26th ANNUAL WEALTH CREATION STUDY (2016-2021)

Atoms to Bits

Wealth Creation in the digital era

HIGHLIGHTS

- Expect Financials and Technology sectors to spearhead Wealth Creation for quite some time in the future.
- Value migration from Atoms to Bits is inevitable.
- Replicability, friction-free delivery and near-zero marginal cost make Bits companies highly scalable.
- Successful hyper growth is possible only if there is large opportunity, terrific product-market fit, wide distribution, network effects and favorable unit economics.
- Current accounting standards fail to fully communicate intrinsic profitability – and hence value – of Bits companies.
- India is at the cusp of harnessing digital potential.
- Buy into sure winners in digital, successful digital transformers, and classical Indian IT companies.

> **"Digital Business Design is about business first, design second and digital third."**
>
> — Adrian Slywotzky & David Morrison in their book *How Digital Is Your Business*

TOP 10 WEALTH CREATORS (2016-2021)

BIGGEST

Rank	Company	Wealth Created (INR bn)
1	Reliance Industries	9,661
2	TCS	7,294
3	HDFC Bank	5,182
4	Hind. Unilever	3,427
5	Infosys	3,257
6	Bajaj Finance	2,592
7	ICICI Bank	2,475
8	HDFC	2,422
9	Kotak Mahindra Bank	2,081
10	HCL Technologies	1,613

FASTEST

Company	5-year Price CAGR (%)
Adani Transmission	93
Deepak Nitrite	90
Adani Enterprises	86
Tanla Platforms	85
Ruchi Soya Inds	81
Alkyl Amines	79
Vaibhav Global	64
APL Apollo Tubes	60
P&G Health	57
Escorts	56

CONSISTENT

Company	No. of years outperformed	5-year Price CAGR (%)
Adani Enterprises	5	86
Alkyl Amines	5	79
P&G Health	5	57
Vinati Organics	5	48
Astral	5	45
Honeywell Auto	5	41
Aarti Industries	5	40
SRF	5	33
Reliance Industries	5	31
Adani Transmission	4	93

Raamdeo Agrawal (Raamdeo@MotilalOswal.com) / **Shrinath Mithanthaya** (ShrinathM@MotilalOswal.com)

We thank Mr Dhruv Mehta (Dhruv@SapientWealth.co.in) for his invaluable contribution to this report

Motilal Oswal 26th Annual Wealth Creation Study

Abbreviations and Terms used in this report

Abbreviation / Term	Description
2011, 2016, 2021, etc	Reference to years for India are financial year ending March, unless otherwise stated
Avg	Average
CAGR	Compound Annual Growth Rate
INR bn	Indian Rupees in billion
L to P / P to L	Loss to Profit / Profit to Loss. In such cases, calculation of PAT CAGR is not possible
Price CAGR	In the case of aggregates, Price CAGR refers to Market Cap CAGR
WC	Wealth Created
Wealth Created	Increase in Market Capitalization over the last 5 years, duly adjusted for corporate actions such as fresh equity issuance, mergers, demergers, share buybacks, etc.

Note: Capitaline database has been used for this study. Source of all exhibits is MOFSL analysis, unless otherwise stated

Wealth Creation Study

Objective, Concept & Methodology

Objective

The foundation of Wealth Creation is to buy businesses at a price substantially lower than their "intrinsic value" or "expected value". The lower the market value compared to the intrinsic value, the higher is the margin of safety. Every year, as in the past 25 years, we endeavor to cull out the characteristics of businesses that create value for their shareholders.

As Phil Fisher says, "*It seems logical that even before thinking of buying any common stock, the first step is to see how money has been most successfully made in the past.*" Our Wealth Creation Studies are attempts to study the past as a guide to the future, and gain insights into the various dynamics of stock market investing.

Concept & Methodology

Wealth Creation is the process by which a company enhances the market value of the capital entrusted to it by its shareholders. It is a basic measure of success for any commercial venture. For listed companies, we define Wealth Created as the difference in market capitalization over a period of last five years, duly adjusted for corporate events such as fresh equity issuance, mergers, demergers, share buybacks, etc.

We rank the top 100 companies in descending order of absolute Wealth Created, **subject to the company's stock price at least outperforming the benchmark index (BSE Sensex in our case).** These top 100 Wealth Creators are also ranked according to speed (i.e. price CAGR during the period under study).

We define **Consistent Wealth Creators** based on the number of years the stock has outperformed in each of the last 5 years. Where the number of years is the same, the stock price CAGR decides the rank.

We define **All-round Wealth Creators** based on the summation of ranks, under each of the 3 categories – Biggest, Fastest and Consistent. Where the scores are tied, the stock price CAGR decides the All-round rank.

Report structure

We present the 2016-2021 Wealth Creation Study highlights in pages 2-3. The detailed findings are presented in pages 32-48. Appendix 1 (pages 50-51) ranks the top 100 Wealth Creators by size, Appendix 2 (pages 52-53) ranks the same 100 Wealth Creators by speed, Appendix 3 (pages 54-55) lists the Consistent Wealth Creators in descending order, Appendix 4 (pages 56-57) presents the All-round Wealth Creators, and Appendix 5 (pages 58-59) provides an alphabetical listing of the Wealth Creators.

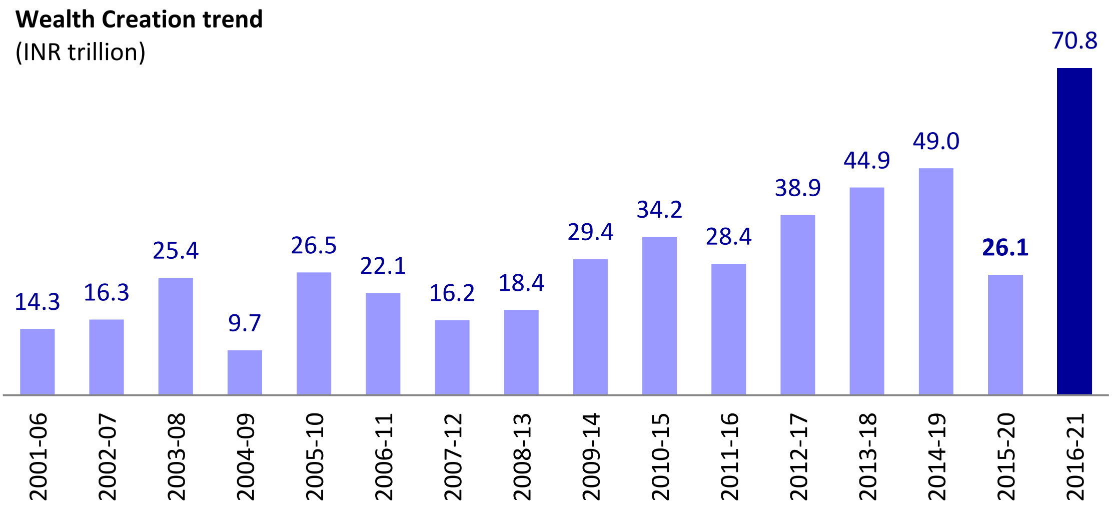
This year's theme study titled "**Atoms to Bits – Wealth Creation in the digital era**" is featured in pages 4-31.

Wealth Creation 2016-2021 Highlights

INR 71 trillion Wealth Created during 2016-21

- This is by far the highest ever Wealth Created in the last 26 five-year periods.

Exhibit 1 **2016-21 Wealth Created at INR 71 trillion is the highest ever by far**



Reliance smashes all records to emerge as largest Wealth Creator

- Over 2016-21, **Reliance industries** emerged the largest Wealth Creator for the third time in succession, with total Wealth Created of a whopping INR 9.7 trillion.
- This is by far the highest ever, beating its own previous record of INR 5.6 trillion in 2014-19.

Exhibit 2 **Top 10 Biggest Wealth Creators (2016-21)**

Rank	Company	Wealth Created		CAGR (%)		P/E (x)		RoE (%)	
		INR bn	% share	Price	PAT	2021	2016	2021	2016
1	Reliance Inds	9,661	13.6	31	8	30	11	6	13
2	TCS	7,294	10.3	20	7	35	21	39	34
3	HDFC Bank	5,182	7.3	23	20	26	21	15	17
4	Hind. Unilever	3,427	4.8	23	14	70	45	17	64
5	Infosys	3,257	4.6	18	7	30	21	28	22
6	Bajaj Finance	2,592	3.7	49	28	70	29	12	17
7	ICICI Bank	2,475	3.5	22	13	22	14	12	11
8	HDFC	2,422	3.4	18	13	24	17	12	20
9	Kotak Mahindra	2,081	2.9	21	24	35	36	12	10
10	HCL Tech	1,613	2.3	19	15	24	21	18	20
Total of Top 10		**40,003**	**56**	**24**	**12**	**31**	**19**	**12**	**18**
Total of Top 100		**70,815**	**100**	**25**	**18**	**32**	**24**	**13**	**12**

Adani Transmission emerges the Fastest Wealth Creator

- Over 2016-21, **Adani Transmission** has emerged the Fastest Wealth Creator with price CAGR of 93%.
- INR 1 million invested equally in 2016 among the top 10 fastest Wealth Creators would have grown to INR 17 million in 2021; return CAGR of 77% v/s just 14% for the Sensex.

Exhibit 3 **Top 10 Fastest Wealth Creators (2016-21)**

Rank	Company	Price Appn. (x)	Price CAGR %	PAT CAGR %	Mkt Cap (INR bn) 2021	Mkt Cap (INR bn) 2016	P/E (x) 2021	P/E (x) 2016
1	Adani Transmission	26	93	27	999	38	82	10
2	Deepak Nitrite	24	90	65	226	8	29	12
3	Adani Enterprises	22	86	1	1,134	81	103	8
4	Tanla Platforms	21	85	108	111	4	31	42
5	Ruchi Soya Inds	20	81	L to P	190	11	28	–
6	Alkyl Amines	18	79	43	116	6	39	13
7	Vaibhav Global	12	64	48	125	10	46	27
8	APL Apollo Tubes	11	60	25	175	16	49	13
9	P&G Health	10	57	27	103	11	58	20
10	Escorts	9	56	57	174	17	20	19

Adani Enterprises is the Most Consistent Wealth Creator

- We define Consistent Wealth Creators based on the number of years the stock has out-performed in each of the last 5 years. Where the number of years is the same, the stock price CAGR decides the rank.
- Based on this, over 2016-21, **Adani Enterprises** has emerged as the Most Consistent Wealth Creator. It has outperformed in all the last 5 years, and has the highest price CAGR of 86%.

Exhibit 4 **Top 10 Most Consistent Wealth Creators (2016-21)**

Rank	Company Name	No. of years outperformed	2016-21 Price CAGR (%)	2016-21 PAT CAGR (%)	RoE (%) 2021	RoE (%) 2016	P/E (x) 2021	P/E (x) 2016
1	Adani Enterprises	5	86	1	6	8	103	8
2	Alkyl Amines	5	79	43	37	24	39	13
3	P & G Health	5	57	27	25	9	58	20
4	Vinati Organics	5	48	15	17	24	53	15
5	Astral	5	45	32	21	14	81	50
6	Honeywell Auto	5	41	27	18	14	91	54
7	Aarti Industries	5	40	15	15	23	44	17
8	SRF	5	33	23	17	15	27	18
9	Reliance Inds.	5	31	8	6	13	30	11
10	Adani Trans.	4	93	27	14	14	82	10

Adani Enterprises is the Best All-round Wealth Creator

- We define All-round Wealth Creators based on the summation of ranks, under each of the 3 categories – Biggest, Fastest and Consistent. Where the scores are tied, the stock price CAGR decides the All-round rank.

Exhibit 5 **Top 10 All-round Wealth Creators (2016-21)**

All-round Rank	Company	Rank: Biggest	Rank: Fastest	Rank: Consistent	Total of Ranks	2016-21 Price CAGR (%)
1	Adani Enterprises	16	3	1	20	86
2	Adani Transmission	17	1	10	28	93
3	Bajaj Finance	6	13	17	36	49
4	Bajaj Finserv	12	20	20	52	42
5	Reliance Industries	1	45	9	55	31
6	Muthoot Finance	33	15	18	66	47
7	Astral	44	17	5	66	45
8	Honeywell Auto	38	22	6	66	41
9	Deepak Nitrite	56	2	11	69	90
10	Info Edge (India)	31	21	21	73	41

Detailed findings page 32 onwards

Theme 2022

Atoms to Bits

Wealth Creation in the digital era

Whatever can be digital, will become digital."

– *Nicholas Negroponte, author of Being Digital*

1. Summary

Focus on Digital Business Designs and their enablers

What is Atoms to Bits

Globally, value is migrating from Atoms (businesses dealing in physical matter) to Bits (businesses which are digital in nature). This has already played out in a big way in the US. The digital ecosystem in India is right for Atoms-to-Bits to play out here.

Atoms v/s Bits

Unlike Atoms, Bits deal in intangible assets, enjoy very low cost of replicating their offering, and benefit from network effects. As a result, Bits can scale up very rapidly compared to their Atoms counterparts.

Key success factors for Bits

Given high initial losses, the success of Bits companies centers around rapid growth in order to achieve critical mass. Their key success factors are –

1. Large opportunity size
2. Product-market fit
3. Wide distribution
4. Network effects
5. Favorable unit economics
6. Operational scalability.

Losses of Bits companies tend to be optical

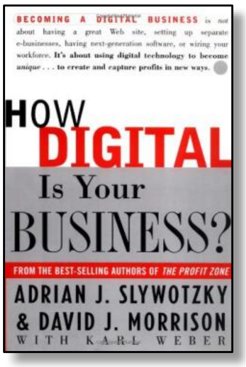
Atoms use financial capital to acquire physical assets which reflect in their balance sheet. In contrast, Bits mainly use human capital to self-generate intangible assets (e.g. technology platform), which gets fully charged to the income statement, resulting in optical loss. Cash flow is the leveler between Atoms and Bits financials.

Valuation of Bits

We suggest 3 valuation methodologies for Bits companies, which can then be averaged to arrive at the final value –

1. DCF (Discounted Cash Flow)
2. Comparables, with special emphasis on PSG (Price/Sales to Growth)
3. Last private equity valuation.

How to play Atoms to Bits



Investors should focus on Digital Business Designs

Whether a business is physical, digital or phygital, the key to success is a Digital Business Design. In their book, *How digital is your business?*, the authors write, "… you must remember that Digital Business Design is about business first, design second and digital third." They identify two determinants of Digital Business Design –

1. Quality of Business Design and
2. Degree of Digitization.

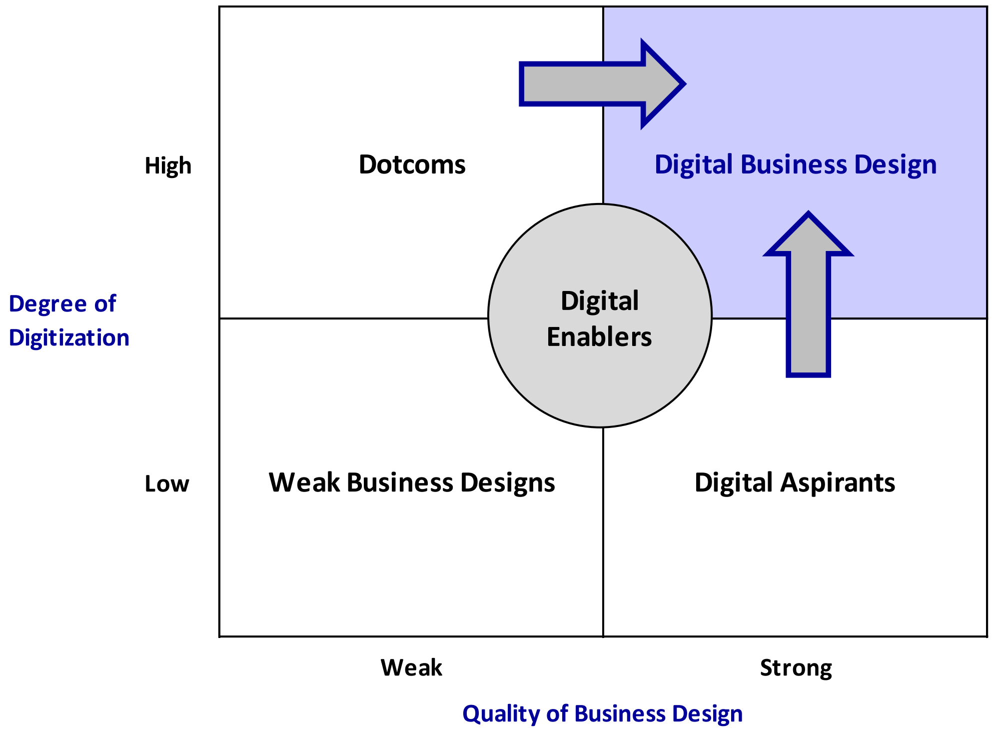
The matrix below offers a framework for how to play the Atoms to Bits theme. The challenge for investors is to identify –

1. Digital Business Designs i.e. Strong business design with high Degree of Digitization;
2. Digital Aspirants who are likely to attain Digital Business Design; and
3. Dotcoms who are likely to improve their Business Design.

Bet on digital enablers with great managements

A second way to play the Atoms to Bits theme is by investing in digital enablers (i.e. IT service providers), run by great managements. These companies will be catering to players in all the above four quadrants, and may well prove to be the biggest beneficiaries of Atoms to Bits.

Framework to play Atoms to Bits – Look for Digital Business Designs and Digital Enablers



2. What is Atoms to Bits?

Value Migration from the physical to the digital

2.1 What is Atoms

An atom is the smallest element of physical matter. So, for the purposes of this report, Atoms represent anything which is physical. In the context of businesses, Atoms refers mainly to product businesses – Autos, Cement, Steel, Pharma, etc. However, broadening the concept, Atoms also include businesses which do not allow for non-linear scale-up. For instance, IT services companies are not in the product business. Yet, their scale-up involves matching hiring of people. Thus, even IT services will be classified as Atoms.

2.2 What is Bits

A bit is the smallest unit of information that can be stored in the digital format. So, for the purposes of this report, Bits represent anything which is digital. In the context of businesses, Bits refers to those businesses which are predominantly digital – email, web search, social networks, e-commerce, streaming video, etc.

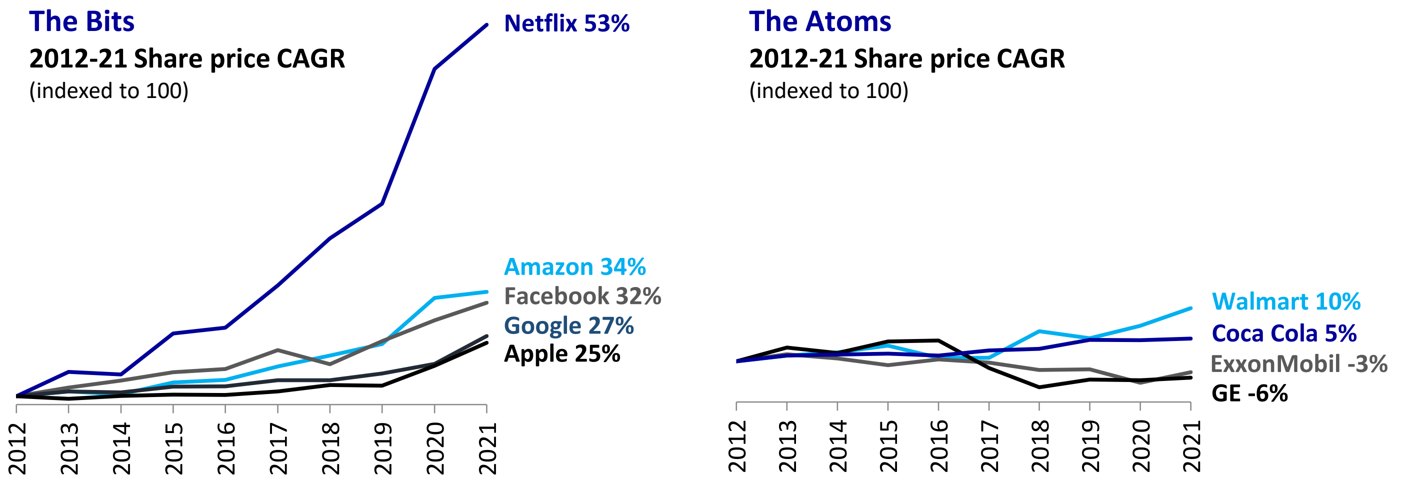
Major types of Bits business models

Bits model	Brief description	Examples
Portals	These offer primary access to the internet – search, email, news	Google, Yahoo, AOL, Rediff
Platforms	The software or hardware which allows for interaction of its users	iOS and Android (for app developers), Facebook (for networking), Instagram (for photos & videos), Naukri (for employment), Nazara (for gaming), Matrimony (for matrimonial ads)
Marketplaces	These are special type of platforms which allow for buyers and sellers to interact	eBay, Alibaba, Airbnb, Indiamart, Zomato, Oyo
Subscriptions	These are software/data delivered digitally, for which users need to pay a subscription fee	Bloomberg, Salesforce, Netflix
Feeds	Social media news feeds, used as a medium for advertising	Facebook, Twitter

2.3 What is Atoms to Bits

In the US, companies like Amazon, Apple, Google, Facebook and Netflix (the "Bits") have handsomely outperformed veteran companies such as Walmart, Exxon Mobil, Coca Cola and General Electric (the "Atoms").

Exhibit 1 **The Bits are beating the Atoms**



Also consider Exhibit 2. In the US, of the current top 10 market cap companies, 7 are Bits. Of the top 10 market cap companies in 1995, Microsoft is the only company to remain in the current list as well. The current market cap of Apple alone is significantly higher than the sum of the 1995 top 10 (excluding Microsoft).

