C.E. Info Systems Ltd.

Pre-IPO Note and Analysis

November 25, 2021

Mapping high growth journey ahead!

C.E. Info Systems Ltd (MapmyIndia) is India's largest provider of Advanced digital maps, Geospatial software and Location based IoT Technologies. It has built maps for more than 6mn km covering 98.5% of India's road networks. MapmyIndia is well positioned to cater to Indian market expected to reach USD 7.7 Bn by CY25 (17% CAGR over CY21-25) given – 1) its leading position within marquee client base, 2) strong moat resulting from most comprehensive and innovative solutions, specifically localized for challenging geography of India, 3) solid network effects resulting from continuous feedback loop in digital mapping, 4) asset light business model with high operating leverage.

MapmyIndia's revenue stood at Rs. 1,525 mn in FY21 (+2.3% YoY, resilient despite COVID impact) with EBITDA margin of 35%. Order book has grown at strong rate of 82% CAGR over FY19-21 indicating strong revenue growth ahead. Cash conversion is strong with OCF/PAT at 140%/115% in FY20/21 and ROE is healthy at 17% in FY21.

The offer comprises of OFS of up to ~7.5 mn equity shares (as stated in DRHP) amounting to ~19% of post-offer paid-up equity share capital. Company will not receive any proceeds from OFS. There are no listed companies in India that engage in a business similar to that of MapmyIndia. Very few global peers like Trimble & Google are profitable. MapmyIndia's API business can be compared to Google and its automotive business can be compared to TomTom (negative at PAT level, trading at 40x/24x EV/EBITDA for CY22/23E) and HERE Technologies (unlisted). Key Risks: 1) higher share of revenue (52.5%) from cyclical automotive sector, 2) high client concentration and 3) regulatory risks.

- **B2B and B2B2C market leader in India:** MapmyIndia has been an early mover (started in 1995) in India's digital mapping and pioneered several digital mapping technologies such as AI-powered 4D HD digital map of real world, N-CASE mobility suite for digital vehicles etc. It offers widest range (digital maps represents 98.50% of India's road network) of location-powered software and most comprehensive set of offerings v/s larger global peers. Thus, it is market leader amongst B2B and B2B2C clients of India.

- **Proprietary technology and network effect result in strong entry barriers:** MapmyIndia's innovations in digital maps and geospatial solutions specifically localized for a challenging geographies such as India, have helped build a moat and create strong entry barrier for companies looking to operate in India. New geospatial guidelines also give a competitive edge to partner with global brands for providing navigation related services within India. It's map offerings are strategically integrated and connected to provide continuous feedback loop that create a network effect, further enhancing freshness of data and improving customer experience.

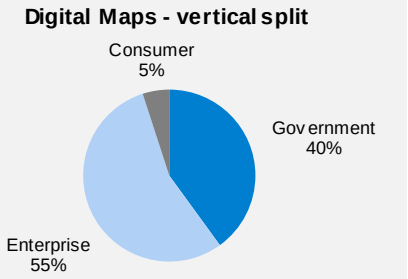
Exhibit 1: Key Investors

	No. of Equity Shares	% of total pre-Offer paid up Equity capital	% of total pre-Offer paid up fully diluted Equity capital
Promoters			
Rakesh Kumar Verma	56,32,455	28.65%	14.11%
Rashmi Verma	70,53,475	35.88%	17.66%
Promoter Group			
Rohan Verma	2,13,590	1.09%	0.53%
Rakhi Prasad	2,350	0.01%	0.01%
Rupa Amitabh	500	Negligible	Negligible
Total	**1,29,02,370**	**65.63%**	**32.31%**
Other Key investors			
PhonePe	1,44,19,880		36.11%
Zenrin	71,14,640		17.82%
Qualcomm	33,85,155		8.48%
Nayan Arun Jagjivan	14,87,725		3.73%

Source: DRHP, PL

Note: This data is subject to change till final IPO documents are filed.

Exhibit 2: Vertical wise revenue share of digital maps industry in India



Source: Company, PL

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Many of MapmyIndia's customers are leading market players and renowned brands in their respective fields such as Hyundai, MG Motor, PhonePe, Flipkart, GSTN, AVIS, Safexpress, Airtel, HDFC Bank, Yulu etc. and its strong relationship with them helps it to up-sell and cross-sell.

- **Marquee customers across sectors:** MapmyIndia's 'Customer First' approach has helped in developing strong and long-standing customer relationships. They enter into long-term contracts of three to five years' duration which are mutually renewable, thereby providing continued synergy and revenue predictability with customers. 90% of larger customers (generating>80% of revenues) have been retained by them. Many of its customers are leading market players and renowned brands in their respective fields such as Hyundai, MG Motor, PhonePe, Flipkart, GSTN, AVIS, Safexpress, Airtel, HDFC Bank, Yulu etc. and its strong relationship with them helps it to up-sell and cross-sell.

- **Asset-light business model with high operating leverage:** MapmyIndia most of the products, platforms and solutions are digital, created in-house, and then deployed and delivered over the cloud, company is asset light, with relatively extremely low variable cost base. Its business model is to charge its customers fees per period based on per vehicle, per asset, per transaction, per use case, per user, as applicable. Subscription fee, royalty and annuity payments together contributed over 90% of revenue from operation for FY21. This leads to have a high operating leverage in the business. For FY21, Contribution Margin was at 83%, EBITDA margin was 35% and PAT margin was 31%.

MapmyIndia is India's largest provider of Advanced digital maps, Geospatial software and Location based IoT Technologies. It has built maps for more than 6mn km covering 98.5% of India's road networks.

About the Company

Incorporated in 1995, C.E. Infosystems (MapmyIndia) is a data and technology products and platforms company offering proprietary digital maps as a service (MaaS), software as a service (SaaS) and platform as a service (Paas). It is India's leading provider of advanced digital maps, geospatial software and location-based IoT technologies. Operating under the brand **MapmyIndia** (for Indian market) and **Mappls** (for International market), it serves marquee and renowned companies across different industries. Some of the key clients include: PhonePe, Flipkart, Yulu, HDFC Bank, Airtel, Hyundai, MG Motor, Avis, Safexpress and Goods and Service Tax Network ("GSTN").

MapmyIndia's operations are centrally located in India, with an office in United States and partner representation in Japan. As on FY21, the company had combined workforce of 734 employees, comprising of 410 permanents and 324 non-permanent employees with an average age of ~32 years.

Exhibit 3: Snapshot of company's offering

Source: Company, PL

Exhibit 4: CE segment grew at 65% CAGR over FY19-21

	FY19	FY20	FY21
Revenue mix			
Automotive & Mobility	80%	70%	52%
Consumer Tech & Enterprise Digital Transformation (CE)	20%	30%	48%
Revenue (Rs. Mn)			
Automotive & Mobility	1087	1039	800
YoY gr.		*-4%*	*-23%*
Consumer Tech & Enterprise Digital Transformation (CE)	265	447	724
YoY gr.		*69%*	*62%*
Total Revenue	**1,353**	**1,486**	**1,525**
YoY gr.		*10%*	*3%*

Source: Company, PL

Comprehensive set of Product Offerings

MapmyIndia covers 7,933 towns, 6,37,472 villages, 17.79 mn places across many categories such as restaurants, retail shops, malls, ATMs, hotels, police stations, electric vehicle charging stations etc., and 14.51 mn house or building addresses.

- **Map & Data**
  - **Digital Maps and Geospatial Data Products:** MapmyIndia provides foundational and comprehensive digital maps across India. It has advanced maps representing real world in 2D and 3D updated continuously in near real-time for place updates, location-based events, safety alerts, changes in road conditions, live traffic and weather. The company also builds and releases digital maps for countries outside India, such as Sri Lanka, Bangladesh, Nepal, Bhutan, Myanmar, UAE and Egypt.
- **Platform and IoT**
  - **Map, Location and Navigation Platforms:** MapmyIndia provides interactive 2D, 3D, outdoor and indoor map rendering, as well as location search, geocoding, reverse geocoding, route planning, optimization, traffic and turn-by-turn visual and voice-based navigation platforms.
  - **GIS, Geospatial Analytics and Geo-AI Products and Platforms:** 'mGIS' and 'Insight' platforms consist of location-based APIs capable of ingesting, processing, publishing, visualizing and analyzing geo-spatial data to provide location. Geo-analytics offers help to customers across industries to analyze their markets and develop predictive models as well as get near real-time dash boarding and monitoring capabilities.

MapmyIndia's InTouch platform provides a wide range of applications for near real-time vehicle and asset tracking, geo-fencing alerts, historical movement and driver behaviour analysis, predictive vehicle health alerts, as well as fleet, transport and logistics management.

  - **Location-based IoT, Fleet and Workforce Automation Products and Platforms:** IoT platform, 'InTouch', enables connectivity with real world sensors, phones and IoT devices. InTouch platform provides a wide range of applications for near real-time vehicle and asset tracking, geo-fencing alerts, historical movement, driver behavior analysis, predictive vehicle health alerts, as well as fleet, transport and logistics management.
  - **Developer APIs and SDKs:** MapmyIndia has large catalogue of APIs and SDKs to help developers integrate features, functionalities and capabilities of its map, geospatial, IoT products and platforms into their own web and mobile applications.
  - **Consumer Location-based App, Websites and Gadgets:** MapmyIndia provides 'MapmyIndia Move' app which is a super app for maps, navigation, tracking, safety, mobility and other features on Android, iOS platforms and internet mapping portals like Maps.MapmyIndia.com and MapmyIndia Move IoT gadgets.
  - **N-CASE Automotive and Mobility Tech Solutions Suite:** The company provides in-vehicle hyper-local, content-rich, turn-by-turn offline, online and hybrid navigation assistant systems. It also offers platforms and companion apps for connected mobility, telematics, autonomous vehicle safety, advanced driving assistance systems, HD maps, shared mobility and electric mobility solutions.

- **Location-powered Consumer Tech and Enterprise Digital Transformation:** It provides suite of APIs and solutions to consumer tech companies and enterprises looking to digitally transform based on MapmyIndia's complete range of digital maps, geospatial software and location-based IoT.

Offer Details

The offer comprises of offer-for-sale of up to ~10 mn equity shares, amounting to ~19% of post-offer paid-up equity share capital. Company will not receive any proceeds from the Offer for Sale.

Of the shares offered for sale by selling shareholders, Rashmi Verma's shares were acquired at a cost of Rs 0.17 per equity share, Qualcomm's shares were acquired at a price of Rs 52.2 per equity share and Zenrin's shares at Rs 94.5 per equity share.

