XTRAVAGATE

ARTIFICIAL
INTELLIGENCE

Goal
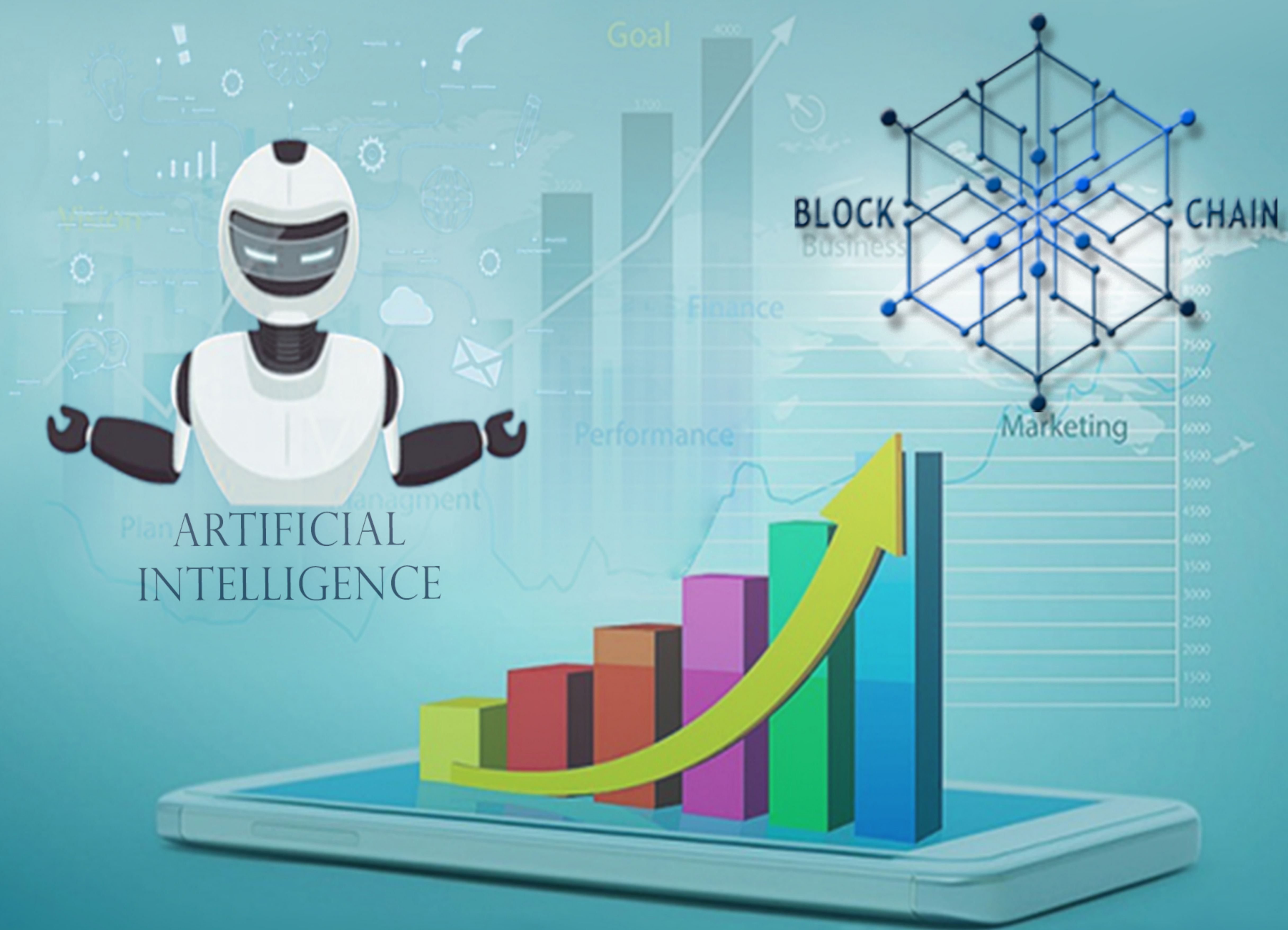
BLOCK   CHAIN
Business

Finance

Performance

Marketing

Emerging Trends
In Business World

Editor's Note

With the rapidly evolving changes in the world, there exists a need for the businesses to change in accordance with the economic uncertainties and dynamics of the markets.

This has led to the emergence of a lot of new trends in recent years. In this edition of Xtravagate, the focus mainly falls on the current trends of the business world with articles covering topics including – the impact of artificial intelligence, the blockchain, mindset and expectations of the gen Z., etc.

Apart from this, the edition includes a candid discussion with Mrs Mathangi Sri, our very own alumnus, now considered to be one of the best data scientists of the country.

Many thanks to the team and the authors who have helped in bringing together this edition. As always, suggestions and feedback are highly appreciated.

Srinidhi V
(*IInd Year, MBA*)

October

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DAO_ The Prodigy of Blockchain

It is understandable why this fad of long-termism in the blockchain circa 2009 was gaining momentum. Since the advent of blockchain, the colossal, and popular child of it a.k.a. the first cryptocurrency called Bitcoin took much of the fame and pushed the blockchain as a meagre support system for it, which is akin to defining electricity as something which helps run a television - which would be true but doesn't really define what electricity is. While the buzzword of the market seems to be artificial intelligence, blockchain has come across as the darkhorse.

Blockchain was an ingenious invention started around 2009 by a person or a group of persons going by the pseudonym, Satoshi Nakamoto. Since then, it has shown its capacity, albeit in glimpses, to be something as disruptive as the Internet, which was greeted with bafflement and scepticism as well but the rest we know is history. Built on the premise of being a public ledger, it is completely available online having multiple copies of it in a peer-to-peer computer network who crosscheck and regulate this ledger

In blockchain information is recorded in chronological order having digital timestamp over the piles of records called blocks, which makes it almost unhackable as each block has a hash code which is unique to it much like a fingerprint.