Exhibit 2 **Top 10 US companies by Market Cap – Current and 1995 (USD bn)**

Company	Current
Apple	2,712
Microsoft	2,482
Alphabet	1,888
Amazon.com	1,779
Tesla	1,150
Meta Platforms	903
Nvidia Corp	817
Berkshire Hathaway	619
J P Morgan Chase	469
Visa	422

Company	1995	Current
General Electric	120	104
AT&T	103	163
Exxon Mobil	100	253
Coca-Col	94	227
Merck & Co	81	189
Altria Group	75	78
Procter & Gamble	57	350
Johnson & Johnson	55	411
Microsoft	52	2,482
Walmart	51	392

The outperformance of Bits is not just stock market frenzy. Even on the fundamental metric of profit, the corporate landscape is shifting (Exhibit 3). 5 of the top 10 profit companies in the US are Bits. The profit of Apple alone is multiple times higher than the sum of the 1995 top 10.

Exhibit 3 **Top 10 US companies by Profit – Current and 1995 (USD bn)**

Company	Current
Apple	95
Berkshire Hathaway	86
Alphabet	71
Microsoft	68
J P Morgan Chase	50
Meta Platforms	40
Bank Of America	30
Amazon.com	26
Citigroup	23
Goldman Sachs	22

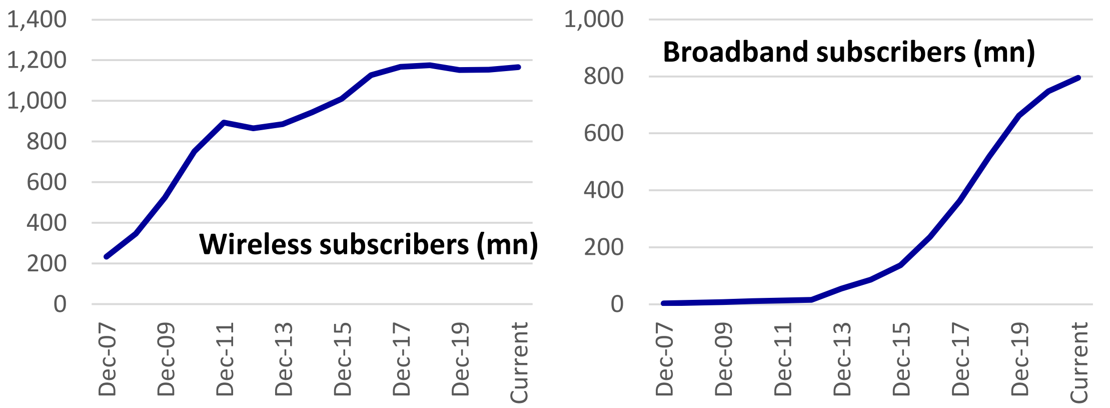
Company	1995	Current
Exxon Mobil	6.7	-5.9
Motors Liquidation	6.6	–
General Electric	5.5	0
Altria Group	5.3	2.8
Ford Motor	5.0	2.9
AT&T	4.3	1.2
Georgia-Pacific	4.2	–
IBM	3.7	4.8
Citigroup	3.6	23
DuPont	3.3	6.7

The above is irrefutable evidence that value – defined as profit and market cap – is silently migrating from Atoms to Bits. This is a global phenomenon. Hence, such long-period value migration is inevitable in India, where the digital ecosystem has turned conducive over the last 5-6 years (see box "India – all set for the Bits era").

India – all set for the Bits era

India is on the cusp of a digital revolution. For a population of 1.3 billion, India's wireless subscriber base is at 1.2 billion and broadband subscriber base at 0.8 billion. Almost 0.75 billion users access the internet through their mobile phones.

Exhibit 4 **India's penetration of telecom and internet is high**



Even as the customer base is rising, the corporate and investment climate is also getting conducive by the day. Entrepreneurs are conjuring up digital business ideas across domains – from fintech to foodtech to edutech. They are backed by a whole host of venture capital and private equity funds, leading to the emergence of several unicorns (companies with valuation of USD 1 bn or higher), numbering over 70 at last count.

The Indian government too is doing its bit. Almost 99% of India's adult population now have Aadhaar (unique identification number). In 2016, government launched a Unified Payment Interface (UPI), enabling peer-to-peer interbank transfers at zero cost. Under a scheme called Jan Dhan, over the past 7 years, 430 million low-income strata people now have bank accounts, a trigger for widespread financial and commercial inclusion.

On the stock market front, regulator SEBI (Securities & Exchange Board of India) has relaxed its regulations to permit listing of loss-making companies as well.

Thus, India is all set for an exciting Bits era.

The early signs of Atoms to Bits in India are already here. In the last 6 months alone, India has seen 3 fresh listings – Zomato, Nykaa and Paytm – with market cap of over INR 1 trillion (Exhibit 5). Contrast this with the fact that India has 44 listed companies of over 100 years old. Of these, only two – ITC and Tata Steel – enjoy market cap of over INR 1 tn.

Exhibit 5 **India's recent experience of digital companies**

Company	Age (years)	Listed in	TTM PAT (INR mn)	Market Cap (INR bn)	P/E (x)
Zomato	11	Jul-21	-10,259	1,201	N.M.
FSN E-Commerce (Nykaa)	9	Nov-21	* 100	1,154	11,542
One 97 (Paytm)	21	Nov-21	-15,661	1,102	N.M.
PB Fintech	13	Nov-21	** -1,500	544	N.M.
Indiamart Intermesh	22	Jul-19	3,060	228	75
Nazara Technologies	22	Mar-21	288	73	254
Fino Payments	14	Nov-21	174	37	214
TOTAL / AVERAGE	**16**		**-23,799**	**4,339**	**N.M.**

** Estimated; ** - FY21 PAT; N.M. - Not meaningful*

We see two questions facing investors in India's Bits era –

1. Which Bits will survive in order to thrive?, and equally important
2. How do we value these Bits, especially when they are currently loss-making?

In answering these questions, it is essential to understand the following about Bits businesses –

- How they are different from Atoms businesses
- What are their key success factors and growth drivers
- What are their financial nuances, and finally
- How to go about valuing Bits businesses.

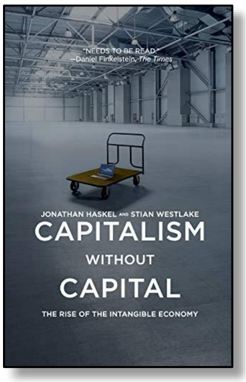
This study discusses each of these points in subsequent sections.

3. Atoms v/s Bits

The tangible v/s the intangible

There are fundamental differences between Atoms and Bits businesses on various aspects –

3.1 Assets



First and foremost, Atoms businesses are founded on fixed/tangible assets – appearing in the balance sheet as Property, Plant & Equipment. These assets are used to produce goods and services, which in turn, generate revenue and profit. In sharp contrast, Bits businesses hardly need any tangible assets. On the contrary, they self-generate intangible assets – a software, or a technology platform, which generate revenue and profit (more on this under Capex v/s Opex, page 21).

In their book, *Capitalism Without Capital*, authors Jonathan Haskel and Stian Westlake refer to two important characteristics of intangible assets – Scalability and Sunkenness. On Scalability, they write, "Physical assets can only be in one place at one time. Intangible assets, by contrast, can usually be used over and over, in multiple places at the same time."

Sunkenness refers to the fact if an intangible asset fails to deliver, very little value can be recovered from it. This is unlike tangible assets, where even if the business fails, there is some value which can be salvaged.

Given the interplay of Scalability and Sunkenness, "when things go wrong, intangibles tend to be worth less, and when they go well, they tend to be worth much more."

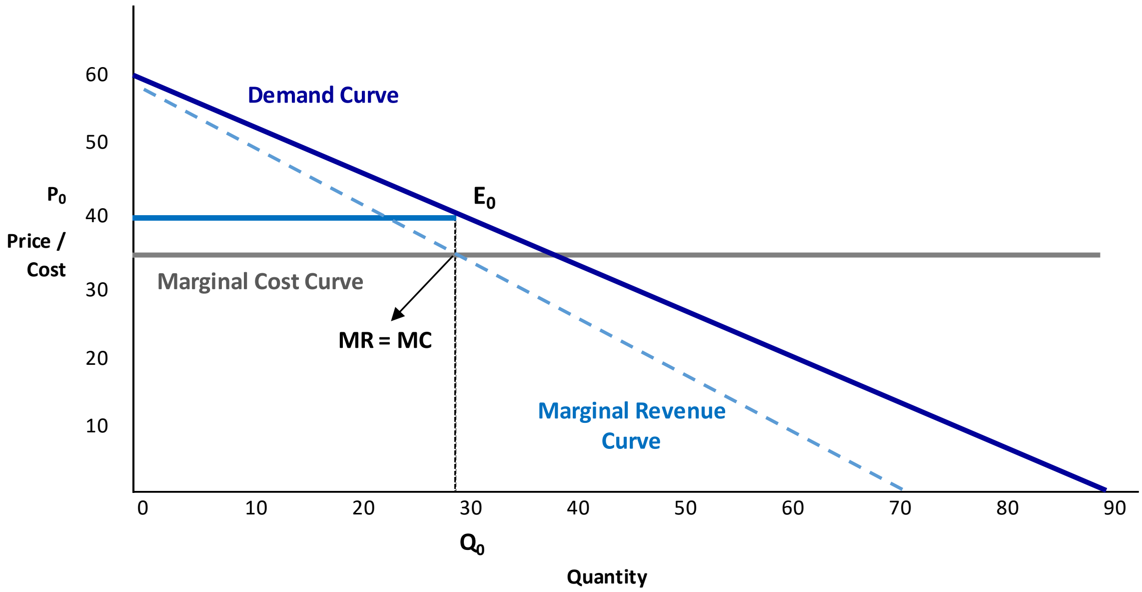
3.2 Replication of product/service offering

Replication of products/services offerings by Atoms businesses involves time, physical and financial resources, which can together be called "friction". In contrast, replication of Bits offerings is near friction-free. Hence, the marginal cost of producing an additional "Bit" is very low. This implies that once a Bits business achieves scale, it can be hugely profitable. For the academically oriented, this can be proved using microeconomics.

3.2.1 The microeconomics of Bits businesses

A simplified microeconomic model is depicted in Exhibit 6. Under monopolistic competition situation (large number of buyers, differentiated sellers), the demand curve and the marginal revenue curve are downward sloping. The sellers maximize profit when marginal revenue equals marginal cost.

Exhibit 6 **Simplified microeconomic model under monopolistic competition**

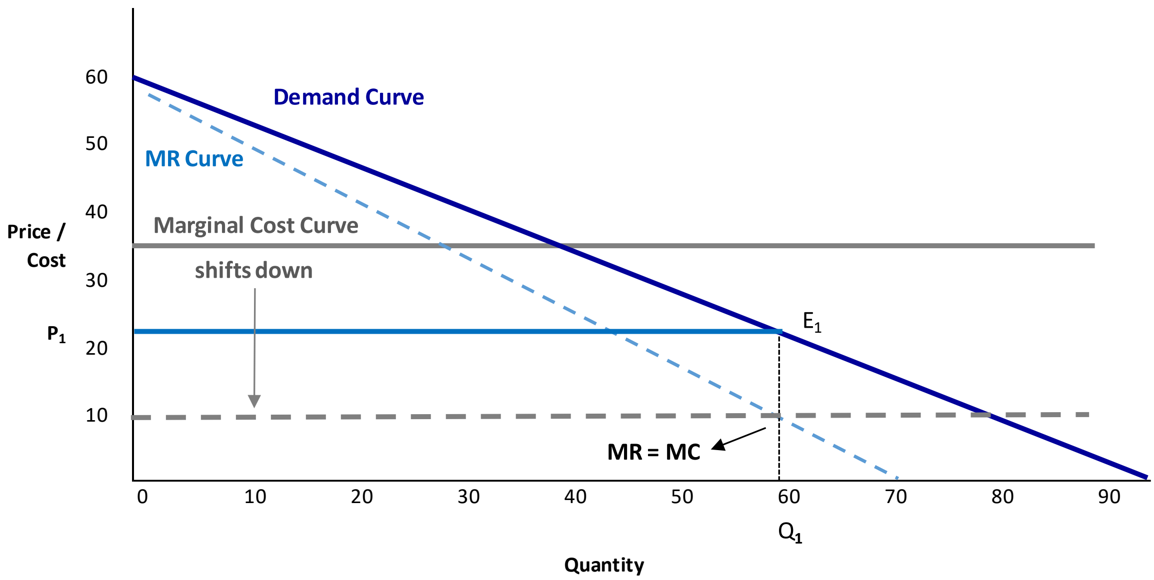


Thus, the equilibrium quantity in the example is 30 units at a price of 40. The math at this point:

- Revenue = 30 x 40 = 1,200
- Marginal cost = 30 x 35 = 1,050
- Contribution = 150

For a bits business, the marginal cost is significantly lower than an atoms competitor, causing the marginal cost curve to shift down (Exhibit 7).

Exhibit 7 **For Bits businesses, the marginal cost curve shifts down**



At the new equilibrium point (E_1), the math is:

- Revenue = 60 x 23 = 1,380
- Marginal cost = 60 x 10 = 600
- Contribution = 780

Thus, contribution for a Bits business is significantly higher at 780 versus 150 for an Atoms business, thanks to low-cost replicability of bits.

3.3 Delivery

Next, there is friction even in the delivery of Atoms. Delivery of Bits is near friction-free. For instance, a physical book purchased from Amazon will involve friction (time and money) to reach the customer. However, its Kindle version will reach the customer at next to no cost.

3.4 Network effects

A product or service is subject to positive network effects when addition of a new user and/or increased usage by any user, increases the value for other users. Consider an online market place. The addition of every new buyer(s), attracts more sellers to register on the market place, in turn, leading to more buyers, leading to more sellers, and so on, into a virtuous cycle. This network effect is rarely visible in Atoms businesses.

3.5 Winner-takes-all/most

In Atoms businesses, there tends to be a limitation to a single's company's market/geographical reach. Hence, there's enough room for a fairly large number of players. However, in Bits businesses, there's no limitation on reach. Once hosted on the worldwide web, a pure Bits business can potentially cater to the global market, resulting in a "winner-takes-all/most" situation. Examples of such winners are – Google in Search and email, Facebook in social networking, WhatsApp in messaging, and Amazon in sale of books.

Network "Laws"

Over the years, various network pioneers have attempted to model how the growth of a network increases its value. In other words, they tried to describe the power of network effects. As time went on, each new law discovered that the value of networks and network growth had been significantly underestimated in the past. These laws are not true laws in the same way that the law of gravity is a scientifically proven law. They're simply math concepts that describe the relationships between different types of networks and the value of those networks.

Sarnoff's Law

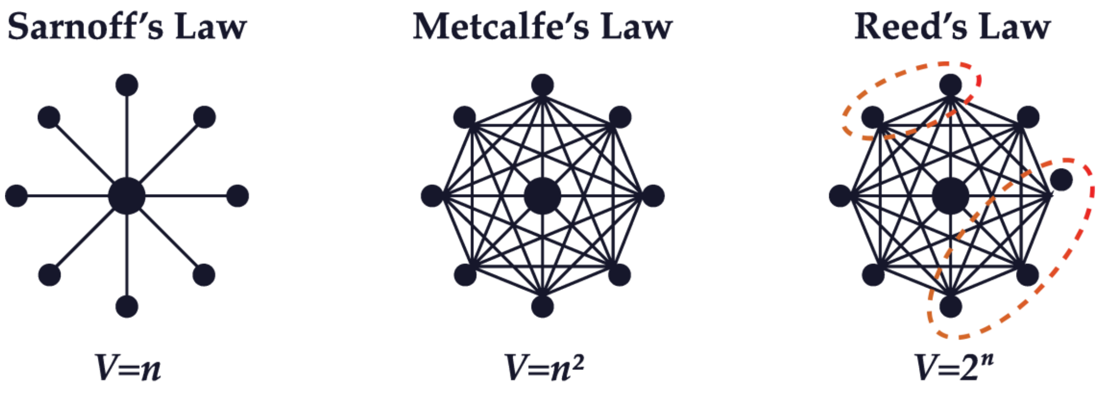
David Sarnoff was a titan of broadcast era radio and TV, who led the Radio Corporation of America (which created NBC) from 1919 until 1970. It was one of the largest networks in the world during those years. Sarnoff observed that the value of his network seemed to increase in direct proportion to the size of the network — proportional to N, where N is the total number of users on the network.

Metcalfe's Law

Metcalfe's Law states the value of a communications network grows in proportion to the square of the number of users on the network (N^2 where N is the total number of users on the network). The formulation of this concept, which dates to about 1980, is attributed to Robert Metcalfe, who was one of the inventors of the Ethernet standard. Metcalfe's Law seems to hold because the number of links between nodes on a network increase mathematically at a rate of N^2, where N is the number of nodes. Although originally formulated to describe communication networks like Ethernet, fax, or phone networks, with the arrival of the internet it has evolved to describe social networks and marketplaces as well.

Reed's Law

Reed's Law was published by David P Reed of MIT in 1999. While Reed acknowledged that "many kinds of value grow proportionally to network size" and that some grow as a proportion to the square of network size, he suggested that "group-forming networks" that allow for the formation of clusters scale value even faster than other networks. Group-forming networks, according to Reed, increase in value a rate of 2^N, where N is the total number of nodes on the network.



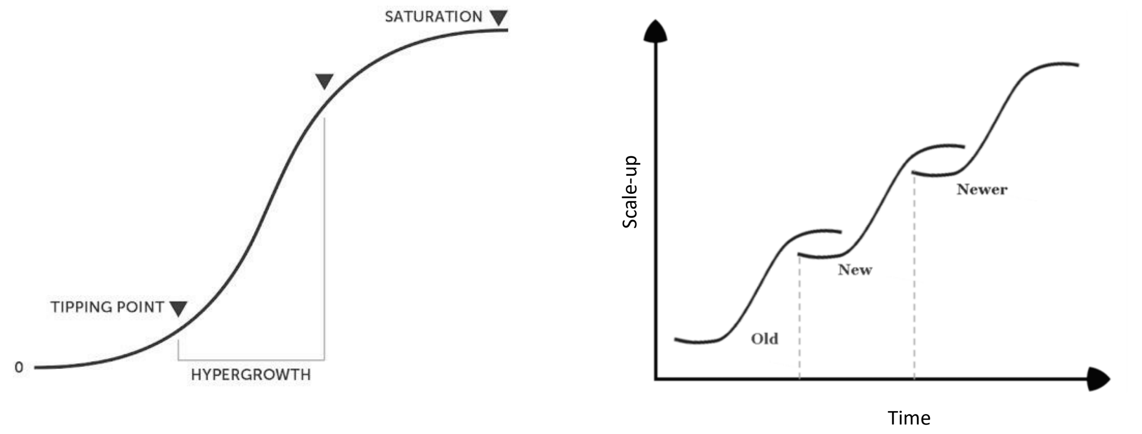
Extract from an essay on NFX.com, "The Network Effects Bible"

3.6 Scale-up

Given all of the above, Bits-based business models yield to hyper-growth much more than their Atoms-based counterparts. Such scale-up can be – (1) Vertical i.e. in existing business, and/or (2) Horizontal i.e. in adjacent businesses and/or completely new businesses.

Thus, Bits companies tend to experience multiple S-curves (Exhibit 8). One example is that of Amazon. Starting with retailing books, it scaled up to retailing a wide range of products (adjacencies), and also diversified into new businesses like Amazon Web Services (AWS). Yet another is that of Apple, which started with Apple II (home computer), followed by Macintosh (laptop), iMac (desktop), iPod, iTunes, iPhone series, AirPods, and so on.

Exhibit 8 **Bits companies tend to experience multiple S-curves**



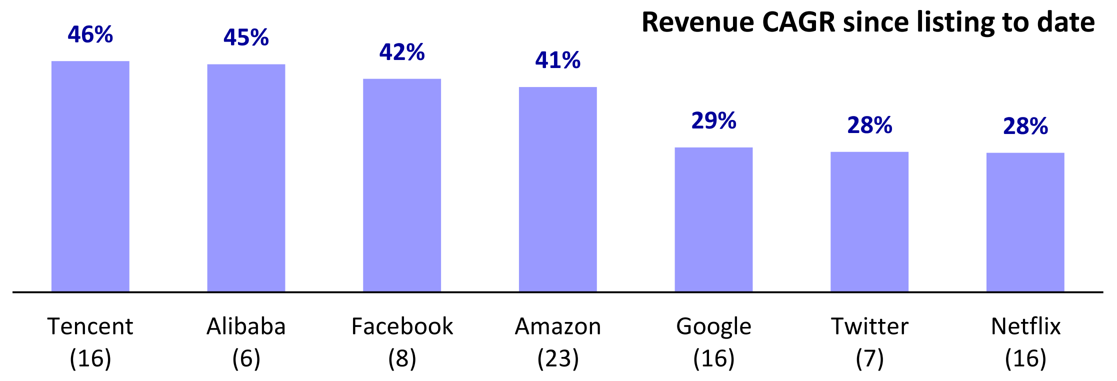
Having understood how Bits business are different from their Atoms counterparts, we proceed to assess their key success factors.

4. Bits companies – Key success factors

Driving hyper growth

The success of Bits companies is founded in hyper growth in revenue. Most Bits start-ups face heavy initial losses. The same can be erased only when revenues hit a critical mass, driving operating and financial leverage.

