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ANALYSYS MASON

INTERNET AND TECHNOLOGY MONTHLY

Consulting specialists in telecoms, media and technology

JANUARY 2024

Featured in this issue

THE FINTECH REVOLUTION IN INDIA: BRIDGING THE DIGITAL DIVIDE

TECHNICAL DUE DILIGENCE: THE GROWING IMPERATIVE BEFORE INVESTING IN NEW-AGE BUSINESSES

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FOREWORD

Welcome to the January 2024 edition of Analysys Mason's newsletter on the internet and technology markets.

Dear All,

As we start 2024, we would like to wish you and your families a Happy New Year! Even though 2023 was a relatively sluggish year for deal making and IPOs in general, we expect this new year to bring along a better deal environment. The last quarter of 2023 saw a decent rebound in deal activity already.

I am pleased to share our latest edition of the monthly newsletter with you. In this first edition of our newsletter for the year 2024,firstly, we assess the **Fintech** (particularly LendingTech and WealthTech) vertical in India, which in recent times has been one of the most attractive spaces for investors. As the markets have started to pick-up again, at Analysys Mason we have recently advised investors and telecoms operators on multiple deals and strategic engagements in this space, and also supported one of the leading Fintech players in the region in its IPO journey.

Secondly, we explore the **technical due diligence** of new-age businesses. While we have conducted such diligences numerous times for some of the largest global investors (during transaction advisory and as part of portfolio tracking), there still seems to be a pronounced, widespread lack of knowledge regarding the nature of a technical diligence and why is it a critical process; the latter is a point that I cannot emphasize enough!

A summary of the articles included follows below:

The Fintech revolution in India: Bridging the digital divide – the Indian Fintech sector has gained significant strength as a consequence of healthy economic growth, increasing digitization, support from the Indian government and development of technologies such as the India Stack. Within Fintech, LendingTech and WealthTech have emerged as amongst the fastest-growing verticals in India. LendingTech is expected to grow at a CAGR of 35–40% over the next five years to reach a USD50– 60 billion market in FY28; WealthTech in turn is expected to grow at a CAGR of 30–35% over same period to reach a USD15–20 billion market for

digital-first players in FY28. Due to the phenomenal growth of the Fintech industry in India, it has created the greatest number of unicorns (17) compared to any other industry in the country. Indian Fintech players are being valued at a slight premium compared to their global peers on account of the significant headroom for further growth. However, if we take the emergence of UPI (and its impressive penetration across the nation) as a reference, these valuations may be justified in many cases.

Technical due diligence: The growing imperative before investing in new-age businesses – there have been various instances where new-age companies across verticals including news and entertainment, social media, and over the top (OTT), have manipulated metrics to portray an inflated user base, user engagement, monetization ability, and technical capabilities of their platforms in order to drive higher valuations of the companies and mislead investors. This highlights an urgent need to conduct detailed technical diligence of companies in these domains prior to decisions being made about investment. At Analysys Mason, we have helped several investors avoid such pitfalls by conducting technical due diligence that involves the forensics of raw server data and code-level assessment of product and infrastructural capabilities to identify any fraudulent activities or unusual/suspicious trends.

We hope you enjoy reading the latest edition of our newsletter and continue to find our insights interesting and useful. Hope you had a wonderful break and look forward to our interactions through 2024.

Rohan Dhamija
Managing Partner, Director
Head - Middle East and South Asia

The Fintech revolution in India: Bridging the digital divide

Indian fintech sector has gained significant strength as a consequence of healthy economic growth, increasing digitization, support from the Indian government and development of technologies such as the India Stack. Within Fintech, LendingTech and WealthTech have emerged as amongst the fastest-growing verticals in India. LendingTech is expected to grow at a CAGR of 35–40% over the next five years to reach a USD50–60 billion market in FY28; WealthTech in turn is expected to grow at a CAGR of 30–35% over same period to reach a USD15–20 billion market for digital-first players in FY28.

Due to the phenomenal growth of the Fintech industry in India, it has created the greatest number of unicorns (17) compared to any other industry in the country. Indian Fintech players are being valued at a slight premium compared to their global peers on account of the significant headroom for further growth. However, if we take the emergence of UPI (and its impressive penetration across the nation) as a reference, these valuations may be justified in many cases!

The Fintech landscape in India

Over the past few years, the Fintech ecosystem in India has seen rapid growth. Numerous new players have emerged and existing players have scaled up to provide services across verticals such as digital payments, lending, investment, insurance and banking, among other software-as-a-service (SaaS) offerings. The Fintech landscape is summarized in Figure 1.

Focus areas of the article
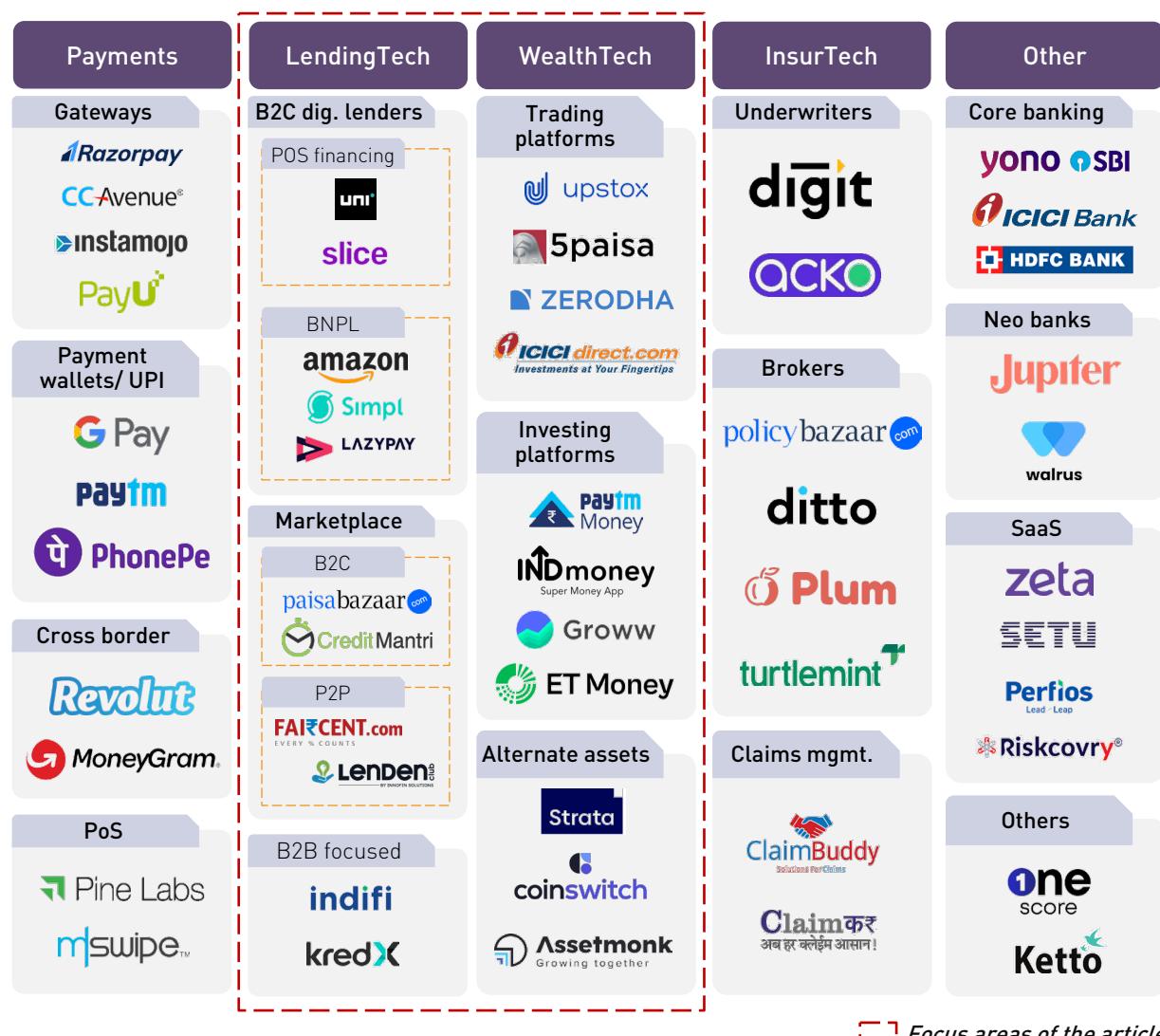
Note: Multiple players in the space offer more than a single solution; for instance, Paytm offers services across various verticals such as account-to-account payments (both digital wallet and UPI), digital lending and investment.

