consumer behaviour. Revenue in the online grocery market is expected to grow at a CAGR of 41% over the next few years to reach USD4.5 billion by 2023 (see Figure 1). Various exogenous and endogenous market factors are moving consumers of organised retail towards online retail. Exogenous market factors include increasing internet penetration, more modes of cashless transactions and a higher number of working women, while endogenous market factors include the convenience of online shopping, discounts and promotions offered by online grocers and the ease of ordering anytime.

## Big Basket is the market leader, but Amazon and Grofers also hold a considerable share of the market

Big Basket dominates the online grocery market in India in terms of gross sales (see Figure 2), followed by Amazon and Grofers. Flipkart Supermart entered the market in the middle of 2018 and has made little impact, while Swiggy launched its hyperlocal delivery arm in early 2019.



**FIGURE 2: GROSS SALES ESTIMATES BY ONLINE GROCERY RETAILERS, INDIA, FY 2018** [SOURCE: ANALYSYS MASON, 2019]

## Big Basket emerges as the market leader, but Amazon and Grofers also hold a considerable market share



Five key factors can help online grocers to differentiate themselves in the online grocery market and gain market share (see Figure 3).

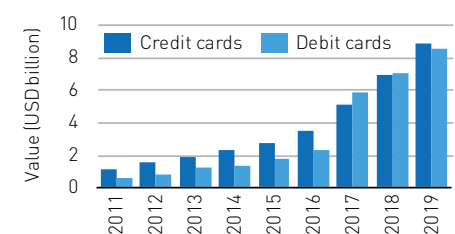
**FIGURE 3: CRITICAL SUCCESS FACTORS FOR ONLINE RETAILERS TO DIFFERENTIATE THEMSELVES IN THE ONLINE GROCERY MARKET** [SOURCE: ANALYSYS MASON, 2019]

Read the full article: [www.analysismason.com/india-internet-monthly-newsletter-aug2019](http://www.analysismason.com/india-internet-monthly-newsletter-aug2019)

## The growth of the point-of-sale sector in India and opportunities for investors

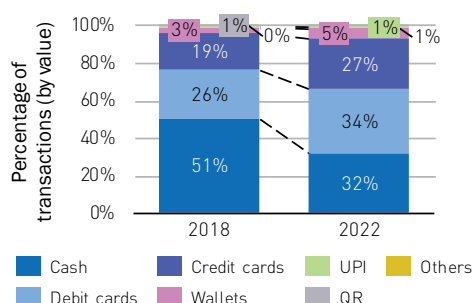
*The July version of our newsletter included an article on the growth of the value of transactions on point-of-sale (POS) terminals in India. A summary of the article appears below. The full article assesses the size of the POS market in India and the supply-side landscape. It also provides a unit economics analysis for bank-led and independent POS providers and insights based on our knowledge of the market.*

**The digital transaction space, and the POS market in particular, is set for rapid growth**



Since demonetisation in November 2016, the Digital India campaign has inspired initiatives to move towards a cashless society. As a result, the total value of transactions on point-of-sale (POS) terminals in India increased from USD7.0 billion in January 2016 to USD17.3 billion in January 2019 at a CAGR of 44% (Figure 1), compared to the previous 5-year average growth rate of 28%.

**FIGURE 1: ACTUAL DEBIT AND CREDIT CARD TRANSACTION VALUE (USD BILLION), INDIA, 2011-2019** [SOURCE: ANALYSYS MASON, 2019]



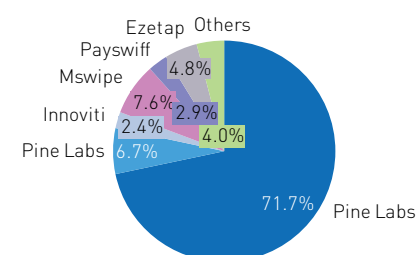
Analysys Mason has conducted extensive market surveys that show that merchants are now more likely to accept digital payments than before demonetisation, and that their preferred digital payment option is a debit card (82% of respondents, on average), followed by a credit card (18% of respondents, on average). We also found that merchants believe that digital transactions will constitute around 68% of all transactions (in terms of value) by 2022; this is a large increase from the current level of 49% (Figure 2), reflecting the growing importance of digital transactions.

**FIGURE 2: BREAKDOWN OF THE PAYMENT TYPES USED IN CURRENT (2018) AND FUTURE (2022) TRANSACTIONS (IN TERMS OF VALUE)** [SOURCE: ANALYSYS MASON, 2019]

**The sector has witnessed increased investment activity in the past year**

The POS sector has started to attract a great deal of interest from both strategic and financial investors. Pine Labs raised USD125 million in May 2018. Mswipe, another independent POS player, recently raised USD31.5 million in Series E. The Bengaluru-based firm Innoviti Payments solutions raised USD11.55 million in March 2019 in Series B. Flipkart's PhonePe acquired Zopper retail, a hyperlocal POS platform for small and medium-sized businesses.