The blockchain is an open technology platform which makes it a hotbed for innovations, and DAO is one among them. DAO or Decentralised Autonomous Organisation, which is, in essence, an institutional technology, an organization that is run by rules that are created by its members through a consensus process, which are then written in form of contracts which are run by a computer code.
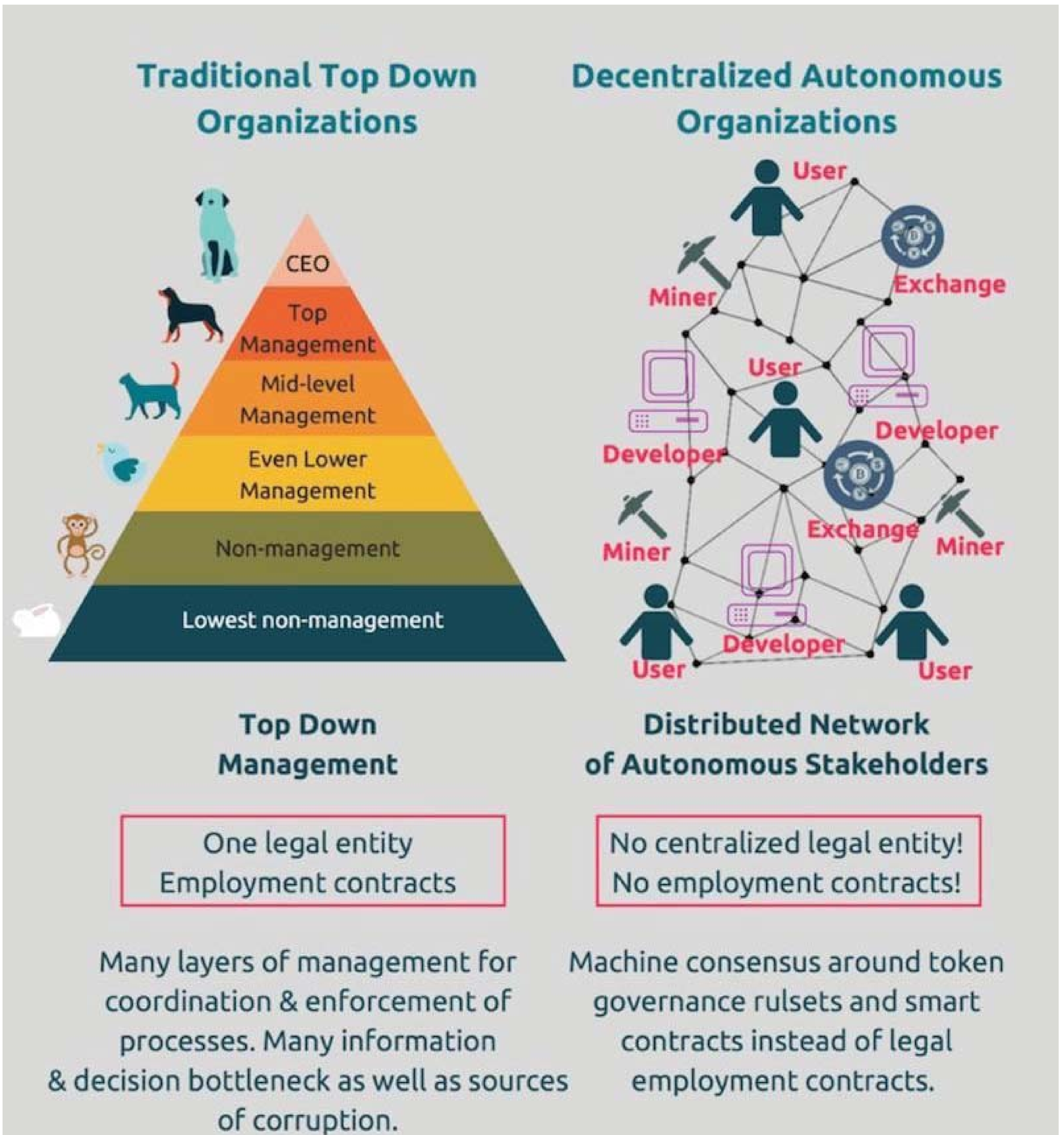
These contracts are what we call smart contracts which run on the blockchain, making DAO a distributed and automated organization which has never been seen before in the history of mankind. The most basic example of DAO is the cryptocurrencies like Bitcoin, Ethereum etc themselves but DAO's potential is bigger than that. The second skin of blockchain known as Smart contracts in DAO is what that keeps blockchain enthusiasts frothing in their mouth because of its uncountable practical applications, there are a handful of blockchains that support smart contracts and the biggest one is Ethereum, it was specifically created and designed to support smart contracts and have a specific language of for it called solidity.

One of the most lucrative advantages is that Smart contracts can cull out the middlemen, say there's an NGO called Friendicoes which is facing cash crunch so they opt for crowdfunding for which they will need a crowdfunding site called Bitgiving, which collects money from the crowd and collected funds are transferred to Friendicoes but all of this is based upon Third-party trust from both sides; Friendicoes expect the collected fund to be delivered to them by Bitgiving and crowd trusting the site to deliver the money to the NGO.

Traditional Top Down Organizations

CEO

Top Management

Mid-level Management

Even Lower Management

Non-management

Lowest non-management

Top Down Management

One legal entity
Employment contracts

Many layers of management for coordination & enforcement of processes. Many information & decision bottleneck as well as sources of corruption.

Decentralized Autonomous Organizations

User

Miner

Exchange

User

Developer

Developer

Exchange

Miner

Miner

User

Developer

User

Distributed Network of Autonomous Stakeholders

No centralized legal entity!
No employment contracts!

Machine consensus around token governance rulsets and smart contracts instead of legal employment contracts.

 Instead of this, we can program a smart contract which will hold the funds until the set target is reached, the supporters of the NGO can transfer the money to the smart contract. Once the target is reached the fund will automatically be transferred to Friendicoes and because smart contracts are based on the blockchain, everything is distributed ie no one has any control over the money and we can trust blockchain because of the immutability i.e. once the contract is made no one can alter the contract and the distributiveness i.e. the contract is validated by each member on the network making it impossible for a single person to force the contract.

Another example, although optimistic, where DAO can have wider implications is the human network itself. Imagine yourself going out to buy a used car, the dealer shows you a lot of options to choose from and you finalised one. You will make sure the details of the history of car is correct, you bargain for the price, take the money from your account, transfer the money, sign a lot of paperwork, wait for the money to clear up and the other formalities involved in it will take you around at least 2 days to get your hands on the car, but with blockchain, it can be down to a matter of hours if not minutes. With blockchain, we can use smart contract to make all of this possible in real-time. The car would already be registered on the blockchain, so there is no need for a history check. Just buy the car with the cryptocurrency that's attached with your bank account and all the ownership details will be executed in smart contract, making the ownership of the car attached to your digital identity on the blockchain, completing everything within minutes..

And if you question its feasibility, colour yourself surprise as already such DAO exist. The Reddit styled social media site called Steemit and Youtube style site called Dtube are based on blockchain and are completely decentralised. We are in ushering into a whole new web and things are only going to get better from here.

Aniket Sharma
*(I*st *Year, MBA)*

Impact of Elections on the Economy

An election period witnesses a slowdown in economic activity. Uncertainty is marked as a key variable that affects market indicators leading to a slowdown of the economy. First, we need to understand what economy and election are all about, and then we can easily come to know the impact of the elections on the economy.

"The wealth and resources of a country or region, especially in terms of the production and consumption of goods and services, is also called Economy"

"An election is a formal and organized choice by which a population chooses an individual to hold political office or other position."

The election cycle causes a great disturbance in the economy, and the market conditions too change according to the results of elections. Following are some of the ways in which elections can impact the economy.

Election Spending:

There are two types of spending, public sector spending and private sector spending. The government bears the expenses to conduct elections which includes material expenses, public security, security personnel arrangements, and equipment transportation while some expenses are made by the election commission such as poll worker pay and meals, etc. Private sector spending includes the expenses incurred by electoral candidates for election like banners, food, transportation and media. During the election, a huge amount of money flows into the market.

Cost of elections has been steadily rising over the years. Increasing the cost over the year impacts the economy adversely as it consumes the money which could have been used for the development of the country.

Inflation:

Most economists acknowledge that differences in monetary and fiscal policies among countries are the main reasons behind the inflation variability they sustain. High government expenditure may cause an imbalance in the demand and supply, and it will create side inflation. Such type of inflation resulted by abnormal government spending is harmful to an economy and it may decrease the real GDP of the country.

Impact of Share Market:

During the elections, the share market is unpredictable as it induces volatility and market instability. Markets are considered a barometer of an economy which in itself completely depends on government policies being financed and executed under the new supervision of

prime leader of the country. The market is subject to changes caused by rationing based on the economic policies endorsed by the contesting parties.

Another major factor which has an impact on the market during the election is speculation on the interest rate. Based on assumptions, the share prices will increase if the winning party has expansionary monetary policies and decrease in case the opposite party comes to power.

Impact on Businesses:

The election also affects the business. There are several aspects of government policy that can affect business. All firms should follow the law. The manager should know about upcoming legislations that can affect their business.

Impact on new Investment:

New investors postpone their major projects during the pre-election period. Investors prefer to wait for election results before making any new investments so that they can easily prepare for the new government's policies and laws.

Election undoubtedly brings in an upsurge in uncertainty, not just in production but also in consumption of certain commodities such as alcoholic drinks, meats, and fuel. In the same manner, construction business also declines to some extent until new policies are announced by the elected government. Adding to this, the decline in business prior to elections is because most of the businessmen, traders and builders illicitly fund political campaigns.