Exhibit 5: Offer details

Offer of Equity Shares by way of an Offer for Sale by the Selling Shareholders	Up to 75,47,959 Equity Shares (up to 18.9% of total equity)
Equity Shares outstanding prior to the Offer (as on date of Draft Red Herring Prospectus)	19,657,380 Equity Shares
Equity Shares outstanding after the Offer	39,932,225 Equity Shares
Use of Net Proceeds by the Company	Company will not receive any proceeds from the Offer for Sale

Source: DRHP, PL, Note: This data is subject to change till final IPO documents are filed

Exhibit 6: Promoter & Promoter Group and other key investors

	No. of Equity Shares	% of total pre-Offer paid up Equity Share capital	% of total pre-Offer paid up Equity Share capital on a fully diluted basis
Promoters			
Rakesh Kumar Verma	56,32,455	28.65%	14.11%
Rashmi Verma	70,53,475	35.88%	17.66%
Promoter Group			
Rohan Verma	2,13,590	1.09%	0.53%
Rakhi Prasad	2,350	0.01%	0.01%
Rupa Amitabh	500	Negligible	Negligible
Total	**1,29,02,370**	**65.63%**	**32.31%**
Other Key investors			
PhonePe	1,44,19,880		36.11%
Zenrin	71,14,640		17.82%
Qualcomm	33,85,155		8.48%
Nayan Arun Jagjivan	14,87,725		3.73%

Source: DRHP, PL

Note: This data is subject to change till final IPO documents are filed.

Exhibit 7: Selling shareholders to sell up to ~19% of total pre-offer paid up equity

Name of Shareholder	No. of Equity Shares	No. of Equity Shares arising on conversion of Preference Shares	% of total pre-Offer paid up Equity Share capital	% of total pre-Offer paid up Equity Share capital on a fully diluted basis*	Maximum number of Offered Shares	Maximum stake for sale as % of total pre-offer paid up equity	Average cost of acquisition of shares (in Rs.)
Individual Selling Shareholder							
Rashmi Verma	70,53,475	Nil	35.88%	17.66%	30,70,033	7.69%	0.23
Investor Selling Shareholders							
Qualcomm	0	33,85,155	0.00%	8.48%	20,26,055	5.07%	69.6
Zenrin	13,68,610	57,46,030	6.96%	17.82%	10,27,471	2.57%	126
Other Selling Shareholders							
Amal Parikh and Uday Shah (joint holders)	2,20,000	Nil	1.12%	0.55%	1,10,000	0.28%	11.27
Harshad Dholakia	5,500	Nil	0.03%	0.01%	1,375	0.00%	11.27
Jaya Jaipuriar	1,500	Nil	0.01%	0.00%	1,000	0.00%	Negligible
Jaya Kumar	22,930	Nil	0.12%	0.06%	14,170	0.04%	9.95
Manpreet Sukhija (Gaba)	15,745	Nil	0.08%	0.04%	15,745	0.04%	0.06
Nayan Arun Jagjivan	14,87,725	Nil	7.75%	3.73%	12,50,000	3.13%	17.00
Ranjan P.N.	35,060	Nil	0.18%	0.09%	6,020	0.02%	14.19
Roopesh Ram Gopal Gupta and Nikhuj Hasmukh (joint holders)	8,250	Nil	0.04%	0.02%	8,250	0.02%	11.27
Sapna Ahuja	77,870	Nil	0.40%	0.02%	17,840	0.04%	14.82
Other Selling Shareholders Total	**18,74,580**	**Nil**	**9.73%**	**4.52%**	**14,24,400**	**3.57%**	
Total	**1,02,96,665**	**91,31,185**	**52.57%**	**48.48%**	**75,47,959**	**18.90%**	

Source: DRHP, PL, Note: This data is subject to change till final IPO documents are filed

Investment Argument

B2B and B2B2C market leader in India

MapmyIndia has built a strong moat by capitalizing on their early mover advantage, creating a niche market, developing proprietary and integrated technologies, full stack product offerings, continuous innovation and robust sustainable business model.

MapmyIndia has an early mover advantage for adopting digital mapping in India and pioneering several digital mapping technologies thereafter. It holds a leading market position in B2B and B2B2C markets for digital maps and location intelligence technologies & services.

Offers widest range of location-powered software vs peers: MapmyIndia's digital maps cover 6.29 mn km of roads, representing 98.50% of India's road network. It covers 7,933 towns, 6,37,472 villages, 17.79 mn places across many categories such as restaurants, retail shops, malls, ATMs, hotels, police stations, electric vehicle charging stations etc., and 14.51 mn house or building addresses.

MapmyIndia's 'RealView' maps provide actual roadside and on-ground views based on over 400 million geo-referenced photos, videos and 360-degree panoramas across India.

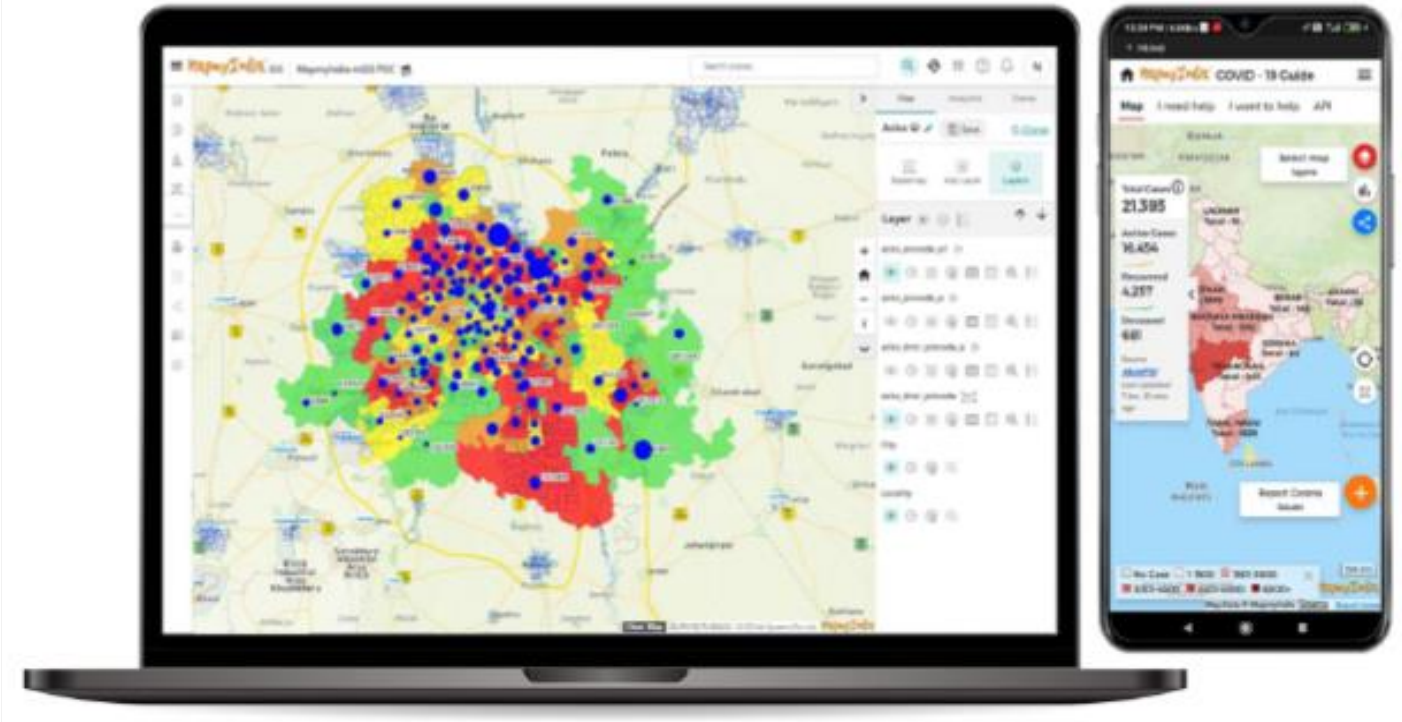
Full stack offerings: The company offers full stack of location-powered and in-house developed software products (SaaS), platforms (PaaS), APIs and solutions with applications in advanced mapping, navigation, mobility, telematics, geospatial analytics across use cases (including logistics and transportation), geographic information systems, dash-boarding, workforce and workflow management. It's AI-powered, four-dimensional ("4D"), high-definition ("HD"), information-rich ("IR"), multi-lingual, hyperlocal digital map twin digitally and geospatially represents the dynamically changing real world in near real time.

Exhibit 8: MapmyIndia's pioneering initiatives

Year	Pioneering initiatives
1995	Built India's digital maps
2004	Launched India's internet mapping portal and internet mapping technologies
2007	Launched pan-India GPS navigation system
2011	Launched IoT (GPS-based telematics) platform
2015	Launched map and location API Platform for developers
2016	Building transportation, logistics and workforce automation platforms
2017	Building AI-powered 4D HD Digital Map Twin of the Real World
2017	Launched nation-wide unique digital address and location, eLoc
2019	Launched geospatial analytics and GIS platform
2019	Launched N-CASE mobility suite for Digital Vehicle Transformation

Source: Company, PL

Exhibit 9: mGIS SaaS product and platform provides geospatial analytics, AI and visualization capabilities



Source: Company, PL

MapmyIndia's digital mapping and geospatial technologies provide high definition (HD), 4-dimensional (4D), and Information Rich (IR) capabilities.

This technology enables high level of detail, high precision and accuracy, with 360 degree and photo-realistic clarity.

MapmyIndia is building high precision 4D Digital Map Twin of the Real World, which is a three-dimensional map of the world, updated in near real-time (time being the fourth dimension) providing high definition, high precision, photo-realistic and panoramic maps of outdoors, roads, buildings, indoor maps of public locations and indoor mapping technology to enable map creation/visualization/map-based services for any space. These are built using AI, LiDAR, cameras and computer vision, which allow advanced navigation and driving assistance systems for vehicles, simulations at city and country scales for planning and analytics, as well as last-mile doorstep deliveries at any floor in multi-floor buildings.

Similarly, eLoc, is a digital address and location identity system, which gives unique, simple and precise identification through a unique code to every place and object (houses, a mud hut or a public infrastructure item), aiding in identifying information and getting directions to exact location of any place or object.

Exhibit 10: eLoc – Digital address and location identity system

Source: Company, PL

Proprietary technology and network effect resulting in strong entry barriers

Map database is continually updated through use, with over 70 bn geospatial transactions and 1.2 Bn km of road tracked in FY21.

Strong entry barriers for international and domestic companies: MapmyIndia's innovations in digital maps, geospatial solutions, specifically localized for a challenging geography such as India (having high level of complexity, dynamic and constantly evolving nature of geographical expanse), has helped build a moat and create strong entry barrier for companies looking to operate in India. Also Geospatial Guidelines (that all digital maps and geospatial data of finer accuracy should be stored and used within domestic territories) give a competitive edge to partner with global brands for providing navigation related services within India.