Exhibit 9 **Hyper growth in revenue is the key to success for Bits companies**



Figures in brackets are years since listing

We discuss six key success factors for Bits companies, which set the stage for hyper growth –

1. Large opportunity size
2. Product-market fit
3. Wide distribution
4. Network effects
5. Favorable unit economics
6. Operational scalability.

4.1 Large opportunity size

A large opportunity size or total addressable market (TAM) is favorable for all businesses but especially so for digital companies, as their marginal cost is near zero. Larger the opportunity, greater the chances of achieving hyper growth. Since internet transcends sovereignty, the opportunities can be truly global. Experience of American digital companies which have crossed USD 1 trillion in valuation are all global. – Microsoft, Apple and Google.

4.2 Product-market fit

Product-market fit means being in a good market with a product/service offering that can satisfy that market. Without product-market fit, it's not possible to grow a startup into a successful business. Consider Uber. Its call-a-cab service is a perfect fit in at least two ways –

(1) It is a superior offering than the "hail-a-cab" option, and
(2) It is also a great option for those who do not fancy driving their own cars to work, especially in cities where peak-hour traffic jams are an issue.

4.3 Wide distribution

In an over-communicated world, reaching a company's product/service to customers is critical. The fastest and cheapest mode of distribution is virality i.e. widespread referrals by users to others. In many cases, companies trigger such virality by offering incentives for referrals. For instance, Paytm ran such an offer for quite some time:

"Earn up to ₹10,000 by referring your friends to join Paytm. You will receive ₹100 for every successful referral. Your friend will also receive a surprise but guaranteed cashback reward on making his/her first money transfer on Paytm."

4.4 Network effects

As stated earlier, product or service is subject to positive network effects when addition of a new user and/or increased usage by any user, increases the value for other users. There are two main kinds of network effects –

4.4.1 Direct network effects

Direct network effects occur when the value of a product, service, or platform increases simply because the number of users increases, causing the network itself to grow. Social media platforms – Facebook, Twitter, WhatsApp, etc – primarily benefit from direct network effects. Thus, the 100th user in a network can create 99 fresh connections, whereas the 1,000th user can potentially create 999 fresh connections.

4.4.2 Indirect network effects

Indirect network effects occur when a platform or service has two or more user groups, such as producers and consumers, buyers and sellers, or users and developers. More people from one group joining the platform, enhances the value to the other group(s), triggering more of the latter to join the group, leading to a virtuous cycle. Consider Uber again. The more drivers join the platform, the more beneficial it is for riders. Hence, more riders join the platform, in turn, causing more drivers to join, and so on. It is such network effects that creates the phenomenon of "Winner-takes-it-all/most".

4.5 Favorable unit economics

Growth for the sake of growth at any cost is unsustainable. A company can invest into growth only if it has favorable unit economics. Unit economics refers to an analysis of a specific business model's revenues and costs in relation to an individual unit of its product/service offering. For a product company like Domino's, the unit is a pizza, while for a service company like Zomato, the unit is a "delivery". Once it is established that every single delivery is profitable, only then does it make sense to heavily invest into "acquiring" more and more deliveries.

Scale-up on the back of favorable unit economics leads to operating and financial leverage kicking in, causing profits and profitability to skyrocket. Consider the case of Indiamart, India's largest online B2B marketplace, connecting buyers with suppliers (Exhibit 10). Over the 5 years FY17-21, Employee Cost plummeted from 66% of sales to 31% and other expenses slumped from 57% of sales to 21%. This caused a 72% swing in EBITDA Margin – from -23% in FY17 to 49% in FY21. As a result, a loss of INR 644 million in FY17 was transformed into an INR 2.8 billion profit in FY21.

Exhibit 10 **High operating leverage at Indiamart Intermesh**

INR million	FY2017	FY2018	FY2019	FY2020	FY2021
Net Sales	**3,178**	**4,105**	**5,074**	**6,389**	**6,696**
Employee Cost	2,097	1,949	2,300	2,667	2,052
% of sales	66%	47%	45%	42%	31%
Other expenses	1,818	2,919	2,604	2,049	1,389
% of sales	57%	71%	51%	32%	21%
Total Expenditure	**3,915**	**4,867**	**4,903**	**4,716**	**3,441**
% of sales	123%	119%	97%	74%	51%
EBITDA	**-737**	**-762**	**171**	**1,673**	**3,255**
EBITDA Margin	**-23%**	**-19%**	**3%**	**26%**	**49%**
Depreciation	46	29	41	212	161
EBIT	**-783**	**-791**	**130**	**1,461**	**3,094**
Interest	0	0	0	33	67
Other Income	142	190	410	686	866
PBT	-642	-601	539	2,114	3,893
Tax	2	-1,149	339	640	1,096
Net Profit	**-644**	**548**	**200**	**1,474**	**2,798**
PAT Margin	**-20%**	**13%**	**4%**	**23%**	**42%**

4.6 Operational scalability

For sustained growth, a business model with favorable unit economics needs to be backed up by operational scalability i.e. adequate human and infrastructural capabilities to support the growth.

4.7 Case studies

We assess 3 Indian digital companies on the key success factors – Zomato, Nykaa and Angel One.

4.7.1 Case Study #1 – Zomato

Large opportunity size

Zomato is primarily a food delivery company. Total addressable Indian food services market stood at USD 65 billion in FY2019 and is expected to grow at 9% CAGR to USD 110 bn in FY2025 (as per research agency, RedSeer). Currently, restaurant food contributes only ~10% of the food market in India vis-à-vis 54% in the US and 58% in China. Additionally, Zomato's business model has optionalities to enter into adjacencies like groceries, where the Total Addressable Market can be ~10x the base business opportunity.

Exhibit 11 **Zomato has a large opportunity ahead**

	India	US	China
Population (mn)	1.36	0.33	1.43
Internet penetration (%)	43	88	63
Restaurant food	10	54	58
(% of food consumption)			
Online food delivery market (USD bn)	4	21	90
Online food delivery users (mn)	45-55	90-120	430-470
% of internet users	9	36	50

Product-market fit

India has a large middle and high income earning population for whom instant food delivery (around 30 minutes) is a big draw. Better internet connectivity and mobile ecosystem have accelerated the product-market fit for Zomato.

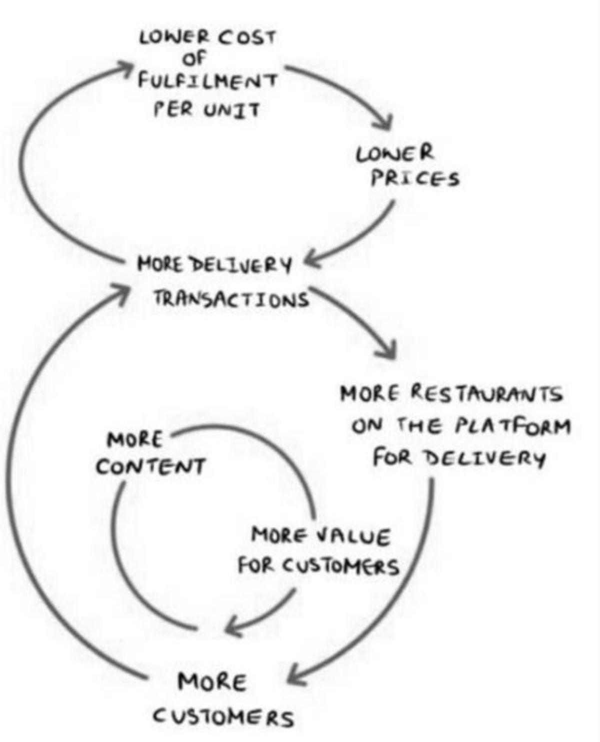
Wide distribution

Over the years, Zomato has built strong distribution reach with ~148k restaurant partners and ~300k delivery partners across more than 500 cities in India. Zomato has over 100m app downloads across App Store and Play Store.

Network effects

Zomato started off as a restaurant listings business, where more content drove more value for customers which drove more restaurant content and number of customers. Today, it has evolved into a delivery business network effect. More restaurants on the platform has led to higher deliveries, resulting into lower cost per delivery, in turn, driving more customers to the platform, in turn, leading to more restaurants, and so on.

Exhibit 12 **Zomato enjoys positive network effects**



Favorable unit economics

Zomato's unit economics turned profitable in FY21 with a positive contribution of INR19 per order versus negative contribution of INR 33 in FY20.

Exhibit 13 **Zomato's unit economics turns positive**

INR per order	FY20	FY21
Average Order Value (AOV)	280	400
Take rate (i.e. commission)	15%	15%
Revenue from restaurants	42	60
Delivery charge from customers	15	28
Total Revenue per order	**57**	**88**
Less: Costs per order	**90**	**69**
Delivery cost	52	46
Discounts	22	8
Other variable costs	16	15
Contribution per order	**-33**	**19**

Operational scalability

Over the years, Zomato has significantly scaled up its operations both in terms of human capital (300k delivery partners today) and infrastructure (continuously upgrading its tech platform to handle over 400m annual deliveries).

4.7.2 Case Study #2 – Nykaa [parent: FSN E-commerce Ventures]

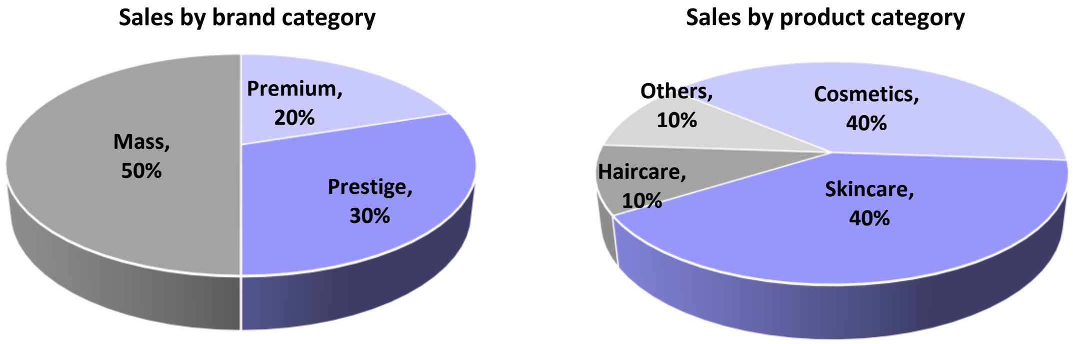
Large opportunity size

Nykaa is India's largest omnichannel beauty destination. Globally, beauty is a USD 500 bn category with US and China as market leaders. Indian beauty market is at INR 1.1 tn (USD 15 bn) growing at 8% per annum. Per capita spending on cosmetics remains low in India (USD 13) compared to global markets – US (USD 114) and China (USD 31). Online beauty market is likely to grow at 30% + till 2025 to INR91 bn as per research agency, Redseer.

Product-market fit

Nykaa sells a wide range of products on its platforms catering to all needs of customers – from skincare, cosmetics to haircare, and from low-end mass brands to very premium global brands.

Exhibit 14 **Nykaa has a strong product-market fit for Indian women customers**



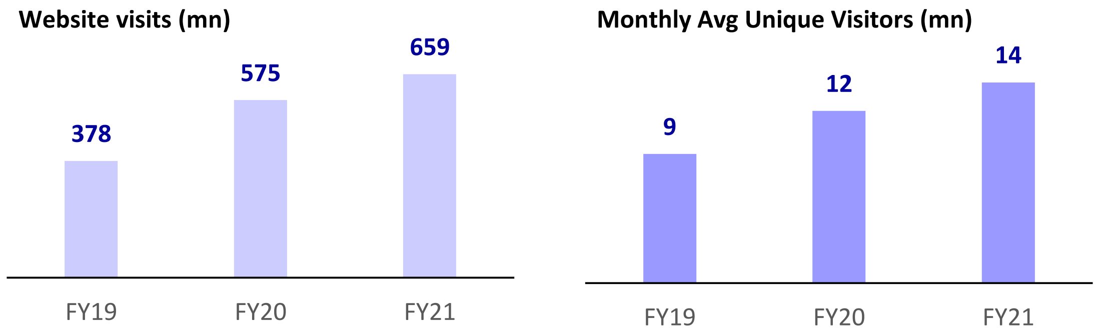
Brands on Nykaa platform

Category	Pricing (INR)	Major brands
Luxury	2,000-5,000	MAC, Bobby Brown, Estee Lauder, Armani, Ralph Lauren, Clinique, Kama
Prestige	1,200-1,500	Body Shop, L'Oreal, Toni & Guy, ColorBar, Kaya
Mass	500-600	Lakme, Pond's Dove, Olay, VLCC, Neutrogena, Biotique

Wide distribution

Nykaa through its platform serves 24,817 pin codes, covering 86% of the serviceable pin codes across the country. It has 18 warehouses with a storage space of 580,000 sq ft. It has an allocation engine which helps fulfil orders by utilizing inventory efficiently across warehouses. It operates over 70 physical stores in 38 cities of India — 35 Nykaa Luxe stores, 30 Nykaa on-trend stores and 7 kiosks. It has 270+ beauty and personal care advisors at the physical stores, who help to personalize the offline shopping experience.

Exhibit 15 **Nykaa's e-commerce is gaining online traction**



Network effects

Nykaa has created a strong moat and customer-pull around its platform by delivering authentic goods, exclusive brands and high engaging content. More customers on the platform, in turn, has attracted more brands on the platform with exclusive offers thus creating the flywheel effect. More the customers, more the data and purchasing patterns, and hence, more customization and birth of private brands increasing the offering on the platform, and hence more customers.

Exhibit 16 **Nykaa enjoys strong network effects**

Favorable unit economics

Nykaa has gross margin of ~35% and post the A&P and fulfilment cost, it has a contribution margin of ~20%.

Exhibit 17 **Nykaa's unit economics are favorable**

	INR per customer
Average Order Value	1,977
Order frequency p.a.	3.1
Gross merchandise value	6,129
Revenue (60% of GMV)	3,677
Gross Margin (%)	35%
Gross Margin per customer	1,287
Operating Profit	735
Operating Profit Margin	20%

Operational scalability

The company is headed by CEO Falguni Nayar along with Anchit Nayar, CEO Nykaa E-retail, and Adwaita Nayar CEO Nykaa Fashion. A team of professionals heading various functions work along the CEOs. The company has seen a revenue growth of 48% in the last 3 years, along with turnaround in profitability from an operating loss in FY19 to operating profit of INR 1.61 bn in FY21, 6.6% operating profit margin. It has also successfully added another segment to its platform – apparels for women, men and kids, thus attracting more brands and users.

4.7.3 Case Study #3 – Angel One

Large opportunity size

Angel One (formerly Angel Broking) offers a safe, seamless, online share trading platform. It enjoys a large opportunity. Number of demat accounts in India are at 5% of population versus 11% of population in China and 32% in USA. Just 4% of household financial savings go into equity investments versus 37% in USA and over 10% for many other countries. The total opportunity size is 320 mn (PAN cards which are linked to Aadhaar as of Mar-2021) versus number of demat accounts at ~65 mn. In addition to pure equity broking, there are other revenue opportunities e.g. asset management, which is also underpenetrated in India with AUM at 14% of GDP (112% of GDP in the US).

Exhibit 18 **Angel has a large opportunity size**

	India	US	China
Population (bn)	**1.36**	0.33	1.43
Internet penetration	**43%**	88%	63%
Demat accounts penetration	**5%**	32%	11%
Equity share in HH's Financial Savings (%)	**4%**	37%	N.A.

Product-market fit

India has a large middle and high income earning population who are looking at alternative to fixed deposits, provident funds and insurance for investments. Better internet connectivity and mobile ecosystem have accelerated the product-market fit for discount brokers like Angel.

Wide distribution

Angel covers 98% of pin codes in India which are serviced through its digital customer sourcing model. In addition to this, it also has the largest Authorized Persons network of 15,000+.

Network effects

Broking traditionally is a one-way platform with negligible network effects as only users were individually transacting on the platform. We are witnessing brokers becoming two-way platforms with network effects as users can interact with each other – exchange ideas, copy trades of successful traders/investors, etc. Angel is in the nascent stage of building these capabilities. Angel Smart Store is one such initiative where various fintech players or users can sell their algorithms to Angel's customer base.

Favorable unit economics

Angel's flat fee model has turned profitable with EBITDA margin of 44% consistently for last few quarters. On unit economics, its customer acquisition cost is INR 800 and present value of lifetime broking revenue from a customer is INR 10,000-12,000. Here, we have not included income from MTF (multilateral trading facility), cross-sell, depository services, income on float, etc, which are additional revenue opportunities.

Exhibit 19 **Angel enjoys favorable unit economics**

INR	FY20	FY21
Retail Broking ARPU	10,353	8,457
Other ARPU	4,982	3,298
Total ARPU	15,335	11,754
Cost/client	11,116	7,747
EBITDA/client	**4,218**	**4,007**
Employee cost/client	5,102	2,713
Clients per employee	232	538

ARPU - Average Revenue Per User

Operational scalability

Angel does not need physical infrastructure to scale its customer base as it has transformed into a completely tech model. Angel One has scaled its tech capabilities significantly to be able to manage more than 1.5x its current volumes. In the retail segment, it has a market share of 21% in F&O, 14% in cash equity, and 37% in commodities.

Even where Bits companies score well on the key success factors, in most cases, there is a major issue around their financials, which we discuss next.

5. Major issue around financials of Bits companies

Capex v/s Opex and optical losses

Unlike for Atoms companies, the current accounting standards and statements (balance sheet and income statement) do not capture the true financial position of Bits companies. At the core of Atoms companies are physical assets and goods. In a given accounting period, there is a clear distinction between capital expenditure (capex) which gets added to the asset base, and operating expenditure (opex) which gets charged to the income statement. So, their balance sheet presents a fair picture of productive assets, and their income statement presents a near-accurate picture of the revenues and expenses for the period under consideration. This is not true in the case of Bits companies.

As stated earlier, Bits companies have virtually no physical assets or inventories. They mainly use human capital to self-generate intangible assets, such as a software or a technology platform, which generate revenue and profit. Such intangible assets do not find a place in the balance sheet. Instead, the human capital gets fully expensed in the income statement as employee cost. Thus, there is no distinction between capex and opex. Logically, the costs of creating a software are high in the initial years. Hence, Bits companies tend to show high optical accounting losses in their formative years.

In a paper, "*Why Financial Statements Don't Work for Digital Companies*", Vijay Govindrajan, Shivaram Rajgopal, and Anup Srivastava write, "Our current financial accounting model cannot capture the principle value creator for digital companies: increasing return to scale on intangible investments." What this means is that the value of Bits companies' intangible assets appreciate with higher use, whereas the value of physical assets of Atoms depreciate with use.

Hypothetical example:

Consider the following hypothetical example for a startup Atoms company and Bits company –

Exhibit 20 **Hypothetical data for a startup Atoms company & Bits company**

Basic data	Atoms company	Bits company
Sales	1,000	1,000
Raw material cost	400	-
Employee cost	200	600
Software development cost	-	450
Other expenses	100	100
Capital expenditure (useful life of 10 years)	500	50
Opening Equity / Cash	500	500

The Income statement, Balance sheet and Cash flow statement will be as under –

Exhibit 21 **Income statement for a startup Atoms company & Bits company**

	Atoms company	Bits company
Sales	1,000	1,000
Less: Raw material cost	400	-
Employee cost	200	600
Software development cost	-	450
Other expenses	100	100
Depreciation (10% of capex)	50	5
Profit	**250**	**-155**

Exhibit 22 **Balance Sheet for a startup Atoms company & Bits company**

	Atoms company	Bits company
Assets		
Property, Plant & Equipment	500	50
Less: Depreciation	50	5
Net Property, Plant & Equipment	450	45
Cash	300	300
TOTAL ASSETS	**750**	**345**
Liabilities		
Opening Equity	500	500
Profit / (Loss)	250	-155
Closing Equity	750	345
TOTAL LIABILITIES	**750**	**345**

Exhibit 23 **Cash Flow statement for a startup Atoms company & Bits company**

	Atoms company	Bits company
Opening Cash	500	500
Add: Profit	250	-155
Add: Depreciation	50	5
Less: Capex	(500)	(50)
Closing Cash	**300**	**300**

Observations:

- The Bits company reports a loss of 155 v/s a profit of 250 for the Atoms company.
- This is because the Bits company's entire Software development cost (opex) of 450 is charged to the Income Statement, whereas the Atom company's capex of 500 is taken to the Balance Sheet with only a 10% charge to the Income Statement.
- The two Income Statements and Balance Sheet look entirely different. However, everything gets even at the Cash Flow level, where in both cases, closing cash is 300.
- Most investors tend to get misled by the optical losses in the Bits company v/s a healthy profit in the Atoms company.

Having understood the financial nuance of Bits companies, we proceed to discuss a few approaches to valuing them.

6. Valuing Bits companies

DCF, Comparables, Private equity valuation

We suggest 3 valuation methodologies for Bits companies, which can then be averaged to arrive at the final value –

4. DCF (Discounted Cash Flow)
5. Comparables, with special emphasis on PSG (Price/Sales to Growth)
6. Last private equity valuation.

6.1 DCF

Due to optical losses of Bits companies (at least in the initial years), conventional fundamental and valuation metrics – RoE, RoCE, Profit growth, P/E, PEG, etc – cannot be applied. However, as seen above, cash flow is a great leveler of Atoms and Bits companies. Thus, the DCF (Discounted Cash Flow) method is equally valid for Bits companies. The only caveat – in startups, due to high initial cash burn, cash flows stay negative for quite some time. This necessitates building DCF models for several years into the future, increasing the uncertainty of cash flows, and the risk of inaccurate valuation.