FIGURE 1: THE FINTECH MARKET LANDSCAPE IN INDIA [SOURCE: ANALYSYS MASON, 2023]

The Indian Fintech ecosystem's remarkable growth is driven by several key factors, including increasing consumer income and expenditure, development of the India Stack, digitization of the Indian consumer base, digitization of FinTech services and government initiatives, as summarized in Figure 2.
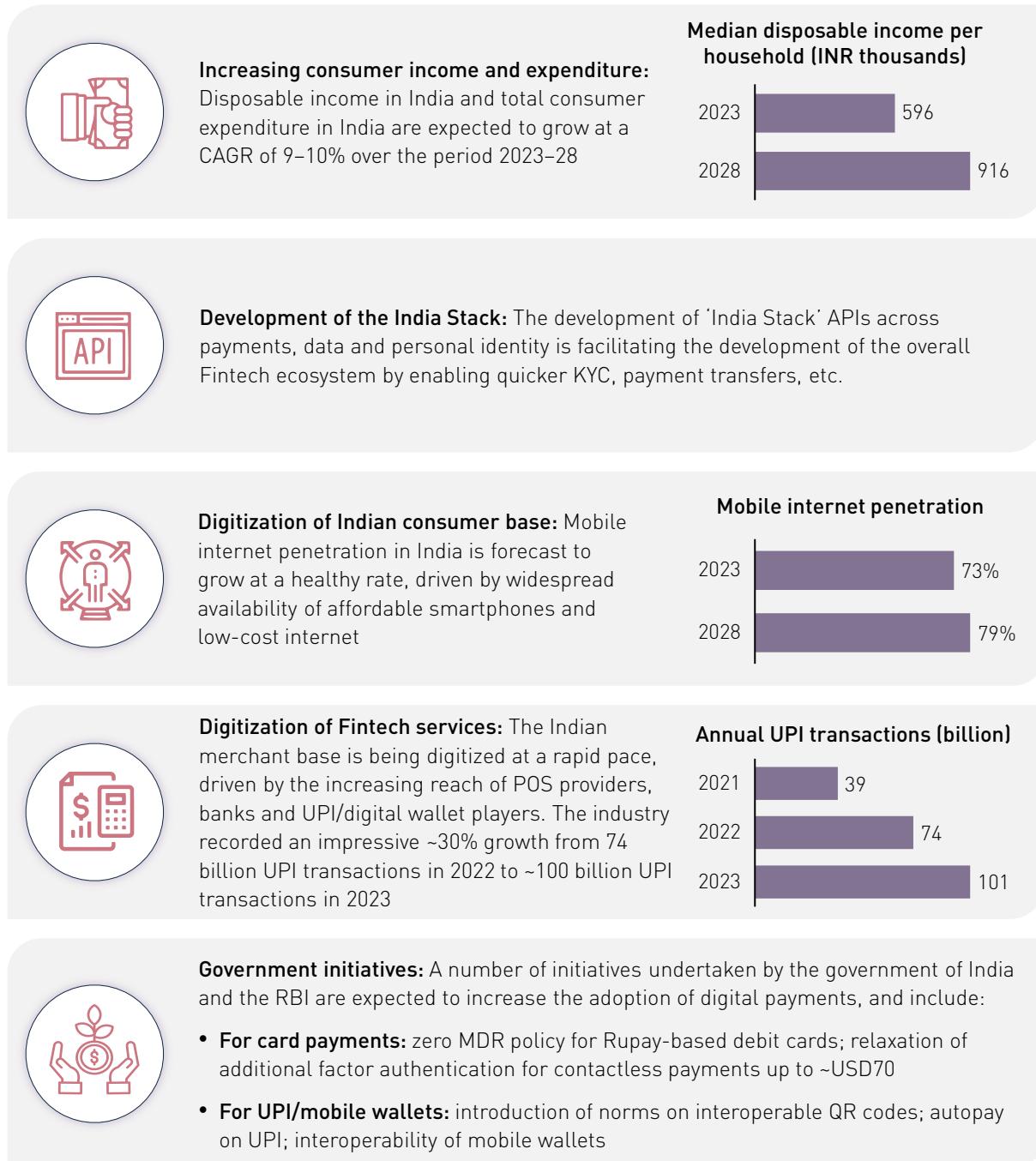
Increasing consumer income and expenditure: Disposable income in India and total consumer expenditure in India are expected to grow at a CAGR of 9–10% over the period 2023–28

Median disposable income per household (INR thousands)

Year	Value
2023	596
2028	916

Development of the India Stack: The development of 'India Stack' APIs across payments, data and personal identity is facilitating the development of the overall Fintech ecosystem by enabling quicker KYC, payment transfers, etc.