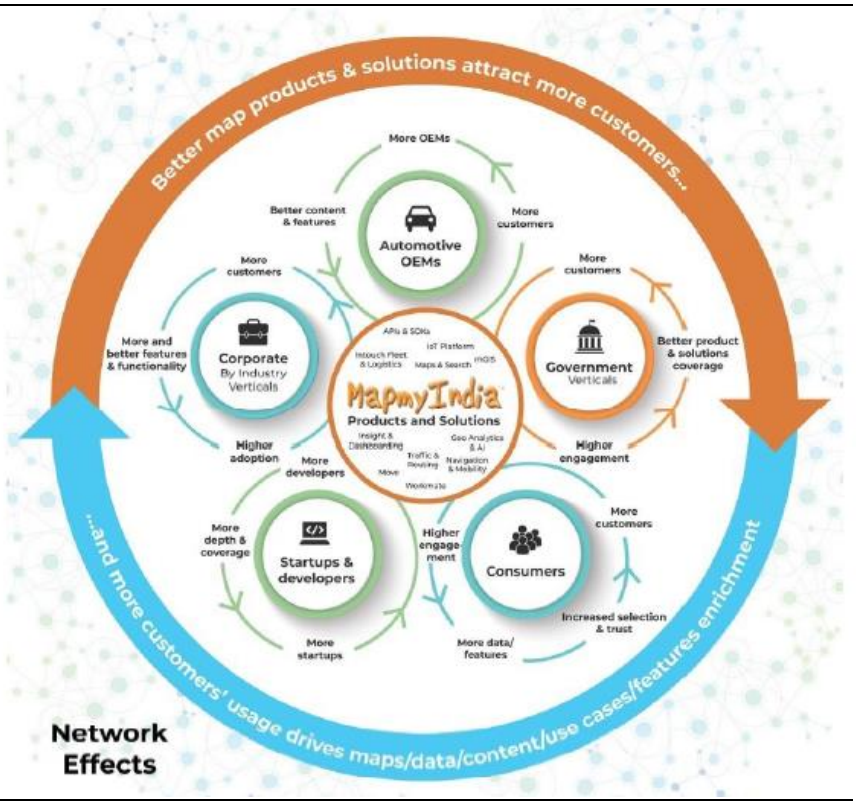
MapmyIndia has broader coverage and penetration plus can build digital maps that accurately provide hyper local map detailing. Its hyperlocal responsiveness has most recently been utilized in the context of emergency response for pandemic in India via official government CoWIN app.

Network effects further strengthens moat on digital maps: MapmyIndia's map offerings are strategically integrated and connected to provide continuous feedback loop that create a network effect, enhancing freshness of data and improving customer experience. Customers pro-actively add geospatially linked data into the platform to achieve various functionalities such as GPS tracking, geospatial search, geo-coding, routing, navigation, analytics etc., This in-turn helps MapmyIndia to continuously validate, update and augment its digital maps.

MapmyIndia's map offerings are strategically integrated and connected to provide continuous feedback loop that create a network effect, enhancing freshness of data and improving customer experience.

As the company has comprehensive underlying database with a 25-year history, it is easier to professionally authenticate crowd-sourced input and prevent inaccuracies. Professional geospatial experts and digital map makers employ various technologies and techniques including big data analytics, computer vision, AI/ML and exhaustive geospatial algorithms for map feature extraction, change detection, validation, integrity and quality checks.

Exhibit 11: Better map products & solutions attract more customers creating continuous feedback loop that creates network effect



Source: Company, PL

MapmyIndia has a very strong NCASE deployments at most relevant Auto OEMs in India- Maruti Suzuki, Hyundai, KIA, Honda, Ford, Audi, BMW, Mercedes Benz, Mahindra, MG, Skida, Toyota, Suzuki, Honda, TVS, Ola Electric and others.

Marquee customers across sectors

MapmyIndia's 'customer first' approach has helped in developing strong and long-standing customer relationships. It typically enters into long-term contracts of 3 to 5 years' which are mutually renewable, thereby providing continued synergy and revenue predictability to customers. Many of its customers are leading market players and renowned brands in their respective fields such as Hyundai, MG Motor, PhonePe, Flipkart, GSTN, AVIS, Safexpress, Airtel, HDFC Bank, Yulu etc. High retention of existing customers is driven by MapmyIndia's ability to provide new use cases and new solutions to meet evolving needs.

Promotes user privacy and has developed strong trust with customers: MapmyIndia charges customers directly for its products and services, as opposed to offering free/subsidized products and earning indirect revenue through ad sales. Thus it is able to ensure and promote user privacy plus develop trust not just with customers, but also within the ecosystem at large.

Up-selling and cross selling opportunities: MapmyIndia is able to up-sell and cross-sell various products, platforms, APIs and solutions to new and existing customers. For example, one of its automotive OEM customers which was earlier using only map and data for in-dash navigation, has now started using navigation and mobility solution for connected vehicles besides plans to use Advance Driver Assistance System ("ADAS") and electric vehicle ("EV") solutions in future.

MapmyIndia's customers operate in a wide variety of industry sectors which helps to augment its offerings as well as target new customers across different industries. For example, MapmyIndia's Workmate app aids live location tracking by allowing managers in construction, food delivery, automotive, logistics or supply chain management industry to get near real-time visibility of their workforce's location and activities to enable and optimize resources plus enhance efficiency.

Exhibit 12: Marquee clientele

Segments	Key Clientele
NCASE deployments in Auto OEMs	Maruti Suzuki, Hyundai, KIA, Honda, Ford, Audi, BMW, Mercedes Benz, Mahindra, MG, Skida, Toyota, Suzuki, Honda, TVS, Ola Electric and others.
Technology	Apple, PayTm, PhonePe, or e-commerce, Magic Bricks, 99acres, food delivery platforms like McDonalds, REBEL Food~Eat Sure, Grofers, Cars24.
Store location	Maps are used for store locators by companies like SBI Branch Locator, Bajaj Finserv, Single Interface, BFL, Prasar Bharti DTH Dealer locator use the same
Ride hailing apps	Malbork
Telecom	Customer complaint app of India's largest phone providers- Airtel.
Healthcare & Hospitals	Emergency response apps by Paras Hospital, CoWIN, or the GVK EMRI Emergency Ambulance Dispatching.
FMCGs	FMCGs like Patanjali Ayurveda or Asian paint and utilities like Tata Power use their products and services too.

Source: Company, PL

Exhibit 13: Use cases across variety of industries helps cross-sell to new and existing customers across industries

Sectors	Use cases
Automotive	Proliferation of in-built navigation devices from luxury cars to mid-level cars to entry-level cars. Maps are now being offered in two wheelers which provides a significant growth opportunity;
Food delivery	Address intelligence, last mile delivery tracking
Ecommerce	Long haul first mile and last mile delivery tracking
Healthcare and Pharma	Distribution and logistics of medical goods, indoor mapping of plants, GPS tracking for ambulance
BFSI	Geo-verification and on-boarding, usage-based auto insurance, geo-CRM for sales, claims and collection agents
Retail and QSR	Location enabled online e-commerce, location-based digital advertising
Telecom and Utilities	Field force monitoring, optical fiber mapping and distribution analytics
Transportation and Logistics	Fleet and asset tracking, transportation data, truck routing solutions, driver safety, route risk assessment
Government	Geo-tagging of public assets for repair and overhaul; for example, gas pipeline, water pipeline; emergency response, smart city, taxation
Railways and waterways	Network and route mapping; tracking of fleet
Forest department	Geo-tagging and digital mapping

Source: Company, PL

Competitive landscape

Though much larger global players exist and are very strong in their areas of offerings, no other top player offers any breadth of offerings of MapmyIndia product and service range. It has the most comprehensive, detailed and accurate digital map database for India with widest range of location-powered software and IoT-enabled technologies compared to its peers.

As a provider of both SaaS as well as PaaS places the company in a unique position. MapmyIndia stands as an integrated provider of analytics, map data and software which is a unique advantage to command a premium for enterprise clients.

Exhibit 14: Exhibit 6: MapmyIndia offers the most comprehensive, detailed, and accurate digital map database for India

OFFERINGS SOLD TO B2B & B2B2C CUSTOMERS

	MapmyIndia	Google	ESRI	Trimble	Here	TomTom	MapBox
Digital Map and Geospatial Data for India *	✓	✗	✗	✗	✓	✓	✗
Digital Map and Geospatial Data for Rest of World *	P	✗	✗	✗	✓	✓	✗
Map, Location and Navigation Platforms and Products	✓	✓	P	P	✓	✓	✓
Developer APIs and SDKs	✓	✓	P	✗	P	P	P
GIS, Geo analytics and Geo-AI	✓	P	✓	P	✗	✗	✗
Location based IoT, Fleet and Workforce Automation	✓	✗	✗	P	✗	✗	✗
N-CASE Automotive & Mobility Tech	✓	P	✗	✗	P	P	P
Consumer location based apps & IoT	P	✓	✗	✗	✗	✗	✗
Location Powered Consumer Tech & Enterprise Digital Transformation	✓	P	P	P	P	P	P
Location Based Advertising	✗	✓	✗	✗	✗	✗	✓
Geospatial Positioning Infrastrcuture	✗	✗	✗	✓	P	✗	✗