6.2 Comparables, with emphasis on PSG (Price/Sales to Growth)

Profitable Bits companies can be valued using conventional ratios like P/E, PEG EV/EBITDA, etc. The challenge is when the company is optically loss-making. The common metric here is Price-to-Sales, calculated as Market Cap ÷ Sales. However, this ratio does not consider varying rates of growth. Thus, if two companies are valued at Price/Sales of 4x, and one company is expected to grow sales at 20% and the other at 40%, clearly the latter is preferable. This is captured by the metric PSG (Price/Sales to Growth), calculated at Price/Sales ÷ Future sales growth rate. Thus, in the above example, the first company has a PSG of 0.2 (4÷20), while the second company has a more attractive PSG of 0.1 (4÷40). A company's PSG can be compared with suitable peers, both locally and globally.

Exhibits 24 and 25 present PSG and other key numbers for select Indian and US Bits companies.

Exhibit 24 **Indian Bits companies – Key numbers**

	CMP	Mkt Cap	FY21 (INR mn)		FY19-21 CAGR		FY21-24E CAGR*		P/E		Price/Sales	
Company	**(INR)**	**(INR bn)**	**Sales**	**PAT**	**Sales**	**PAT**	**Sales**	**PAT**	**FY21**	**PEG**	**FY21**	**PSG**
5Paisa Capital	424	12	1,929	147	75%	L to P	40%	57%	85	1.5	6	**0.2**
Nazara Tech.	2,322	71	4,542	92	64%	-27%	39%	126%	765	6.1	16	**0.4**
Matrimony.com	950	22	3,779	408	4%	-2%	13%	27%	53	2.0	6	**0.4**
Angel One	1,123	93	12,637	2,969	29%	89%	16%	35%	31	0.9	7	**0.5**
One 97	1,564	1,014	28,024	-16,961	-7%	L to L	43%	L to L	-	-	36	**0.9**
Just Dial	729	61	6,752	2,142	-13%	2%	11%	15%	28	1.9	9	**0.9**
Zomato	146	1,148	19,938	-8,128	23%	L to L	63%	L to L	-	-	58	**0.9**
FSN E-Commerce	2,170	1,026	24,409	618	58%	L to P	46%	88%	1,659	18.9	42	**0.9**
C D S L	1,535	160	4,006	2,003	28%	33%	22%	26%	80	3.0	40	**1.8**
Indiamart Inter.	7,334	224	6,696	2,798	15%	274%	18%	18%	80	4.5	33	**1.9**
Info Edge	5,742	739	11,201	1,156	-1%	19%	24%	86%	640	7.4	66	**2.8**
Fino Payments	395	33	7,910	205	46%	L to P	N.A.	N.A.	161	-	4	**-**

* – Estimates based on Bloomberg consensus

Exhibit 25 **US Bits companies – Key numbers**

Company	CMP (USD)	Mkt Cap (USD bn)	CY21 (USD mn) Sales	PAT	CY19-21 CAGR Sales	PAT	CY21-23E CAGR* Sales	PAT	P/E CY21	PEG	Price/Sales CY21	PSG
Uber	38	74	17,062	-1,304	15%	L to L	37%	L to P	-	-	4.3	**0.1**
Amazon	3,523	1,787	4,70,561	30,071	30%	61%	17%	35%	59	1.7	3.8	**0.2**
Bookings Holdings	2,245	92	10,864	1,730	-15%	-40%	30%	71%	53	0.8	8.5	**0.3**
Twitter	44	36	5,092	361	21%	-50%	21%	79%	98	1.2	7.0	**0.3**
Facebook	323	898	1,17,583	42,116	29%	51%	19%	8%	21	2.8	7.6	**0.4**
PayPal	191	224	25,357	5,474	19%	49%	20%	20%	41	2.1	8.9	**0.4**
Google	2,945	1,960	2,09,495	76,928	14%	50%	16%	10%	25	2.5	9.4	**0.6**
Netflix	626	277	29,713	5,221	21%	67%	15%	25%	53	2.1	9.3	**0.6**
Zoom	189	56	4,081	1,484	251%	1299%	18%	3%	38	12.0	13.8	**0.8**
EBay	67	42	10,415	2,647	10%	22%	5%	6%	16	2.5	4.0	**0.8**
Airbnb	183	116	5,929	-370	11%	L to L	23%	L to P	-	-	19.6	**0.9**
Apple	171	2,808	3,81,823	93,344	21%	30%	5%	4%	30	7.4	7.4	**1.3**

* – Estimates based on Bloomberg consensus

6.3 Private equity valuation

Almost every startup raises funds through multiple rounds of venture capital and/or private equity funding. Private equity funds have a vast experience of valuing Bits companies, given their widespread global investments. Thus, valuation for the latest round of funding is a good base value, which can be suitably raised or discounted depending on subsequent developments.

6.4 Average of all the above

The valuation under each of the above methodologies is likely to be diverse. Hence, the average of these methodologies may be deemed to be the final value of the company.

6.5 Valuation Case study – Unlisted food tech company

We apply the methodologies discussed to arrive at a fair value for an unlisted food tech company named, say, Foodie.

6.5.1 Foodie's business model

Any valuation exercise entails a detailed understanding of the company's business model. The key elements of Foodie's business model are as listed below.

Food delivery business

- Foodie is a technology platform which allows customers to order food via its app.
- It passes on the orders to its restaurant partners, and gets the food collected and delivered by its delivery partners i.e. riders.
- It charges 15% of the order value as commission from restaurants (i.e. "take rate").
- It further chargers customers a delivery charge.
- It pays a delivery fee to its riders.

Non-food delivery business

- Foodie has recently forayed into delivery of select grocery items ("convenience grocery").
- The dynamics here similar to that of food delivery with the key exception that Foodie will hold inventory of the grocery items that it intends to deliver.

Others

- Foodie earns ad revenue on its app.

6.5.2 Key assumptions

Having understood the business model, the next step is to build in assumptions on key variables like – growth in orders, growth in average order value, contribution margin, and growth in fixed / discretionary costs such as employee, marketing and admin costs.

6.5.3 For DCF, choice of discount rate and continuing growth rate

Finally, for the DCF model, we need to choose an appropriate discount rate and continuing growth rate beyond explicit forecast period.

Based on all of the above, Foodie's DCF model will be as tabled in Exhibit 27, on page 27.

6.5.4 Comparable valuation based on PSG

The most appropriate domestic peer for Foodie is Zomato, which trades at PSG of 0.9x. Applying a 50% haircut for margin of safety, Foodie can be valued at PSG of 0.45x. Its FY22-25 Sales CAGR is 46%. Thus, Price/Sales works out to 21x (0.45 x 46). Applying this multiple to its FY22 Sales of INR 80 billion gives us a value of around INR 1.7 trillion (80 x 21).

6.5.5 Private equity valuation

Foodie recently concluded a private equity round of funding at INR 800 billion.

6.5.6 Final value – Average of 3 methodologies

The final value for Foodie works out to INR 1.15 trillion as tabled below.

Exhibit 26 **Foodie's final valuation**

Methodology	Value (INR billion)
DCF	955
Comparable PSG	1,700
Private equity valuation	800
AVERAGE OF ABOVE	**1,152**

Exhibit 27 **Foodie's DCF working snapshot**

INR bn	FY22	…	FY25	…	FY30	…	FY35
Order Vol - mn	645		1,572		5,540		13,967
Food Delivery	500		1,099		3,090		6,202
Non Food Delivery	145		473		2,450		7,764
Average Order Value - INR							
Food Delivery	400		437		507		587
Non Food Delivery	200		266		429		690
Gross merchandise Value	**229**		**606**		**2,616**		**9,004**
Food Delivery	200		480		1,565		3,643
Non Food Delivery	29		126		1,050		5,361
Revenue							
Food Delivery	**45**		**110**		**358**		**826**
Take rate 15%	30		72		235		547
Delivery Charges	15		38		124		279
Non Food Delivery	29		126		1,050		5,361
Ad revenue	6		16		55		140
Total Revenue	**80**		**252**		**1,464**		**6,326**
Contribution Margin							
Food Delivery	7%		20%		25%		25%
Non Food	-11%		5%		10%		10%
Total Contribution	**0**		**28**		**195**		**742**
Food Delivery	3		22		90		206
Non Food	-3		6		105		536
Indirect Costs	**20**		**35**		**70**		**127**
Employee Cost	8		13		27		48
Marketing Cost	5		10		20		37
Admin Cost	7		12		23		42
Operating Profit	**(20)**		**(7)**		**124**		**615**
OPM (%)	-25%		-3%		8%		10%
Other Income	4		6		7		28
PBT	(16)		(1)		132		643
Tax 25%					33		161
Post Tax Profit	**-16**		**-1**		**99**		**483**
Capex	1		3		15		63
Change in Working Capital	2		7		48		182
FCFF (Free Cash Flow to Firm)	**-22**		**-14**		**31**		**216**
Discount Factor @ 13%			0.7		0.4		0.2
NPV			**-10**		**11**		**44**
NPV of FCFF	134						
Continuing Value	**668**						
Total Firm Value	802						
Add: Cash	153						
Total Equity Value	**955**						
Continuing Growth rate	6%						

7. How to play Atoms to Bits

Focus on Digital Business Designs and their enablers

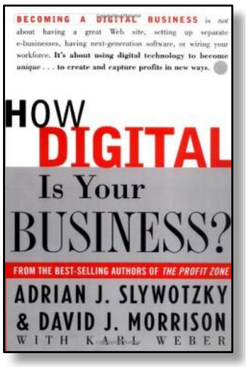
Using the Atoms and Bits framework, there are 3 types of businesses –

1. Purely physical ("Atoms")
2. Purely digital ("Bits") and
3. "Phygital" i.e. physical + digital (say, "At-Bits").

Phygital is the concept of using technology to bridge the digital world and the physical world, with the purpose of providing a unique interactive experience for the user i.e. customer, in the business context. Thus, buying a book from a bookstore is a purely physical experience. However, buying a book on Amazon is a phygital experience – besides getting a healthy discount over the retail price and home delivery, buyers can read book reviews and book extracts, and also see what other books people bought.

Likewise, having food at a restaurant is a purely physical experience. However, ordering food from Zomato or Swiggy is a phygital experience – from the comfort of your home, you can choose food from a variety of eateries, get user ratings, discounts, etc.

7.1 Investors should focus on Digital Business Designs



Whether a business is physical, digital or phygital, the key to success is a Digital Business Design. Michael Dell, founder of Dell Computer, has said, "If you take a business that is a bad business and put it online, it's still a bad business. It's just become an online bad business."

In their book, *How digital is your business?*, the authors write, "… you must remember that Digital Business Design is about business first, design second and digital third." They identify two determinants of Digital Business Design –

3. Quality of Business Design and
4. Degree of Digitization.

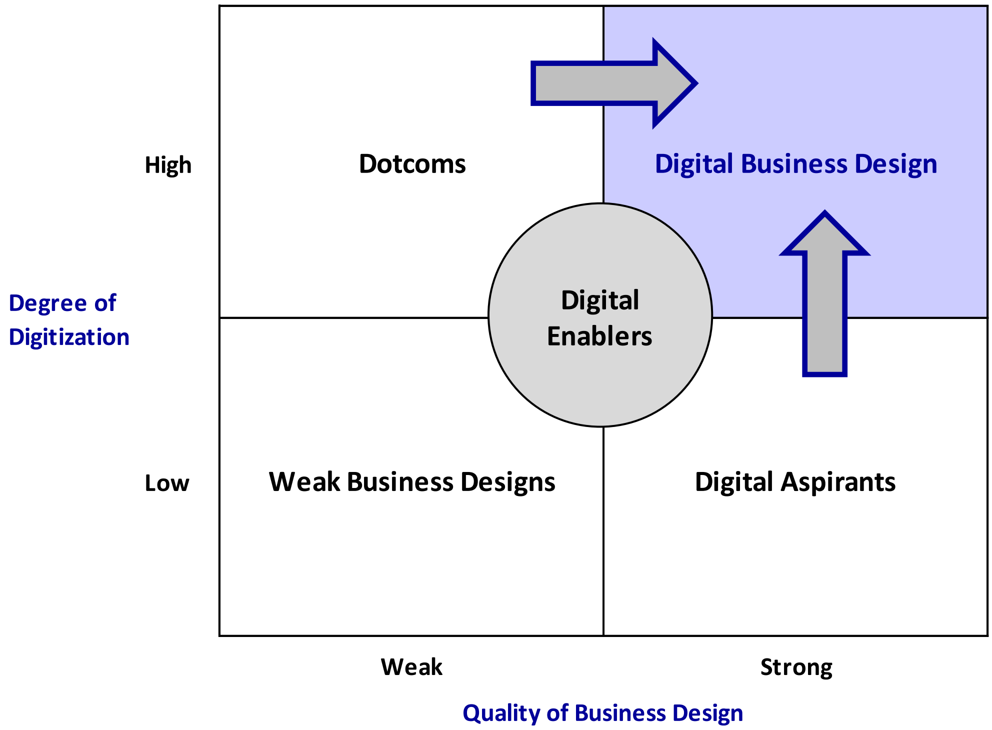
The matrix in Exhibit 28 offers a framework for how to play the Atoms to Bits theme. The challenge for investors is to identify –

4. Digital Business Designs i.e. Strong business design with high Degree of Digitization;
5. Digital Aspirants who are likely to attain Digital Business Design; and
6. Dotcoms who are likely to improve their Business Design.

7.2 Bet on digital enablers with great managements

A second way to play the Atoms to Bits theme is by investing in digital enablers (i.e. IT service providers), run by great managements. These companies will be catering to players in all the above four quadrants, and may well prove to be the biggest beneficiaries of Atoms to Bits.

Exhibit 28 **Framework to play Atoms to Bits – Look for Digital Business Designs and Digital Enablers**



8. Bits companies – Risks & challenges

Survival bias, Hype factor, Criticality of contribution

The growth opportunity that Bits companies present is exciting. However, it is also important to bear in mind the risks and challenges involved. The main ones are – (1) Survival bias, (2) Hype factor, and (3) Criticality of contribution.

8.1 Survival bias

Survival bias is a framework from behavioral finance. It is the logical error of concentrating on people or things that made it past some selection process and overlooking those that did not, typically because of their lack of visibility.

In the context of Bits companies, survival bias is the tendency for failed companies to be excluded from performance studies because they no longer exist. Thus, all studies of Bits companies tend to be centered on the Amazons, the Googles, and the Facebooks of the world. In reality, there may be scores of companies which started off along the same lines, only to go out of business now. Some of these names include Lycos, AltaVista, Orkut and Webvan.

The key takeaway from Survival bias – it's extremely important that the Bits company one invests in survives over the long-term, in which case, it's likely to benefit from "winner-takes-all/most" phenomenon. As is said, "To finish first, you need to first finish."

8.2 Hype factor

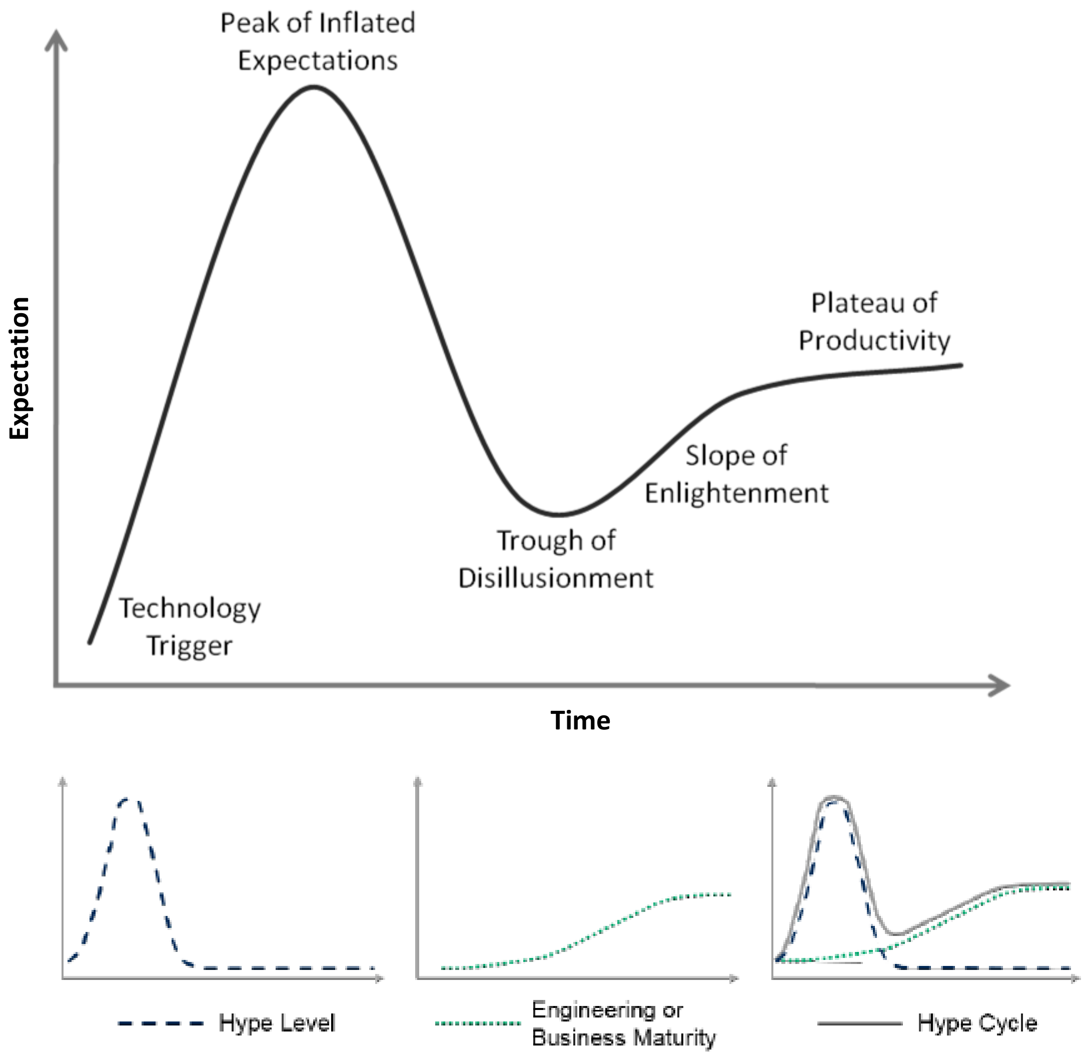
If the number of times recent digital companies' IPOs have got oversubscribed (Exhibit 29) is any indication, there are early signs of hype.

Exhibit 29 **Oversubscriptions to recent Bits IPOs suggest some level of hype**

Company	Issue size (INR bn)	No. of times oversubscribed	Listing date	Issue price (INR)	Listing day close (INR)	Gain over issue price
Nykaa	54	**82**	Nov 10, 2021	1,125	2,207	96%
Zomato	94	**38**	Jul 23, 2021	76	126	66%
Car Trade	30	**20**	Aug 20, 2021	1,618	1,500	-7%
Policybazaar	56	**17**	Nov 15, 2021	980	1,203	23%
Fino Payments Bank	12	**2**	Nov 12, 2021	577	545	-6%
Paytm	183	**2**	Nov 18, 2021	2,150	1,564	-27%

Here, Gartner's Hype Curve framework is worth understanding (Exhibit 30). Although created for technology, it can be adapted for investing as well.

Exhibit 30 **Gartner's Hype Curve**



The digital hype is at two levels – (1) at the business capability of the companies, and even more so (2) in their valuations. There is a risk of hitting the Trough of Disillusionment, at least in some companies where the business model is not very solid, and the path to profit is unclear.

8.3 Criticality of contribution

Hyper growth of Bits companies is defendable only so long as unit economics is favorable. The bottomline of unit economics is Contribution i.e. revenue minus all variable costs. When Contribution is positive, every unit sold contributes to cover the high fixed costs. As things stand, the company management is the main source for unit contribution data. Any misstatement of expenses could have serious repercussion for the company's profitability, and hence, stock prices.

9. Conclusions

- Value migration from Atoms to Bits is inevitable.
- Replicability, friction-free delivery and near-zero marginal cost make Bits companies highly scalable.
- Successful hyper growth is possible only if there is large opportunity, terrific product-market fit, wide distribution, network effects and favorable unit economics.
- Current accounting standards fail to fully communicate intrinsic profitability – and hence value – of Bits companies.
- India is at the cusp of harnessing digital potential.
- Buy into sure winners in digital, successful digital transformers and classical Indian IT companies.

2016-21 Wealth Creation Study: Detailed findings

#1 Trend in Wealth Creation

INR 71 trillion Wealth Created during 2016-21

- Over the 5-year period 2016-21 (ended March), the top 100 Wealth Creating companies created wealth of INR 71 trillion.
- This is by far the highest ever Wealth Created in the last 26 5-year periods.
- The pace of Wealth Creation is also robust at 24% CAGR vis-à-vis 14% for the BSE Sensex.