Digitization of Indian consumer base: Mobile internet penetration in India is forecast to grow at a healthy rate, driven by widespread availability of affordable smartphones and low-cost internet

Mobile internet penetration

Year	Value
2023	73%
2028	79%

Digitization of Fintech services: The Indian merchant base is being digitized at a rapid pace, driven by the increasing reach of POS providers, banks and UPI/digital wallet players. The industry recorded an impressive ~30% growth from 74 billion UPI transactions in 2022 to ~100 billion UPI transactions in 2023

Annual UPI transactions (billion)

Year	Value
2021	39
2022	74
2023	101

Government initiatives: A number of initiatives undertaken by the government of India and the RBI are expected to increase the adoption of digital payments, and include:

- **For card payments:** zero MDR policy for Rupay-based debit cards; relaxation of additional factor authentication for contactless payments up to ~USD70

- **For UPI/mobile wallets:** introduction of norms on interoperable QR codes; autopay on UPI; interoperability of mobile wallets

FIGURE 2: KEY GROWTH DRIVERS OF THE INDIAN FINTECH ECOSYSTEM [SOURCE: ANALYSYS MASON, 2023]

LendingTech

Market size

Credit demand in India has seen a constant uptick in the past few years; credit from SCBs[1] has grown from ~USD1.3 trillion in FY21 to USD1.7 trillion in FY23 (see Figure 3). Similarly, the credit disbursed by NBFCs[2] has also risen at a rapid pace in the last three years, growing from ~USD280 billion in FY21 to ~USD360 billion in FY23 (see Figure 3).
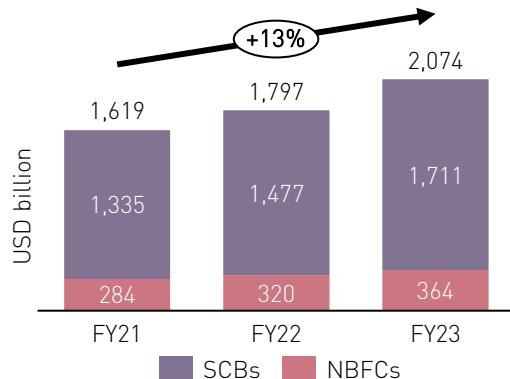

FIGURE 3: TOTAL LOANS OUTSTANDING IN USD BILLION [SOURCE: RBI, 2023][3]

The share of loans disbursed through online channels has been gradually rising on account of increasing digitalization of the retail customer base and businesses over the past few years. Both banks and NBFCs have started using online means to disburse more credit in the market, with NBFCs in particular showing a pronounced shift towards digital channels (see Figure 4 and Figure 5). NBFCs often have more specialization in certain customer segments and geographies and are well suited for digital lending due to their faster decision making, agile processes, lower levels of bureaucracy, and fewer manual intervention requirements compared to traditional banks. Moreover, NBFCs typically use short-term loans (of under one year in duration) which are more suitable for disbursal through digital means due to the low processing and loan sourcing cost.
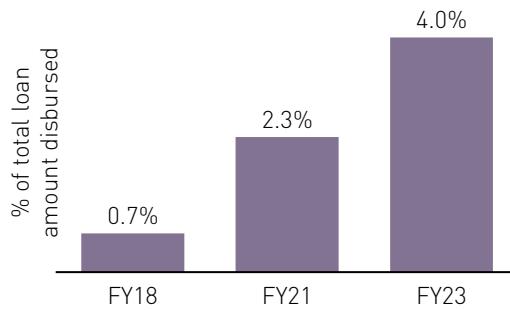
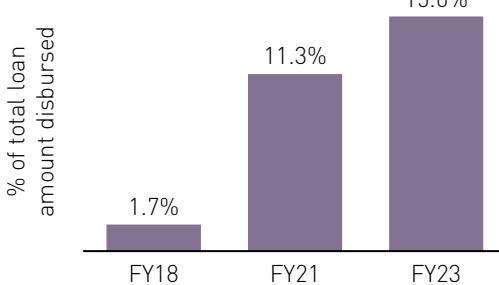**FIGURE 4:** LOANS THROUGH DIGITAL CHANNELS – SCBs [SOURCE: RBI, 2020][4]

FIGURE 5: LOANS THROUGH DIGITAL CHANNELS – NBFCs [SOURCE: RBI, 2020][4]

Increasing digital penetration and the emergence of new app-first business models are likely to further increase the digital lending trend. The annual revenue pool available to players across the digital LendingTech market is estimated to grow at a CAGR of 35–40% to reach USD50–60 billion in 2028, from ~USD8 billion in 2022, as shown in Figure 6.
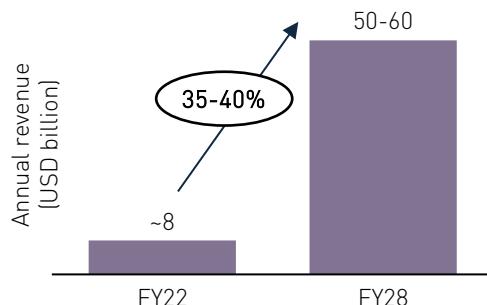

FIGURE 6: DIGITAL-FIRST LENDINGTECH PLAYERS' REVENUE POOL [SOURCE: ANALYSYS MASON, 2023]

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[1] Scheduled Commercial Bank; [2] Non-Banking Financial Companies

[3] Does not include loans from informal sources; the loans and advances figures for NBFCs have been adjusted from calendar years to financial years

[4] Figures shown are % of total loan value disbursed; FY23 values are estimated based on the market trend; FY21 values are adjusted from calendar year to financial year figures

Business models

Development of the overall digital ecosystem in India, including the India Stack, is enabling the emergence of multiple digital-first business models in the LendingTech vertical. Lenders can now make quicker decisions regarding the credit worthiness of the borrower, decreasing the time to process and disburse loans. In India, the LendingTech business models can be categorised into four broad buckets (see Figure 7).

> "While India Stack has made disbursal of loans in B2C segment very efficient, credit transparency is still a problem in B2B Lending. There is a requirement of an 'account aggregator for corporates' to make credit more accessible for the MSME/SME segment"
>
> - Senior management, Yubi

Industry segment	Digital lenders' business models			
	Digital / card-based financing at POS	BNPL	Marketplace models (P2P and B2C)	B2B focused
Definition	• Conversion of card transactions to EMI at the point-of-sale (POS) with the support of POS technology providers • Card-based financing can be managed via credit cards, debit cards and EMI cards	• Credit disbursed for online purchases on e-commerce platforms • This includes card-based EMI and buy-now-pay-later (BNPL) solutions provided by Fintech players	• Business such as banks, NBFCs and other lending institutions list their offered loans on a platform	• Disbursal of loans against the payables/receivables on the balance sheet

FIGURE 7: DIGITAL LENDING BUSINESS MODELS [SOURCE: ANALYSYS MASON, 2023]

Continued....

