

Technology

Global SaaS market is growing rapidly



Source: MOFSL, SaaSBOOMi Report

Indian SaaS market to grow by 20x by CY30...

Indian SaaS market (USD b)



Source: MOFSL, SaaSBOOMi Report

India.NEXT - The SaaS juggernaut

The Indian SaaS ecosystem is thriving

- Software as a Service (SaaS) has emerged as one of the biggest disruptor in the global technology industry over the last two decades. It continues to accelerate further as the world rapidly shifts to a Cloud-based environment. The COVID-19 outbreak exacerbated the push to SaaS, given greater flexibility, functionality, and better remote productivity.
- Within the SaaS space, Indian companies are now distinguishing themselves, with a long list of firms joining the hallowed 'Unicorn Club' (valuation of over USD1b). While a majority of companies focus on Horizontal business software, Vertical solutions and innovative Infra SaaS plays are also scaling out of India.
- With a global competitive product portfolio, the SaaS ecosystem is expected to grow rapidly in India and increase its share of global SaaS to 4-5% (from ~1% at present), translating into a massive USD50-70b revenue opportunity by CY30.
- Unlike the Technology Services industry, SaaS companies are generating meaningful revenue from Indian companies (30% in CY20 as per Zinnov) and have a diverse business model targeting both enterprise and small and medium businesses.
- This has resulted in elevated interest from VC/PEs, which have invested over USD4.5b in the space in CY21, ~3x higher v/s a year ago.

India.NEXT conference takeaways – Big opportunities, bigger aspirations

- With proven scale and business model, we expect more SaaS companies to follow Freshworks' (NR) example and opt for a public listing. In this backdrop, we hosted six medium to large new age SaaS companies in our first India.NEXT conference.
- This diverse set included two unicorns (Icertis and Fractal Analytics), a marketing technology SaaS company (Netcore Cloud), a large restaurant SaaS player with deep inroads in the food delivery ecosystem (Petpooja), conversational Al company Haptik, and recently listed Data Analytics player Latent View.
- The common thread running across all sessions was the strong belief in the rise of the Indian SaaS ecosystem and the growing capability of companies in providing solutions to global enterprises.
- On top of their strong product offerings, Indian SaaS companies have gained from the shift to digital sales due to the travel restrictions imposed to stem the pandemic. This resulted in increased trials of quality offerings and their strength in pricing and customer service becoming much more visible.
- One interesting read-across for Zomato (NR) and Swiggy came in the session of Petpooja. Its primary data indicated that the share of food delivery in the overall F&B space covered by the duo is now down to 25%, the share they held before the outbreak of the pandemic.
- Haptik's commentary on the work it is doing for WhatsApp shows that the impact of WhatsApp on Indian Retail commerce will start becoming visible from CY22 onwards.

Mukul Garg-Research analyst (Mukul.Garg@MotilalOswal.com)

MOTILAL OSWAL

Indian SaaS is building up into a large ecosystem play

While the Enterprise Software era was dominated by well-known global behemoths, SaaS is seeing the emergence of global leaders from India, who are achieving global scale and rapid growth. Multiple Indian heritage SaaS companies now form part of the hallowed 'Unicorn Club'. Companies are achieving this on the back of better cost dynamics, quality, and shift in sales model to the digital medium during pandemic. Indian SaaS companies include those founded domestically by Indian founders (or founders of Indian origin). The majority of their workforce is located in India, serving both domestic and global customers.

Our 'India.NEXT' conference reinforced the gains made by Indian companies in this space, with the common theme being:

- The Indian SaaS ecosystem is thriving and competing well on the global stage. The last two years have given it a big fillip as compared to established legacy vendors, aided by better pricing, quality, and customer service.
- There is a potential for Indian SaaS companies to scale up and be larger than Indian IT behemoths as their aspirations are to win against global software majors like SAP.
- Companies are targeting specific user problems and are very focused on client pain points.
- Pricing remains a mix of SaaS (per use) and subscription based.