Exhibit 1 **2016-21 Wealth Created at INR 71 trillion is the highest ever by far**

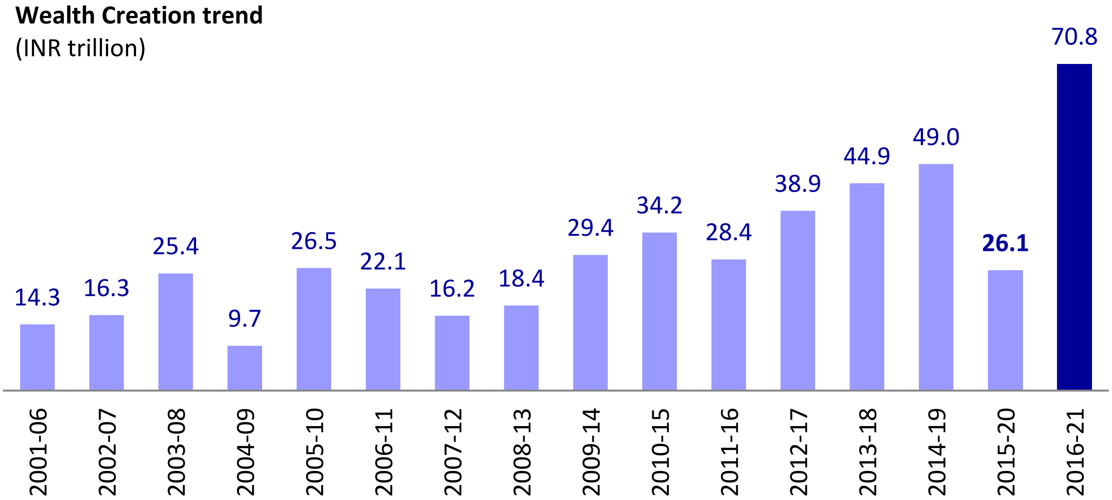
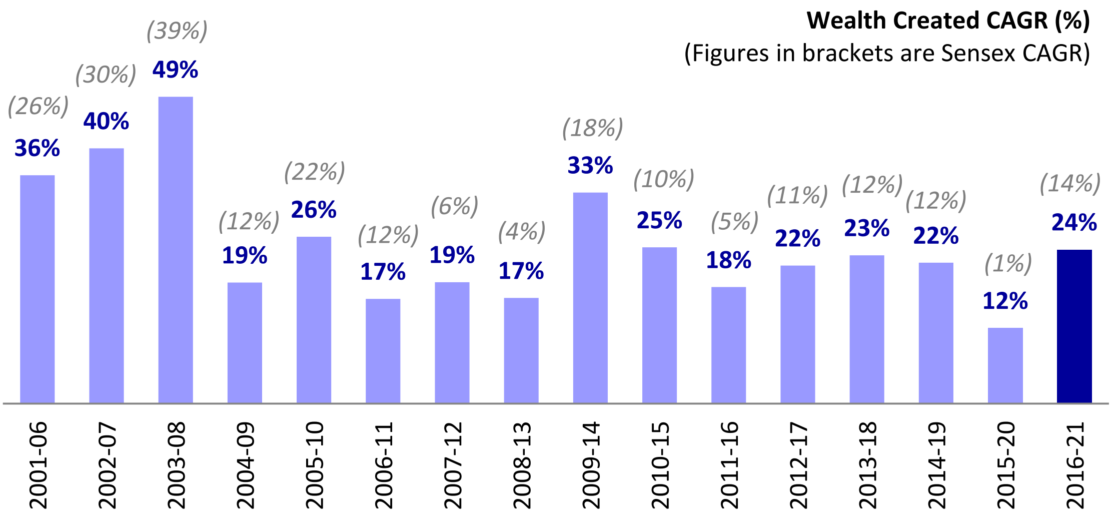


Exhibit 2 **2016-21 pace of Wealth Creation is a robust 24% CAGR vis-à-vis benchmark's 14% CAGR**



Key Takeaway

Forget markets, think stocks

For the past 7 successive study periods, market benchmark indices have delivered muted returns ranging from 5% to 14%. Still, the top Wealth Creators have maintained their track record of 10-15% outperformance over the benchmark. This reinforces our pet take on market timing, "Forget markets, think stocks."

#2 The Biggest Wealth Creators

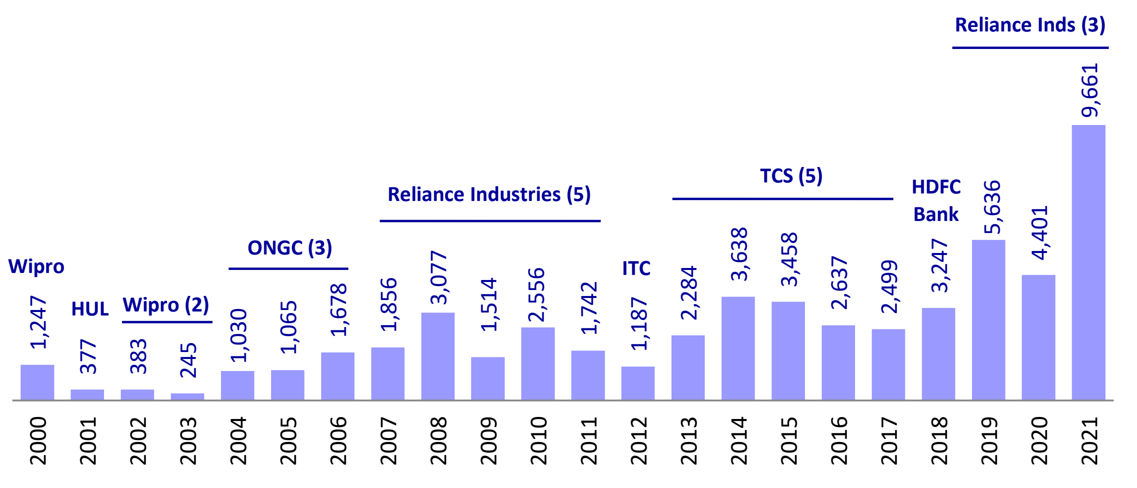
Reliance smashes all records to emerge as largest Wealth Creator

- Over 2016-21, **Reliance industries** emerged the largest Wealth Creator for the third time in succession, with total Wealth Created of a whopping INR 9.7 trillion.
- This is by far the highest ever, beating its own previous record of INR 5.6 trillion in 2014-19.
- For the third year in a row, **TCS**, **HDFC Bank** and **Hindustan Unilever** remain in the race for the second-to-fourth spot.
- Five of the top 10 Wealth Creators are from the Financials sector

Exhibit 3 **Top 10 Biggest Wealth Creators (2016-21)**

Rank	Company	Wealth Created		CAGR (%)		P/E (x)		RoE (%)	
		INR bn	% share	Price	PAT	2021	2016	2021	2016
1	Reliance Inds	9,661	13.6	31	8	30	11	6	13
2	TCS	7,294	10.3	20	7	35	21	39	34
3	HDFC Bank	5,182	7.3	23	20	26	21	15	17
4	Hind. Unilever	3,427	4.8	23	14	70	45	17	64
5	Infosys	3,257	4.6	18	7	30	21	28	22
6	Bajaj Finance	2,592	3.7	49	28	70	29	12	17
7	ICICI Bank	2,475	3.5	22	13	22	14	12	11
8	HDFC	2,422	3.4	18	13	24	17	12	20
9	Kotak Mahindra	2,081	2.9	21	24	35	36	12	10
10	HCL Tech	1,613	2.3	19	15	24	21	18	20
Total of Top 10		**40,003**	**56**	**24**	**12**	**31**	**19**	**12**	**18**
Total of Top 100		**70,815**	**100**	**25**	**18**	**32**	**24**	**13**	**12**

Exhibit 4 **Reliance Industries has emerged the Biggest Wealth Creator for the eighth time overall**



Key Takeaway

The power of the phygital

Reliance's re-emergence as the Biggest Wealth Creator reflects the power of phygital – physical plus digital. Its oil-to-chemicals and retail businesses are strongly rooted in the physical whereas the telecom business is the digital dimension. Going forward, expect more and more phygital and digital companies to spearhead Wealth Creation.

#3 The Fastest Wealth Creators

Adani Transmission emerges the Fastest Wealth Creator

- Over 2016-21, **Adani Transmission** has emerged the Fastest Wealth Creator with price CAGR of 93%.
- Another Adani group company – **Adani Enterprises** – ranks the third Fastest Wealth Creator.
- INR 1 million invested equally in 2016 among the top 10 fastest Wealth Creators would have grown to INR 17 million in 2021; return CAGR of 77% v/s just 14% for the Sensex.
- In almost all cases, there is significant P/E re-rating over and above robust earnings growth.

Exhibit 5 **Top 10 Fastest Wealth Creators (2016-21)**

Rank	Company	Price Appn. (x)	Price CAGR %	PAT CAGR %	Mkt Cap (INR bn) 2021	Mkt Cap (INR bn) 2016	P/E (x) 2021	P/E (x) 2016
1	Adani Transmission	26	93	27	999	38	82	10
2	Deepak Nitrite	24	90	65	226	8	29	12
3	Adani Enterprises	22	86	1	1,134	81	103	8
4	Tanla Platforms	21	85	108	111	4	31	42
5	Ruchi Soya Inds	20	81	L to P	190	11	28	–
6	Alkyl Amines	18	79	43	116	6	39	13
7	Vaibhav Global	12	64	48	125	10	46	27
8	APL Apollo Tubes	11	60	25	175	16	49	13
9	P&G Health	10	57	27	103	11	58	20
10	Escorts	9	56	57	174	17	20	19

Exhibit 6 **History of Fastest Wealth Creators**

Year	Company	5-yr Price Multiple (x)	5-yr Price CAGR %
1996	Dr Reddy's Labs	30	97
1997	Cipla	7	48
1998	Satyam Computers	23	87
1999	Satyam Computers	75	137
2000	SSI	223	195
2001	Infosys	66	131
2002	Wipro	69	133
2003	e-Serve	50	119
2004	Matrix Labs	75	137
2005	Matrix Labs	136	167
2006	Matrix Labs	182	183
2007	B F Utilities	665	267
2008	Unitech	837	284
2009	Unitech	54	122
2010	Unitech	28	95
2011	Sanwaria Agro	50	119
2012	TTK Prestige	24	89
2013	TTK Prestige	28	95
2014	Eicher Motors	27	94
2015	Ajanta Pharma	50	119
2016	Ajanta Pharma	53	121
2017	Ajanta Pharma	29	96
2018	Indiabulls Ventures	30	97
2019	Indiabulls Ventures	18	78
2020	Tasty Bite Eatables	15	72
2021	Adani Transmission	26	93

Key Takeaway

Small for speed

Eight out of top 10 Fastest Wealth Creators had a market cap below INR 20 billion in 2016. Further, most of them were reasonably valued then, especially relative to their growth prospects. Thus, the data confirms the obvious – for high Wealth Creation, pick small-to-mid companies with robust earnings growth prospects trading at reasonable valuations. As all our 26 studies show, such stocks are available in all market conditions.

#4 The Most Consistent Wealth Creators

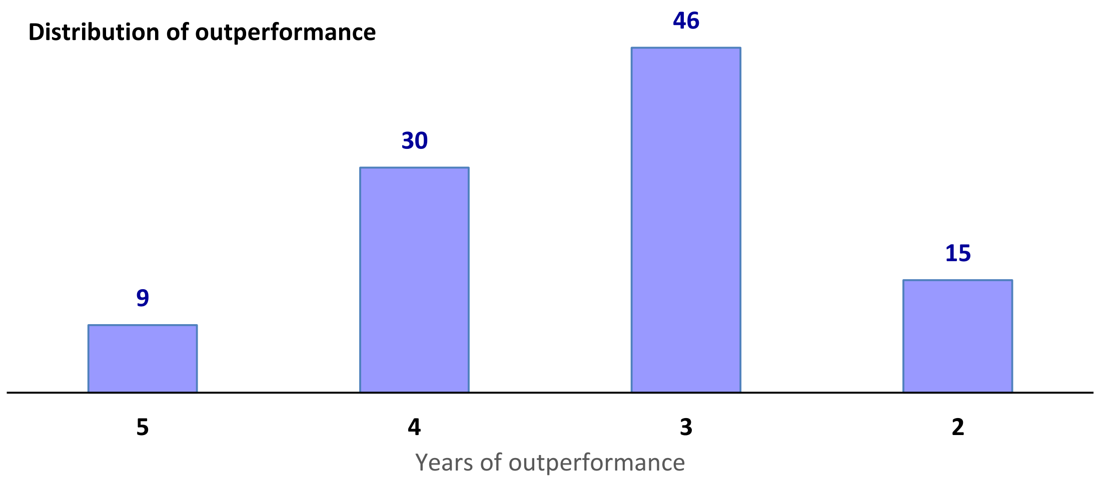
Adani Enterprises is the Most Consistent Wealth Creator

- We define Consistent Wealth Creators based on the number of years the stock has out-performed in each of the last 5 years. Where the number of years is the same, the stock price CAGR decides the rank.
- Based on this, over 2016-21, **Adani Enterprises** has emerged as the Most Consistent Wealth Creator. It has outperformed in all the last 5 years, and has the highest price CAGR of 86%.
- Like in the case of Fastest Wealth Creators, the list here too is dominated by mid and small caps. Given this, a surprise entry is **Reliance Industries**.
- Consistent Wealth Creation is a challenge – only 9 out of 100 have outperformed in each of the last 5 years.

Exhibit 7 **Top 10 Most Consistent Wealth Creators (2016-21)**

Rank	Company Name	No. of years of outperformance	2016-21 Price CAGR (%)	2016-21 PAT CAGR (%)	RoE (%) 2021	RoE (%) 2016	P/E (x) 2021	P/E (x) 2016
1	Adani Enterprises	5	86	1	6	8	103	8
2	Alkyl Amines	5	79	43	37	24	39	13
3	P & G Health	5	57	27	25	9	58	20
4	Vinati Organics	5	48	15	17	24	53	15
5	Astral	5	45	32	21	14	81	50
6	Honeywell Auto	5	41	27	18	14	91	54
7	Aarti Industries	5	40	15	15	23	44	17
8	SRF	5	33	23	17	15	27	18
9	Reliance Industries	5	31	8	6	13	30	11
10	Adani Transmission	4	93	27	14	14	82	10

Exhibit 8 **Consistent Wealth Creation is a challenge – only 9 out of 100 have outperformed in each of the 5 years**



Key Takeaway

Investors' nirvana – Speed with Consistency

One key characteristic of mid- and small cap stocks is high volatility of returns. Such stocks may outperform over 5 years, but in the interim, they may cause investors quite a few anxious moments. This is where consistency comes in. Investors' nirvana is in identifying stocks which not only outperform point-to-point but in the interim as well.

#5 All-round Wealth Creators

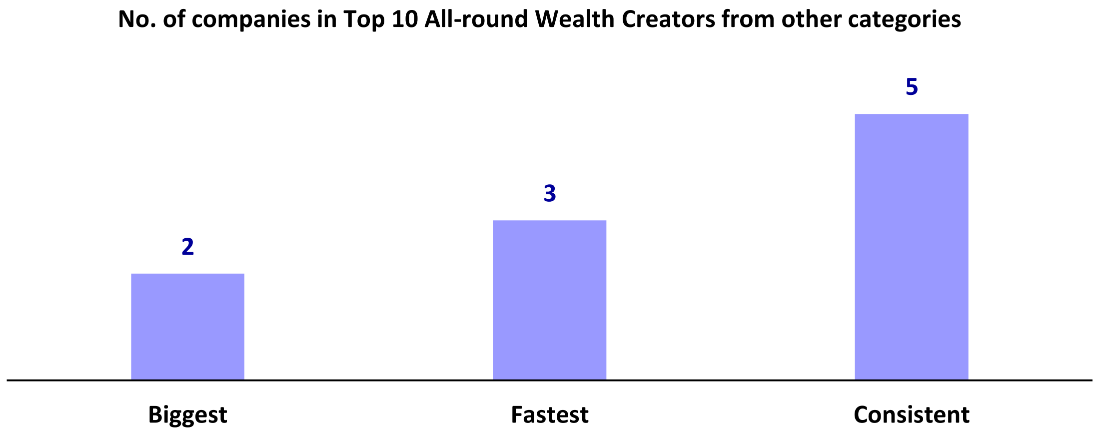
Adani Enterprises is the Best All-round Wealth Creator

- We define All-round Wealth Creators based on the summation of ranks, under each of the 3 categories – Biggest, Fastest and Consistent. Where the scores are tied, the stock price CAGR decides the All-round rank.
- Based on the above criteria, **Adani Enterprises** has emerged as the Best All-round Wealth Creator, followed by group company **Adani Transmission**.
- As tabled below, 7 out of 10 top All-round Wealth Creators are within the top 10 of at least one criteria – Biggest, Fastest or Most Consistent. Given this, it's a credible performance by **Bajaj Finserv**, **Muthoot Finance** and **Info Edge** to appear in the list without being within the top 10 in any of the 3 categories.

Exhibit 9 **Top 10 All-round Wealth Creators (2016-21)**

All-round		Rank			Total of	2016-21
Rank	Company	Biggest	Fastest	Consistent	Ranks	Price CAGR (%)
1	Adani Enterprises	16	3	1	20	86
2	Adani Transmission	17	1	10	28	93
3	Bajaj Finance	6	13	17	36	49
4	Bajaj Finserv	12	20	20	52	42
5	Reliance Industries	1	45	9	55	31
6	Muthoot Finance	33	15	18	66	47
7	Astral	44	17	5	66	45
8	Honeywell Auto	38	22	6	66	41
9	Deepak Nitrite	56	2	11	69	90
10	Info Edge (India)	31	21	21	73	41

Exhibit 10 **Consistency is the clincher for All-round Wealth Creation**



Key Takeaway

Consistency is the clincher for All-round Wealth Creation

Five out of top 10 All-round Wealth Creators are also among the top 10 Consistent Wealth Creators. Thus, Consistency is the clincher for All-round Wealth Creation. This is so as consistency influences the speed of Wealth Creation ("Fastest"), which in turn, influences the absolute Wealth Creation ("Biggest").

#6 Wealth Creators Index (Wealthex) v/s BSE Sensex

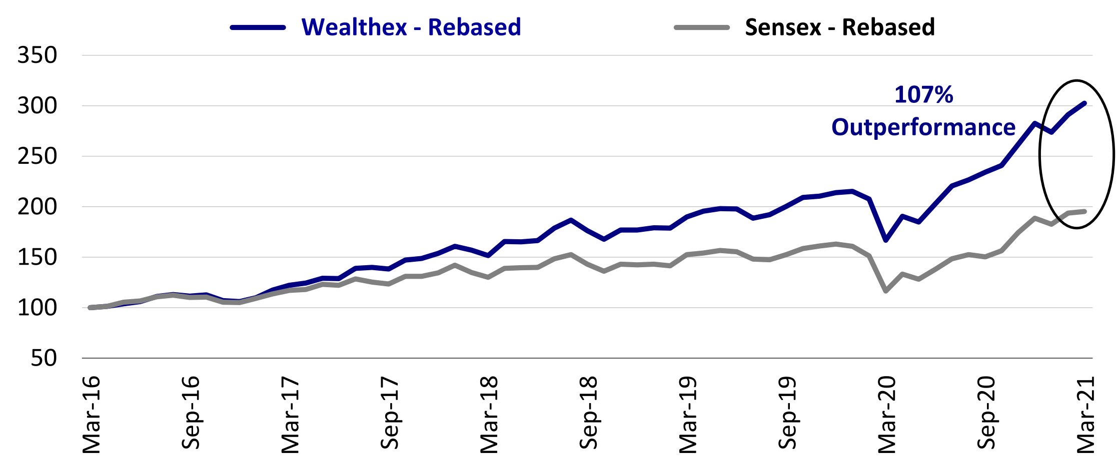
We compare Wealthex (top 100 Wealth Creators Market Cap index) with the BSE Sensex on 3 parameters - (1) market performance, (2) earnings growth and (3) valuation.

- **Market performance:** Over 2016-21, Wealth Creating companies have delivered return CAGR of 25% v/s 14% for the BSE Sensex. March 2021 over March 2016, Wealthex is up 203% whereas the Sensex is up 96% i.e. 107% outperformance over 5 years.
- **Earnings growth:** Wealthex clocked FY16-21 earnings CAGR of 18% v/s 5% for BSE Sensex. Further, YoY earnings growth for Wealthex is higher in each of the 5 years 2016 through 2021.
- **Valuation:** Valuation re-rating has contributed 9% to Sensex CAGR of 14%. In contrast, much of Wealthex's 25% CAGR is led by 18% earnings CAGR.

Exhibit 11 **Wealthex v/s Sensex: Outperformance led by earnings growth**

	Mar-16	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21	5 Year CAGR (%)
BSE Sensex	25,342	29,621	32,969	38,673	29,468	49,509	**14**
YoY (%)		17	11	17	-24	68	
Wealthex - based to Sensex	**25,342**	**30,968**	**38,413**	**48,115**	**42,266**	**76,711**	**25**
YoY (%)		22	24	25	-12	81	
Sensex EPS (INR)	1,342	1,359	1,354	1,488	1,513	1,701	**5**
YoY (%)		1	0	10	2	12	
Wealthex EPS (INR)	**1,053**	**1,308**	**1,537**	**1,845**	**1,982**	**2,391**	**18**
YoY (%)		24	18	20	7	21	
Sensex PE (x)	19	22	24	26	19	29	**9**
Wealthex PE (x)	**24**	**24**	**25**	**26**	**21**	**32**	**6**

Exhibit 12 **Wealthex invariably outperforms benchmark indices handsomely**



Key Takeaway

Sensex a weak earnings machine

In the last 4 studies including this one, Sensex earnings growth has been in single digits. In the markets, broadly G = R i.e. growth in earnings = return on the stock. Given this, a portfolio of stocks with even a slightly superior earnings profile vis-à-vis the Sensex should consistently outperform it.