✓ Offered ✗ Not Offered P Partial

Source: Company, PL

Exhibit 15: Competitive analysis

Parameters	MapmyIndia	Peers
Localization (to India)	MapmyIndia has broader coverage and penetration and can build digital maps that accurately provide hyper local map detailing. Its hyperlocal responsiveness has most recently been utilized in the context of emergency response for the pandemic in India via the official government CoWIN app.	Hyper localization is more limited for ESRI, TomTom and GoogleMaps. Google Maps has in January 2021 introduced transliteration feature for 10 Indian languages, with accuracy in early stages of refinement.
Regulatory Advantage	The new Geospatial Policy 2021 guidelines in India allows all Indian entities to freely acquire, collect, generate prepare, analyse, store or distribute geospatial data including maps thus benefitting local companies vs foreign	Recent geospatial regulations pose a challenge for all foreign players - TomTom, HERE, MapBox, ESRI, Trimble and Google Maps as they require to partner with local players via licensing their APIs for restricted data which is not permitted to pass directly through their servers.
Product and Platform Integration	MapmyIndia provides a full stack, integrated, all-in-one ability to deliver digital maps, digital technology products and digital transformation solutions with ability to customize any aspect of the stack to meet the needs of its customers.	Players like Google Maps, HERE, TomTom, MapBox are also highly integrated players offering fully integrated solutions and share the top score with MapmyIndia
Global Product Readiness	MapmyIndia has expanded their digital map database in Sri Lanka, Bangladesh, Nepal, Bhutan, Myanmar, UAE and Egypt. Track record of strong performance in India also holds them in good stead for global readiness.	Google Maps are often seen as not a preferred choice for businesses who are operating outside of North American or European region. Other peers like HERE (China, Japan, and S. Korea), TomTom (Europe) and MapBox (China and Japan) operate in their respective regions
Technical Expertise	MapmyIndia has developed cutting edge solutions like Real time 4D maps and strong NCASE deployments at most relevant Auto OEMs in India. It is pioneering locational solutions for the drones market in India and is also enabling the Digital Sky Platform: India's UAV management System by AAI and is spearheading the Drone Innovation Challenge.	Google Maps, being one of the technology giant and dominant player in the global map market, has gained strong technological expertise. HERE Technologies has strong technological expertise in ADAS and HD Map. MapBox offers a camera API and a sky API to enhance 3D map visuals, including an update of 135 million square km of satellite imagery.
Frequency of Map Updates	Maps are daily and dynamically updated by leveraging and utilizing not just crowd-sourced data, but also big data analytics, computer vision, AI/ML and exhaustive geospatial algorithms on a comprehensive set of input data proactively and intelligently collected through field surveys by 400 surveyors, advanced sensors and IoT devices.	MapmyIndia and Google Maps share the top score in terms of frequency of updates HERE Technologies claims to make an average of 5 million updates daily and process 15 billion near real-time probe data points per day. TomTom makes around 2 billion changes per month across 75 million km of road in 169 countries.
Experience	MapmyIndia partners have been in market for 25+ years and has ground-validate maps across the country for 25 years.	Here Technologies (35+ years) , Google Maps (since 2005), TomTom (29+ years) MapBox (11+ year)
Horizontal Platforms to Suit Multiple Industry Verticals	MapmyIndia's usage-diversity of maps across a variety of use cases and across variety of platforms, products, and applications is higher than any of its peers. They enjoy a strong brand recall in the B2B and B2B2C segments of mapping technologies.	HERE Technologies, MapBox, Google Maps, ESRI and Trimble cater to different industry verticals. TomTom is primarily focused on automotive industry
Consumer Base	Company has 2,000+ enterprise customers, 500 customers on SaaS platforms (used for fleet management, location analytics, etc.) with 80% of all cars in Indian market using their navigation solutions.	Google Maps primarily caters directly to a huge base of retail consumers (B2C) globally and to the mobile phone and map-based device manufacturers. Mapbox have large developer community with more than 175K monthly active developers and used in more than 45K apps globally. TomTom has ADAS Map powers 1.5 million SAE Level 1 and Level 2 automated vehicles in 2019 and doubled to 3 million during by 2020.
Low Cost Business Model	Business model is primarily to charge customers royalties, subscriptions, and annuities in return for providing licenses and usage rights to its intellectual property based digital map data, platforms, APIs and software. Business has a relatively low fixed cost base on account of its asset light nature as all products are deployed via the cloud or deployed in customer premises. Its SaaS (Software as a Service), PaaS (Platform as a Service) and DaaS (Data as a Service) products are developed indigenously at low relative cost in India. This is a unique cost structure in the industry.	HERE technologies, ESRI and Trimble offer mapping, location data and related services to individuals and companies via licensing presumably at relative higher costs. MapBox is a data and services company selling access to its platform; developed a scalable platform for turning raw OSM data and raw location into usable services. Google maps makes most of its map related revenues through advertising and listing of commercial establishments on the maps and not through licensing of its Maps.

Source: Company, PL

Exhibit 16: Key Global Peers

	TYPE	FOCUS/ STRATEGY	PRODUCTS	KEY CUSTOMERS	GEOGRAPHY
TomTom	Public Listed Company	Consumer electronics, navigation technology	Devices, Digital Map, Software and Services	Uber, Verizon, Fiat, Volkswagen, Microsoft	Austria, Belgium, Denmark, Finland, France, Germany, Liechtenstein, Luxembourg, Monaco, Norway, Sweden, Switzerland, the Republic of Ireland, the Netherlands and the United Kingdom
Here Technologies	Private Company	Mapping data, GPS navigation software	Devices, Digital Map, Traffic management solutions, Software and Services	BMW, Mercedes, Volkswagen	~200 countries
MapBox	Private Company	Maps	Digital Map	New York Times, Lonely Planet, Snapchat, Xiaomi, Land Rover, Skyscanner, Booking.com	Global
Google Maps	Public Listed Company	Map API's	Google APIs	NA	Global
ESRI	Private Company	Geo-spatial Solutions	GIS & Mapping Products, Geo Enabled Products, Location Analytics	AT&T, Red Bull, Clearwater Seafoods	Global
Trimble	Public Listed Company	Geo-spatial Solutions	Geospatial, Construction, Agriculture, Transportation & Logistics, Telecommunications	Warren Averett, LLC, Chesapeake Utilities Corp, Federal Emergency Management Agency	Global
Mapmy India	Private Company	Maps, Navigation Systems, Analytics	Map & Data, APIs and SDKs, GIS, Analytics and AI, IoT and Automation, Navigation	Apple Inc. Honda Motors India, Amazon.in, McDonald's, MG, PhonePe	India, Japan, USA

Source: Company, PL

Peer financials & valuations

There are no listed companies in India that engage in a business similar to that of MapmyIndia. Also, very few global peers (Trimble, Google) have achieved profitability.

MapmyIndia's API business can be compared to Google but is not exact comparable because it has various other businesses and generates most of its map related revenues through advertising and listing of commercial establishments, whereas MapmyIndia generates revenue from licensing, royalty and subscription fees.

MapmyIndia's automotive business can be compared to TomTom (negative at PAT level, trading at 40x/24x EV/EBITDA for CY22/23E) and HERE Technologies (unlisted).

Trimble trades at 30x/26.6x/24x P/E multiple on CY21/22/23E earnings. NavInfo is estimated to be profitable in CY21 and is trading at relatively higher P/E multiple of 141.3x/79.7x/64.8x on CY21/22/23E earnings.

Exhibit 17: Very few peers (Trimble & Google) are profitable

	Headquarters	Revenue (USD mn)	EBITDA (USD mn)	Profit After Tax (USD mn)	Employees	Investors	Funding (USD mn)
TomTom	Amsterdam, Netherlands	618	-329.4	-283.6	4,500	NA	NA
Here Technologies	Eindhoven, Netherlands	1002.7	-249.2	-252.7	8,167	NA	NA
NavInfo	China	326.3	-52.9	-47	4,696	NA	NA
AutoNavi	Beijing, China	49.8	NA	NA	1,089	NA	NA
MapBox	California, USA	NA	NA	NA	592	10	334.2
Trimble	California, USA	3,140	610	390	11,402	NA	NA
ESRI	California, USA	1,730	NA	NA	4,000	NA	NA
Google	California, USA	182,520	54,920	40,260	135,301	NA	NA

Source: Company, PL

Exhibit 18: Peer Valuations

Peer Valuations	P/E			EV/EBITDA		
	CY21E	CY22E	CY23E	CY21E	CY22E	CY23E
TomTom	NA	NA	NA	NA	40.1	24.0
Trimble	33.5	30.1	26.7	25.1	23.0	20.3
NavInfo	141.3	79.7	64.8	102.4	62.9	47.4
Google	27.4	26.6	23.2	17.6	15.5	13.6

Source: PL, Bloomberg

Key Strategies

MapMyIndia's in-house ideation team is working on various new gen solutions such as drone-based technology solutions to augment current set of offering across sectors.

Augment products, platforms and technology lead: MapmyIndia will continue to build a deeper and broader stack of software products in a modular platform and API-driven manner to increase use cases and adoptability of products and offerings. The company aims to position itself towards emerging opportunities such as, providing offerings to voice assistants, virtual, augmented and mixed reality platforms, autonomous vehicles, AI-powered enterprise planning and simulation systems. It is also working with ISRO to integrate digital map twin with their huge catalogue of satellite imagery and earth observation data, which would then be available for use by app developers, businesses and government organizations.

Continue to scale and expand customer reach: Expanding of relationships with existing active customers will remain a key strategy going forward for MapmyIndia. Through developer platform and innovation challenges, the company engages strongly with developer and start-up community, who may become potentially large customers in future, or partner with them in different ways.

Drive expansion in international markets and geospatial sector: Under the brand 'Mappls', MapmyIndia targets international markets and intends to follow MNC customers who have business operations, in multiple countries. MapmyIndia plans to expand international operations through US subsidiary, CE International and Silicon Valley office in California, USA. In Japan, it operates through a business reseller agreement with Zenrin. The international office is primarily a reseller office for products, solutions and services.

MapMyIndia intend's to expand into new markets by replicating Indian business model and re-creating the network-effect of more use cases and more verticals leading to more products

Pursue selective strategic acquisitions and investments: Historically MapmyIndia has expanded its portfolio of business offerings and geographical reach through organic growth. In FY18, it acquired Vidteq Private Limited to augment products and capabilities in HD maps and computer vision AI for domestic and international geographies. MapmyIndia intends to continue pursuing selective strategic acquisition to gain new customers, diversify revenue streams, obtain valuable employee talent, access underserved and emerging markets and geographies that complement existing operations and complementing technologies such as in the drone or IoT segments.

Attract, develop and retain skilled employees to sustain product quality and customer experience: MapmyIndia aims on attracting, training and retaining employees which are integral for improving products and technologies plus help deepen relationships with clients, customers and users. Being a product and tech-focused company, it expects to expand research and development efforts by recruiting more technical employees in the areas of digital maps, geospatial software and location-based IoT. As a growing business, it will also look to augment sales and marketing teams to help reach out to and engage with more customers.

Industry Snapshot

Addressable market to grow at 15.5% CAGR over 2019-25

The Indian addressable market of Digital Maps and Location Intelligence Services is expected to grow at around 15.5% CAGR (2019-2025) and is expected to be around USD 7.74 billion (INR 474.9 billion) by 2025 and most of this growth would be from new projects and policies announced by government. Mobile navigation devices, wide usage of 3D platforms and advanced survey technology, digital mapping etc., are also key drivers of growth.

Exhibit 19: Global Addressable Market size is $192 Bn

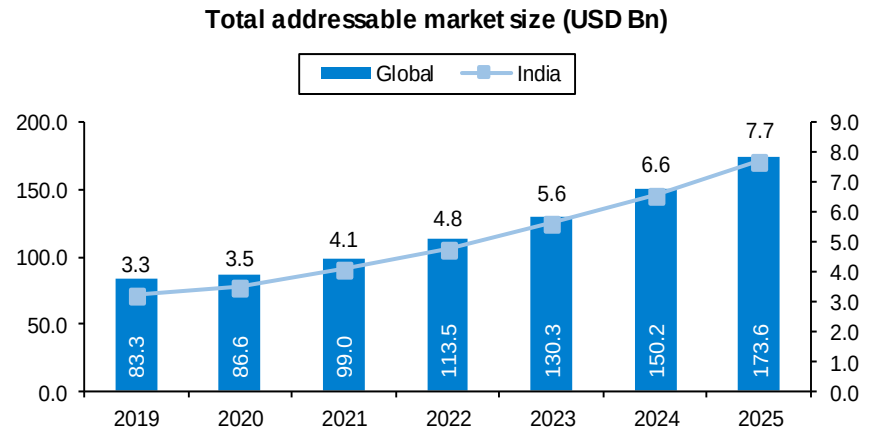
Digital Maps and Location Based Intelligence Service: Available Market Global $ 192bn			
Segment	**Sub-Segments**	**Software & Services**	**Hardware**
DIGITAL MAP SERVICES	Digital Maps		N/A
	Map Dev & Integration		
	Geo Spatial Analytics		
NAVIGATION SOLUTIONS & TELEMATICS	N Case		
	Logistics Solutions		
	Transport & Infrastructure		

Included in Addressable Market

NOT Included in Addressable Market

Source: Company, PL

Exhibit 20: Total addressable market growing at 15.5% CAGR from 2019-25



Source: Company, PL

Digital Maps and Location Intelligence Services market

Digital Maps and Location Intelligence Services market consists of two broad segments, which are delivered in a B2B and a B2B2C setting:

Digital Maps Services market

Increased interest by government towards building its own digital map repository and announcement of new regulations and policies indicate that growth of this industry will be huge in near future.