Exhibit 1: Global SaaS market is growing rapidly

Global SaaS market (USD b)

1300

540

220

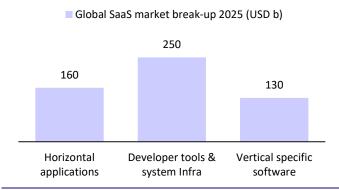
CY20

CY25E

CY30E

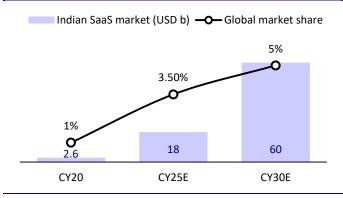
Source: MOFSL, SaaSBOOMi Report

Exhibit 2: Global SaaS market break-up by application – CY25



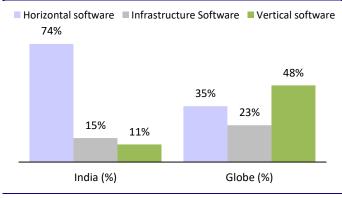
Source: MOFSL, SaaSBOOMi Report

Exhibit 3: Indian SaaS market to grow by 20x by CY30...



Source: MOFSL, SaaSBOOMi Report

Exhibit 4: ...although the mix over the next five years will be tilted towards horizontal software

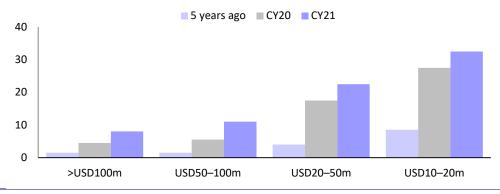


Source: MOFSL, SaaSBOOMi Report, Chiratae Zinnov SaaS Report

2 March 2022

MOTILAL OSWAL

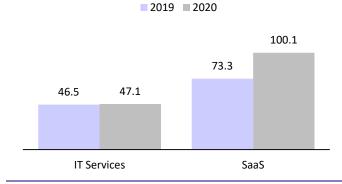
Exhibit 5: Number of SaaS companies are increasing

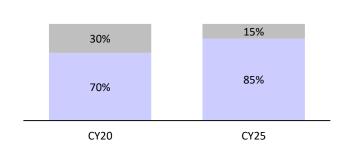


Source: MOFSL, Bain SaaS Report CY21

Exhibit 6: Revenue per employee is higher in SaaS

Exhibit 7: Revenue of Indian SaaS companies





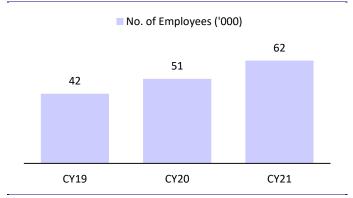
■ Global Share ■ India Share

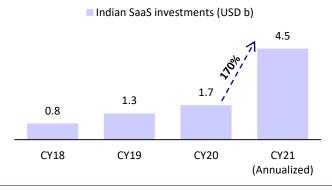
Source: MOFSL, Bain SaaS Report CY21

Source: MOFSL, Chiratae Zinnov SaaS Report

Exhibit 8: Number of employees working in India for Indian SaaS companies

Exhibit 9: Investments in Indian SaaS companies





Source: MOFSL, Bain SaaS Report CY21

Source: MOFSL, Bain SaaS Report CY21

Exhibit 10: Indian SaaS ecosystem is among the top five globally

| Particulars | US | China | India | UK | Israel |
|---|-------|-------|-------|-------|--------|
| Total number of unicorns | 426 | 175 | 69 | 36 | 70 |
| Total number of funded startups | 131k | 27k | 18k | 25k | 4.5k |
| Total engineering graduates per year | 0.26m | 4.9m | 1.5m | 0.07m | 0.01m |
| Total number of Internet users | 300m | 990m | 630m | 65m | 8m |
| Total number of incubators and accelerators | 1.7k | 12k | 535 | 345 | 110 |

Source: MOFSL, Bain SaaS Report CY21

Key takeaways from the India.NEXT conference

To get a better sense of the massive opportunity in the SaaS space in India, we hosted our first 'India.NEXT' conference, inviting six new age SaaS companies. Following are the key takeaways:



Icertis

Icertis operates in the Contract Lifecycle Management (CLM) space. It is one of the most prominent SaaS companies in India and is a global leader in the fast growing Enterprise CLM Software industry, with a presence in more than 90 countries, over 10m contracts under management, and is available in over 40 languages.