#7 Wealth Creation: Sector analysis

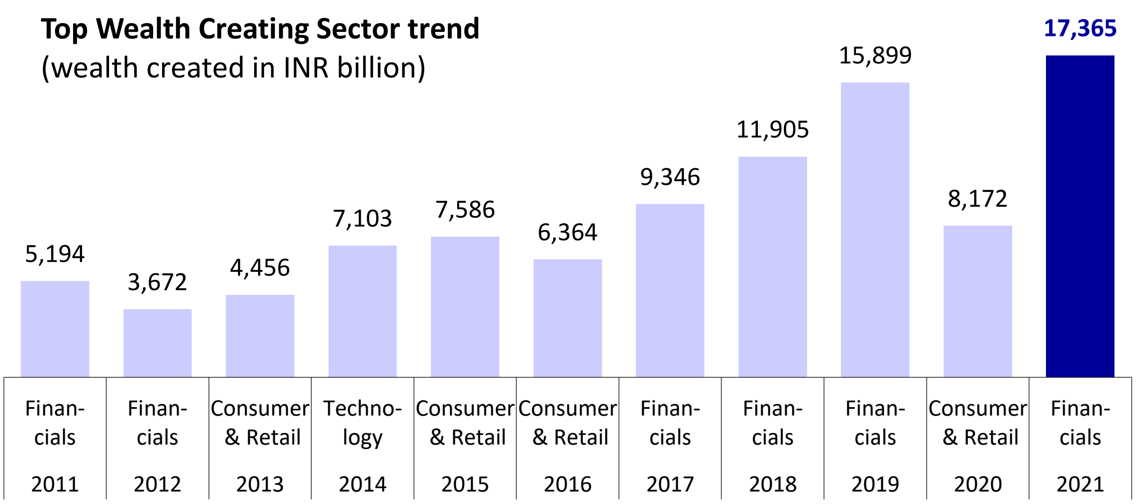
Financials sector regains its top spot in Wealth Creation

- The **Financials** sector has regained its top spot in Wealth Creation, after briefly losing it in the previous study period to Consumer & Retail.
- The sector has also gained significant share of Wealth Creation – almost 25% of total Wealth Created v/s 18% five years ago.
- The highest share gain is by the **Oil & Gas** sector led by Reliance Industries.
- Two big losers in terms of share of Wealth Creation are **Autos** and **Pharma**.

Exhibit 13 **Financials is the top Wealth Creating sector**

Sector	WC	Share of WC %		CAGR 16-21 (%)		P/E (x)		RoE (%)	
(No of companies)	(INR bn)	2021	2016	Price	PAT	2021	2016	2021	2016
Financials (12)	17,365	24.5	17.6	26	18	27	19	13	15
Technology (11)	15,192	21.5	17.4	18	8	31	20	26	24
Consumer & Retail (22)	12,541	17.7	22.4	26	16	75	50	19	22
Oil & Gas (3)	10,242	14.5	2.4	31	9	30	12	6	13
Metals / Mining (6)	2,711	3.8	1.0	30	-219	12	-7	13	-9
Pharma & related (10)	2,379	3.4	13.0	26	16	47	32	17	15
Cement (5)	2,226	3.1	4.5	19	17	32	29	10	10
Chem. & Fert. (12)	2,028	2.9	–	33	21	30	18	14	15
Utilities (2)	1,157	1.6	0.7	54	22	53	17	11	9
Auto (5)	856	1.2	14.4	32	3	30	9	13	26
Realty (3)	732	1.0	–	30	13	78	38	3	3
Others (9)	3,387	4.8	6.6	32	59	64	162	16	2
Total	**70,815**	**100.0**	**100.0**	**25**	**18**	**32**	**24**	**13**	**12**

Exhibit 14 **Highest ever Wealth Created by any sector**



Key Takeaway

Technology sector the only potential contender for the top spot next year

Led by rapid digitization, the Technology sector is bagging huge orders from overseas clients, leading to high growth visibility. Stock prices have responded handsomely. Thus, it is the only sector which may potentially challenge the dominance of the Financials sector in the next Wealth Creation Study period, 2017-2022.

#8 Wealth Creation: Ownership – Private v/s PSU

Worst ever performance by PSUs

- PSUs' (public sector undertakings) Wealth Creation performance during 2016-21 was the worst ever:
  - The number of PSUs in the top 100 Wealth Creators is only 2.
  - Wealth Created by these 2 PSUs is less than 1% of total.
- The only 2 Wealth Creating PSUs are **Gujarat Gas** and **Indraprastha Gas**.

Exhibit 15 **PSUs remain insignificant in Wealth Creation**

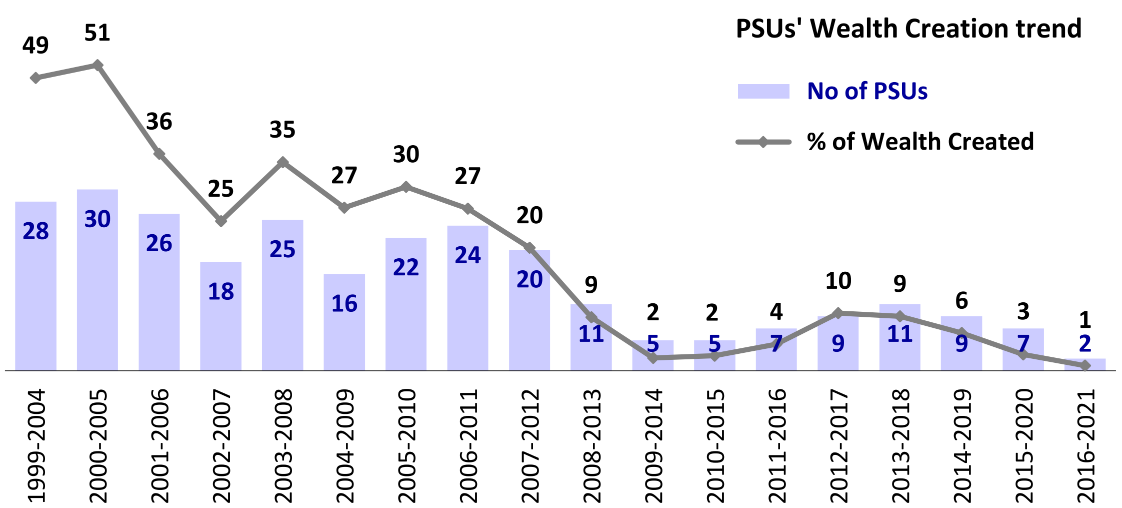


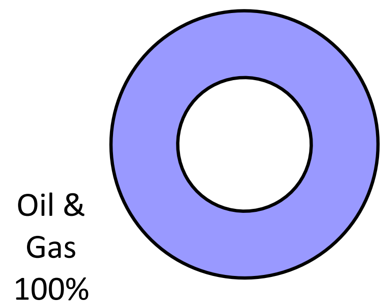
Exhibit 16

Handsome performance by the Wealth Creators Gujarat Gas & Indraprastha Gas

	2016-2021	
	PSU	Private
No. of Wealth Creators in Top 100	2	98
Share of Wealth Created (%)	0.8	99.2
5-year Sales CAGR (%)	9	10
5-year PAT CAGR (%)	29	18
5-year Price CAGR (%)	37	25
P/E - 2016 (x)	23	24
P/E - 2021 (x)	30	32
RoE - 2016 (%)	17	12
RoE - 2021 (%)	23	13

Exhibit 17

Oil & Gas the only Wealth Creating sector



Key Takeaway

Privatization – the pressing need of the hour

The above data make it amply clear why the oft-quoted words hold true – "The government has no business to be in business." Following the Air India model, the government is better off privatizing as many PSUs as it can. This has a dual positive – (1) The divested companies are likely to become more efficient, and equally important, (2) The resources raised from such privatization can be used for socio-economic development.

#9 Wealth Creation: Market Cap Rank Analysis

We call large, mid and small cap stocks as **Mega**, **Mid** and **Mini**, respectively, defined as under:

- **Mega** – Top 100 stocks by market cap rank for any given year
- **Mid** – Next 150 stocks by market cap rank
- **Mini** – All stocks below the top 250 ranks.

Market cap ranks of companies change constantly. Over time, companies also cross over from one category to another. For the period 2016-21, the market cap ranks crossover matrix stands as under –

Exhibit 18 **2016-21: Market cap rank crossovers: Number of companies and average returns**

TO \ FROM	Mini	Mid	Mega
Mega	**1** *(1)*	**34%** *(12)*	12% *(74)*
Mid	**46%** *(20)*	16% *(77)*	**0%** *(25)*
Mini	2% *(2,659)*	**-10%** *(61)*	**-21%** *(1)*
Total stocks	*2,680*	*150*	*100*

How to read the table

- In 2016, there were 2,680 Mini companies (i.e. ranked beyond 250). Of these, 1 moved to the Mega category by 2021, clocking 5-year return CAGR of 93%. 20 Minis moved to Mid category by 2021, delivering a return CAGR of 46% in the process. Next, 2,659 Mini companies stayed as Mini and delivered return CAGR of 2%.
- Of the 150 Mid companies in 2016, 12 moved to Mega by 2021, delivering an average 34% return CAGR in the process. 77 Mid companies stayed as Mid (16% return CAGR) and 61 slipped to the Mini category (-10% return CAGR).
- Finally, of the 100 Mega companies in 2016, 74 stayed as Mega (12% return CAGR), 25 slipped to Mid (0% return CAGR), and 1 slipped to the Mini category (-21% return CAGR).
- Note: During the 2016-21 period, benchmark return was 14%.

We specifically analyze the 3 positive crossovers –

1. Mini-to-Mega
2. Mini-to-Mid and
3. Mid-to-Mega.

8.1 Mini-to-Mega: 1 company, 93% CAGR

- During 2016-21, 1 company – Adani Transmission – moved from Mini to Mega.
- Needless to add, it is the Fastest Wealth Creator in this Study with a price CAGR of 93%.

Exhibit 19 **Mini-to-Mega (2016-21): 1 company (Adani Transmission), this Study's Fastest Wealth Creator**

	Mkt Cap Rank		WC Rank *		Price	PAT	P/E	
Company	**Mar-21**	**Mar-16**	**Biggest**	**Fastest**	**CAGR**	**CAGR**	**2021**	**2016**
Adani Transmission	38	280	17	1	**93%**	27%	82	10

* 2016-21 Wealth Creation Rank

8.2 Mini-to-Mid: 20 companies, 46% average Price CAGR

- During 2016-21, 20 companies crossed over from Mini to Mid category, generating an average return CAGR of 46%.
- Of these 20 Mini-to-Mid stocks, as high as 16 feature in our list of top 100 Wealth Creators, delivering average return CAGR of 53% v/s 14% for the Sensex

Exhibit 20 **Mini-to-Mid (2016-21): 16 of 20 Mini-to-Mid stocks feature among top 100 Wealth Creators**

	Mkt Cap Rank		WC Rank *		Price	PAT	P/E (x)	
Company	**2021**	**2016**	**Biggest**	**Fastest**	**CAGR**	**CAGR**	**2021**	**2016**
Deepak Nitrite	168	633	56	2	**90%**	65%	29	12
Ruchi Soya Inds.	192	551	66	5	**81%**	L to P	28	–
Alkyl Amines	245	691	92	6	**79%**	43%	39	13
Vaibhav Global	240	563	89	7	**64%**	48%	46	27
APL Apollo Tubes	200	457	76	8	**60%**	25%	49	13
Escorts	202	439	79	10	**56%**	57%	20	19
Minda Industries	216	453	85	11	**52%**	14%	72	15
Navin Fluorine	228	447	88	12	**52%**	25%	55	20
Vinati Organics	223	410	87	14	**48%**	15%	53	15
Linde India	212	373	84	16	**46%**	53%	102	128
Coforge	199	325	77	18	**43%**	12%	38	11
Aarti Industries	166	261	65	24	**40%**	15%	44	17
Relaxo Footwear	174	259	70	28	**37%**	19%	76	37
Sundram Fasten.	205	289	83	31	**36%**	12%	47	18
Atul	178	254	74	34	**36%**	18%	33	17
Manappuram Fin.	236	334	99	40	**34%**	37%	7	8
AVERAGE					**53%**			

* 2016-21 Wealth Creation Rank

8.3 Mid-to-Mega: 12 companies, 34% average Price CAGR

- During 2016-21, 12 companies crossed over from Mid to Mega.
- Of these, 10 made it to this year's list of 100 Biggest Wealth Creators.
- The Mid-to-Mega Wealth Creators delivered average return CAGR of 43% over 2016-21 v/s 14% for Sensex.

Exhibit 21 **Mid-to-Mega (2016-21): 10 companies feature among top 100 Wealth Creators**

	Mkt Cap Rank		WC Rank *		Price	PAT	P/E (x)	
Company	**2021**	**2016**	**Biggest**	**Fastest**	**CAGR**	**CAGR**	**2021**	**2016**
Adani Enterprises	30	176	16	3	**86%**	1%	103	8
Muthoot Finance	80	193	33	15	**47%**	36%	13	9
Info Edge	74	158	31	21	**41%**	-5%	477	61
Honeywell Auto	86	183	38	22	**41%**	27%	91	54
Tata Consumer	72	184	32	25	**39%**	L to P	68	-275
Biocon	79	154	35	26	**38%**	16%	67	28
Godrej Properties	95	206	46	29	**37%**	P to L	-177	40
Jubilant Food	97	170	41	35	**36%**	19%	162	85
Berger Paints	55	102	24	38	**34%**	15%	104	47
Cholaman.Inv.&Fn	82	139	39	44	**31%**	21%	30	19
AVERAGE					**53%**			

* 2016-21 Wealth Creation Rank

Key Takeaway

Mid-to-Mega is a potent investment strategy

Every year, our analysis of market cap crossovers lead to the same findings –

- Companies leap-frogging from Mini to Mega is very rare.
- A fair number of companies move from Mini to Mid and deliver supernormal returns. However, they need to be identified from a large base of about 500 companies.
- The most potent and focused hunting ground for high-performing stocks is the Mid category i.e. 150 stocks with market cap rank 101 to 250.
- Over the next five years, 12-15 of these stocks (8-10% strike rate) will cross over to the Mega category and deliver handsome returns in the process.

#10 Wealth Creation: Valuation parameters analysis

Payback ratio < 1 offers distinctly superior returns

- Every Wealth Creation Study invariably suggests that Payback Ratio < 1x is the most reliable valuation metric for supernormal returns.
  (Payback is a proprietary ratio of Motilal Oswal, defined as current market cap divided by estimated profits over the next five years. For 2016, we calculate this ratio based on market cap as on 31-Mar-2016 divided by the actual profits reported over the next five years).

Exhibit 22 **Payback ratio less than 1x remains a sure shot formula for multi-baggers**

Range	No. of	WC	% Share	CAGR (%)		RoE (%)	
in 2016	Cos.	(INR b)	of WC	Price	PAT	2021	2016
P/E							
<10	12	4,376	6	35	L to P	12	-7
10-15	10	15,359	22	32	10	8	12
15-20	21	9,002	13	21	13	14	16
20-25	12	19,255	27	20	12	21	23
25-30	5	3,469	5	45	23	12	14
>30	40	19,353	27	25	17	15	15
Total	**100**	**70,815**	**100**	**25**	**18**	**13**	**12**
Price / Book							
<1	9	3,531	5	36	L to P	10	-11
1-2	19	18,060	26	31	L to P	8	12
2-3	13	3,690	5	20	8	17	19
3-4	20	14,503	20	23	17	14	16
4-5	7	8,329	12	22	12	21	21
5-6	4	948	1	24	-8	4	12
>6	27	21,561	30	23	10	27	31
Others	1	194	0	23	125	N.M.	-6
Total	**100**	**70,815**	**100**	**25**	**18**	**13**	**12**
Price / Sales							
<1	20	5,757	8	33	L to P	13	-7
1-2	23	16,451	23	32	13	8	13
2-3	19	8,648	12	23	11	13	12
3-4	14	8,043	11	22	15	14	18
4-5	5	15,962	23	20	11	23	24
> 5	19	15,955	23	26	15	15	20
Total	**100**	**70,815**	**100**	**25**	**18**	**13**	**12**
Payback ratio							
< 1	13	3,420	5	40	L to P	10	-2
1-2	27	22,449	32	31	24	9	8
2-3	22	25,586	36	20	12	18	18
> 3	38	19,360	27	25	17	16	17
Total	**100**	**70,815**	**100**	**25**	**18**	**13**	**12**

PEG < 1x is also a solid formula for superior returns

- For the purposes of this section, PEG (P/E to Growth ratio) is obtained by dividing trailing 12-month P/E by future 5-year earnings CAGR.
- We have used perfect foresight of 5 years' earnings to calculate PEG. Thus, if a stock's P/E in 2016 was 20x, and its 2016-21 PAT CAGR is 25%, its 2016 PEG works out to 0.8x (20 ÷ 25).
- Clearly, lower the PEG, higher the likely return.
- Stocks with PEG less than 1x tend to significantly outperform the market.
- As tabled below, the story was no different for the 2016-21 Wealth Creators. PEG < 0.5x outperformed across all valuation metrics. Even stocks with PEG 0.5-1x delivered higher than average return.

Exhibit 23 **PEG less than 1x is a solid formula for high returns**

PEG Range in 2016 (x)	No. of Cos.	WC (INR b)	% Share of WC	CAGR (%) Price	CAGR (%) PAT	RoE (%) 2021	RoE (%) 2016
<0.5	7	2,043	3	67	39	22	13
0.5-1	15	4,767	7	33	24	15	13
1-2	33	33,551	47	26	14	10	14
2-3	11	13,267	19	19	8	26	23
3	19	13,015	18	23	9	19	22
Others	15	4,171	6	30	L to P	10	-10
Total	**100**	**70,815**	**100**	**25**	**18**	**13**	**12**

Note: PEG here is calculated as P/E of March 2016 divided by 2016-21 PAT CAGR
"Others" are cases where PAT CAGR cannot be calculated e.g. turnarounds

#11 Those who missed the Wealth Creators' list

The big who didn't beat the market

- During 2016-21, the Sensex return CAGR was 14.3%.
- 21 companies created enough wealth to qualify among the 100 biggest Wealth Creators, but failed to make it to the final list as their stock return CAGR was lower than that of the Sensex. (Exhibit 24)
- They made way for 21 others to join the list (Exhibit 25).

Exhibit 24 **Those who missed the list ...**

2016-21	WC * (INR b)	Price CAGR (%)	Potential Size Rank **
Torrent Pharm	203	13.7	76
Colgate-Palm.	199	13.5	79
St Bk of India	1,409	13.4	12
Interglobe Avn.	288	13.4	50
Maruti Suzuki	949	13.0	20
SAIL	148	12.9	99
L&T	854	11.8	23
Motherson	260	11.2	58
Marico	218	11.2	71
Siemens	265	10.9	56
Bharti Airtel	1,008	9.9	18
Cipla	244	9.7	61
Godrej Cons.	276	9.6	52
Axis Bank	731	9.4	25
Power Grid	400	9.2	39
Bajaj Auto	366	8.8	43
Dr Reddy's Labs	263	8.3	57
Hindustan Zinc	377	8.3	42
B P C L	218	7.3	72
Eicher Motors	190	6.3	83
M & M	235	5.6	66

Exhibit 25 **... and those who made it**

2016-21	WC * (INR b)	Price CAGR (%)	Size Rank
The Ramco Cement	143	20	80
Sundaram Finance	142	17	81
Syngene Intl.	140	23	82
Sundram Fasteners	132	36	83
Linde India	131	46	84
Minda Industries	126	52	85
Pfizer	125	20	86
Vinati Organics	124	48	87
Navin Fluorine	119	52	88
Vaibhav Global	117	64	89
Bata India	115	23	90
Oberoi Realty	112	19	91
Alkyl Amines	110	79	92
Tata Elxsi	109	23	93
Tanla Platforms	106	85	94
Hatsun Agro	106	20	95
AIA Engineering	105	17	96
Alok Industries	101	35	97
Tata Chemicals	96	36	98
Manappuram Fin.	95	34	99
P&G Health	92	57	100

* - Wealth Created; ** Size rank had the stock outperformed the benchmark

The fast who didn't make it big

- The 100th biggest Wealth Creator (P&G Health) created Wealth of INR 92 billion.
- Nearly 130 more companies beat the 2016-21 benchmark return CAGR of 14% but did not make it to the list as they created absolute wealth less than INR 92 billion.
- Exhibit 26 lists the top 20 fastest among them.

Exhibit 26 **The fast who didn't make it big**

2016-21	Price CAGR (%)	Price Mult. (x)	WC (INR b)	2016-21	Price CAGR (%)	Price Mult. (x)	WC (INR b)
Borosil Renewables	71	14.5	20	Poly Medicure	42	5.8	62
HEG	60	10.5	58	Sudarshan Chem.	41	5.5	29
Balaji Amines	58	9.9	51	KEI Industries	40	5.3	34
Garware Tech Fibres	50	7.6	46	Bajaj Electricals	39	5.3	89
Suven Life Sciences	49	7.2	-14	FACT	39	5.2	57
Graphite India	48	7.2	86	Meghmani Organics	39	5.1	24
Gujarat Ambuja Exports	44	6.3	24	J B Chem & Pharma	38	5.0	79
Aarti Drugs	44	6.1	53	ITI	37	4.8	92
V-Mart Retail	43	5.9	42	Rain Industries	37	4.8	38
Radico Khaitan	42	5.9	62	Jindal Stainless Hisar	37	4.7	23

Note: In choosing companies, the condition is that base year 2016 market cap is at least INR 5 billion

#12 Wealth Destruction: Companies & Sectors

Financials – both, the top Wealth Creating and the top Wealth Destroying sector

- The total Wealth Destroyed during 2016-21 is INR 11 trillion, 15% of the total Wealth Created by top 100 companies. This is sharply below the previous Covid-hit study period 2015-20.
- Five of the top 10 Wealth Destroying companies are PSUs.
- Financials sector is both the top Wealth Creating and top Wealth Destroying sector. The former is thanks to the private sector banks and NBFCs, and the latter mainly to public sector banks.