**Independent POS providers have a competitive advantage over banks**



The POS market has two broad categories of players: banks and independent POS providers. Banks (mainly Axis, HDFC, ICICI and SBI) account for 72% of all POS terminals in India and POS providers account for the remaining 28%. Pine Labs and Mswipe are the market leaders among the independent POS providers (Figure 3).

**FIGURE 3: MARKET SHARE IN TERMS OF THE NUMBER OF POS TERMINALS, INDIA, APRIL 2019** [SOURCE: ANALYSYS MASON, 2019]

Read the full article: [www.analysismason.com/india-internet-monthly-newsletter-july-2019](http://www.analysismason.com/india-internet-monthly-newsletter-july-2019).



## About Analysys Mason (including a view in to our internet transaction advisory experience)

**Analysys Mason** is a global specialist adviser on telecoms, media and digital (consumer internet). Through our worldwide presence, we have delivered strategy advice, operations support and market intelligence to leading commercial and public-sector

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We have successfully completed around 775 strategy and operations advisory engagements for TMT clients in over 60 countries in the last 3 years alone.



*Offices located in Europe, the Middle East, Asia and the*

For more than 30 years, our intellectual rigour, operational experience and insight have helped our clients resolve issues ranging from development of operator strategy, evolution of national sector regulation and execution of major financial transactions, to the deployment of public and private network infrastructure. Analysys Mason consistently delivers significant and sustainable business benefits.

We are respected worldwide for the exceptional quality of our work, our independence and the flexibility of our teams in responding to client needs. We are passionate about what we do and are committed to delivering excellence to our clients. The company has around 260 staff worldwide, with headquarters in London and offices in Cambridge, Dubai, Dublin, Hong Kong, Kolkata, Lund, Madrid, Manchester, Milan, New Delhi,

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## Key highlights of our Internet experience

- 1
  - **150+** due-diligences of **Internet assets** in South Asia, South East Asia, Middle East, Africa, and Europe over the last couple years
- 2
  - **75+** commercial diligences and market assessment in India/South Asia alone
- 3
  - **First port of call** for diligence of Internet assets for marquee investors globally
- 4
  - Provided advice on investments worth over **USD15 bn** over last 5 years

Diligence experience in Consumer Internet verticals	Ecommerce	<ul style="list-style-type: none"> <li>• We have conducted <b>10+</b> full commercial diligences of <b>horizontal ecommerce majors</b> in India and South East Asia region</li> <li>• In more recent years (post the market changes on horizontal ecommerce), we have also conducted <b>5+ diligences</b> as well as market scan of <b>vertical focussed ecommerce</b> players</li> </ul>
	Hyperlocal delivery	<ul style="list-style-type: none"> <li>• We have been advisors to marquee PE funds and financial institutions on <b>5+ commercial diligences</b> of leading hyperlocal delivery players in the <b>grocery and food delivery market</b></li> <li>• We have diligenced the leading players in grocery and food delivery twice in the recent past</li> </ul>
	Payments and mobile wallets	<ul style="list-style-type: none"> <li>• We have supported <b>10+</b> commercial diligences of leading <b>digital wallet</b> providers in India, South East Asia and Middle East regions including the full commercial diligence of a leading wallet provider in India</li> <li>• We have also assisted <b>telecom operators</b> in developing their commercial and technical digital wallet strategy</li> </ul>
	Cab aggregation	<ul style="list-style-type: none"> <li>• We have conducted commercial due-diligence of the <b>leading cab aggregator</b> in India <b>4 times</b> for different marquee hedge funds and financial institutions in the last 7 years</li> <li>• We have also provided diligence support on the <b>self-drive commercial car market</b> and leading player in India</li> </ul>
	Content including OTT	<ul style="list-style-type: none"> <li>• We have conducted full commercial and technical diligence of multiple players across the video and music content value chain (from producers to distributors/streaming assets)</li> <li>• We have also supported <b>leading mobile operators</b> in the region in developing their <b>Content and OTT strategy</b></li> </ul>
	Others	<ul style="list-style-type: none"> <li>• Over 15 diligences in the <b>classifieds</b> and <b>online travel</b> space</li> <li>• Multiple diligences of <b>mobile advertising, cloud computing, SaaS, and AI</b> firms in various geographies</li> <li>• Full commercial diligence of multiple <b>ed-tech</b> firms in India</li> <li>• Assessment of the <b>fintech (online mutual funds, trading, and insurance)</b> in India, with a focus on two emerging companies</li> </ul>

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