Industry segment		Digital lenders' business models			
		Digital / card-based financing at POS	BNPL	Marketplace models (P2P and B2C)	B2B focused
Examples of players by segments	Bank/NBFC	• Digital financing at POS is dominated by banks and NBFCs that partner with merchants/OEMs and POS technology providers to provide card-based financing at POS SBI ICICI Bank HDFC BANK	• Banks/NBFCs partner with e-commerce platforms to provide e-commerce financing through debit/credit/EMI cards at check-out SBI PayU HDFC BANK BAJAJ FINSERV	• N/A	• Traditional banks and NBFCs offer loans to MSMEs based on their credit worthiness SMFG IndiaCredit Pragati Ki Nayi Pehchaan CLIX Piramal Finance
	Technology companies	• POS technology companies (e.g. Pine Labs) provide the underlying technology platform which processes POS financing Pine Labs innoviti® ezetap mswipe™	• Vertically integrated players (e.g. Amazon Pay Later) and other Fintech players, who partner with e-commerce platforms, provide financing at check-out Razorpay Paytm POSTPAID LAZYPAY Simpl OLAMONEY POSTPAID+ amazon pay ePayLater	• Firms like Paisabazaar list various NBFCs on its site from which a lender can avail loans • Firms like Lenden and Faircent allow individuals to either invest (lend)/borrow money on the platform LenDen club BY INNOFIN SOLUTIONS FAIRCENT.com EVERY % COUNTS paisabazaar.com	• In cases where historical credit data is not documented or not present at all, firms such as Indifi and KredX offer loans using supply chain financing indifi kredX
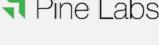
FIGURE 7: DIGITAL LENDING BUSINESS MODELS [SOURCE: ANALYSYS MASON, 2023]

"Instead of charging an upfront fee on the loans disbursed, we support the banks by structuring the EMI, handling customer complaints, managing collections etc. to provide more value to the partner lending institution. In exchange of our support, we share part of the yield earned by the bank"

– Senior Management, Groww

LendingTech unit economics

We looked at the financials of several LendingTech companies to understand the typical unit economics of a digital LendingTech player in India. Figure 8 presents the summary of the unit economics observed in one of the more mature LendingTechs.
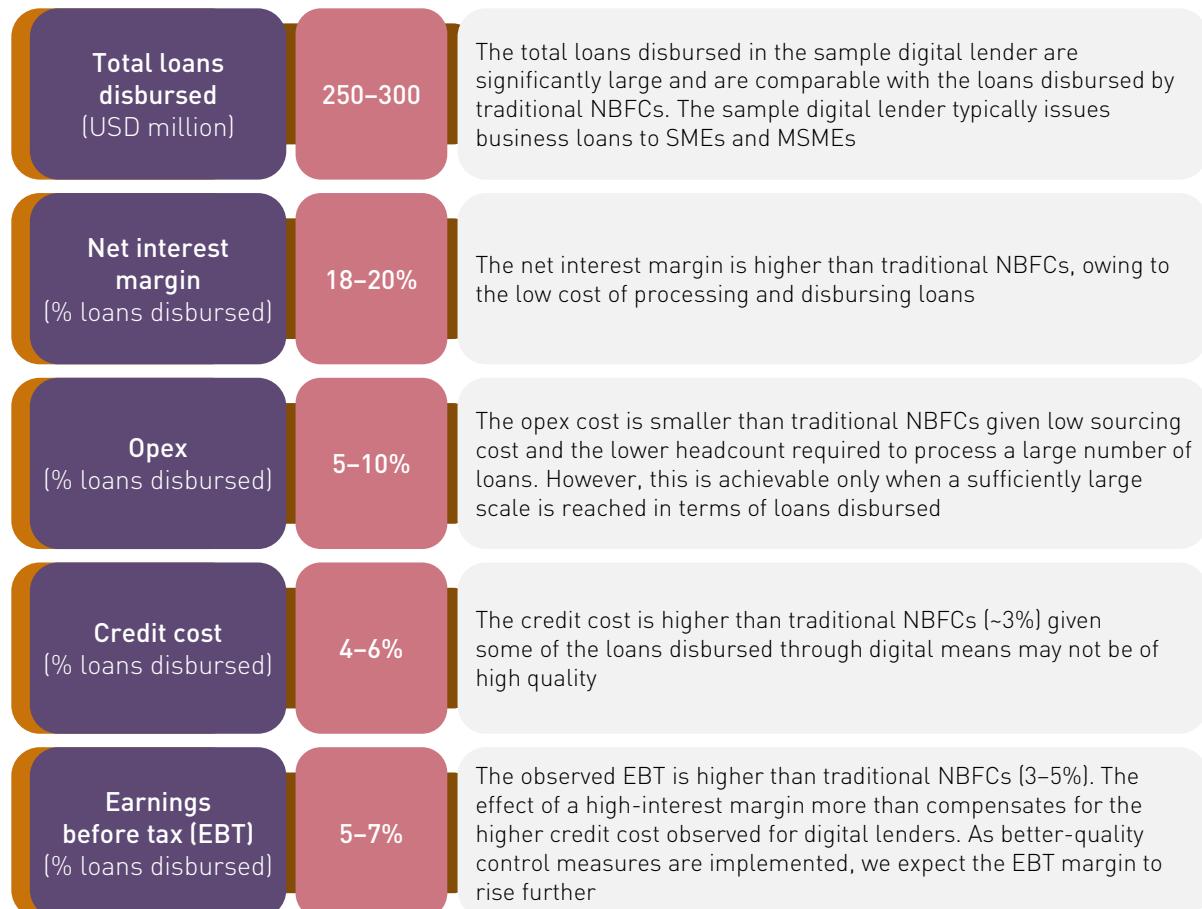
Total loans disbursed (USD million)	250–300	The total loans disbursed in the sample digital lender are significantly large and are comparable with the loans disbursed by traditional NBFCs. The sample digital lender typically issues business loans to SMEs and MSMEs
Net interest margin (% loans disbursed)	18–20%	The net interest margin is higher than traditional NBFCs, owing to the low cost of processing and disbursing loans
Opex (% loans disbursed)	5–10%	The opex cost is smaller than traditional NBFCs given low sourcing cost and the lower headcount required to process a large number of loans. However, this is achievable only when a sufficiently large scale is reached in terms of loans disbursed
Credit cost (% loans disbursed)	4–6%	The credit cost is higher than traditional NBFCs (~3%) given some of the loans disbursed through digital means may not be of high quality
Earnings before tax (EBT) (% loans disbursed)	5–7%	The observed EBT is higher than traditional NBFCs (3–5%). The effect of a high-interest margin more than compensates for the higher credit cost observed for digital lenders. As better-quality control measures are implemented, we expect the EBT margin to rise further