Exhibit 27 **Wealth destroyed is sharply below the previous Covid-hit study period 2015-20**

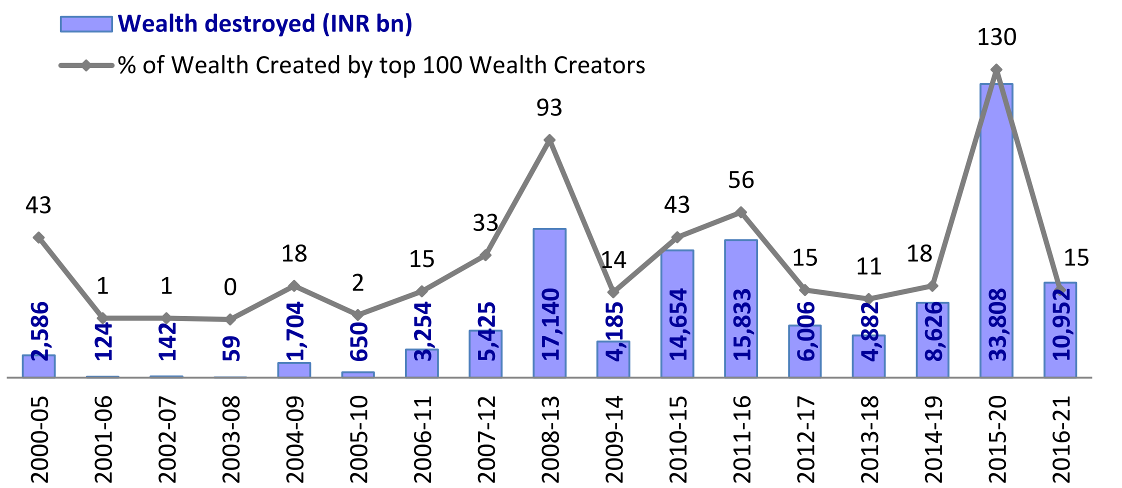


Exhibit 28
5 of top 10 Wealth Destroyers are PSUs

Company	Wealth Destroyed		Price
	INR bn	% Share	CAGR (%)
Vodafone Idea	1,362	12	-33
Coal India	994	9	-15
Sun Pharma	532	5	-6
ONGC	512	5	-7
Yes Bank	292	3	-38
Bank of Baroda	278	3	-13
Central Bank	212	2	10
Lupin	207	2	-26
IDBI Bank	202	2	-7
Indus Towers	201	2	-11
Total of Above	**4,790**	**44**	
Total Wealth Destroyed	**10,952**	**100**	

Exhibit 29
Financials top both Wealth Creation and Wealth Destruction

Sector	Wealth Destroyed (INR bn)	% Share
Financials	2,239	20
Telecom	1,822	17
Metals / Mining	1,049	10
Pharma / Healthcare	1,033	9
Capital Goods	727	7
Oil & Gas	672	6
Media	599	5
Auto	447	4
Constn. / Real Estate	382	3
Others	1,982	18
Total	**10,952**	**100**

Appendices

Appendix 1: The 100 Biggest Wealth Creators (2016-2021)

		Wealth Created		CAGR (2016-21, %)		Mkt Cap (INR bn)		ROE (%)		P/E (x)	
Rank	Company	INR b	Share (%)	Price	PAT	2021	2016	2021	2016	2021	2016
1	Reliance Industries	9,661	13.6	31	8	13,160	3,387	6	13	30	11
2	TCS	7,294	10.3	20	7	11,754	4,958	39	34	35	21
3	HDFC Bank	5,182	7.3	23	20	8,234	2,708	15	17	26	21
4	Hind. Unilever	3,427	4.8	23	14	5,711	1,882	17	64	70	45
5	Infosys	3,257	4.6	18	7	5,828	2,798	28	22	30	21
6	Bajaj Finance	2,592	3.7	49	28	3,103	373	12	17	70	29
7	ICICI Bank	2,475	3.5	22	13	4,020	1,375	12	11	22	14
8	HDFC	2,422	3.4	18	13	4,508	1,747	12	20	24	17
9	Kotak Mahindra	2,081	2.9	21	24	3,476	1,249	12	10	35	36
10	HCL Technologies	1,613	2.3	19	15	2,669	1,148	18	20	24	21
11	Asian Paints	1,600	2.3	24	13	2,433	833	24	27	78	48
12	Bajaj Finserv	1,267	1.8	42	19	1,539	271	12	14	34	15
13	Wipro	1,226	1.7	14	4	2,269	1,392	20	19	21	16
14	Nestle India	1,099	1.6	24	19	1,655	556	103	31	79	63
15	Titan Company	1,082	1.5	36	7	1,383	301	13	19	144	44
16	Adani Enterprises	1,053	1.5	86	1	1,134	81	6	8	103	8
17	Adani Transmission	961	1.4	93	27	999	38	14	14	82	10
18	Ultratech Cement	945	1.3	16	18	1,945	886	13	11	35	36
19	Adani Ports	934	1.3	23	12	1,428	513	16	21	29	18
20	JSW Steel	821	1.2	30	36	1,131	310	17	9	14	18
21	Divi's Labs	702	1.0	30	12	964	261	21	26	49	23
22	Pidilite Inds.	622	0.9	25	7	920	303	20	30	81	38
23	Shree Cement	607	0.9	19	15	1,063	433	15	17	47	38
24	Berger Paints	573	0.8	34	15	743	170	21	23	104	47
25	Britannia Inds.	551	0.8	22	18	874	321	53	40	47	39
26	Tata Steel	538	0.8	22	L to P	972	310	11	-5	12	-15
27	Hindalco Inds.	519	0.7	30	L to P	734	182	5	-1	22	-54
28	Dabur India	514	0.7	17	7	956	438	22	29	56	36
29	Tech Mahindra	510	0.7	16	8	960	460	18	20	22	15
30	Havells India	455	0.6	27	12	657	201	19	19	65	35
31	Info Edge	439	0.6	41	-5	551	93	2	10	477	61
32	Tata Consumer	417	0.6	39	L to P	588	76	6	0	68	N.M.
33	Muthoot Finance	410	0.6	47	36	484	71	24	14	13	9
34	Vedanta	400	0.6	21	L to P	850	267	19	-28	7	N.M.
35	Biocon	395	0.6	38	16	491	96	10	9	67	28
36	Grasim Inds.	360	0.5	18	16	956	359	7	8	22	17
37	DLF	360	0.5	20	28	711	204	3	1	61	61
38	Honeywell Auto	343	0.5	41	27	419	76	18	14	91	54
39	Cholaman.Inv.&Fn	335	0.5	31	21	458	111	16	16	30	19
40	Gujarat Gas	303	0.4	38	43	378	76	28	14	30	35
41	Jubilant Foodworks	301	0.4	36	19	384	84	17	13	162	85
42	Indraprastha Gas	278	0.4	35	20	358	80	18	18	31	17
43	Jindal Steel	275	0.4	42	L to P	351	55	15	-9	7	N.M.
44	Astral	273	0.4	45	32	325	50	21	14	81	50
45	Balkrishna Inds.	266	0.4	40	21	327	61	19	16	28	14
46	Godrej Properties	260	0.4	37	P to L	391	64	-3	9	N.M.	40
47	Mphasis	251	0.4	29	14	334	103	19	11	27	16
48	P I Industries	244	0.3	32	19	342	78	14	27	46	25
49	Voltas	240	0.3	29	10	331	92	11	12	63	28
50	SRF	238	0.3	33	23	320	75	17	15	27	18
		Wealth Created		CAGR (2016-21, %)		Mkt Cap (INR bn)		ROE (%)		P/E (x)	
Rank	Company	INR b	Share (%)	Price	PAT	2021	2016	2021	2016	2021	2016

Appendix 1: The 100 Biggest Wealth Creators (2016-2021) … continued

		Wealth Created		CAGR (2016-21, %)		Mkt Cap (INR bn)		ROE (%)		P/E (x)	
Rank	Company	INR b	Share (%)	Price	PAT	2021	2016	2021	2016	2021	2016
51	Mindtree	236	0.3	26	15	343	109	26	23	31	20
52	UPL	235	0.3	15	25	491	205	15	17	16	21
53	Apollo Hospitals	222	0.3	17	-13	417	184	2	7	372	81
54	3M India	219	0.3	23	-4	341	122	8	20	211	62
55	Abbott India	218	0.3	26	22	319	100	27	21	46	39
56	Deepak Nitrite	215	0.3	90	65	226	8	33	14	29	12
57	Trent	205	0.3	36	P to L	267	53	-6	3	N.M.	107
58	Bajaj Holdings	204	0.3	18	10	366	163	10	15	10	7
59	Page Industries	202	0.3	20	8	338	136	39	44	99	59
60	P & G Hygiene	201	0.3	15	9	404	204	91	26	62	48
61	Adani Power	195	0.3	20	18	328	116	10	7	26	21
62	Tata Comm	194	0.3	23	125	303	109	1101	-6	24	489
63	Whirlpool India	194	0.3	26	8	283	89	12	21	80	37
64	MRF	186	0.3	16	-12	349	163	10	34	27	7
65	Aarti Industries	180	0.3	40	15	229	43	15	23	44	17
66	Ruchi Soya Inds.	178	0.3	81	L to P	190	11	17	-52	28	N.M.
67	Kansai Nerolac	172	0.2	16	2	324	152	13	19	62	32
68	J K Cements	172	0.2	34	67	224	47	20	4	30	82
69	Coromandel Inter.	171	0.2	32	31	227	55	26	13	17	16
70	Relaxo Footwear	170	0.2	37	19	217	44	18	25	76	37
71	Alkem Labs	168	0.2	15	16	331	163	21	20	21	22
72	Ipca Labs	168	0.2	27	66	241	73	24	4	21	82
73	Supreme Inds.	165	0.2	23	34	259	94	31	17	27	42
74	Atul	164	0.2	36	18	209	46	17	17	33	17
75	Max Financial	161	0.2	20	11	297	92	13	13	70	36
76	APL Apollo Tubes	157	0.2	60	25	175	16	21	21	49	13
77	Coforge	150	0.2	43	12	177	30	19	17	38	11
78	Dr Lal Pathlabs	149	0.2	24	17	226	76	23	26	77	58
79	Escorts	146	0.2	56	57	174	17	17	6	20	19
80	The Ramco Cement	143	0.2	20	8	237	95	14	17	30	17
81	Sundaram Finance	142	0.2	17	15	287	145	15	14	25	25
82	Syngene Intl.	140	0.2	23	10	217	77	13	23	57	32
83	Sundram Fasteners	132	0.2	36	12	168	36	15	21	47	18
84	Linde India	131	0.2	46	53	154	23	7	1	102	128
85	Minda Industries	126	0.2	52	14	147	16	9	22	72	15
86	Pfizer	125	0.2	20	11	207	82	21	14	42	27
87	Vinati Organics	124	0.2	48	15	144	20	17	24	53	15
88	Navin Fluorine	119	0.2	52	25	136	17	15	13	55	20
89	Vaibhav Global	117	0.2	64	48	125	10	28	11	46	27
90	Bata India	115	0.2	23	P to L	181	65	-5	14	N.M.	39
91	Oberoi Realty	112	0.2	19	12	209	82	8	8	28	19
92	Alkyl Amines	110	0.2	79	43	116	6	37	24	39	13
93	Tata Elxsi	109	0.2	23	19	168	59	27	40	46	38
94	Tanla Platforms	106	0.2	85	108	111	4	40	1	31	42
95	Hatsun Agro	106	0.2	20	33	156	45	24	26	63	75
96	AIA Engineering	105	0.1	17	5	193	88	13	18	36	21
97	Alok Industries	101	0.1	35	L to L	100	6	16	-96	N.M.	N.M.
98	Tata Chemicals	96	0.1	36	-21	191	95	2	10	87	13
99	Manappuram Finance	95	0.1	34	37	126	29	24	13	7	8
100	P & G Health	92	0.1	57	27	103	11	25	9	58	20
	TOTAL / AVERAGE	**70,815**	**100**	**25**	**18**	**1,08,320**	**35,784**	**13**	**12**	**32**	**24**
		Wealth Created		CAGR (2016-21, %)		Mkt Cap (INR bn)		ROE (%)		P/E (x)	
Rank	Company	INR b	Share (%)	Price	PAT	2021	2016	2021	2016	2021	2016

Note: L to P stands for Loss to Profit; P to L stands for Profit to Loss; L to L stands for Loss to Loss; N.M. stands for Not Meaningful

Appendix 2: The 100 Fastest Wealth Creators (2016-2021)

Rank	Company	2016-21 Price		CAGR 16-21 (%)		Wealth Created		RoE (%)		P/E (x)	
		CAGR (%)	Times (x)	PAT	Sales	INR b	Share (%)	2021	2016	2021	2016
1	Adani Transmission	93	26.5	27	35	961	1.4	14	14	82	10
2	Deepak Nitrite	90	24.5	65	26	215	0.3	33	14	29	12
3	Adani Enterprises	86	22.4	1	3	1,053	1.5	6	8	103	8
4	Tanla Platforms	85	21.5	108	40	106	0.2	40	1	31	42
5	Ruchi Soya Inds.	81	19.6	L to P	-12	178	0.3	17	-52	28	N.M.
6	Alkyl Amines	79	18.1	43	21	110	0.2	37	24	39	13
7	Vaibhav Global	64	12.0	48	15	117	0.2	28	11	46	27
8	APL Apollo Tubes	60	10.5	25	15	157	0.2	21	21	49	13
9	P & G Health	57	9.6	27	1	92	0.1	25	9	58	20
10	Escorts	56	9.3	57	15	146	0.2	17	6	20	19
11	Minda Industries	52	8.2	14	20	126	0.2	9	22	72	15
12	Navin Fluorine	52	8.1	25	12	119	0.2	15	13	55	20
13	Bajaj Finance	49	7.4	28	30	2,592	3.7	12	17	70	29
14	Vinati Organics	48	7.2	15	9	124	0.2	17	24	53	15
15	Muthoot Finance	47	6.8	36	18	410	0.6	24	14	13	9
16	Linde India	46	6.7	53	-1	131	0.2	7	1	102	128
17	Astral	45	6.4	32	14	273	0.4	21	14	81	50
18	Coforge	43	5.9	12	12	150	0.2	19	17	38	11
19	Jindal Steel	42	5.7	L to P	20	275	0.4	15	-9	7	N.M.
20	Bajaj Finserv	42	5.7	19	24	1,267	1.8	12	14	34	15
21	Info Edge	41	5.6	-5	8	439	0.6	2	10	477	61
22	Honeywell Auto	41	5.5	27	7	343	0.5	18	14	91	54
23	Balkrishna Inds.	40	5.4	21	12	266	0.4	19	16	28	14
24	Aarti Industries	40	5.3	15	8	180	0.3	15	23	44	17
25	Tata Consumer	39	5.3	L to P	12	417	0.6	6	0	68	N.M.
26	Biocon	38	5.1	16	16	395	0.6	10	9	67	28
27	Gujarat Gas	38	5.0	43	10	303	0.4	28	14	30	35
28	Relaxo Footwear	37	4.8	19	7	170	0.2	18	25	76	37
29	Godrej Properties	37	4.8	P to L	-18	260	0.4	-3	9	N.M.	40
30	Trent	36	4.7	P to L	9	205	0.3	-6	3	N.M.	107
31	Sundram Fasteners	36	4.7	12	2	132	0.2	15	21	47	18
32	Tata Chemicals	36	4.6	-21	-7	96	0.1	2	10	87	13
33	Titan Company	36	4.6	7	14	1,082	1.5	13	19	144	44
34	Atul	36	4.6	18	8	164	0.2	17	17	33	17
35	Jubilant Foodworks	36	4.6	19	6	301	0.4	17	13	162	85
36	Indraprastha Gas	35	4.5	20	6	278	0.4	18	18	31	17
37	Alok Industries	35	4.5	L to L	-22	101	0.1	16	-96	N.M.	N.M.
38	Berger Paints	34	4.4	15	10	573	0.8	21	23	104	47
39	J K Cements	34	4.3	67	9	172	0.2	20	4	30	82
40	Manappuram Fin.	34	4.3	37	22	95	0.1	24	13	7	8
41	SRF	33	4.1	23	13	238	0.3	17	15	27	18
42	Coromandel Inter.	32	4.1	31	4	171	0.2	26	13	17	16
43	P I Industries	32	4.0	19	17	244	0.3	14	27	46	25
44	Cholaman.Inv.&Fn	31	3.9	21	18	335	0.5	16	16	30	19
45	Reliance Industries	31	3.9	8	11	9,661	13.6	6	13	30	11
46	Hindalco Inds.	30	3.7	L to P	6	519	0.7	5	-1	22	N.M.
47	Divi's Labs	30	3.7	12	13	702	1.0	21	26	49	23
48	JSW Steel	30	3.7	36	14	821	1.2	17	9	14	18
49	Mphasis	29	3.6	14	10	251	0.4	19	11	27	16
50	Voltas	29	3.6	10	6	240	0.3	11	12	63	28
Rank	Company	2016-21 Price		CAGR 16-21 (%)		Wealth Created		RoE (%)		P/E (x)	
		CAGR (%)	Times (x)	PAT	Sales	INR bn	Share (%)	2021	2016	2021	2016

Appendix 2: The 100 Fastest Wealth Creators (2016-2021) … continued

Rank	Company	2016-21 Price		CAGR (16-21, %)		Wealth Created		RoE (%)		P/E (x)	
		CAGR (%)	Times (x)	PAT	Sales	INR bn	Share (%)	2021	2016	2021	2016
51	Ipca Labs	27	3.3	66	13	168	0.2	24	4	21	82
52	Havells India	27	3.3	12	7	455	0.6	19	19	65	35
53	Mindtree	26	3.2	15	11	236	0.3	26	23	31	20
54	Abbott India	26	3.2	22	11	218	0.3	27	21	46	39
55	Whirlpool India	26	3.2	8	12	194	0.3	12	21	80	37
56	Pidilite Inds.	25	3.1	7	6	622	0.9	20	30	81	38
57	Nestle India	24	3.0	19	10	1,099	1.6	103	31	79	63
58	Dr Lal Pathlabs	24	2.9	17	15	149	0.2	23	26	77	58
59	Asian Paints	24	2.9	13	6	1,600	2.3	24	27	78	48
60	Tata Elxsi	23	2.9	19	11	109	0.2	27	40	46	38
61	Adani Ports	23	2.8	12	12	934	1.3	16	21	29	18
62	Syngene Intl.	23	2.8	10	15	140	0.2	13	23	57	32
63	3M India	23	2.8	-4	4	219	0.3	8	20	211	62
64	Hind. Unilever	23	2.8	14	8	3,427	4.8	17	64	70	45
65	Tata Comm	23	2.8	125	-1	194	0.3	1101	-6	24	489
66	HDFC Bank	23	2.8	20	15	5,182	7.3	15	17	26	21
67	Bata India	23	2.8	P to L	-7	115	0.2	-5	14	N.M.	39
68	Supreme Inds.	23	2.8	34	17	165	0.2	31	17	27	42
69	Britannia Inds.	22	2.7	18	9	551	0.8	53	40	47	39
70	ICICI Bank	22	2.7	13	9	2,475	3.5	12	11	22	14
71	Tata Steel	22	2.7	L to P	9	538	0.8	11	-5	12	N.M.
72	Kotak Mahindra	21	2.6	24	10	2,081	2.9	12	10	35	36
73	Vedanta	21	2.5	L to P	6	400	0.6	19	-28	7	N.M.
74	Pfizer	20	2.5	11	2	125	0.2	21	14	42	27
75	TCS	20	2.5	7	9	7,294	10.3	39	34	35	21
76	Hatsun Agro	20	2.5	33	10	106	0.2	24	26	63	75
77	The Ramco Cement	20	2.5	8	8	143	0.2	14	17	30	17
78	DLF	20	2.5	28	-11	360	0.5	3	1	61	61
79	Page Industries	20	2.5	8	10	202	0.3	39	44	99	59
80	Max Financial	20	2.5	11	22	161	0.2	13	13	70	36
81	Adani Power	20	2.5	18	1	195	0.3	10	7	26	21
82	HCL Technologies	19	2.4	15	19	1,613	2.3	18	20	24	21
83	Oberoi Realty	19	2.4	12	8	112	0.2	8	8	28	19
84	Shree Cement	19	2.4	15	20	607	0.9	15	17	47	38
85	Grasim Inds.	18	2.3	16	15	360	0.5	7	8	22	17
86	HDFC	18	2.3	13	21	2,422	3.4	12	20	24	17
87	Bajaj Holdings	18	2.3	10	-1	204	0.3	10	15	10	7
88	Infosys	18	2.2	7	10	3,257	4.6	28	22	30	21
89	Sundaram Finance	17	2.2	15	1	142	0.2	15	14	25	25
90	Apollo Hospitals	17	2.2	-13	11	222	0.3	2	7	372	81
91	AIA Engineering	17	2.2	5	7	105	0.1	13	18	36	21
92	Dabur India	17	2.2	7	4	514	0.7	22	29	56	36
93	MRF	16	2.1	-12	-4	186	0.3	10	34	27	7
94	Kansai Nerolac	16	2.1	2	7	172	0.2	13	19	62	32
95	Ultratech Cement	16	2.1	18	12	945	1.3	13	11	35	36
96	Tech Mahindra	16	2.1	8	7	510	0.7	18	20	22	15
97	Alkem Labs.	15	2.0	16	12	168	0.2	21	20	21	22
98	UPL	15	2.0	25	22	235	0.3	15	17	16	21
99	P & G Hygiene	15	2.0	9	9	201	0.3	91	26	62	48
100	Wipro	14	2.0	4	4	1,226	1.7	20	19	21	16
	TOTAL / AVERAGE	**25**	**3.0**	**18**	**10**	**70,815**	**100**	**13**	**12**	**32**	**24**
Rank	Company	2016-21 Price		CAGR (16-21, %)		Wealth Created		RoE (%)		P/E (x)	
		CAGR (%)	Times (x)	PAT	Sales	INR b	Share (%)	2021	2016	2021	2016