India is one of the high growth potential markets for digital maps as the level of penetration in the country has been largely limited. The increased interest by government towards building its own digital map repository and announcement of new regulations and policies point towards the fact that growth of this industry will be huge in near future. Also, growing penetration of smart phones, increase in number of e-commerce and online platforms that require digital maps for their operations is also fueling growth of digital maps.

In addition to this, use of geo-spatial technologies and analytics in the country has been still in its nascent stage and going forward, usage of digital maps for building geo-spatial solutions would become common. This would also drive need for digital maps in the country.

Geo-spatial analytics comprises ~90% of India's digital map services market and is expected to grow at 16% CAGR over CY19-25

The total market for Indian digital map services is expected to grow from USD 1.7 bn (INR 126.14 billion) in 2019 to USD 4.2 billion (INR 311.64 billion) in 2025 at a CAGR of 16.1% between 2020 and 2025.

Exhibit 21: India's digital map services to grow at 16% CAGR over 2019-25

Digital Map Services Market (USD Bn)	CY20	CY21	CY25	CAGR (2019-2025)
India				
Digital Maps	0.14	0.16	0.32	14.80%
Map Development and integrations services	0.05	0.06	0.13	16.90%
Geo-spatial analytics	1.60	1.90	3.70	16.10%
Total	**1.79**	**2.12**	**4.15**	**16.00%**
Global				
Digital Maps	14.4	16.3	27.1	11.4%
Map Development and integrations services	5.5	6.1	9.8	10.6%
Geo-spatial analytics	53.9	62.2	114.9	14.40%
Total	**73.8**	**84.6**	**151.8**	**13.60%**

Source: Company, PL

The digital map services section cab be segmented into 3 main segments:

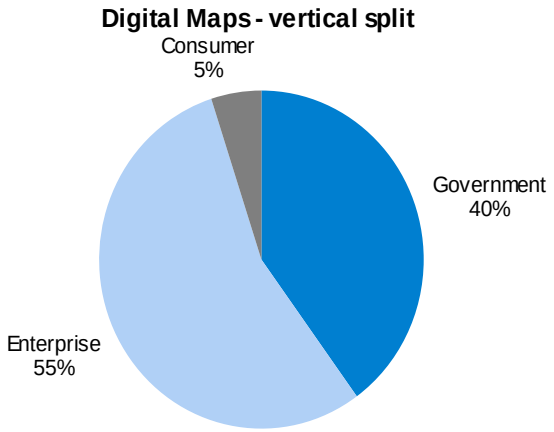
- **Digital Maps (Includes Map Data and Traffic Data) Market:** These are software solutions which is readily used by businesses to integrate into their mobile or web based applications (mostly SaaS based offerings)
- **Map Development and Integration Services (Includes APIs and SDKs used in Maps) Market**: These include APIs/SDKs development and integration services (mostly PaaS and integration services)

- **Geo-spatial Analytics (Location Intelligence) Market:** Geo-spatial analytics, is analytics on digital maps and map data to build better insights and to take informed business decisions to build business strategies.

Digital Maps – Split by Verticals:

Vertical wise, the digital maps market has been broadly classified into three categories, the enterprise vertical, the government and consumer verticals.

Exhibit 22: Vertical wise revenue share of digital maps industry in India



Source: Company, PL

Enterprise vertical remains the biggest contributor to the overall digital maps market globally. The digital map market with respect to enterprise is expected to grow at a CAGR of close to 11.7% over 2019-25.

Enterprise vertical:

Enterprise vertical comprises of key sectors like automotive, logistics, e-commerce, retail, manufacturing and similar others. Most of the businesses today are integrating digital maps as a part of their operations for reasons such as smooth workforce management, easy location of key potential areas or regions, navigation, route planning and similar such scenarios.

Sectors such as automotive have been one of the largest consumers of digital maps among enterprise verticals. Most of the automobile manufacturers, be it passenger car makers or commercial vehicle manufacturers are stressing upon integration of navigation systems that provide real-time updates through maps.

Digital maps have huge potential to grow as governments are finding it beneficial to use digital maps to offer several citizen services in the area of healthcare, land surveys, agriculture and similar others.

Government vertical:

Government is another key vertical that contributed close to 40.1% of the overall digital maps market. In technologically mature regions like North America and Europe, digital maps, especially traffic data are extensively used by city authorities for traffic management purposes. Similarly, digital maps form a major component for geo-spatial related projects or initiatives. Digital maps have huge potential to grow as governments are finding it beneficial to use digital maps to offer several citizen services in the area of healthcare, land surveys, agriculture and similar others.

Most of the applications and solutions designed keeping in mind the consumer needs are offered free of cost. However, the digital map solution providers monetize mostly through devices or gadgets that come pre-loaded with maps and can be used by individuals for their personal use.

Consumer vertical:

Consumer market for digital maps is highly nascent as most of the digital maps come pre-loaded and are offered free of cost through mobile phones or through navigation devices in case of passenger cars. As per Frost & Sullivan estimates, consumer vertical contributed to around 5% of the overall digital map market in 2020.

Navigation Solutions and Telematics Market

Growing consumer requirement for embedded navigation system, importance of improving routing capabilities and implementation and enforcement of stringent regulations for road safety globally will drive uptake of these solutions in the market. These solutions would also enable cities to become smarter and connected thereby redefining city commute and manage traffic. Transport market is expected to reach USD 165 billion (INR 12.2 trillion) by 2025 as more cloud-based platforms, solutions, and other services available to logistics sector, fleet companies will use routing solutions hence increasing demand for transport related navigation solutions.

Growing consumer requirement for embedded navigation system, importance of improving of routing capabilities and implementation and enforcement of stringent regulations for road safety globally will drive the uptake of navigation solutions in the market.

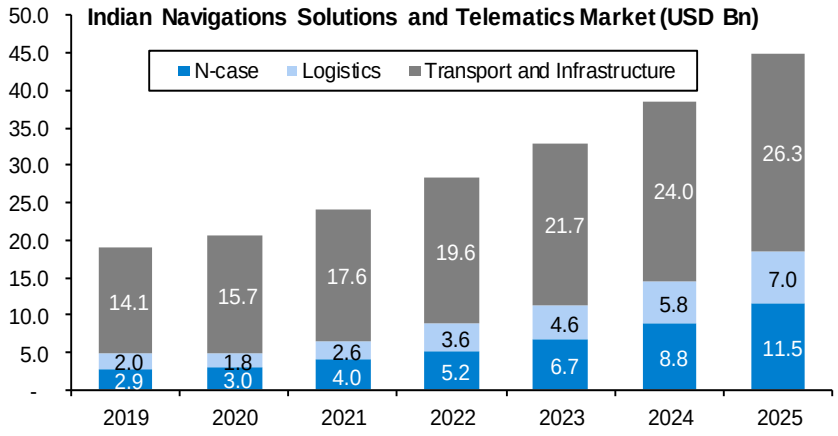
The total market in India for navigation solutions and telematics market is expected to grow from USD 20.5 billion (INR 1.52 trillion) in 2020 to USD 44.9 billion (INR 3.33 trillion) in 2025 at a CAGR of 15.4% from 2019 to 2025.

Navigation Solutions and Telematics Market can be segmented in to 3 broad segments:

- **N-CASE** solutions includes Navigation Engine, Connected Vehicle Services, Autonomous Vehicles Safety Platform, Shared Mobility Platform and EV Mobility Platform services;
- **Logistics** solutions include Fleet Monitoring Solution (Commercial Fleet Tracking Solution, Cold Chain Tracking Solution, Solid Waste Management, School Bus Monitoring) and Field workforce management;
- **Transport** solutions includes Route Optimization, Emergency response, Intelligent traffic management, and Smart street lighting

Apps are increasingly offering mapping and location-based functionality for location information like nearest ATM or in personalizing user experience of the app for each user. This growing app market acts as a driver for the navigation solutions and digital map market.

Exhibit 23: Navigation & Telematics solution market to grow at 17% CAGR over CY21-25



Source: Company, PL

Macro-economic drivers for Digital Maps and Location Intelligence market

New Geo-spatial regulations have a significant impact on the existing competitive landscape in geospatial market as it gives Indian companies a clear regulatory advantage and restricts operations of foreign players.

- **Liberalization of Geospatial Sector:** In 2021, the Ministry of Science and Technology announced the deregulation of the Geospatial sector in India. Now there is no requirement to get approvals for the collection, preparation, storage and dissemination of geospatial data and maps within India for Indian owned or controlled companies. Regulations have a significant impact on the existing competitive landscape in geospatial market as it gives Indian companies a clear regulatory advantage and restricts operations of foreign players.

- **Automotive Industry Standard 140:** Automotive Industry Standard 140 ("AIS 140") states that all State public transport vehicles need a vehicle tracking system, a camera surveillance system and emergency SOS panic button. This would be applicable on State buses as well as institutional buses. In 2021, the Road Transport and Highways ("MoRTH") Ministry, made it mandatory for oxygen containers/tankers/vehicles to be fitted with Vehicle Location Tracking ("VLT") devices. This was done during the pandemic to manage shortage of oxygen in hospitals.

- **GPS-based toll collection method:** In 2021, the FASTag method of collecting toll, is proposed to be replaced by a GPS based toll collection method. Here, vehicles would be fit with GPS based FASTag and money would be collected using GPS imaging. It is proposed that the entire National Highway network would be geofenced so as to record the entry and exit of commercial vehicles. This would ensure, that vehicles pay for the exact distance they have covered.

- **Digital India Land Records Modernization Programme ("DILRMP"):** The Digital India Land Records Modernization Programme (DILRMP) has been extended up to FY21. Under DILRMP, government has also launched the National Generic Document Registration System ("NGDRS"), which provides one nation one software for registration of documents and properties, and Unique Land Parcel Identification Number ("ULPIN") system which provide unique IDs for each land parcel based on geo reference coordinates.

Digital India initiatives are propelling growth in the geospatial and GIS market. The National Broadband mission government policy will facilitate laying 30 lakh route km of optical fiber cable especially in rural and remote areas, more than 110,000 have been linked so far, and increase the tower density from 0.42 to 1 tower per thousand population by 2024.

Specially designed digital mapping apps for athletes and adventures provide information on routes for unknown terrains are in the limelight with great scope in a post-pandemic world.