FIGURE 8: UNIT ECONOMICS OF A SAMPLE LENDINGTECH IN INDIA [SOURCE: ANALYSYS MASON, 2023]

"Since the introduction of 5% FLDG cap by RBI, it has been difficult for small players to survive in the industry. Many LendingTech players are now required to acquire an NBFC licence. However, they don't always have the 'pedigree' to raise capital at low cost"

– Senior Management, KredX

WealthTech

The total assets under management (AUM) in the retail segments in both the mutual fund and stock market industry has grown steadily over the past few years. Against the backdrop of increasing disposable income and a growing awareness of financial asset investment, the market has seen a significant rise in the number of new retail investors and in the total AUM. However, compared to other developed economies, there is still a significant opportunity for growth in India. As can be seen in Figure 10, the mutual fund AUM as a percentage of GDP in India is significantly lower than in other developed economies. Similarly, the percentage of population that participates in the Indian stock market is significantly lower than in international benchmark countries (see Figure 11).

FIGURE 9: RETAIL INVESTORS' CUMULATIVE AUM IN USD BILLION
[SOURCE: AMFI, NSE, ANALYSYS MASON, 2023]

FIGURE 10: MUTUAL FUND AUM AS A PERCENTAGE OF GDP
[SOURCE: WORLD BANK, 2022]

FIGURE 11: PERCENTAGE OF POPULATION THAT INVESTS IN THE STOCK MARKET [SOURCE: MINT, 2023]

Digital-first WealthTech platforms are creating a more inclusive ecosystem for investors of all sizes and needs. They are also providing a faster, more transparent and easier way to access investment tools than the traditional investing channels, and hence are the preferred platforms of new-age investors. The total revenue pool for such digital-first WealthTech platforms is estimated to amount to ~USD1 billion in FY22 and to grow at a CAGR of 30–35% over the next five years to reach USD5–7 billion by FY28.
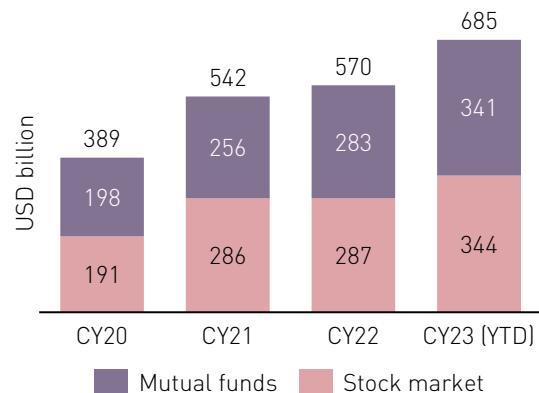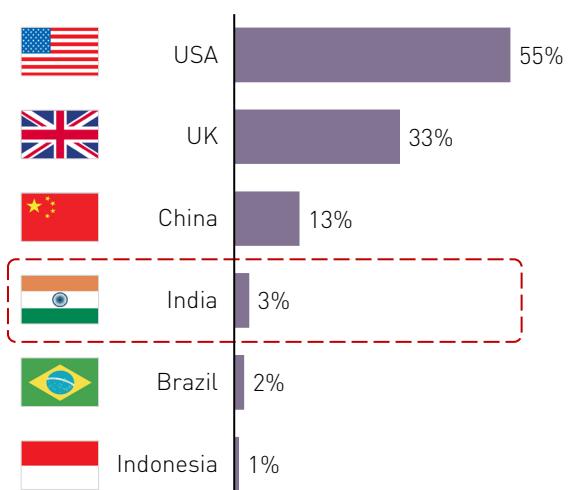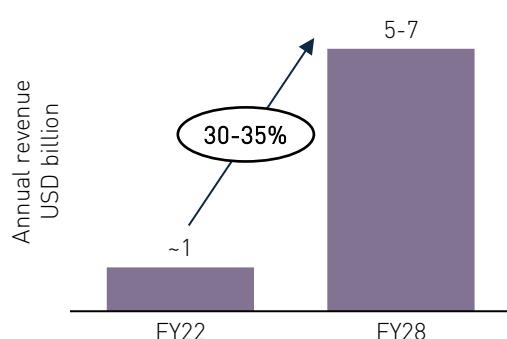

FIGURE 12: DIGITAL-FIRST WEALTHTECH PLAYERS' REVENUE POOL
[SOURCE: ANALYSYS MASON, 2023]

Business models

WealthTech business models typically rely on large transaction volumes and low commissions, since it is challenging to create differentiation in terms of the asset being sold (these assets could include stocks, mutual funds, or other crypto assets). For example, all discount brokers offering a stock trading platform in

India ultimately give customers the ability to trade in the same stocks listed on NSE or BSE. It is difficult to build a robust moat and therefore large volumes are required for the business to be profitable. The key WealthTech business models are shown in Figure 13, along with a non-exhaustive list of some notable industry players.

FIGURE 13: WEALTHTECH BUSINESS MODELS [SOURCE: ANALYSYS MASON, 2023]

FinTech investment landscape and valuations

As previously mentioned, the Indian Fintech industry is the largest contributor to the number of start-up unicorns in India (the approximately 17 unicorns in the industry include Zerodha, Groww, Razorpay, Pine Labs, and Zeta, among others). The sector has seen significant interest from investors, and more than

USD21 billion in capital has been invested since 2018. However, Fintech investments in India have experienced a slight decline after 2021, as also observed across other industries, on account of global economic uncertainties (see Figure 14). Despite this slowdown, the Indian Fintech sector continues to be one of the top-performing sectors for investors globally and is poised to continue its growth story.
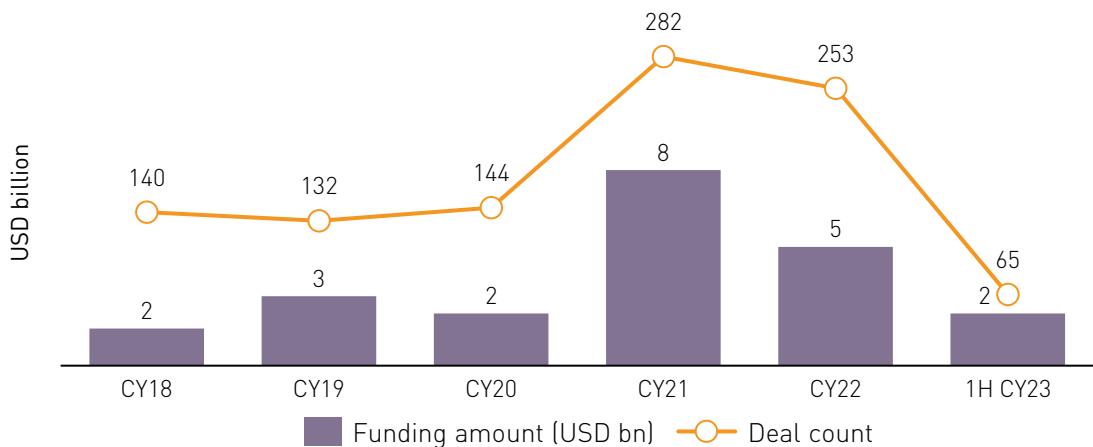

FIGURE 14: TOTAL FUNDING ACROSS FINTECH SECTOR IN INDIA [SOURCE: ANALYSYS MASON, INC42, 2023]

Typically, WealthTech and LendingTech players globally are valued at 5–15× revenue multiples. However, Indian Fintech players are valued at a slight premium compared to their global peers on account of the significant headroom for further growth across both the LendingTech and WealthTech verticals (see Figure 15).