It was founded by Mr. Samir Bodas in CY09. Its customers include companies like Airbus, Cognizant, Microsoft, J&J, and Roche. It recently received funding from SAP and was valued at USD5b in a secondary share purchase by the SoftBank Vision Fund.

Discussion takeaways:

- Globally, the CLM market is pegged at USD2-3b annually (and includes money spent on the contracting process). Icertis has a very small pie in the entire market as many companies are still spending a lot of money in an unstructured way.
- The three major triggers for buying a CLM software are:
 - Inefficiency due to storing of contracts in a common folder and difficulty in retrieving them.
 - > The risk of not finding a specific contract when needed at the time of audit.
 - Move towards Digitalization: In majority of the cases, this becomes strategic iust like ERP.
- As per the management, Indian SaaS players have the potential to grow at a scale that can surpass IT Services and be as big as SAP and Salesforce.
- Indian companies now have an edge over global companies like SAP as they have mastered quality and upgrade of software at a lower cost.
- The cost of testing product market fit is much cheaper in India than in the US and Europe.
- The COVID-19 pandemic led to the sale of software over a phone call, which made the process cheaper.
- It also gives customers the confidence that a physical meeting is not necessary to buy software, thus providing an edge to Indian software companies.



Fractal Analytics

Fractal Analytics is a leading AI and Data Analytics company. It offers AI driven Data Analytics products and solutions to different industries. Its solutions include providing business insights, forecasting, consumer insights, decisive transformation, revenue growth management, big data, ML, and natural language processing. It caters to the needs of Fortune 500 companies in verticals like CPG, Media, Financial Services, Healthcare/Life Sciences, Insurance, Technology, Telecom, and Retail.

Incorporated in 2000 by Mr. Pranay Agrawal, the company has more than 3,500 employees spread across 16 global locations. It recently raised USD360m from TPG at a valuation of over USD1b and counts Apax Partners as a key investor.

Discussion takeaways:

- The management_aims to deliver at least USD1b in value to each of its clients. It serves companies with revenue of over USD10b, market capitalization of more than USD20b, or over 30m in end-consumers.
- Currently, it is serving ~10 of the top 20 CPG companies, two out of the top five global Healthcare companies, four out of the top 10 Tech and Telecom companies, and top Retail and BFSI providers in the US.
- Over the past five years, it has been growing organically (over 30%). It aspires to grow to Accenture's size by building a sustainable business.
- The management aims to invest more than 10% of its revenue on innovation.
- It sees a huge opportunity in the space and aims to grow to ~USD100b.
- The company has strong relationships with hyper-scaling customers who have already implemented Cloud solutions. It is helping them with Al-based data interpretations and in decision making.
- It is serving four major business verticals: Retail; Healthcare; Financial Services, Insurance, and Technology; and Telecom and Media.



Netcore Cloud

Netcore Cloud is a full stack customer experience platform, providing services such as a customer data platform, customer engagement, product experiences, personalization, and email marketing services. It has over 5000 clients across 18 countries and delivers 12b emails per month.

It counts Max Life Insurance, ICICI Bank, Standard Chartered, Flipkart, Myntra, Bharti Airtel, and Disney Hotstar among its clients. The company was founded by Mr. Rajesh Jain in CY98.