Note: L to P stands for Loss to Profit; P to L stands for Profit to Loss; L to L stands for Loss to Loss; N.M. stands for Not Meaningful

Appendix 3: The 100 Consistent Wealth Creators (2016-2021)

Rank	Company Name	No. of years of outperformance	2016-21 Price CAGR (%)	2016-21 PAT CAGR (%)	Market Cap (INR bn) 2021	Market Cap (INR bn) 2016	RoE (%) 2021	RoE (%) 2016	P/E (x) 2021	P/E (x) 2016
1	Adani Enterprises	5	86	1	1,134	81	6	8	103	8
2	Alkyl Amines	5	79	43	116	6	37	24	39	13
3	P & G Health	5	57	27	103	11	25	9	58	20
4	Vinati Organics	5	48	15	144	20	17	24	53	15
5	Astral	5	45	32	325	50	21	14	81	50
6	Honeywell Auto	5	41	27	419	76	18	14	91	54
7	Aarti Industries	5	40	15	229	43	15	23	44	17
8	SRF	5	33	23	320	75	17	15	27	18
9	Reliance Industries	5	31	8	13,160	3,387	6	13	30	11
10	Adani Transmission	4	93	27	999	38	14	14	82	10
11	Deepak Nitrite	4	90	65	226	8	33	14	29	12
12	Tanla Platforms	4	85	108	111	4	40	1	31	42
13	Vaibhav Global	4	64	48	125	10	28	11	46	27
14	APL Apollo Tubes	4	60	25	175	16	21	21	49	13
15	Escorts	4	56	57	174	17	17	6	20	19
16	Navin Fluorine	4	52	25	136	17	15	13	55	20
17	Bajaj Finance	4	49	28	3,103	373	12	17	70	29
18	Muthoot Finance	4	47	36	484	71	24	14	13	9
19	Coforge	4	43	12	177	30	19	17	38	11
20	Bajaj Finserv	4	42	19	1,539	271	12	14	34	15
21	Info Edge	4	41	-5	551	93	2	10	477	61
22	Balkrishna Inds.	4	40	21	327	61	19	16	28	14
23	Tata Consumer	4	39	L to P	588	76	6	0	68	N.M.
24	Relaxo Footwear	4	37	19	217	44	18	25	76	37
25	Tata Chemicals	4	36	-21	191	95	2	10	87	13
26	Titan Company	4	36	7	1,383	301	13	19	144	44
27	Atul	4	36	18	209	46	17	17	33	17
28	Jubilant Foodworks	4	36	19	384	84	17	13	162	85
29	Divi’s Labs	4	30	12	964	261	21	26	49	23
30	Mindtree	4	26	15	343	109	26	23	31	20
31	Pidilite Inds.	4	25	7	920	303	20	30	81	38
32	Syngene Intl.	4	23	10	217	77	13	23	57	32
33	HDFC Bank	4	23	20	8,234	2,708	15	17	26	21
34	Britannia Inds.	4	22	18	874	321	53	40	47	39
35	ICICI Bank	4	22	13	4,020	1,375	12	11	22	14
36	Kotak Mahindra	4	21	24	3,476	1,249	12	10	35	36
37	TCS	4	20	7	11,754	4,958	39	34	35	21
38	Bajaj Holdings	4	18	10	366	163	10	15	10	7
39	Sundaram Finance	4	17	15	287	145	15	14	25	25
40	Minda Industries	3	52	14	147	16	9	22	72	15
41	Linde India	3	46	53	154	23	7	1	102	128
42	Jindal Steel	3	42	L to P	351	55	15	-9	7	N.M.
43	Biocon	3	38	16	491	96	10	9	67	28
44	Gujarat Gas	3	38	43	378	76	28	14	30	35
45	Godrej Properties	3	37	P to L	391	64	-3	9	N.M.	40
46	Trent	3	36	P to L	267	53	-6	3	N.M.	107
47	Sundram Fasteners	3	36	12	168	36	15	21	47	18
48	Indraprastha Gas	3	35	20	358	80	18	18	31	17
49	Alok Industries	3	35	L to L	100	6	16	-96	N.M.	N.M.
50	Berger Paints	3	34	15	743	170	21	23	104	47
		No. of years of	2016-21	2016-21	Market Cap (INR bn)		RoE (%)		P/E (x)	
Rank	Company Name	outperformance	Price CAGR (%)	PAT CAGR (%)	2021	2016	2021	2016	2021	2016

Appendix 3: The 100 Consistent Wealth Creators (2016-2021) … continued

		No. of years of	2016-21	2016-21	Market Cap (INR bn)		RoE (%)		P/E (x)	
Rank	Company Name	outperformance	Price CAGR (%)	PAT CAGR (%)	2021	2016	2021	2016	2021	2016
51	J K Cements	3	34	67	224	47	20	4	30	82
52	Coromandel Inter.	3	32	31	227	55	26	13	17	16
53	P I Industries	3	32	19	342	78	14	27	46	25
54	Cholaman.Inv.&Fn	3	31	21	458	111	16	16	30	19
55	JSW Steel	3	30	36	1,131	310	17	9	14	18
56	Mphasis	3	29	14	334	103	19	11	27	16
57	Voltas	3	29	10	331	92	11	12	63	28
58	Havells India	3	27	12	657	201	19	19	65	35
59	Abbott India	3	26	22	319	100	27	21	46	39
60	Whirlpool India	3	26	8	283	89	12	21	80	37
61	Nestle India	3	24	19	1,655	556	103	31	79	63
62	Dr Lal Pathlabs	3	24	17	226	76	23	26	77	58
63	Asian Paints	3	24	13	2,433	833	24	27	78	48
64	3M India	3	23	-4	341	122	8	20	211	62
65	Hind. Unilever	3	23	14	5,711	1,882	17	64	70	45
66	Bata India	3	23	P to L	181	65	-5	14	N.M.	39
67	Supreme Inds.	3	23	34	259	94	31	17	27	42
68	Tata Steel	3	22	L to P	972	310	11	-5	12	N.M.
69	Pfizer	3	20	11	207	82	21	14	42	27
70	DLF	3	20	28	711	204	3	1	61	61
71	Page Industries	3	20	8	338	136	39	44	99	59
72	Max Financial	3	20	11	297	92	13	13	70	36
73	Oberoi Realty	3	19	12	209	82	8	8	28	19
74	Grasim Inds.	3	18	16	956	359	7	8	22	17
75	HDFC	3	18	13	4,508	1,747	12	20	24	17
76	Infosys	3	18	7	5,828	2,798	28	22	30	21
77	AIA Engineering	3	17	5	193	88	13	18	36	21
78	Dabur India	3	17	7	956	438	22	29	56	36
79	MRF	3	16	-12	349	163	10	34	27	7
80	Kansai Nerolac	3	16	2	324	152	13	19	62	32
81	Ultratech Cement	3	16	18	1,945	886	13	11	35	36
82	Tech Mahindra	3	16	8	960	460	18	20	22	15
83	UPL	3	15	25	491	205	15	17	16	21
84	P & G Hygiene	3	15	9	404	204	91	26	62	48
85	Wipro	3	14	4	2,269	1,392	20	19	21	16
86	Ruchi Soya Inds.	2	81	L to P	190	11	17	-52	28	N.M.
87	Manappuram Fin.	2	34	37	126	29	24	13	7	8
88	Hindalco Inds.	2	30	L to P	734	182	5	-1	22	N.M.
89	Ipca Labs	2	27	66	241	73	24	4	21	82
90	Tata Elxsi	2	23	19	168	59	27	40	46	38
91	Adani Ports	2	23	12	1,428	513	16	21	29	18
92	Tata Comm	2	23	125	303	109	1,101	-6	24	489
93	Vedanta	2	21	L to P	850	267	19	-28	7	N.M.
94	Hatsun Agro	2	20	33	156	45	24	26	63	75
95	The Ramco Cement	2	20	8	237	95	14	17	30	17
96	Adani Power	2	20	18	328	116	10	7	26	21
97	HCL Technologies	2	19	15	2,669	1,148	18	20	24	21
98	Shree Cement	2	19	15	1,063	433	15	17	47	38
99	Apollo Hospitals	2	17	-13	417	184	2	7	372	81
100	Alkem Labs	2	15	16	331	163	21	20	21	22
		No. of years of	2016-21	2016-21	Market Cap (INR bn)		RoE (%)		P/E (x)	
Rank	Company Name	outperformance	Price CAGR (%)	PAT CAGR (%)	2021	2016	2021	2016	2021	2016

Note: L to P stands for Loss to Profit; P to L stands for Profit to Loss; L to L stands for Loss to Loss; N.M. stands for Not Meaningful

Appendix 4: The 100 All-round Wealth Creators (2016-2021)

All-round Rank	Company	Rank: Biggest	Rank: Fastest	Rank: Consistent	Total of Ranks	2016-21 Price CAGR (%)
1	Adani Enterprises	16	3	1	20	86
2	Adani Transmission	17	1	10	28	93
3	Bajaj Finance	6	13	17	36	49
4	Bajaj Finserv	12	20	20	52	42
5	Reliance Industries	1	45	9	55	31
6	Muthoot Finance	33	15	18	66	47
7	Astral	44	17	5	66	45
8	Honeywell Auto	38	22	6	66	41
9	Deepak Nitrite	56	2	11	69	90
10	Info Edge	31	21	21	73	41
11	Titan Company	15	33	26	74	36
12	Tata Consumer	32	25	23	80	39
13	Balkrishna Inds.	45	23	22	90	40
14	Aarti Industries	65	24	7	96	40
15	Divi's Labs	21	47	29	97	30
16	APL Apollo Tubes	76	8	14	98	60
17	SRF	50	41	8	99	33
18	Alkyl Amines	92	6	2	100	79
19	HDFC Bank	3	66	33	102	23
20	Escorts	79	10	15	104	56
21	Jindal Steel	43	19	42	104	42
22	Biocon	35	26	43	104	38
23	Jubilant Foodworks	41	35	28	104	36
24	Vinati Organics	87	14	4	105	48
25	Vaibhav Global	89	7	13	109	64
26	Pidilite Inds.	22	56	31	109	25
27	Tanla Platforms	94	4	12	110	85
28	Gujarat Gas	40	27	44	111	38
29	P & G Health	100	9	3	112	57
30	Berger Paints	24	38	50	112	34
31	ICICI Bank	7	70	35	112	22
32	Coforge	77	18	19	114	43
33	TCS	2	75	37	114	20
34	Navin Fluorine	88	12	16	116	52
35	Kotak Mahindra	9	72	36	117	21
36	Godrej Properties	46	29	45	120	37
37	Relaxo Footwear	70	28	24	122	37
38	JSW Steel	20	48	55	123	30
39	Indraprastha Gas	42	36	48	126	35
40	Britannia Inds.	25	69	34	128	22
41	Nestle India	14	57	61	132	24
42	Trent	57	30	46	133	36
43	Asian Paints	11	59	63	133	24
44	Hind. Unilever	4	64	65	133	23
45	Mindtree	51	53	30	134	26
46	Atul	74	34	27	135	36
47	Minda Industries	85	11	40	136	52
48	Cholaman.Inv.&Fn	39	44	54	137	31
49	Havells India	30	52	58	140	27
50	Linde India	84	16	41	141	46
All-round Rank	Company	Biggest	Fastest	Consistent	Total of Ranks	2016-21 Price CAGR (%)

Appendix 4: The 100 All-round Wealth Creators (2016-2021) ... continued

All-round Rank	Company	Rank: Biggest	Rank: Fastest	Rank: Consistent	Total of Ranks	2016-21 Price CAGR (%)
51	P I Industries	48	43	53	144	32
52	Mphasis	47	49	56	152	29
53	Tata Chemicals	98	32	25	155	36
54	Voltas	49	50	57	156	29
55	Ruchi Soya Inds.	66	5	86	157	81
56	J K Cements	68	39	51	158	34
57	Sundram Fasteners	83	31	47	161	36
58	Hindalco Inds.	27	46	88	161	30
59	Coromandel Inter	69	42	52	163	32
60	Tata Steel	26	71	68	165	22
61	Abbott India	55	54	59	168	26
62	HDFC	8	86	75	169	18
63	Infosys	5	88	76	169	18
64	Adani Ports	19	61	91	171	23
65	Syngene Intl.	82	62	32	176	23
66	Whirlpool India	63	55	60	178	26
67	3M India	54	63	64	181	23
68	Alok Industries	97	37	49	183	35
69	Bajaj Holdings	58	87	38	183	18
70	DLF	37	78	70	185	20
71	HCL Technologies	10	82	97	189	19
72	Ultratech Cement	18	95	81	194	16
73	Grasim Inds	36	85	74	195	18
74	Dr Lal Pathlabs	78	58	62	198	24
75	Dabur India	28	92	78	198	17
76	Wipro	13	100	85	198	14
77	Vedanta	34	73	93	200	21
78	Shree Cement	23	84	98	205	19
79	Tech Mahindra	29	96	82	207	16
80	Supreme Inds.	73	68	67	208	23
81	Page Industries	59	79	71	209	20
82	Sundaram Finance	81	89	39	209	17
83	Ipca Labs	72	51	89	212	27
84	Tata Comm	62	65	92	219	23
85	Bata India	90	67	66	223	23
86	Manappuram Fin.	99	40	87	226	34
87	Max Financial	75	80	72	227	20
88	Pfizer	86	74	69	229	20
89	UPL	52	98	83	233	15
90	MRF	64	93	79	236	16
91	Adani Power	61	81	96	238	20
92	Kansai Nerolac	67	94	80	241	16
93	Apollo Hospitals	53	90	99	242	17
94	Tata Elxsi	93	60	90	243	23
95	P & G Hygiene	60	99	84	243	15
96	Oberoi Realty	91	83	73	247	19
97	The Ramco Cement	80	77	95	252	20
98	AIA Engineering	96	91	77	264	17
99	Hatsun Agro	95	76	94	265	20
100	Alkem Labs	71	97	100	268	15
All-round Rank	Company	Rank: Biggest	Rank: Fastest	Rank: Consistent	Total of Ranks	2016-21 Price CAGR (%)

Appendix 5: The 100 Wealth Creators – Alphabetical order

	Wealth Creation Rank				Wealth Created	Price
Company	Biggest	Fastest	Consistent	All-round	INR bn	CAGR (%)
3M India	54	63	64	67	219	23
Aarti Industries	65	24	7	14	180	40
Abbott India	55	54	59	61	218	26
Adani Enterprises	16	3	1	1	1,053	86
Adani Ports	19	61	91	64	934	23
Adani Power	61	81	96	91	195	20
Adani Transmission	17	1	10	2	961	93
AIA Engineering	96	91	77	98	105	17
Alkem Labs	71	97	100	100	168	15
Alkyl Amines	92	6	2	18	110	79
Alok Industries	97	37	49	68	101	35
APL Apollo Tubes	76	8	14	16	157	60
Apollo Hospitals	53	90	99	93	222	17
Asian Paints	11	59	63	43	1,600	24
Astral	44	17	5	7	273	45
Atul	74	34	27	46	164	36
Bajaj Finance	6	13	17	3	2,592	49
Bajaj Finserv	12	20	20	4	1,267	42
Bajaj Holdings	58	87	38	69	204	18
Balkrishna Inds.	45	23	22	13	266	40
Bata India	90	67	66	85	115	23
Berger Paints	24	38	50	30	573	34
Biocon	35	26	43	22	395	38
Britannia Inds.	25	69	34	40	551	22
Cholaman.Inv.&Fn	39	44	54	48	335	31
Coforge	77	18	19	32	150	43
Coromandel Inter	69	42	52	59	171	32
Dabur India	28	92	78	75	514	17
Deepak Nitrite	56	2	11	9	215	90
Divi's Labs	21	47	29	15	702	30
DLF	37	78	70	70	360	20
Dr Lal Pathlabs	78	58	62	74	149	24
Escorts	79	10	15	20	146	56
Godrej Properties	46	29	45	36	260	37
Grasim Inds	36	85	74	73	360	18
Gujarat Gas	40	27	44	28	303	38
HDFC	8	86	75	62	2,422	18
Hatsun Agro	95	76	94	99	106	20
Havells India	30	52	58	49	455	27
HCL Technologies	10	82	97	71	1,613	19
HDFC Bank	3	66	33	19	5,182	23
Hind. Unilever	4	64	65	44	3,427	23
Hindalco Inds.	27	46	88	58	519	30
Honeywell Auto	38	22	6	8	343	41
ICICI Bank	7	70	35	31	2,475	22
Indraprastha Gas	42	36	48	39	278	35
Info Edge	31	21	21	10	439	41
Infosys	5	88	76	63	3,257	18
Ipca Labs	72	51	89	83	168	27
J K Cements	68	39	51	56	172	34
	Wealth Creation Rank				Wealth Created	Price
Company	Biggest	Fastest	Consistent	All-round	INR bn	CAGR (%)

Appendix 5: The 100 Wealth Creators – Alphabetical order … continued

	Wealth Creation Rank				Wealth Created	Price
Company	Biggest	Fastest	Consistent	All-round	INR bn	CAGR (%)
Jindal Steel	43	19	42	21	275	42
JSW Steel	20	48	55	38	821	30
Jubilant Foodworks	41	35	28	23	301	36
Kansai Nerolac	67	94	80	92	172	16
Kotak Mahindra	9	72	36	35	2,081	21
Linde India	84	16	41	50	131	46
Manappuram Finance	99	40	87	86	95	34
Max Financial	75	80	72	87	161	20
Minda Industries	85	11	40	47	126	52
Mindtree	51	53	30	45	236	26
Mphasis	47	49	56	52	251	29
MRF	64	93	79	90	186	16
Muthoot Finance	33	15	18	6	410	47
Navin Fluorine	88	12	16	34	119	52
Nestle India	14	57	61	41	1,099	24
Oberoi Realty	91	83	73	96	112	19
P & G Health	100	9	3	29	92	57
P & G Hygiene	60	99	84	95	201	15
P I Industries	48	43	53	51	244	32
Page Industries	59	79	71	81	202	20
Pfizer	86	74	69	88	125	20
Pidilite Inds.	22	56	31	26	622	25
Relaxo Footwear	70	28	24	37	170	37
Reliance Industries	1	45	9	5	9,661	31
Ruchi Soya Inds.	66	5	86	55	178	81
Shree Cement	23	84	98	78	607	19
SRF	50	41	8	17	238	33
Sundaram Finance	81	89	39	82	142	17
Sundram Fasteners	83	31	47	57	132	36
Supreme Inds.	73	68	67	80	165	23
Syngene Intl.	82	62	32	65	140	23
Tanla Platforms	94	4	12	27	106	85
Tata Chemicals	98	32	25	53	96	36
Tata Comm	62	65	92	84	194	23
Tata Consumer	32	25	23	12	417	39
Tata Elxsi	93	60	90	94	109	23
Tata Steel	26	71	68	60	538	22
TCS	2	75	37	33	7,294	20
Tech Mahindra	29	96	82	79	510	16
The Ramco Cement	80	77	95	97	143	20
Titan Company	15	33	26	11	1,082	36
Trent	57	30	46	42	205	36
Ultratech Cement	18	95	81	72	945	16
UPL	52	98	83	89	235	15
Vaibhav Global	89	7	13	25	117	64
Vedanta	34	73	93	77	400	21
Vinati Organics	87	14	4	24	124	48
Voltas	49	50	57	54	240	29
Whirlpool India	63	55	60	66	194	26
Wipro	13	100	85	76	1,226	14
	Wealth Creation Rank				Wealth Created	Price
Company	Biggest	Fastest	Consistent	All-round	INR bn	CAGR (%)

NOTES

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/Associate%20Details.pdf

Details of pending Enquiry Proceedings of Motilal Oswal Financial Services Limited are available on the website at https://galaxy.motilaloswal.com/ResearchAnalyst/PublishViewLitigation.aspx

MOFSL, it's associates, Research Analyst or their relative may have any financial interest in the subject company. MOFSL and/or its associates and/or Research Analyst may have actual/beneficial ownership of 1% or more securities in the subject company in the past 12 months. 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. Research Analyst may have served as director/officer, etc. in the subject company in the past 12 months. MOFSL and/or its associates may have received any compensation from the subject company in the past 12 months.

In the past 12 months , MOFSL or any of its associates may have:

a) managed or co-managed public offering of securities from subject company of this research report,
b) received compensation for investment banking or merchant banking or brokerage services from subject company of this research report,
c) received compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company of this research report.
d) Subject Company may have been a client of MOFSL or its associates in the past 12 months.

MOFSL and it's associates have not received any compensation or other benefits from the subject company or third party in connection with the research report. To enhance transparency, MOFSL has incorporated a Disclosure of Interest Statement in this document. This should, however, not be treated as endorsement of the views expressed in the 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. 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. 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.

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.

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.

Disclosure of Interest Statement	**Companies where there is interest**
Analyst ownership of the stock	No

A graph of daily closing prices of securities is available at www.nseindia.com, www.bseindia.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 Financial Services Limited(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:

Motilal 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. Any investment or investment activity to which this document relates is only available to major institutional investors and will be engaged in only with major institutional investors. In reliance on the exemption from registration provided 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.

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 Wealth Management Ltd. (MOWML): PMS (Registration No.: INP000004409) is offered through MOWML, which is a 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.

Motilal Oswal Wealth Creation Study Gallery