The emergence of UPI (and its impressive penetration across the nation) over the past couple of years has drastically shifted the consumer mindset towards digital-first Fintech services, and if we take UPI as a reference, these valuations may be justified in many cases!

	Valuation: Revenue	Sub-sector	Founded	Total funding (USD mn)	Location
Yubi Co.Lend	60-70	LendingTech	2017	227	India
slice	40-45	LendingTech	2016	342	India
KreditBee	10-15	LendingTech	2018	330	India
affirm	5-10	LendingTech	2012	Public company	USA
upstox	25-30	WealthTech	2009	220	India
Groww	15-20	WealthTech	2016	390	India
acorns	15-20	WealthTech	2012	600	USA
Robinhood	5-10	WealthTech	2013	Public company	USA

FIGURE 15: VALUATION:REVENUE MULTIPLES OBSERVED IN FINTECH PLAYERS [SOURCE: ANALYSYS MASON, 2023]

Technical due diligence: The growing imperative before investing in new-age businesses

There have been various instances of fraudulent activities/claims relating to new-age companies across verticals including news and entertainment, social media, and over the top (OTT), where metrics were manipulated to portray an inflated user base, user engagement, monetization ability, and technical capabilities of their platforms in order to drive higher valuations of the companies and mislead investors. This highlights an urgent need to conduct detailed technical diligence of companies in these domains prior to decisions being made about investment. At Analysys Mason, we have helped several investors avoid such pitfalls by conducting technical due diligence that involves the forensics of raw server data and code-level assessment of product and infrastructural capabilities to identify any fraudulent activities or unusual/suspicious trends.

What is a technical due diligence and why is it worth doing?

Over the past couple of years there have been various instances of fraudulent activities where companies across verticals such as news and entertainment, social media, and OTT among others have manipulated metrics to portray an inflated user base, user engagement, monetization ability, and technical capabilities. Such practices are being used to drive higher valuations of these companies and mislead investors. This indicates a critical need for technical due diligence (along with commercial, financial and legal due diligence) while assessing such companies or tracking portfolio progress.

These fraudulent practices are not limited to the initial funding stages of new-age companies but often occur during the higher-ticket-sized growth deals; some of the largest global PE/VC funds have also been victims of such practices within India and globally. Several well-known Indian and global names have allegedly deployed such malpractices to manipulate their scale and growth story.

Technical due diligence can be used to delve into the authenticity and growth patterns of user base (daily active users (DAUs)/monthly active users (MAUs)), scrutinize user engagement and usage behaviour (number of sessions, session duration, etc.), and assess product and infrastructure technological capabilities, among other areas. These factors not only safeguard investors against potential pitfalls but also contribute to a comprehensive understanding of a company's business proposition.

At Analysys Mason, we have developed our own proprietary tools and processes to conduct technical due diligence of assets that involve forensics of raw server data (such as app activity logs) and code-level assessment of product and infrastructural capabilities to help investors identify any fraudulent activities or unusual/suspicious trends. In Figure 1, we highlight a few examples of the key elements of analysis we typically conduct in a technical due diligence:

Validate app user base/ traffic	• Determine unique daily, weekly, monthly active users (DAUs/WAUs/MAUs), and their trends through server logs based on various parameters such as unique user ID (both system-defined IDs and third-party device ID such as Google), email ID, IMEI, IPs, etc. • Monitor trends through server events data to verify user activity for a few days to assess user actions such as watching videos, reading articles, scrolls, and other app actions
Assess quality of users/ audience	• Assessment of user base based on various geographical distribution parameters such as country, region, city, zip code, latitude–longitude, etc. • Assessment of user penetration to understand growth headroom based on different variables such as discerning area/ regions, cities based on city tiers, user base type (urban, rural), etc.

Quantify user engagement (time spent)	• Assessment of user engagement on the platform through various lenses such as volume of server hits, amount of content consumed (text, video, etc.) and time spent on the app/website, volume of ads consumed, etc.
	  • Assessment of server hits per unit time to analyze user engagement and traffic over last n month(s) through event logs, server load, third-party bills, data transfer/upload/download, bandwidth usage by the customer, server bandwidth usage, etc.
	  • Assessment of content consumption and time spent by the users on the app/web portal through assessing session length (page, video) at different time in a day/month, foreground/background user activity assessment, material user activity to assess active user engagement (no. of pages and videos viewed), etc.

Estimate monetization potential	• Assessment of content feed and ad load (content pieces to ad ratio) and benchmark ad load, CPMs, CTRs to understand monetization capabilities • Assessment of characteristics of user base and usage pattern such as user demographics, geo/region, content consumption and engagement behavior, ad CTR behavior to estimate monetization potential

Assess product and technical architecture	• Evaluation of product evolution over time and its capabilities through:
	  • Assessing historical product feature release timelines and pipeline of future product feature/improvement releases
	  • Assessing advanced analytics and artificial intelligence (AI)/machine learning (ML) implementation across products and processes (such as recommendation/personalization engine effectiveness through running test cases/assessing algo learning journey)
	• Assessment of underlying infrastructure (databases, technology, cloud computing, AI/ML, etc.) to evaluate product growth and scale up capabilities and compare with industry benchmarks/best practices
	• Assessment product and tech team capabilities including hiring plans, professional and educational qualifications, team sizes for different functions such as AI/ML, user interface (UI)/user experience (UX), technical support, assessing capabilities and expertise in advanced analytics and AI/ML, among others

Benchmark UI/UX	• Assessment and benchmarking of UI/UX across various parameters including ease of use, understanding and intuitiveness, feature set available on different platforms, consistency of experience across all platforms

FIGURE 1: KEY ELEMENTS OF A TECHNICAL DUE DILIGENCE FOR NEW-AGE BUSINESSES [SOURCE: ANALYSYS MASON, 2023]