Discussion takeaways:

- Communication stack is the largest contributor of business for Netcore Cloud. It has a strong SMS delivery business. The other two segments are Product Experience stack (nudges and feature management) and Engagement stack (personalized email marketing campaigns).
- It is one of the very few profitable bootstrapped SaaS companies. It delivered USD85m in revenue in FY21 (USD35m SaaS revenue).
- On the Communications side, pricing is consumption driven, while in Engagement and Product Experience stack, it is MAU (Monthly Active Users) based.
- The company works with nine out of 10 Banks in India and about eight out of 10 unicorns.
- SaaS is one of the fastest growing segments in the Tech space, especially in AMEA region and is expected to clock ~20% CAGR over CY20-25.
- With every passing year, the cost of development is rising. Hence, there is a need for efficient ways to develop software in a modular fashion.

■ The management sees India as being on par with US market for talent pool. On the other hand, India still has a very good cost arbitrage, which is narrowing down now. This is a sign of a maturing market.



Haptik

Haptik builds Conversational AI Solutions across IVR, WhatsApp Business, email, etc. for customer care, lead generation, and conversational commerce. It is one of the largest conversational AI companies in the world, with a presence in 100m devices, and over 3b conversations. Its intelligent virtual assistants enable Fortune 500 brands globally to enhance their customer experience.

Haptik has been a part of Jio Platforms since CY19. It was founded in CY14 by Mr. Aakrit Vaish and counts KFC, Oyo Rooms, StarHub, HP, Tata Group, Disney Hotstar, Ola, and Zurich Insurance among its leading clients.

Discussion takeaways:

- Its enterprise CX platform empowers brands to build omnichannel intelligent virtual assistants to increase revenue and also boost operational efficiencies.
- Several brands are moving fast to implement virtual assistants due to the fear of missing out.
- Around 80% of the businesses expect to integrate some form of conversational Al system by CY22. WhatsApp is one of those balancing platforms, which is acting as a bridge between the brands and consumers. Many of the businesses have been running their businesses on WhatsApp.
- Haptik is working with WhatsApp to revolutionize shopping on WhatsApp by providing reminders, suggestions, and payment options.
- It is using multiple languages to communicate with audiences in different parts
- The management sees WhatsApp becoming a preferred channel to avail daily product and service purchases for the next five years.



Latent View Analytics

Latent View Analytics is one of the leading pure-play Data Analytics companies. It provides services across the value chain of Data Analytics from data and analytics consulting to business analytics and insights, advanced predictive analytics, data engineering, and digital solutions. The company was incorporated in CY06 by Mr. Rajan Sethuraman.

Discussion takeaways:

- The management aims to work with Fortune 500 companies. It works directly with business unit heads and the first/second line of management in a company.
- Around 95% of revenue is from the US, with a small chunk from Europe. The management sees a lot of opportunity in Europe.
- The company has a healthy revenue/employee ratio of USD65-68k/annum, despite an onsite/offshore ratio of 1:6.

- Data Analytics is a USD170b market at present, with a projected CAGR of 18-20% going forward. The management expects to grow at a higher rate than the market.
- The supply side is very aggressive as of now. This is a very dynamic space as tech is changing very rapidly.



Petpooja

Petpooja provides Restaurant Management software for F&B retail (POS, Billing, and inventory management). It handles operations such as billing, inventory, reporting, menu, CRM, and online ordering. It started business as a food delivery platform, but now provides Restaurant Management software.

It is integrated with 100 B2C players, including delivery aggregators, dine-in ordering, online ordering, table reservation, loyalty, payments, ERP, etc. Petpooja's software powers over 25,000 outlets across India, UAE, and the Africa, with over 1.5m daily orders and an annualized GMV of USD2.5b. The company was founded in CY11 by Mr. Apurv Patel and Mr. Parthiv Patel.