- **ADAS:** Ministry of Road Transport and Highways (MoRTH) in India plans to make ADAS compulsory in all cars by 2022 in a bid to make efforts for elimination road fatalities. These will have many geospatial and location based NCASE inputs.
- **Geotagging of Companies:** With an aim to crack down on shell companies in India, Government introduced mandatory filling of the E-form ACTIVE ("Active Company Tagging Identities and Verification") which requires all registered companies to file particulars about registered offices in the form. This Geotagging exercise helps Government in tracking down companies who are registered on the same address.
- **Telematics in Insurance:** IRDAI has proposed the adoption of Telematics in motor insurance. This would enable tracking of driver behavior and habits, to determine risk profile of the consumer. With introduction of this, insurance policies would no longer be based on model of the car, but it would be based on driving habits of the customer.
- **Regulations for UAV/UAS:** India has allowed BVLOS ("Beyond Visual Line of Sight") flight testing of drone systems during 2020 to enable last mile air delivery within the country. MapmyIndia is part of ("The Digital Sky Platform"), for registration of drones, pilots, and operators for online permission was recently launched.
- **Drone Rules, 2021:** The Drone Rules, 2021 have further liberalized and simplified drone regulations. Certain safety features include geo-fencing capability and real-time tracking beacon will be mandated soon and will provide an impetus to the geospatial market in India.
- **Digital India Initiatives:** The Digital India initiatives are propelling growth in geospatial and GIS market. One of the key vision areas of Digital India is governance and services on demand which includes leveraging of GIS for decision support systems and development. With this focus, many digital India initiatives are growth drivers for telematics and GIS market indirectly or directly.

Financial Performance

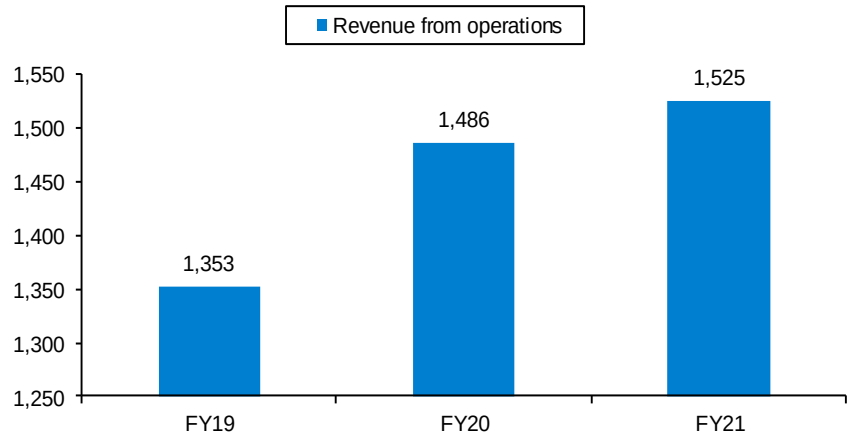
Revenue was resilient in FY21 despite COVID

In last two years, growth was driven by Consumer Tech & Enterprise Digital transformation (C&E) segment (65% CAGR over FY19-21, 48% of revenue share).

MapmyIndia's business model is to charge customers fees per period based on per vehicle, per asset, per transaction, per use case, per user, as applicable. These take the form of subscription fees, royalties, annuities in return for providing licenses and usage rights to proprietary digital MaaS, PaaS and SaaS offerings. Subscription fee, royalty and annuity payments together contributed over 90% of revenue from operation for FY21.

MapmyIndia reported healthy revenue growth of 9.9% YoY in FY20 led by increase in customers and use cases by existing customers. In FY21, despite COVID pandemic, the company reported resilient revenue growth of 2.6% YoY. In last two years, growth was driven by Consumer Tech & Enterprise Digital transformation (C&E) segment (65% CAGR over FY19-21, 48% of revenue share). While Automotive & Mobility (A&M) segment declined over last two years, decline was much sharper at 23% YoY in FY21 in A&M segment due to COVID.

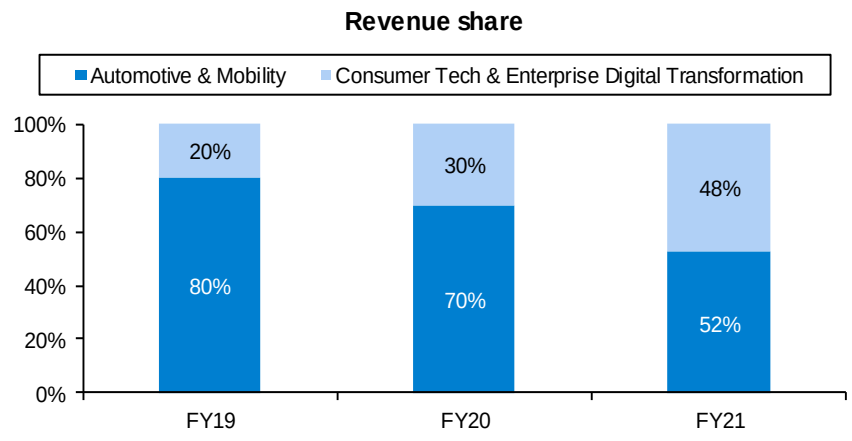
Exhibit 24: Revenue grew at 6.2% CAGR over FY19-21



Source: Company, PL

MapmyIndia is diversifying within automotive sector and also targeting different industries within Consumer and Enterprise verticals to de-risk from cyclical nature of automotive sector.

Exhibit 25: CE segment share increased to 48% in last two years



Source: Company, PL

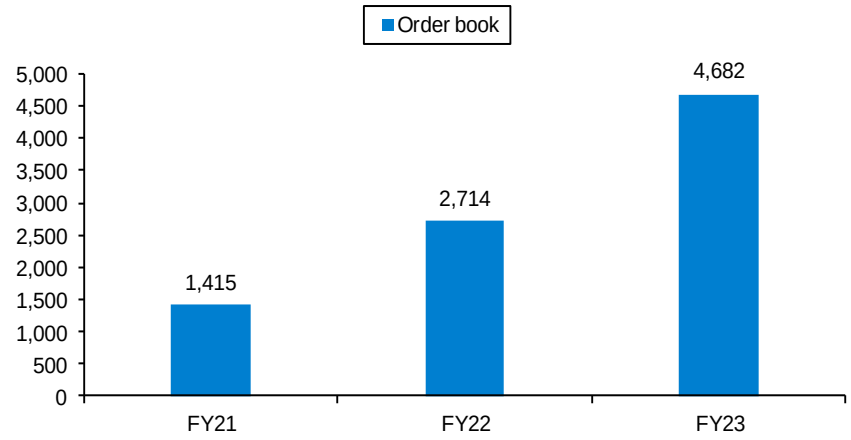
Exhibit 26: CE segment grew at 65% CAGR over FY19-21

	FY19	FY20	FY21
Automotive & Mobility	1,087	1,039	800
YoY gr.		*-4%*	*-23%*
Consumer Tech & Enterprise Digital Transformation (CE)	265	447	724
YoY gr.		*69%*	*62%*
Total Revenue	**1,353**	**1,486**	**1,525**
YoY gr.		*10%*	*3%*

Source: Company, PL

Order book has grown at 82% CAGR over FY19-21 with average duration of 3 years. We believe that strong growth in order book will be converted in to strong growth in revenue from FY22.

Exhibit 27: Order book has grown at 82% CAGR over FY19-21



Source: Company, PL

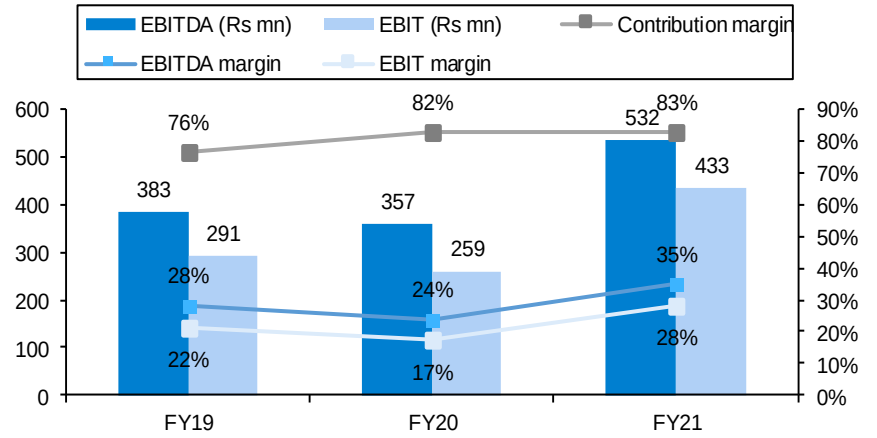
EBITDA margin

MapmyIndia's business model is asset light with relatively low variable costs as most of its products, platforms and solutions are digital, created in-house, and then deployed and delivered over the cloud.

MapmyIndia's business model is asset light with relatively low variable costs as most of its products, platforms and solutions are digital, created in-house, and then deployed and delivered over the cloud. Therefore, contribution margin is expected to remain around 80% levels.

Over FY19-20 EBITDA margin contracted by 430 bps YoY due to higher employee costs (+570 bps YoY) and higher other expenses (+340 bps YoY). Employee costs increased in FY20 due to increase in total number of permanent employees and increase in performance linked incentives for management and sales personnel. In FY21, EBITDA margin expanded by 1090 bps YoY driven by lower employee costs (due to decrease in non-permanent employees) and COVID led cost reductions. EBIT margin at 28% in FY21, expanded by similar 1010 bps over FY20-21.

Exhibit 28: EBITDA margins expanded by ~663bps over FY19-21



Source: Company, PL

Non-permanent employees, deployed in map surveying and other field work, decreased by 37% YoY in FY21.

Exhibit 29: Growing share of permanent employees

Employee Headcount	FY19	FY20	FY21
Permanent Employees	311	388	410
		25%	*6%*
Non-permanent Employees	600	513	324
		-15%	*-37%*
Total	**911**	**901**	**734**
		-1%	***-19%***

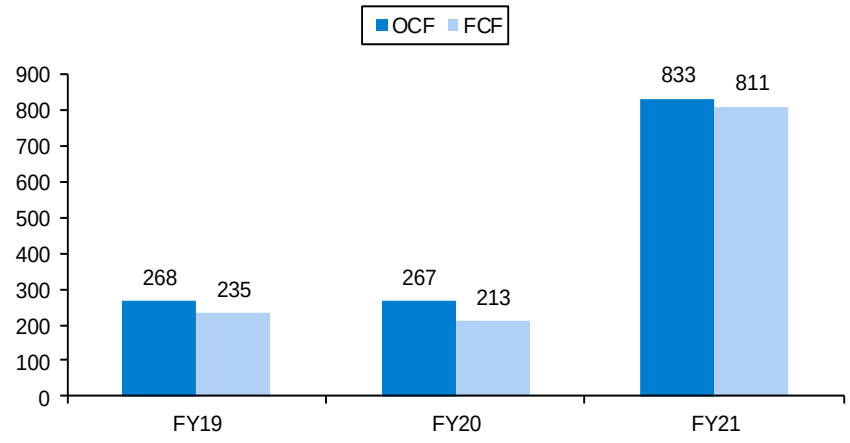
Source: Company, PL

Strong PAT to cash conversion for the business

In FY21, OCF improved to Rs. 833 mn vs Rs. 268/267mn in FY19/21 led by higher profitability and lower working capital. PAT to cash conversion for the business is healthy with OCF to PAT at 80%/115%/140% in FY19/20/21. Capex was relatively lower in FY21 at 1.5% of revenues vs 2.5%/3.6% in FY20/21. FCF in FY21 also followed similar trend and was at Rs. 811 mn v/s INR 235/213 mn in FY19/21. ROE in FY21 stood at 17% (vs 8%/12% in FY19/20).