In conclusion, the election cycle has an inverse relation with GDP growth. It also defers new investment and creates uncertainty in the investment market.

Pradeep Kumar
(I^{st} Year, MBA)

Campus Connect

TARANG

The School of Management Studies (SOMS), NIT Calicut successfully hosted its flagship event,Tarang on 5th,6th and 7th October,2018.

The management fest that draws students from various B-Schools across the country every year ,had a large turnout this year as well. The students of DoMS,NIT Trichy took part actively in all the events and won the Overall Champions cup for the third time in a row.

Vous Vendez- Marketing Event
The marketing team of Armaan Ahamed, Karthik, Praveen Kumar D and Sethupathi made us proud by bagging the first place in the event.

Carpe Fortuna - BMT(Best Manager Team)
The team consisting of Ann Mathew, Jinto Thomas, Miriam Ann Philip and Raghul Krishnan won the runners up for Carpe Fortuna this year.

Blitzkreig - The business quiz
Kevin Fredrick and Mohan Kumar secured second position in the event, adding another feather to the cap .

Along with the competitions and games, the students also had a great time interacting with their peers and networking. The three day program ended in a splendid way when they brought the cup back home.

GUEST LECTURES

1)Smart cities seemed to be the new point of discussion for the 1st year MBA students of DoMS NIT Trichy. Special thanks to Padma Priya J-Director, Grant Thornton for the guest lecture on Urban Infrastructure. The students were deep in thought, when she asked for individual initiatives towards developing smart cities. By the end of the session many had a new career path to think about.

2)The students of DoMS NIT Trichy, had the privilege of interacting with Aarti C Rajaratnam, a Masters holder in Applied Psychology and NLP Practioner .The session on " Mind Mastery " which was held on 9th October was a very interesting one, wherein she talked about tapping the hidden powers of the brain, and her techniques' on 20:20

and 90:90:1 which could bring about great changes in life. Though a short session, the students were happy that they attended it.

3) The students of DoMs,NIT trichy were privileged to interact with one of their alumni, Mr. Saswadan Ranjit who currently is the Sales manager for Sony in Kerala. Along with his teachings on sales and marketing,he gave the students useful insights about how to fully utilize the two years of study and reap benefits. He encouraged the students to take active part in co curricular activities and focus on their respective goals.


Miriam Ann Philip
(Ist Year, MBA)

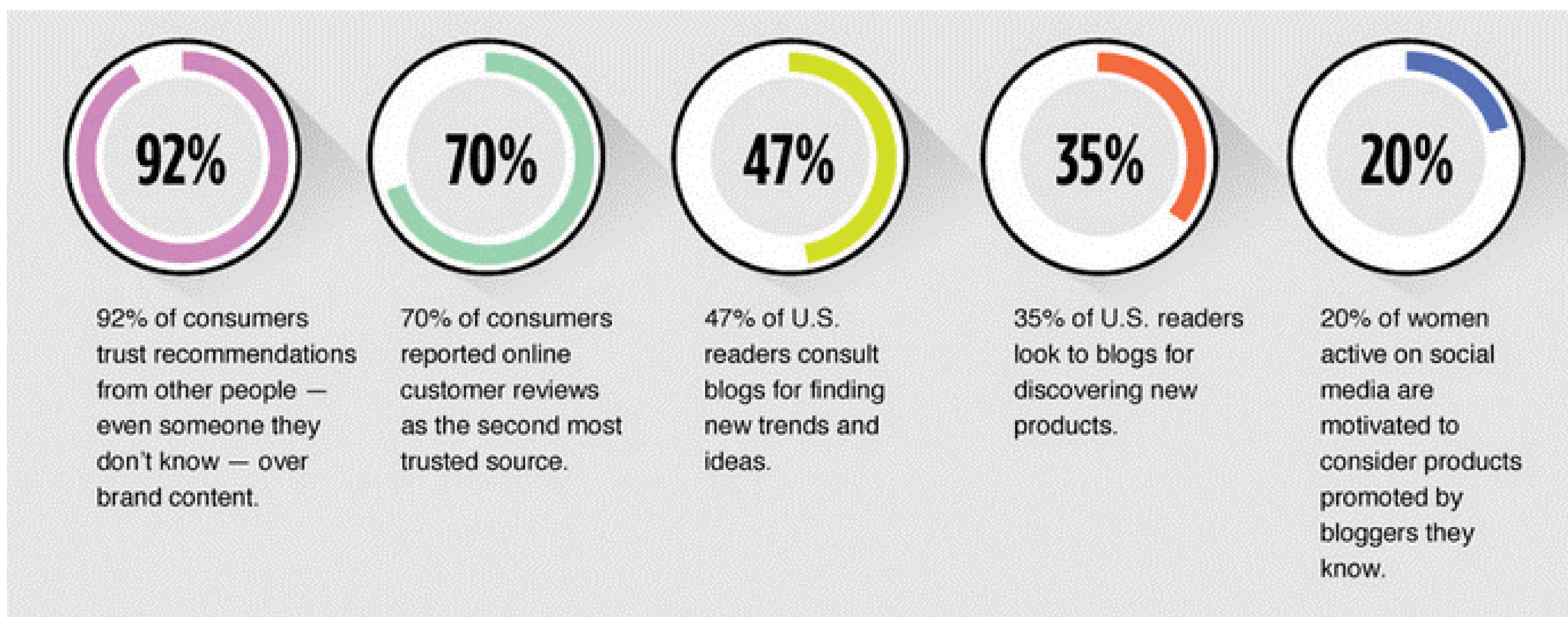# Influencer Marketing - The way influencers influence today's business