Discussion takeaways:

- The management said earning_money in the F&B business today is very difficult due to thinning margin (to 12-18% currently from 30-35% prior to CY15), despite higher volumes. Consumer loyalty is very low due to the higher number of available options.
- F&B businesses are trying to improve their margins by:
 - Optimizing their business operations: Cloud platforms help with inventory flow, procurement, etc.
 - Pushing for more online and dine-in orders to improve customer footprint. Engagement with customers has significantly increased.
 - Expanding footprint through multiple outlets.
- Petpooja is focused on the medium and small Restaurant category as 95% of these businesses are not using a Cloud POS yet. It also has a strong installed base in Tier II and III cities.
- The company is serving more than 27,500 outlets across ~400 cities, with ~48m monthly orders. It is serving ~19.12b monthly billing volumes on an average.
- It handles 6-8% of India's F&B GDP and ~20% of traffic on Zomato/Swiggy (v/s 15% for Urban Piper, which only a part of their offerings).
- The management expects online F&B orders to be 25% of the market, with dinein constituting the major chunk. While the share of online ordering has reverted back to pre-pandemic levels (20-25%), overall volume has increased meaningfully and both dine in and delivery have grown.

MOTILAL OSWAL Sector Update | Technology

NOTES

| Explanation of Investment Rating | | |
|----------------------------------|--|--|
| Investment Rating | Expected return (over 12-month) | |
| BUY | >=15% | |
| SELL | <-10% | |
| NEUTRAL | < - 10 % to 15% | |
| UNDER REVIEW | Rating may undergo a change | |
| NOT RATED | We have forward looking estimates for the stock but we refrain from assigning recommendation | |

*In case the recommendation given by the Research Analyst is inconsistent with the investment rating legend for a continuous period of 30 days, the Research Analyst shall within following 30 days take appropriate measures to make the recommendation consistent with the investment rating legend.

Disclosures

The following Disclosures are being made in compliance with the SEBI Research Analyst Regulations 2014 (herein after referred to as the Regulations).

Motilal Oswal Financial Services Ltd. (MOFSL) is a SEBI Registered Research Analyst having registration no. INH000000412. MOFSL, the Research Entity (RE) as defined in the Regulations, is engaged in the business of providing Stock broking services, Investment Advisory Services, Depository participant services & distribution of various financial products. MOFSL is a subsidiary company of Passionate Investment Management Pvt. Ltd.. (PIMPL). MOFSL is a listed public company, the details in respect of which are available on www.motilaloswal.com, MOFSL (erstwhile Motilal Oswal Securities Limited - MOSL) is registered with the Securities & Exchange Board of India (SEBI) and is a registered Trading Member with National Stock Exchange of India Ltd. (NSE) and Bombay Stock Exchange Limited (BSE), Multi Commodity Exchange of India Limited (MCX) and National Commodity & Derivatives Exchange Limited (NCDEX) for its stock broking activities & is Depository participant with Central Depository Services Limited (CDSL) National Securities Depository Limited (NSDL),NERL, COMRIS and CCRL and is member of Association of Mutual Funds of India (AMFI) for distribution of financial products and Insurance Regulatory & Development Authority of India (IRDA) as Corporate Agent for insurance products. Details of associate entities of Motilal Oswal Financial Services Limited are available on the website at http://onlinereports.motilaloswal.com/Dormant/documents/List%20of%20Associate%20companies.pdf

MOFSL and its associate company(ies), their directors and Research Analyst and their relatives may; (a) from time to time, have a long or short position in, act as principal in, and buy or sell the securities or derivatives thereof of companies mentioned herein. (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies) or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions.; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report

MOFSL and / or its affiliates do and seek to do business including investment banking with companies covered in its research reports. As a result, the recipients of this report should be aware that MOFSL may have a potential conflict of interest that may affect the objectivity of this report. Compensation of Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions. Details of pending Enquiry Proceedings of Motilal Oswal Financial Services Limited are available on the website at https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx

A graph of daily closing prices of securities is available at www.nseindia.com, www.nseindia.com. Research Analyst views on Subject Company may vary based on Fundamental research and Technical Research. Proprietary trading desk of MOFSL or its associates maintains arm's length distance with Research Team as all the activities are segregated from MOFSL research activity and therefore it can have an independent view with regards to Subject Company for which Research Team have expressed their views.