Case study: Technical diligence of a leading news and entertainment app

Analysys Mason recently conducted the technical due diligence of a leading South Asian news and entertainment app for a marquee global private equity investor to assess and validate the app's user base

(MAUs, DAUs) and user engagement. We accessed and queried the target's raw user-activity logs and conducted numerous sanity checks to verify the legitimacy of its user base and user engagement. Figure 2 provides a selection of some of the analyses conducted during the study.
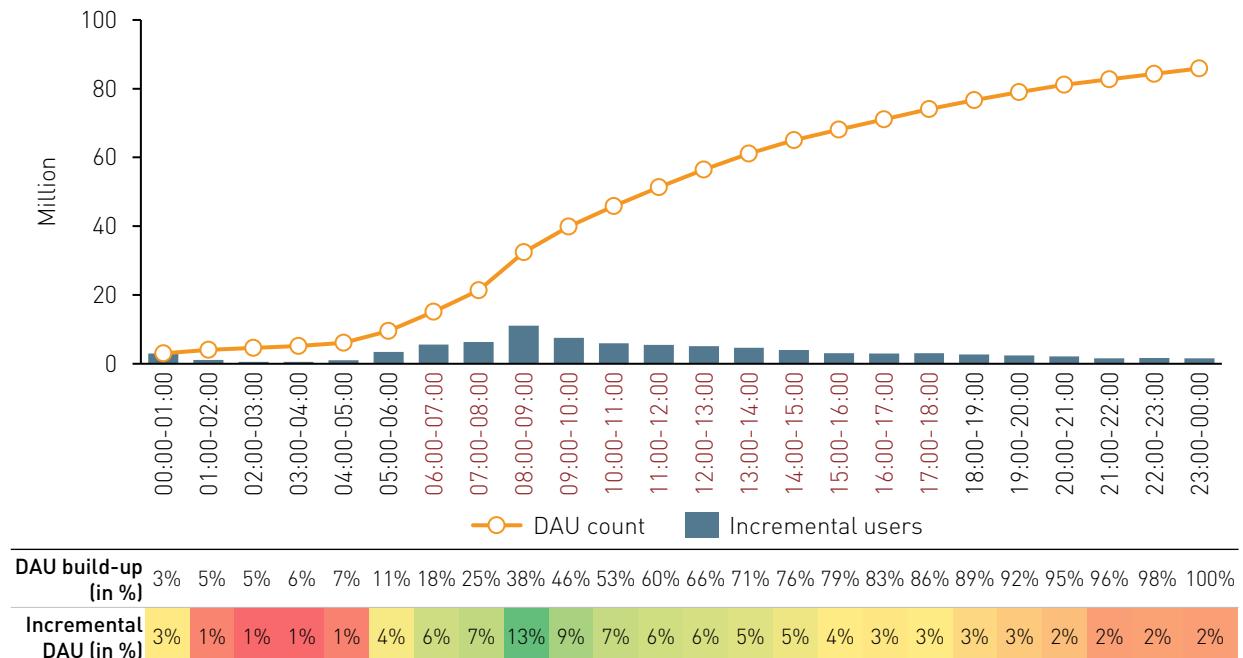

DAU build-up (in %)	3%	5%	5%	6%	7%	11%	18%	25%	38%	46%	53%	60%	66%	71%	76%	79%	83%	86%	89%	92%	95%	96%	98%	100%
Incremental DAU (in %)	3%	1%	1%	1%	1%	4%	6%	7%	13%	9%	7%	6%	6%	5%	5%	4%	3%	3%	3%	3%	2%	2%	2%	2%

FIGURE 2: DAU BUILD-UP OVER A DAY OF THE NEWS AND ENTERTAINMENT PLATFORM (MILLION) [SOURCE: ANALYSYS MASON, 2023]

DAU build-up was assessed over a 24-hour day cycle to validate whether the underlying user base is following a realistic traffic pattern. In the context of our analysis of the news and entertainment platform, it was observed

that the number of concurrent active users pick up during the morning hours (6:00–10:00), which was in line with real-world news readers' behaviour, as people tend to catch up on the news during this time.
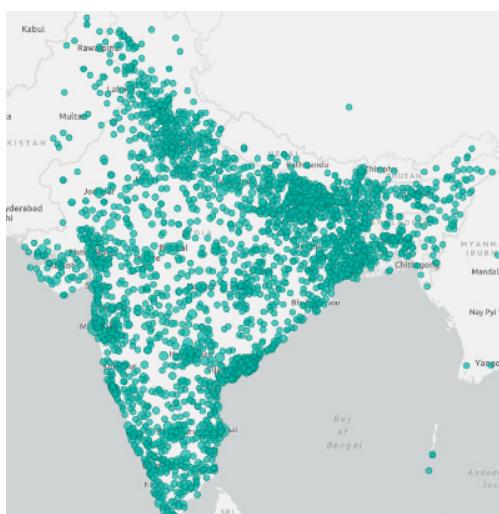

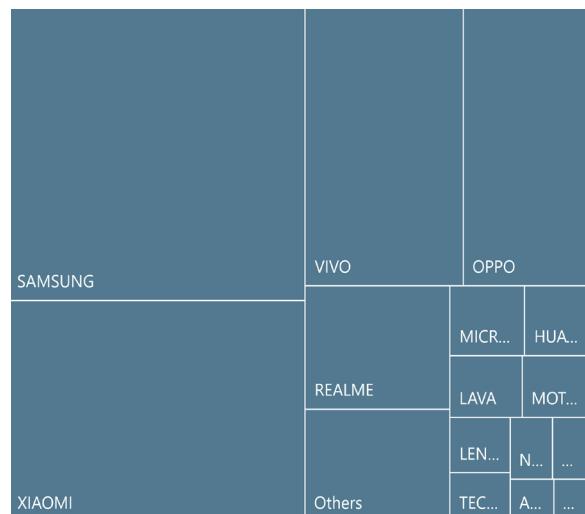**FIGURE 3:** USER BASE (DAU) DISTRIBUTION ACROSS LOCATIONS [SOURCE: ANALYSYS MASON, 2023]

FIGURE 4: USER'S HANDSET DISTRIBUTION [SOURCE: ANALYSYS MASON, 2023]