Influencer marketing – what is the fancy term all about?
Influencer marketing is a recent phenomenon in the world of marketing which has been changing the way businesses look at the way they market their products or brand themselves. At its most basic, Influencer marketing is like a hybrid of old and new marketing approaches, combining the idea of celebrity endorsement and modern-day content-driven marketing.
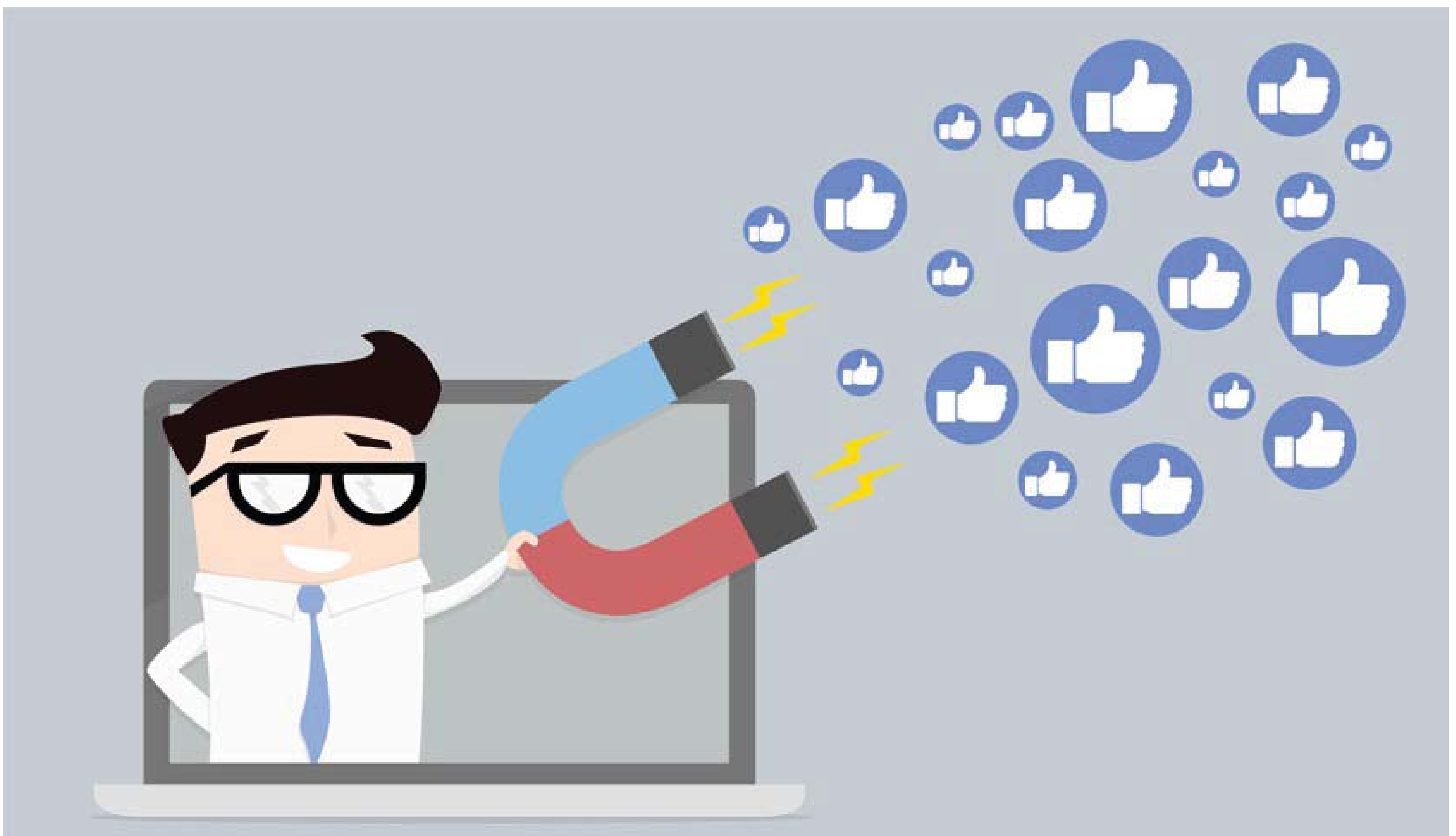
Influencers are individuals, just like you and me, unlike celebrities who are priced insanely high and whose reach isn't exactly known in numbers. What makes the influencers influential is a very large number of followers whom they gain from the scratch, ranging from a few thousands to millions, who are specifically interested in the content the influencers offer.

The influencers are perceived as credible and trustworthy individuals who simply convey their opinions, without any motive. **Now, access to an audience with such traits is what many companies dream for so that they could advertise their products and brand their business**. *This allows brands to locate and advertise directly to their target audience.*

| 92%	70%	47%	35%	20%
92% of consumers trust recommendations from other people — even someone they don't know — over brand content.	70% of consumers reported online customer reviews as the second most trusted source.	47% of U.S. readers consult blogs for finding new trends and ideas.	35% of U.S. readers look to blogs for discovering new products.	20% of women active on social media are motivated to consider products promoted by bloggers they know.

Let us have a look at what the statistics says,
•A YouTube research shows that YouTube creator collaborations are 4X more effective at driving lift in brand familiarity than integrations with traditional celebrities.
•92% percent of consumers say that they trust word-of-mouth recommendations more than any other type of advertising.
*•**On average, businesses generate $6.50 for every $1 invested in influencer marketing. That is 650% sales as opposed to what the traditional advertising has to offer.***

Influencers can be found on any social media platform such as Twitter, YouTube, Instagram, Snapchat, LinkedIn, blogs, etc. These are platforms where millions of users either search for specific topics of their interest or follow influencers who create content relevant to their interests for the genuine content they are believed to offer. There is an influencer for every kind of product or service, be it FMCG, fashion, lifestyle, automobile, services – financial, educational, etc., and the list is definitely growing.

It is just how they say, "You can find everything under the sun on the internet", there are people out there on one of these social media platforms having a religious group of followers for their opinionated content – videos, pictures, written content, etc. on products or services that fall under any umbrella of products and services you'd want to market. These social media platforms also offer infographics and analytics about the reach of the influencer on their audience.

*Katie Williams, Senior Director Confections Brand Equity, Mondelez International, during a research said that, **"Influencers unlock something more—an opportunity to***

## Which platform is the most effective for engaging your target audience?
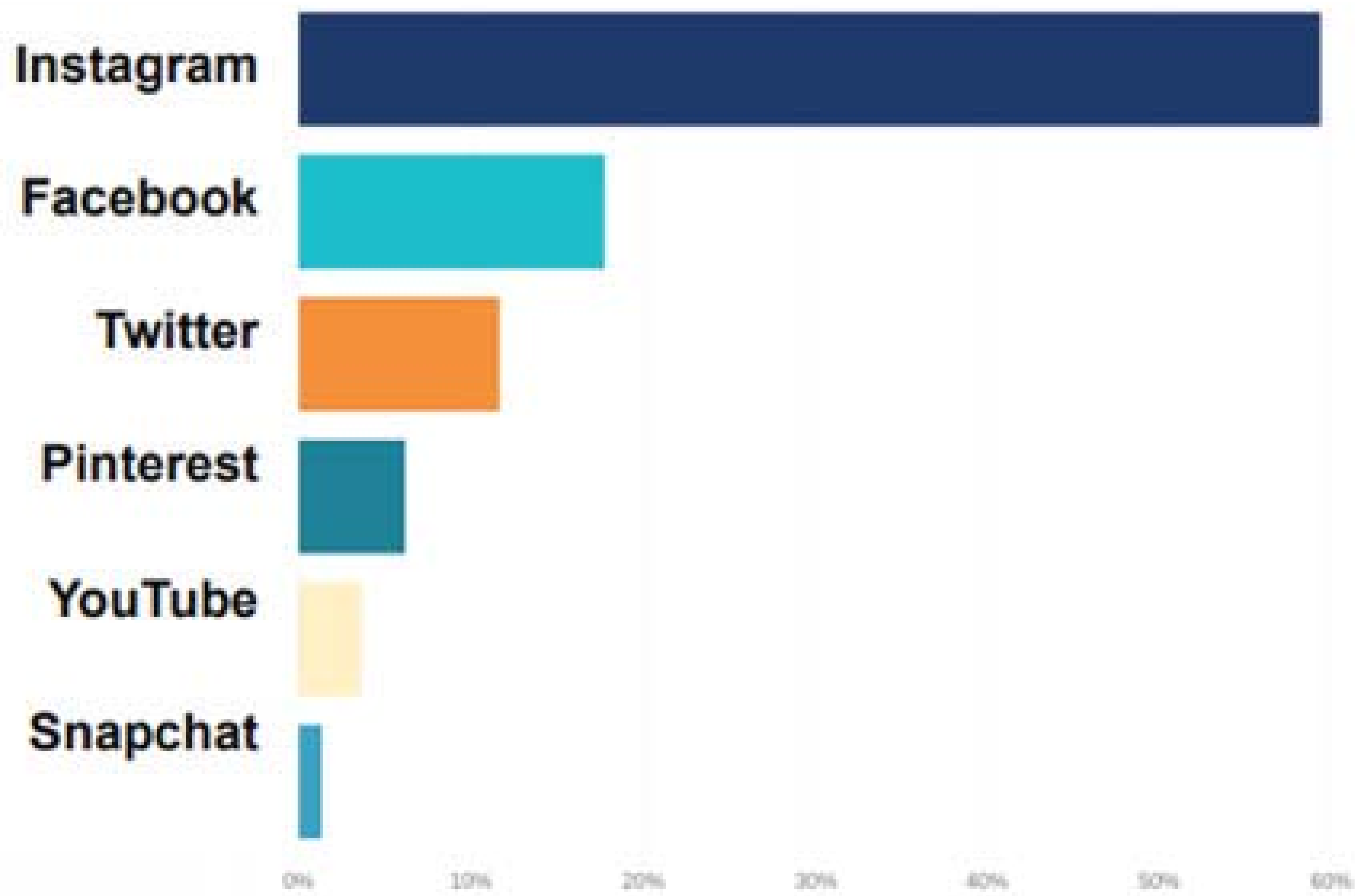
showcase our products in relevant consumption moments that are a natural fit for our brands... Being a part of these 'consumption moments' has been very impactful for us."