Regional Disclosures (outside India)

This report is not directed or intended for distribution to or use by any person or entity resident in a state, country or any jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL & its group companies to registration or licensing requirements within such jurisdictions.

For Hong Kong:

This report is distributed in Hong Kong by Motilal Oswal capital Markets (Hong Kong) Private Limited, a licensed corporation (CE AYY-301) licensed and regulated by the Hong Kong Securities and Futures Commission (SFC) pursuant to the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) "SFO". As per SEBI (Research Analyst Regulations) 2014 Motilal Oswal Securities (SEBI Reg No. INH000000412) has an agreement with Motilal Oswal capital Markets (Hong Kong) Private Limited for distribution of research report in Hong Kong. This report is intended for distribution only to "Professional Investors" as defined in Part I of Schedule 1 to SFO. Any investment or investment activity to which this document relates is only available to professional investor and will be engaged only with professional investors." Nothing here is an offer or solicitation of these securities, products and services in any jurisdiction where their offer or sale is not qualified or exempt from registration. The Indian Analyst(s) who compile this report is/are not located in Hong Kong & are not conducting Research Analysis in Hong Kong.

For U.S.

Motial Oswal Financial Services Limited (MOFSL) is not a registered broker - dealer under the U.S. Securities Exchange Act of 1934, as amended (the"1934 act") and under applicable state laws in the United States. In addition MOFSL is not a registered investment adviser under the U.S. Investment Advisers Act of 1940, as amended (the "Advisers Act" and together with the 1934 Act, the "Acts), and under applicable state laws in the United States. Accordingly, in the absence of specific exemption under the Acts, any brokerage and investment services provided by MOFSL, including the products and services described herein are not available to or intended for U.S. persons. This report is intended for distribution only to "Major Institutional Investors" as defined by Rule 15a-6(b)(4) of the Exchange Act and interpretations thereof by SEC (henceforth referred to as "major institutional investors"). This document must not be acted on or relied on by persons who are not major institutional investors. In reliance on the exemption from registration brovided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act") and interpretations thereof by the U.S. Securities and Exchange Commission ("SEC") in order to conduct business with Institutional Investors based in the U.S., MOFSL has entered into a chaperoning agreement with a U.S. registered broker-dealer, Motilal Oswal Securities International Private Limited. ("MOSIPL"). Any business interaction pursuant to this report will have to be executed within the provisions of this chaperoning agreement.

The Research Analysts contributing to the report may not be registered /qualified as research analyst with FINRA. Such research analyst may not be associated persons of the U.S. registered broker-dealer, MOSIPL, and therefore, may not be subject to NASD rule 2711 and NYSE Rule 472 restrictions on communication with a subject company, public appearances and trading securities held by a research analyst account.

For Singapore

In Singapore, this report is being distributed by Motilal Oswal Capital Markets Singapore Pte Ltd ("MOCMSPL") (Co.Reg. NO. 201129401Z) which is a holder of a capital markets services license and an exempt financial adviser in Singapore. As per the approved agreement under Paragraph 9 of Third Schedule of Securities and Futures Act (CAP 289) and Paragraph 11 of First Schedule of Financial Advisors Act (CAP 110) provided to MOCMSPL by Monetary Authority of Singapore. Persons in Singapore should contact MOCMSPL in respect of any matter arising from, or in connection with this report/publication/communication. This report is distributed solely to persons who qualify as "Institutional Investors", of which some of whom may consist of "accredited" institutional investors as defined in section 4A(1) of the Securities and Futures Act, Chapter 289 of Singapore ("the SFA"). Accordingly, if a Singapore person is not or ceases to be such an institutional investor, such Singapore Person must immediately discontinue any use of this Report and inform MOCMSPL.