PAT to cash conversion for the business is healthy with OCF to PAT at 80%/115%/140% in FY19/20/21.

Exhibit 30: OCF improved in FY21 led by improved profitability and lower WC



Source: Company, PL

In the book 'Customer-funded Business Models', Professor John Mullins of London Business School describes MAPMYINDIA's initial business model as an example of customer centric 'Develop-and-License' model.

Company Background and Management Profile

C.E. Info Systems was founded by Mr. Rakesh Kumar Verma and Mrs Rashi Verma in 1995. Since inception, founders have built the business in a sustainable, customer-funded manner. MapmyIndia's business model entailed first winning a customer contract to develop solution for the specific customer need and then entrenching deep into creating more functionalities to address other use cases of similar nature.

Mr. Rakesh Verma has significant experience as an entrepreneur in the field of digital maps and geospatial information technologies. He worked for 10 years in the U.S.A. from 1979-1989 in various organizations in their business functions and as faculty, including in EDS (General Motors). He is the FICCI National Committee Chair of Geospatial Technologies. He is also currently a member of the Department of Science and Technology's Legal-sub Committee for the National Geospatial Policy. He has in the past served as a member of the Government of India's Planning Commission's National GIS Committee.

Mrs. Rashi Verma is the co-founder and chief technology officer of the Company. Prior to founding MapmyIndia, she worked in the U.S.A., including with the IBM Corporation till 1988. She has significant experience as an entrepreneur in the fields of information technology, management, geospatial industry and digital mapping in India. She has been instrumental in growth of the company and continues to play an active leadership role in driving technology initiatives and human resource development. She is responsible for spearheading innovations in the company across AI and geospatial technologies' division. She also oversees the core human resources functions of our Company, with a focus on employee up-skilling and career development.

Rohan Verma is the Whole-time Director and CEO of the company. He has experience as an entrepreneur in the digital mapping, geospatial technologies and automotive mobility technologies. He currently serves as a member of the Confederation of Indian Industry National Committee on Space and represents the company as a core member in Indian Space Association. He also serves on the Internet and Mobile Association of India's (IAMAI) Logistics Committee. He has also been elected and serves on the CII Delhi State Executive Council. He joined the Company in 2007 and worked in various capacities and was appointed as CEO of the company with effect from April 1, 2019. He has been a Whole-time Director on our Board since July 26, 2007.

Note: Rakesh Kumar Verma, Chairman and Managing Director is the father of Rohan Verma, Whole-time Director and CEO, and Rakhi Prasad, Non-executive Director. Rashmi Verma, co-founder and chief technology officer, is the spouse of Rakesh Kumar Verma and mother of Rohan Verma and Rakhi Prasad. Apart from this, none of the Directors are related to each other or to any of the Key Managerial Personnel.

Exhibit 31: Board of Director profile

Name	Designation	Associated From	Educational Qualifications	Work Experience
Rakesh Kumar Verma	Chairman and Managing Director	Feb-95	Bachelor's degree in mechanical engineering (hons.) from the Birla Institute of Technology and Science, Pilani, in 1972 and his master's degree of business administration from the Eastern Washington University, U.S.A, in 1979.	He has significant experience as an entrepreneur in the field of digital maps and geospatial information technologies. He worked for 10 years in the U.S.A. from 1979-1989 in various organisations in their business functions and as faculty, including in EDS (General Motors).
Rohan Verma	Whole-time Director and the CEO	Jul-07	Bachelor's degree in electrical engineering from the Stanford University, U.S.A., in 2007; Master's degree of business administration with distinction from the London Business School, in 2015	He has experience as an entrepreneur in the digital mapping, geospatial technologies and automotive mobility technologies.
Rakhi Prasad	Non-executive Director	Sep-20	Bachelor's degree of science in computer science from the University of Michigan and a bachelor's degree of arts in economics honours from the Lady Shri Ram College, University of Delhi. She also holds a master's degree of science in financial engineering from the Columbia University, U.S.A.	She has significant experience in the field of finance and technology and has previously worked with Goldman Sachs, Enam Securities, and Matrix Partners. She is currently an investment manager at Alder Capital.
Sonika Chandra	Additional Non-executive (Nominee) Director	Jul-21	Master's degree in business administration from the Wharton School of Business, University of Pennsylvania, U.S.A.	She has experience in the field of financial services and technology and has previously worked in the U.S.A with Western Union.
Shambhu Singh	Independent Director	Jul-21	Master's degree in economics from the Patna University	He is a retired IAS officer and the last position he held before retirement was Special Secretary and Financial Advisor in Ministry of Road, Transport and Highways, Government of India. He has significant experience in government administrative services and has served on the board of directors of various public sector undertakings
Anil Mahajan	Independent Director	Jul-21	Master's degree in arts from the Punjab University and is member of the Institute of Company Secretaries of India.	He has significant experience in the field of corporate affairs and governance, including corporate law and strategy.
Kartheepan Madasamy	Independent Director	Jul-21	Bachelor's degree in electronics and communication engineering from the College of Engineering, Anna University and a master's in electrical engineering from the University of Michigan. He also holds a master's degree in business administration from the University of Chicago, Booth School of Business.	He is an experienced venture capital professional and has a technology background in operations and investments across various technologies such as automation and robotics.
Tina Trikha	Independent Director	Jul-21	Bachelor's degree of science in economics from the Massachusetts Institute of Technology, U.S.A., and a master's degree in business administration from the Wharton School of Business, University of Pennsylvania, U.S.A.	She is an associate certified coach and holds a certification from the International Coaching Federation. She has experience in the field of finance and strategy and has previously worked with Credit Suisse First Boston, McKinsey & Company, American Express, and Godrej Industries Limited.

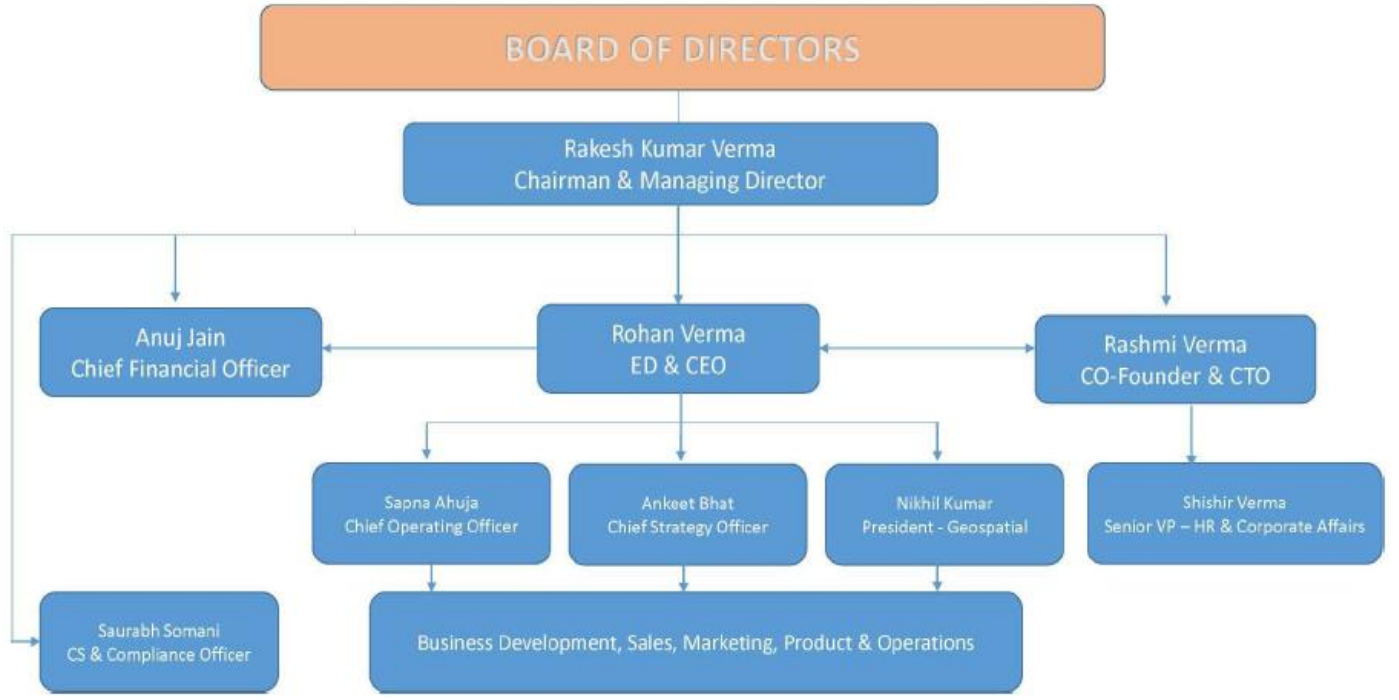
Source: Company, PL

Exhibit 32: Other Key Management personnel

Name	Designation	Associated From	Educational Qualifications	Work Experience
Anuj Kumar Jain	Chief Financial Officer	May-11	Bachelor's degree in commerce from the University of Rajasthan. He is a qualified chartered accountant, company secretary and a cost and management accountant.	He has significant experience in the field of finance, taxation, and accounting. He joined the company as deputy general manager (accounts) in the year 2011. He was subsequently appointed as the company secretary of our Company in the year 2011. He was designated as the Chief Financial Officer of the Company. Prior to joining the Company, he was associated with Sunfest Infratech & Power Private Limited.
Saurabh Surendra Somani	Company Secretary	Jul-21	Bachelor's degree in commerce from the Raashtrasant Tukdoji Maharaj Nagpur University and diploma in corporate laws from the Indian Law School, Pune.	He is a qualified company secretary and has significant experience in the fields of legal, secretarial and listing compliance. Prior to joining the Company, he was associated with MapmyIndiansys Tech Limited, Saffron Industries Limited, G.G. Dandekar Machine Works Limited, Abhijeet MADC Nagpur Energy Private Limited and Solar Industries India Limited.
Rashmi Verma	Co-founder and chief technology officer	Feb-95	Bachelor's degree of chemical engineering with distinction from the University of Roorkee (now known as the Indian Institute of Technology, Roorkee) in 1977 and her master's degree of science from the Eastern Washington University, U.S.A., in 1979	Prior to founding the Company, she worked in the U.S.A., including with the IBM Corporation till 1988. She has significant experience as an entrepreneur in the fields of information technology, management, and the geospatial industry, and digital mapping in India.
Shishir Verma	Senior vice-president, human resources and corporate affairs,	Jan-14	Bachelor's degree in economics from the Patna University in 1988 and his post graduate diploma in systems development from NIIT in 1989	He started his career in the geospatial industry with ESRI in May 2006. During his term with ESRI, he worked as a practice leader. Subsequently he worked for Trident Techlabs as president-power division and A2Z Group as a whole-time.
Nikhil Kumar	President-geospatial	Jul-21	Master's in science in electronics from the Kurukshetra University in 1995.	Prior to joining our Company, he was Director Strategic Alliances SAARC & SEA at Here Technologies from March 2019 to July 2021. He served at Trimble as a director from July 2013 to March 2019, where he worked in capacity of regional institutional business development director.
Sapna Ahuja	Chief operating officer	2004	Bachelor's degree of science in computer science and master's degree of science in applied operations research from the University of Delhi where she also reMapmyIndiaved the university medal for being the best candidate.	She is directly responsible for strategic initiatives and for accelerating the growth of the Company's automotive and mobility business, in addition to overall responsibility of business operations.
Ankeet Bhat	chief strategy officer	Jul-10	Bachelor's degree in electronics and instrumentation engineering (hons.) from the Birla Institute of Technology and Science, Pilani.	He joined the company as a sales engineer in 2011 and worked in various roles thereafter. Subsequently in April 2021, he was appointed as the chief strategy officer and took on the additional responsibilities of company-wide marketing and international expansion through international brand, Mappls

Source: Company, PL

Exhibit 33: Management Structure



Source: Company, PL

Key Risks

Higher share of revenue from cyclical automotive sector

MapmyIndia's business is significantly dependent on automotive sector (52.5% of revenue in FY21). Revenue from automotive sector is cyclical because sales in this sector have been historically characterized by significant periodic fluctuations in overall demand for vehicles resulting in corresponding fluctuations of demand for company's products and services.