Consumers of today don't blindly trust advertisements, don't read billboards and take the information to heart and they don't trust companies, large or small, unless there is an existing relationship. They do, however, listen to what other people have to say, especially when the person is someone they have already been trusting for a few months to a few years. This is because the influencers mention the product or brand to the audience in a subtle and realistic manner that the audience feel that a friend is suggesting the product or service to them, or more so merely sharing their experience with the product, service or brand to their audience, unlike forcing awareness about a brand or product to the consumers.
Hence, influencers can either make or break businesses!

Ishrath A R
(Ist Year, MBA)
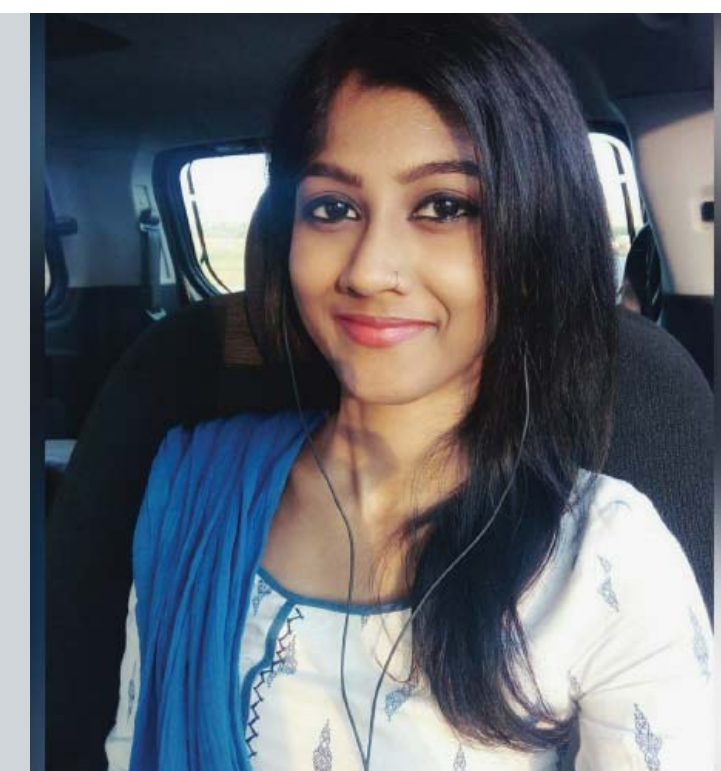
Experience Economy

This term was first coined in the year 1998 by B. Joseph Pine 2 and James H Gilmore. According to them, Experience Economy is the fourth phase of the economy. The first three phases in chronological order are the agrarian economy, the industrial economy, and the services economy. Experience Economy is giving a unique experience to people so that the poor quality of services provided can be overshadowed by rich experiences. The way we experience a product has more value than the product itself. The term Experience Economy is actually a misnomer because it is less of an economic model and more of a business model.

The essence of Experience Economy lies in branding a commodity or in the perceived value of a good. In today's world people who have everything will channelize their spending on

Emerging markets losing their grip

Contribution to real global GDP growth, %

Emerging markets

Developed markets

50 — 45 — 40 — 35 — 30

2010   11   12   13   14   15*   16†

2016 GDP growth forecasts, %
Selected countries

2 – 0 + 2 4 6 8

India
China
Indonesia
South Korea
Mexico
Australia
United States
Canada
Britain
Germany
South Africa
Japan
France
Italy
Russia
Brazil

■ Emerging markets
■ Developed markets

experiences and due to this, the economy will grow around desire. Experience Economy is getting another push by minimalism & simplicity. People are slowly drifting towards minimalism vis-a-vis their living standard is concerned. So, Experience Economy basically revolves around creating rich experiences. Take the example of an old TV show "Taxi" in which the cab driver Iggy decided to become the best cab driver in the world. The path chosen by him to become the best cab driver in the world is by creating a unique experience

for his customers. He served sandwiches and drinks, he conducted tours of the city, and sang Frank Sinatra tunes. He kept his customers engaged in such a way that an ordinary cab ride is transformed into a memorable event. Iggy created something else entirely—a distinct economic offering. Experience Economy is trifurcated into three, they are:

(1) Normative and theoretical i.e designing experience and how to create an experience.

(2) Political and industrial angle, in this case, experienced production is considered as a macroeconomic entity in itself.

(3) Microeconomics deals with the user behavior products that implies more or less affinity and experience.

So what is there in Experience Economy for India? India is focussing on economic growth and it is growing by leaps and bounds. But apart from growing economically India is also focussing on building a strong and sustainable future in economic terms and to sustain in the long run, only products are not enough. Along with products, the inherent value of the products and the experiences provided by the products are also necessary.

Utkarsh Kumar Chaurasia
(I^{st} Year, MBA)

Darwinian Market-Entry of Generation Z

-Its do or die time

Competition defines the world we are living in. We can derive many parallels between today's market and Darwin's concept of survival of the fittest. The market itself is a huge mesh of competition, thousands of brands and sellers fight to grab the attention of their target audience in a way that allows their company to survive in the market.

"One of Darwin's central-most theories dictates that environment plays a role in determining who lives and who doesn't".

Generation

A generation that never experienced the world without smart digital technology and the Internet, they are much more than just energy and youth

With the advancement of organization culture, administration contributions, development, influence, and riches, it's inescapable that greater organizations with more assets will frequently outlive others. We've seen this in every industry. Consider the real promoting holding organizations that keep on purchasing out littler, yet comparably arranged organizations. It's an exhibition of the competitive dog-eat-dog marketplace from a corporate perspective. The advanced working environment is making a forward developmental jump. Open workplaces are inclining, correspondence is prompt and showcasing procedures are changing rapidly nearby advancements in innovation. Organizations who grasp change will discover accomplishment by pulling in best ability and bridling their plans to develop their customers. Luckily, the business sectors as a cost contender and administrators are altering the course of redistributing as in-house ability is winding up more financially savvy. The IT world, a division known for setting patterns, has returned to in-sourcing as methods for cutting expenses, with the additional advantage of enhanced interchanges.

In the earlier period, it was all about Baby Boomers. After that, Generation X emerged to be followed by Millennials. The generation that put their feet to adults in which we youngsters belong. This generation Z is ready and eager to be superior to Millennials and to every other generation combined. Enterprise has moved the world since the start of the twentieth century. Today, business visionaries resemble demigods! The accentuation on Entrepreneurship is more grounded and it is been reflected in how Generation Z works. Looking to a fact, a telephone survey from Gallup pointed out that 45 percent of students from fifth grade and above wanted to invent something that can change the world while the rest of them wanted to become entrepreneurs. The whole biological community has changed with the rise of Millennials and specifically, Generation Z.

Brands and organizations are no longer in the diversion just for the benefit and to build their capital. Presently, organizations have begun to end up fair about their aims and really care about the worldwide view of their image and individuals' feelings. What Generation Z did to the world with the assistance of online networking is nothing not as much as great! Age Z has comprehended the power internet based life as a conversational stage that is really an expansion of their day by day lives.

Generation Z continually screens regardless of whether partnerships, brands, and governments care about the eventual fate of youngsters. This is because caring and doing good are the main connection points between brands and Generation Z consumers today.