Specific Disclosures

- 1 MOFSL, Research Analyst and/or his relatives does not have financial interest in the subject company, as they do not have equity holdings in the subject company.
- 2 MOFSL, Research Analyst and/or his relatives do not have actual/beneficial ownership of 1% or more securities in the subject company
- 3 MOFSL, Research Analyst and/or his relatives have not received compensation/other benefits from the subject company in the past 12 months
- 4 MOFSL, Research Analyst and/or his relatives do not have material conflict of interest in the subject company at the time of publication of research report
- 5 Research Analyst has not served as director/officer/employee in the subject company
- 6 MOFSL has not acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- 7 MOFSL has not received compensation for investment banking/ merchant banking/brokerage services from the subject company in the past 12 months
- 8 MOFSL has not received compensation for other than investment banking/merchant banking/brokerage services from the subject company in the past 12 months
- MOFSL has not received any compensation or other benefits from third party in connection with the research report
- 10 MOFSL has not engaged in market making activity for the subject company

MOTILAL OSWAL

Sector Update | Technology

The associates of MOFSL may have:

- financial interest in the subject company
- actual/beneficial ownership of 1% or more securities in the subject company
- received compensation/other benefits from the subject company in the past 12 months
- other potential conflict of interests with respect to any recommendation and other related information and opinions.; however the same shall have no bearing whatsoever on the specific recommendations made by the analyst(s), as the recommendations made by the analyst(s) are completely independent of the views of the associates of MOFSL even though there might exist an inherent conflict of interest in some of the stocks mentioned in the research report.
- acted as a manager or co-manager of public offering of securities of the subject company in past 12 months
- be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies)
- received compensation from the subject company in the past 12 months for investment banking / merchant banking / brokerage services or from other than said services.

The associates of MOFSL has not received any compensation or other benefits from third party in connection with the research report

Above disclosures include beneficial holdings lying in demat account of MOFSL which are opened for proprietary investments only. While calculating beneficial holdings, it does not consider demat accounts which are opened in name of MOFSL for other purposes (i.e holding client securities, collaterals, error trades etc.). MOFSL also earns DP income from clients which are not considered in above disclosures.

Analyst Certification

The views expressed in this research report accurately reflect the personal views of the analyst(s) about the subject securities or issues, and no part of the compensation of the research analyst(s) was, is, or will be directly or indirectly related to the specific recommendations and views expressed by research analyst(s) in this report.

Terms & Conditions:

This report has been prepared by MOFSL and is meant for sole use by the recipient and not for circulation. The report and information contained herein is strictly confidential and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent of MOFSL. The report is based on the facts, figures and information that are considered true, correct, reliable and accurate. The intent of this report is not recommendatory in nature. The information is obtained from publicly available media or other sources believed to be reliable. Such information has not been independently verified and no guaranty, representation of warranty, express or implied, is made as to its accuracy, completeness or correctness. All such information and opinions are subject to change without notice. The report is prepared solely for informational purpose and does not constitute an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments for the clients. Though disseminated to all the customers simultaneously, not all customers may receive this report at the same time. MOFSL will not treat recipients as customers by virtue of their receiving this report.

Disclaimer:

The report and information contained herein is strictly confidential and meant solely for the selected recipient and may not be altered in any way, transmitted to, copied or distributed, in part or in whole, to any other person or to the media or reproduced in any form, without prior written consent. This report and information herein is solely for informational purpose and may not be used or considered as an offer document or solicitation of offer to buy or sell or subscribe for securities or other financial instruments. Nothing in this report constitutes investment, legal, accounting and tax advice or a representation that any investment or strategy is suitable or appropriate to your specific circumstances. The securities discussed and opinions expressed in this report may not be suitable for all investors, who must make their own investment decisions, based on their own investment objectives, financial positions and needs of specific recipient. This may not be taken in substitution for the exercise of independent judgment by any recipient. Each recipient of this document should make such investigations as it deems necessary to arrive at an independent evaluation of an investment in the securities of companies referred to in this document (including the merits and risks involved), and should consult its own advisors to determine the merits and risks of such an investment. The investment discussed or views expressed may not be suitable for all investors. Certain transactions -including those involving futures, options, another derivative products as well as non-investment grade securities - involve substantial risk and are not suitable for all investors. No representation or warranty, express or implied, is made as to the accuracy, completeness or fairness of the information and opinions contained in this document. The Disclosures of Interest Statement incorporated in this document is provided solely to enhance the transparency and should not be treated as endorsement of the views expressed in the report. This information is subject to change without any prior notice. The Company reserves the right to make modifications and alternations to this statement as may be required from time to time without any prior approval. MOFSL, its associates, their directors and the employees may from time to time, effect or have effected an own account transaction in, or deal as principal or agent in or for the securities mentioned in this document. They may perform or seek to perform investment banking or other services for, or solicit investment banking or other business from, any company referred to in this report. Each of these entities functions as a separate, distinct and independent of each other. The recipient should take this into account before interpreting the document. This report has been prepared on the basis of information that is already available in publicly accessible media or developed through analysis of MOFSL. The views expressed are those of the analyst, and the Company may or may not subscribe to all the views expressed therein. This document is being supplied to you solely for your information and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, copied, in whole or in part, for any purpose. This report is not directed or intended for distribution to, or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject MOFSL to any registration or licensing requirement within such jurisdiction. The securities described herein may or may not be eligible for sale in all jurisdictions or to certain category of investors. Persons in whose possession this document may come are required to inform themselves of and to observe such restriction. Neither the Firm, not its directors, employees, agents or representatives shall be liable for any damages whether direct or indirect, incidental, special or consequential including lost revenue or lost profits that may arise from or in connection with the use of the information. The person accessing this information specifically agrees to exempt MOFSL or any of its affiliates or employees from, any and all responsibility/liability arising from such misuse and agrees not to hold MOFSL or any of its affiliates or employees responsible for any such misuse and further agrees to hold MOFSL or any of its affiliates or employees free and harmless from all losses, costs, damages, expenses that may be suffered by the person accessing this information due to any errors and delays.

Registered Office Address: Motilal Oswal Tower, Rahimtullah Sayani Road, Opposite Parel ST Depot, Prabhadevi, Mumbai-400025; Tel No.: 022 71934200/ 022-71934263; Website www.motilaloswal.com. CIN no.: L67190MH2005PLC153397. Correspondence Office Address: Palm Spring Centre, 2nd Floor, Palm Court Complex, New Link Road, Malad(West), Mumbai-400 064. Tel No: 022 7188 1000.

Registration Nos.: Motilal Oswal Financial Services Limited (MOFSL)*: INZ000158836(BSE/NSE/MCX/NCDEX); CDSL and NSDL: IN-DP-16-2015; Research Analyst: INH000000412. AMFI: ARN - 146822; Investment Adviser: INA000007100; Insurance Corporate Agent: CA0579;PMS:INP000006712. Motilal Oswal Asset Management Company Ltd. (MOAMC): PMS (Registration No.: INP000000670); PMS and Mutual Funds are offered through MOAMC which is group company of MOFSL. Motilal Oswal Financial Services Limited is a distributor of Mutual Funds, PMS, Fixed Deposit, Bond, NCDs,Insurance Products and IPOs.Real Estate is offered through Motilal Oswal Real Estate Investment Advisors II Pvt. Ltd. which is a group company of MOFSL. Private Equity is offered through Motilal Oswal Private Equity Investment Advisors Pvt. Ltd which is a group company of MOFSL. Research & Advisory services is backed by proper research. Please read the Risk Disclosure Document prescribed by the Stock Exchanges carefully before investing. There is no assurance or guarantee of the returns. Investment in securities market is subject to market risk, read all the related documents carefully before investing. Details of Compliance Officer: Name: Neeraj Agarwal, Email ID: na@motilaloswal.com, Contact No.:022-71881085.

* MOSL has been amalgamated with Motilal Oswal Financial Services Limited (MOFSL) w.e.f August 21, 2018 pursuant to order dated July 30, 2018 issued by Hon'ble National Company Law Tribunal, Mumbai Bench.