MapmyIndia is diversifying within automotive sector and also targeting different industries within Consumer and Enterprise verticals to de-risk from cyclical nature of automotive sector.

High client concentration

As of FY21, top 25 customers represented 80% of revenues from operations and loss of key customers or reduction in demand from these customers could adversely affect the business. Also if customers do not enter in to new high-growth segments, MapmyIndia might not be able to capitalize on new growth opportunities.

Regulatory risks

Though current government regulations have liberalised various aspects of business, (given the combination of heightened security concerns relating to breadth and accuracy of map database), more restrictions could potentially be placed on the sector in future. Security concerns and data privacy laws in geographies outside India could impact company's growth plans abroad.

Financials

Exhibit 34: Key Ratios

	FY19	FY20	FY21
Gross Margin	15%	10%	11%
EBITDA Margin	28%	24%	35%
EBIT Margin	22%	17%	28%
PAT Margin	25%	16%	39%
ROE	12%	8%	17%
ROCE	8%	6%	9%
Inventory Days	9	11	7
Debtor Days (DSO)	64	76	68
Creditor Days	12	15	11
OCF	268	267	833
FCF	235	213	811
OCF/PAT	80%	115%	140%
FCF/PAT	70%	92%	136%

Source: Company, PL

Exhibit 35: Income Statement (Rs mn)

	FY19	FY20	FY21
Revenue from operations	**1,353**	**1,486**	**1,525**
YoY growth		*9.9%*	*2.6%*
Expenses			
Software License Fees & material cost	214	154	174
% of revenue	*15.8%*	*10.4%*	*11.4%*
Cloud Hosting Fees	34	44	41
% of revenue	*2.5%*	*3.0%*	*2.7%*
Customer customisation and servicing cost	75	64	52
% of revenue	*5.5%*	*4.3%*	*3.4%*
Contribution Margin	**1,030**	**1,224**	**1,258**
Contribution Margin %	*76.1%*	*82.3%*	*82.5%*
People cost for product, S&M and G&A	532	707	615
YoY growth		*32.9%*	*-13.1%*
% of revenue	*39.4%*	*47.6%*	*40.3%*
Marketing (including Travel)	61	95	43
YoY growth		*56.7%*	*-54.2%*
% of revenue	*4.5%*	*6.4%*	*2.9%*
Infrastructure	19	23	20
YoY growth		*23.8%*	*-13.8%*
% of revenue	*1.4%*	*1.6%*	*1.3%*
Other fixed cost	35	42	47
YoY growth		*17.6%*	*13.7%*
% of revenue	*3%*	*3%*	*3%*
EBITDA margin	**383**	**357**	**532**
EBITDA margin %	*28.3%*	*24.0%*	*34.9%*
Depreciation and amortisation expense	92	98	99
as % of revenue	*6.8%*	*6.6%*	*6.5%*
as % of fixed assets	*20.7%*	*24.1%*	*30.1%*
EBIT	**291**	**259**	**433**
EBIT margin	21.5%	17.4%	28.4%
Finance cost	26	28	26
as % of revenue	*1.9%*	*1.9%*	*1.7%*
as % of debt	*12%*	*15%*	*16%*
Total expenses	351	304	319
Other income	281	148	398
as % of cash and other investments	*13%*	*6%*	*12%*
Provision for diminution in value of investments	-128	-63	-18
Profit before tax	**418**	**316**	**788**
Tax expense:			
Total tax expenses	82	84	193
ETR	*20%*	*27%*	*25%*
Profit for the year	336	232	595
PAT margin	*24.8%*	*15.6%*	*39.0%*
Total comprehensive income for the year	**327**	**221**	**592**
Earnings per equity share of ₹ 2 each			
Basic earnings per share	**8.5**	**5.9**	**15.1**
Diluted earnings per share	**8.3**	**5.7**	**14.7**

Source: Company, PL

Exhibit 36: Balance Sheet (Rs mn)

ASSETS	FY19	FY20	FY21
(1) Non-current assets			
(a) Property, plant and equipment	58	82	64
(b) Investment properties	82	80	79
(c) Right of use assets	228	196	157
(d) Other intangible assets	75	47	28
(e) Financial assets			
(i) Investments	1,025	1,102	1,148
(ii) Loans	9	9	9
(iii) Others	252	218	1
(f) Tax asset	57	79	66
(g) Deferred tax assets (net)	30	52	25
(2) Current assets			
(a) Inventories	35	44	28
(b) Financial Assets			
(i) Investments	982	885	1,542
(ii) Trade receivables	239	311	283
(iii) Cash and cash equivalents	82	151	336
(iv)Other bank balances	131	171	336
(v) Others	83	130	156
(c) Other current assets	23	21	12
TOTAL ASSETS	**3,393**	**3,578**	**4,269**
EQUITY			
(a) Equity share capital	1,328	1,328	1,328
(b) Other equity	1,524	1,649	2,252
Total Equity	**2,852**	**2,977**	**3,580**
LIABILITIES			
(1) Non-current liabilities			
(a) Financial liabilities			
(i) Lease liabilities	225	187	157
(ii) Others	-	6	3
(b) Provisions	17	25	25
(2) Current liabilities			
(a) Financial liabilities			
(i) Trade payables			
1. Dues of micro enterprises and small enterprises	-	-	3
2. Dues of creditors other than micro enterprises and small enterprises	45	61	41
(ii) Lease liabilities	26	28	31
(iii) Others	132	176	145
(b) Other current liabilities	95	118	282
(c) Provisions	1	1	1
TOTAL EQUITY AND LIABILITIES	**3,393**	**3,578**	**4,269**

Source: Company, PL

Exhibit 37: Cash Flow (Rs mn)

	FY19	FY20	FY21
Cash flows from operating activities			
Profit before tax	418	316	788
Adjustments for:			
Depreciation and amortisation	92	98	99
Employee stock option expense	32	31	7
Provision for doubtful receivables and advances	0	12	6
Reversal of provision for doubtful receivables and advances	-4	0	0
Provision against Raw material and Finished goods	6	0	0
Reversal of provisions against Raw material and Finished goods	0	-8	0
Provision for security deposits	5	0	0
Gain on sale of investments	-195	-41	-128
Dividend income from investments	-26	-6	-1
Interest income on fixed deposits	-24	-26	-26
Interest income on bonds	-7	-48	-65
Interest expense	25	27	24
Liabilities written back	-8	-1	-3
Unrealized foreign exchange fluctuation (gain)/ loss (net)	1	-4	-1
(Fair Value gain in investments) / Provision for diminution value of investments	128	63	-110
Income from Investment property	-6	-13	-10
Others	-1	0	0
Adjustments for working capital changes	434	400	580
(Increase) / decrease in inventories	27	-1	16
(Increase) / decrease in trade receivables	12	-84	24
(Increase) / decrease in other financial assets and other assets	17	-14	244
Increase / (Decrease) in trade payables	3	16	-16
Increase/ (Decrease) in other financial liabilities, provisions other liabilities	-63	73	137
Cash flows generated from operations	430	390	985
Less: Income tax paid	-162	-123	-152
Net cash flows generated from operating activities	268	267	833
Cash flows from investing activities			
Proceeds from sale of investments	2871	1843	2781
Purchase of investments	-2982	-1861	-3246
Interest received on bank deposits and bonds	4	78	47
Dividend received	26	6	1
Purchase of property, plant and equipment (including capital advances)	-33	-55	-24
Sale of Property, plant and equipment	0	1	1
Income from Investment property	6	13	10
Deposit due to mature within 12 months of the reporting date included under 'Other bank balances'	-84	-40	-164
Net cash flows used in investing activities	-191	-16	-593
Cash flows from financing activities			
Repayment of borrowings	0	-1	-3
Proceeds from borrowings	0	10	0
Dividend paid	0	-110	0
Payment of lease liabilities including interest	-40	-63	-50
Corporate dividend tax	0	-23	-1
Interest paid	-2	-1	-1
Net cash flows used in financing activities	-42	-188	-55
Net increase/ (decrease) in cash and cash equivalents (A+B+C)	34	64	185
Effect of exchange rate changes on cash & cash equivalent	0	4	
Cash and cash equivalents opening balance (refer note 9)	48	83	151
Cash and cash equivalents closing balance (refer note 9)	83	151	336

Source: Company, PL

Analyst Coverage Universe

Sr. No.	Company Name	Rating	TP (Rs)	Share Price (Rs)
1	Affle (India)	BUY	1,496	1,169
2	Coforge	BUY	5,596	5,069
3	Cyient	BUY	1,315	1,160
4	HCL Technologies	BUY	1,386	1,251
5	Infosys	BUY	2,004	1,709
6	L&T Technology Services	BUY	5,621	5,132
7	Larsen & Toubro Infotech	BUY	6,710	5,906
8	Mindtree	BUY	4,804	4,364
9	Mphasis	BUY	3,674	3,396
10	Persistent Systems	BUY	4,641	4,060
11	Redington (India)	BUY	213	145
12	Sonata Software	BUY	994	918
13	Tata Consultancy Services	BUY	4,113	3,936
14	TeamLease Services	Reduce	4,259	4,668
15	Tech Mahindra	BUY	1,862	1,522
16	Wipro	BUY	736	651
17	Zensar Technologies	BUY	539	453

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Accumulate : 5% to 15%
Hold : +5% to -5%
Reduce : -5% to -15%
Sell : < -15%
Not Rated (NR) : No specific call on the stock
Under Review (UR) : Rating likely to change shortly

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