THE FREE MARKET MIMICS DARWINIAN EVOLUTION

Even more important than product quality and benefits. Generation Z is much more than the future of business. These young people are ambitious, passionate, and tech-savvy. Generation Z evolved themselves par better than the previous generation.77% of Generation Z expects to work harder than previous generations. Generation Z will be more competitive with their colleagues and will harness a do-it-yourself mentality at work. Millennials found many of the digital communication tools (texting, instant messaging, Slack, etc.) that have made the workplace more efficient and effective but some would argue less personable.

Furnished with their experience communicating using full sight, sound, and motion over Skype, FaceTime, Snapchat, etc., Generation Z is positioned as the ideal generation to finally strike the right balance between online and offline workplace communications. They even have a greater tendency to take risk and do things out of the route. Instead of doing work under someone, they prefer working as an individual. These qualities of generation Z make it a distinct and improved version of the previous generations which brings a revolutionary change in the marketplace and gives business a new direction to the Darwinian market.

Somnath Mandal
(Ist Year, MBA)

Views from NEWS

#MeToo Campaign:

The #MeToo campaign which started out in the United States more than a year ago as a means to oppose sexual harassment and abuse by powerful men and support the survivors, gained traction in India in late September after actress Tanushree Dutta accused Nana Patekar of inappropriate behaviour on the sets of the film they were shooting in 2008. Since then, the hashtag has become a rallying cry against sexual harassment, with multiple women coming out with their #MeToo stories.

1

I feel it is a good movement. Most men that prey on women (or even children) sexually rely on the fact that the victim will not share this with anyone due to the shame factor. Thus perpetrators know that they can get away with it. Self-image in society is extremely important to an individual. Most would not risk their image in their circle of friends, family, colleagues to take advantage of another sexually. This movement will deter at least some individuals. Even one victim saved is a success to the movement. On the other hand, this is not the time for people to falsely accuse someone to drag them down. It takes away from the true stories.
– Ms. Suganthi Roy (Inventory Manager, Biomedical industry, USA)

2

As a society, we tend to brush these incidents under the carpet which makes it all the more difficult for women to speak out against their

violators. The vibe of safety and sisterhood this movement has created has helped more and more women to come out with their encounter with this painful reality of abuse. Movements like these also give the victims a chance to be heard which gives them immense emotional relief. Hope this movement acts as a wakeup call to all of us to help create safe spaces for our women.
– Mr. Sridhar Naik (Student, Monash University, Australia)

3

This hashtag was used to tell the world about the extent of sexual harassment faced by women every day. It takes a lot to overcome your fears and anger and to get rid of the incident that had shaken up your soul, but it's also time to try and bring a difference. The platform that this movement has created is commendable, but let this movement not just stop at sharing. Let's also unite in a similar manner to find a solution to this.
– Akhila Vasu (IT professional from Bangalore)

4

I am relieved to see light being shed on the harassment women have endured for too long. Even with the movement having gained so much attention, I know a lot of people who would hesitate to speak out publicly regarding their own experiences, especially ones that occurred in the workplace. Also, sadly somewhere along the way the movement is losing its meaning and turning into a social media trend. Some

people aren't even aware of the purpose and are using the hashtag because it's trending. I hope people realise on what scale this problem exists and concentrate on resolving it.
– Mr. Saravana Kumar (IT professional from Mumbai)

5

#MeToo is an initiative which has unfolded numerous hidden incidents of sexual harassment and assault. Speaking up about such scarring events of one's lives isn't easy at all. Mostly, such incidents are bottled up in people's minds to haunt them forever. The #MeToo initiative gave the victims the nudge and courage for them to share their experience which turned into a chain reaction of a plethora of responses from all around the world which may never have unveiled if it wasn't for the #MeToo movement .
– Ms. Ishrath Rahmathullah (Student, NIT, Trichy)

V. Rajni
(I^{st} Year, MBA)
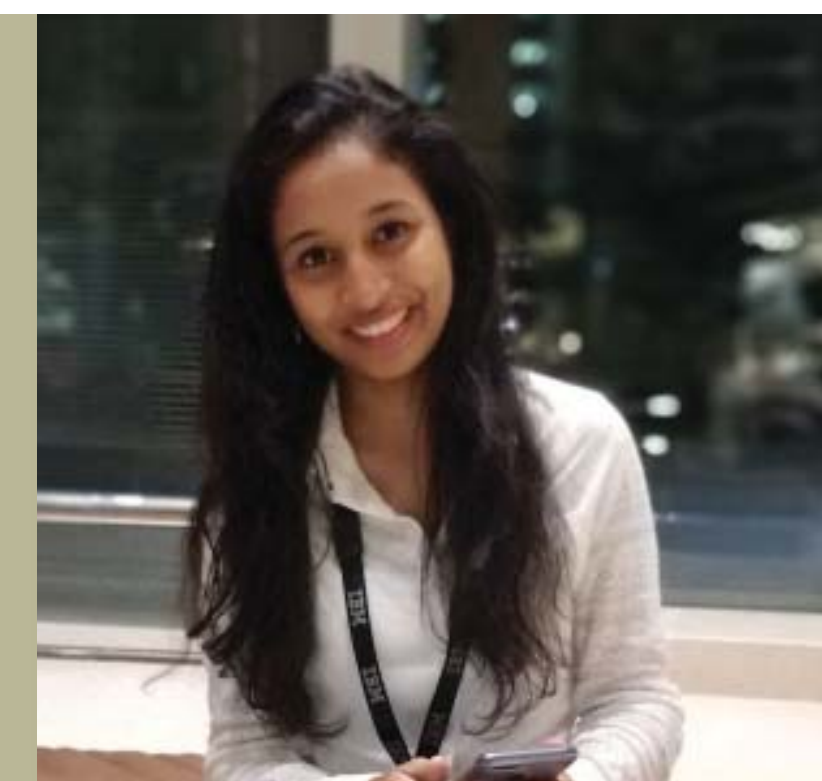
The rise of Subscription based Video on Demand (SVoD)

Gone are the days when people wanted to watch their preferred stars tell the most fascinating stories had to have them flock to theatres. The downfall of movie theatres began with the little invention called television which basically said -"No need to move from your couch, we are bringing the entertainment to you." People, in general, prefer convenience over any other attribute. Entertainment which usually was a leisurely activity required no movement from the part of the audience when it came to television.

Television although offered entertainment at your place of convenience, the timings were a bit of a problem. People had to stick to timings to watch their beloved shows and movies. It had become similar to a movie theatre but in your home. With the dawn of internet age and the entry of YouTube into the world of entertainment, the scope has nothing but expanded exponentially. The service of video streaming opened the door to the possibility of providing the audience with the convenience of time as well. Televisions also have the disadvantage of being stationary and requires a specific equipment to watch the programmes.

With the internet available anywhere and everywhere on almost all devices conceivable these days, entertainment from them has become more mobile. Viewers can now decide and then pay only for the content they desire to watch. According to this business intelligence study, the demand in the global video on demand market will multiply at a formidable CAGR of 9.3% during the forecast period of 2017 to 2024. The conveniences offered by video on demand in a highly competitive market, enhanced customer watching experience with excellent content and at their own time and pace, and varied viewing content catering to a variety of international viewers are some of the crucial reasons for the increasing demand of VOD in the market.