Another method that was leveraged to validate the user base of the platform was to analyse the user base distribution across aspects like geography and handsets; this was corroborated with country user trends by examining the geographical split of internet users and original equipment manufacturer (OEM)

market shares. In our assessment, we found that the top-15 urban cities formed ~65% of the user base, and that this was aligned with India's internet user distribution. Similarly, we observed that Samsung and Xiaomi are the leading OEM amongst the user base, which is in line with smartphone market shares.
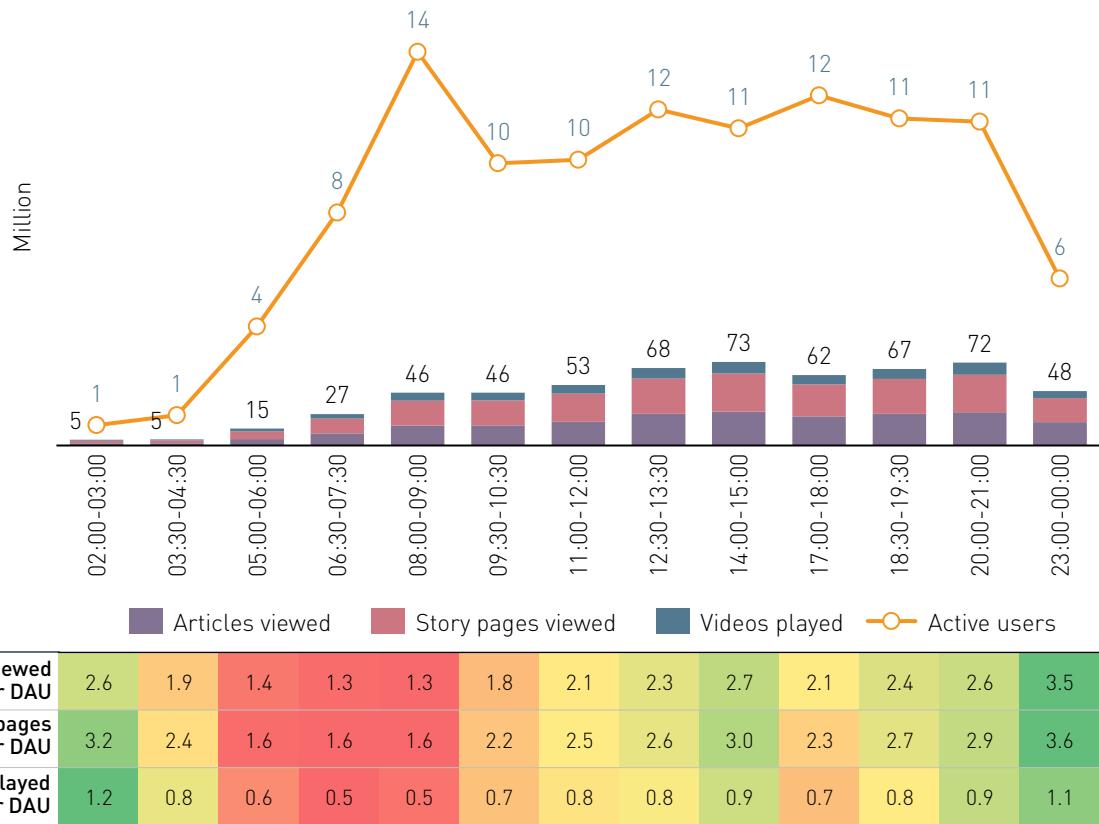

	02:00–03:00	03:30–04:30	05:00–06:00	06:30–07:30	08:00–09:00	09:30–10:30	11:00–12:00	12:30–13:30	14:00–15:00	17:00–18:00	18:30–19:30	20:00–21:00	23:00–00:00
Articles viewed per DAU	2.6	1.9	1.4	1.3	1.3	1.8	2.1	2.3	2.7	2.1	2.4	2.6	3.5
Story pages viewed per DAU	3.2	2.4	1.6	1.6	1.6	2.2	2.5	2.6	3.0	2.3	2.7	2.9	3.6
Videos played per DAU	1.2	0.8	0.6	0.5	0.5	0.7	0.8	0.8	0.9	0.7	0.8	0.9	1.1

FIGURE 5: USER ENGAGEMENT ACTIVITY ON THE APP (MILLION) [SOURCE: ANALYSYS MASON, 2023]

One of the other methods employed to determine user engagement was based on analysing the volume of materialistic user activities (such as articles viewed, story pages, videos played) during one-hour slots over a day. The user activity server logs were queried to determine the overall volume of user activity and this

was coupled with analysis of active users in each slot to determine engagement metrics such as article views, video views per active user during the slot (as shown in in Figure 5 and benchmarked against known realistic user behaviour).

About Analysys Mason

Analysys Mason is a global specialist adviser on telecoms, media and technology (TMT), including consumer internet. Through our worldwide presence, we have delivered strategy advice, operations support and market intelligence to leading commercial and public-sector organizations in over 110 countries.

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

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

For more than 35 years, our intellectual rigor, operational experience and insight have helped our clients in the telecoms space such as operators, government organizations and investors. We have also performed an equivalent amount of work with technology and internet-first businesses across a wide array of strategic matters and have assisted investors in this domain on numerous transactions.

We are respected worldwide for the exceptional quality of our work, our independence and the flexibility of our teams in responding to client needs. We are passionate about what we do and are committed to delivering excellence to our clients. The company has over 430 staff worldwide, with headquarters in London and offices in Bonn, Cambridge, Dubai, Dublin, Hong Kong, Kolkata, Lund, Madrid, Manchester, Milan, New Delhi, New York, Oslo, Paris, Singapore and Stockholm.

Key highlights of our internet and technology experience

1 • 150+ due diligence and market assessments of internet and technology assets in India, MENA, South and South East Asia, and Europe regions over the last couple of years

2 • First port of call for due diligence assessments of internet and technology assets for marquee investors globally

3 • Provided advice on investments worth over USD15 billion over last five years

Diligence experience in Internet and Technology verticals		
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	SaaS / AI	• Multiple diligence assessments of SaaS and AI firms in various geographies (including India, MENA and SEA) • Assisted multiple governments and corporates globally through their journey to implement deeptech solutions
	Ecommerce (including D2C brands) & logistics	• Conducted 15+ commercial due diligence assessments of horizontal and vertical e-commerce • marketplaces and e-commerce logistics players across India, MENA and South East Asia regions • Multiple diligence assessments of D2C brands across beauty and personal care, child care, nutrition among other in various geographies (including India, MENA and SEA)
	Hyper-local delivery	• Commercial diligence assessments of leading hyper-local delivery players in the grocery and food delivery market • Performed due diligence assessments for the leading players in grocery and food delivery twice recently
	Content and media	• Commercial and technical diligence assessments of multiple players across the video and music content value chain – from producers to distributors (including aggregators) and streaming assets • Supported leading mobile operators in the region in developing their content and OTT strategy
Others		• Over 15 diligence projects in the classifieds and online travel space • Multiple diligence assessments of mobile advertising and gaming firms in various geographies • Multiple diligence assessments of ed-tech firms in India and SEA

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