According to Wikipedia, Video on demand (VOD) is a programming system which allows

Estimated SVoD revenue worldwide in 2018	*14.04 billion USD*
SVoD households worldwide in 2018	*250 million*
Estimated SVoD users worldwide in 2018	*282.63 million*
Estimated online video revenue worldwide in 2018	*27.41 billion USD*

users to select and watch/listen to video or audio content such as movies and TV shows whenever they choose, rather than at a scheduled broadcast time, the method that prevailed with over-the-air programming during the 20th century

[1]. Nearly two-thirds of global respondents (65%) in a Nielsen online survey in 61 countries say they watch some form of VOD programming, which includes long- and short-form content
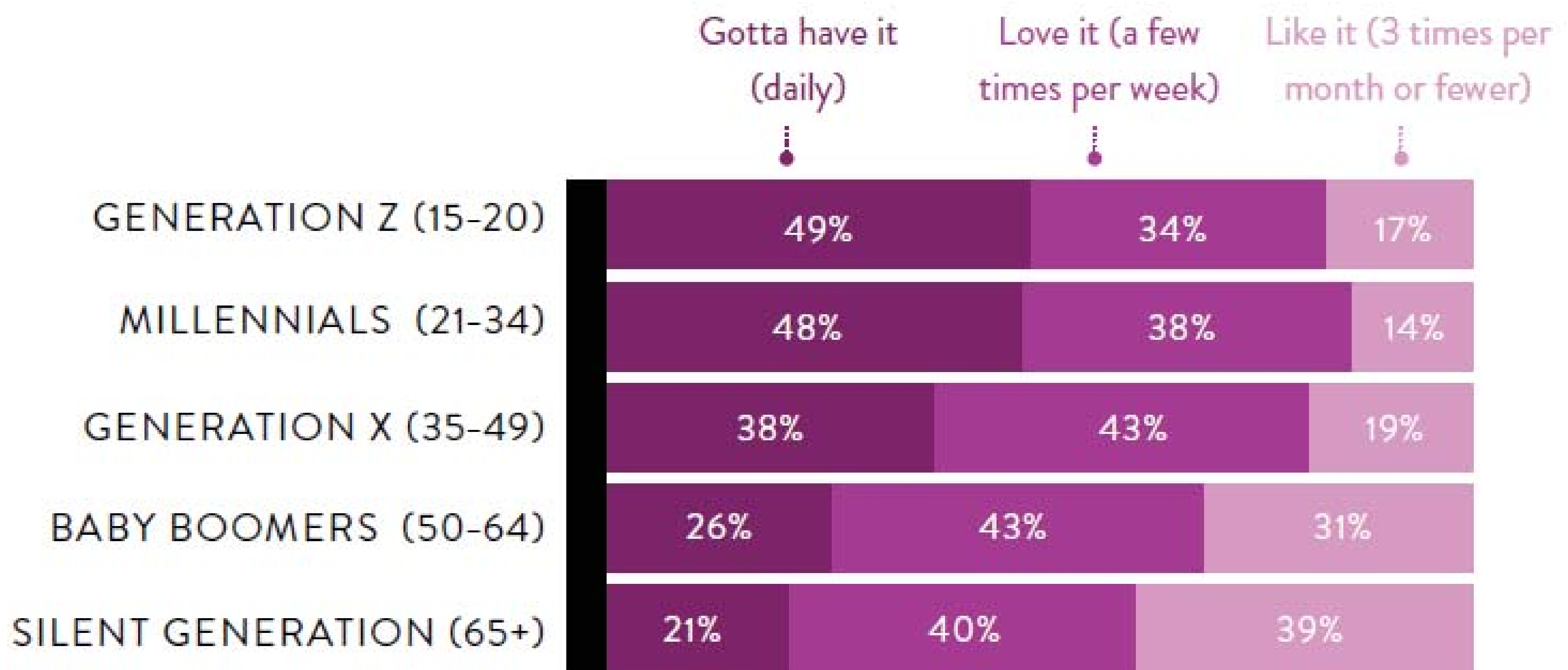
[2]. Here long form can vary from TV shows to movies and short form from music videos to YouTube clips. Subsequently, around 2006, companies like Netflix, Hulu, and Amazon have taken a lead of this novel media intake landscape and used it to nurture their brands into some of the leading names in show business. The call for their services is only estimated to
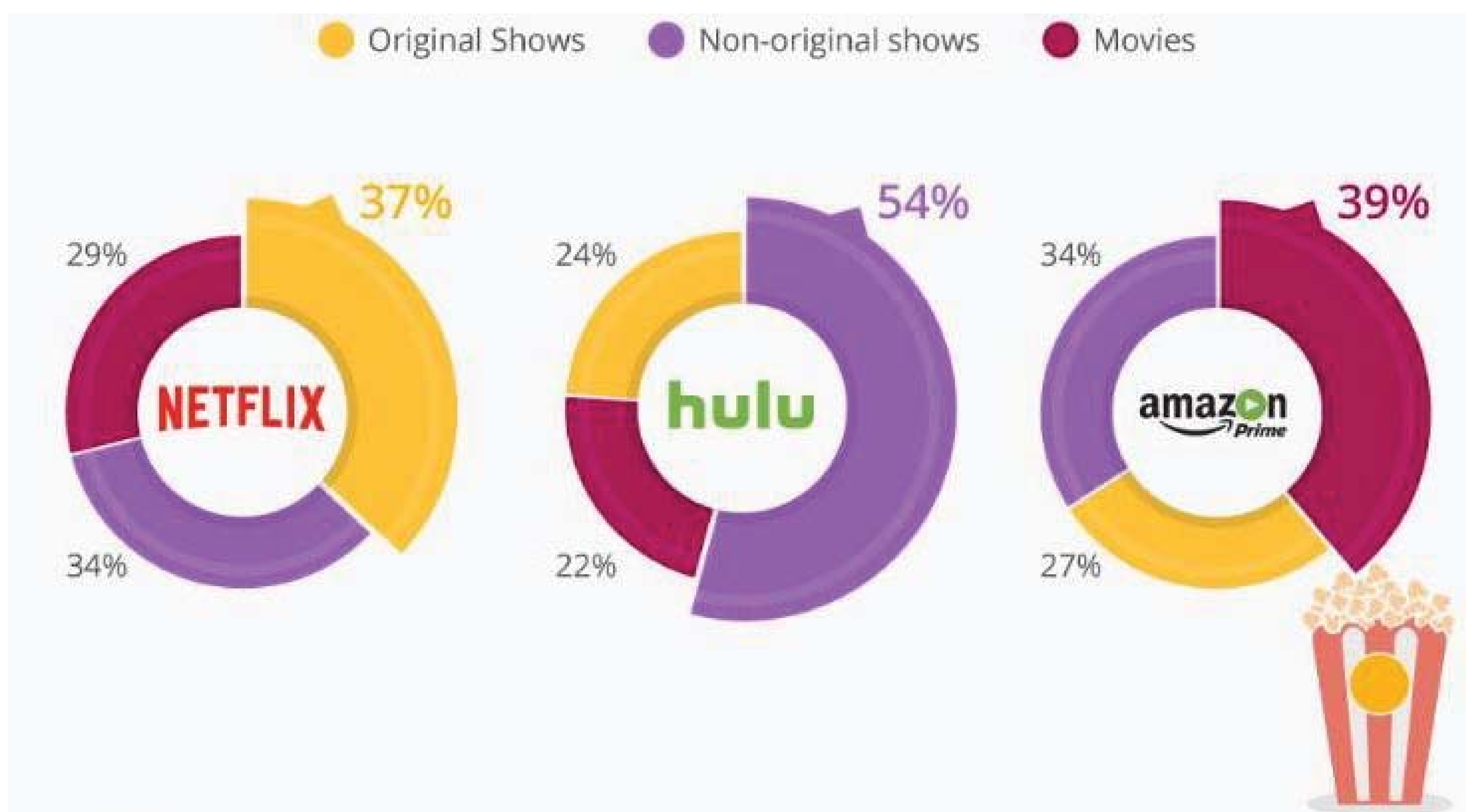
surge from here, with global digital video revenue projected to rise in the coming years.

The consumers have full autonomy over the subscription and can select when and where to watch. They can pace the show viewings as they wish. It is pay TV programming, and includes TV series and blockbuster movies, but with no programming schedule. Top of the line viewing material is available anytime, on demand, straight to the user's TV set. Content is regularly updated [5]. Entertainment conglomerates around the world are not blind to this side of the business expanding rapidly. They have seen the potential of the service with every major studio in Hollywood gearing up to launch their own subscription service. Netflix, Hulu, Walt Disney, HBO, YouTube, Amazon Prime Video and iTunes are some of the main players in the international video on demand market.

SELF-REPORTED VIEWING FREQUENCY AMONG THOSE WHO WATCH ANY TYPE
OF VOD PROGRAMMING ON ANY ONLINE DEVICE

	Gotta have it (daily)	Love it (a few times per week)	Like it (3 times per month or fewer)
GENERATION Z (15-20)	49%	34%	17%
MILLENNIALS (21-34)	48%	38%	14%
GENERATION X (35-49)	38%	43%	19%
BABY BOOMERS (50-64)	26%	43%	31%
SILENT GENERATION (65+)	21%	40%	39%

In the current media environment, change is the only constant. VOD might be one of the many modern players, but it represents a perpetuation of the trying times the business has been on for the past 10 to 15 years. And the pace of change isn't likely to slow anytime soon

*Arun Chander
(IIndYear, MBA)*

CLASSROOM -2030

It's a fine Monday morning, you rush out of your home, hands swinging freely all so excited and happy. If you are wondering where you are off to in such a happy mood, the answer is SCHOOL. Did you forget something? For most of us who have been used to carrying backpacks which we manage to pull off our shoulders, this scene may raise the above doubt. But in another ten years, this is what would be trending. You enter your classroom, astonishingly rather than going to the last bench you grab the very first seat. Welcome to classroom-2030.
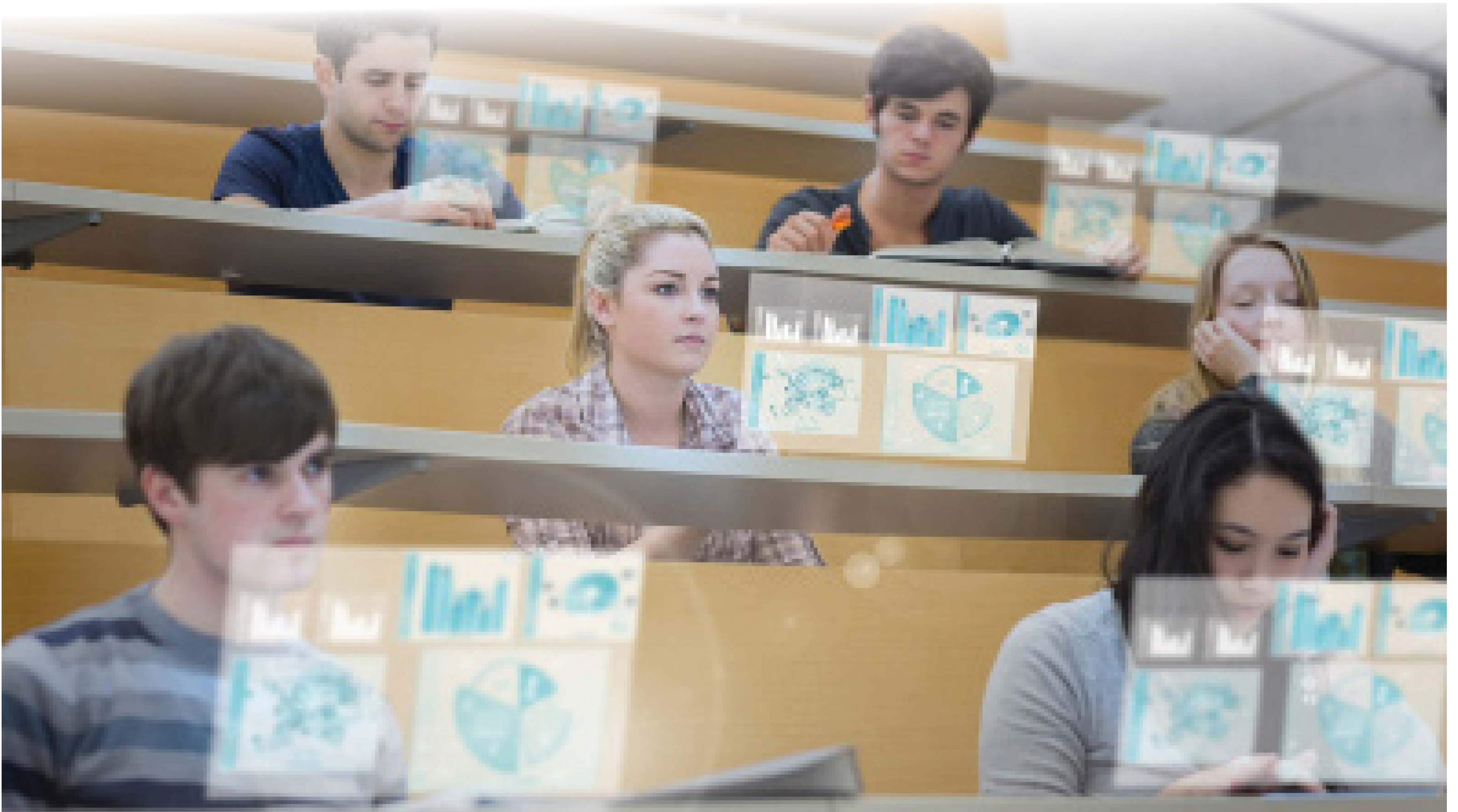
Today's scheduled class is on Indian history, the famous Jallianwala Bagh massacre. But instead of flipping the pages of an old history textbook you activate your device and there you are standing right in the middle of the place where all happened years ago. Then you see all the history happen right in front of you. Thanks to the virtual reality you don't have to mug up anything because the brain remembers what it sees. The concept of virtual reality helps foster community learning. Students can attend the classes of professors sitting around the world, interact with them as if they were there right in front of you.

Next on the agenda is chemistry. Ya! The very mention of the name may frighten you, but not in this classroom. Here in our classroom, the teacher doesn't force you with all the formulas in a single blow, rather you take your own time to understand and grasp. Your friends may rush forward at their own pace, but no issues you have all the time in the world. Artificial Intelligence makes personalized learning no longer a dream. The concept of one -size fits all is long proved

to be impractical. Every student is different, they have different needs and thought processes. A single teacher catering to the needs of a bunch of 30-40 students is difficult. With the use of personalized learning devices that properly tracks and records each students' performance, it becomes easier on the teachers' part to do their job. We will have a more student-centered educational system, one which equips each potential individual with a unique set of skills.

This is only a small version of what our schools will look like in the future. a small example of how technology can transform education. Over the years, though technology has developed in huge leaps but very little has changed in the educational sector. We are still stuck with merely flipping pages of history textbooks. The tremendous power of technology in transforming knowledge delivery is yet to be brought to the surface.

The upcoming years will see a boom in the amount of hi-tech put to educational use. With so much competition around the corner, AI, VR, Big data, Cloud computing are on the move. These will form the outline of development for another couple of years. Schools and colleges will continuously try to upgrade their technology so that they do not lose students. Companies and big giants will ensure that they meet the requirements of these schools and colleges. Those slow to adapt will have to take a backseat.

Some, 10-15 years from now if you see students jumping off to schools and colleges without their parents nagging their backs don't get startled, these are for real they can actually happen in real life.

Dhanya Johnson
(Ist Year, MBA)

Circular Economy

What is circular economy?

A circular economy is where the value of products and materials is maintained for as long as possible. Waste and resource use are minimised, and when a product reaches the end of its life, it is used again to create further value.

Disadvantages of a linear economy

From the past century to the current, we are in an age of unsustainable development. The evolution of science and technology has made our lives so easy. During the course of enjoying the comfort of our improvised lifestyle, we have failed to see what we traded for that. Our economy has become highly linear than ever and the process of accumulating waste seems never ending.
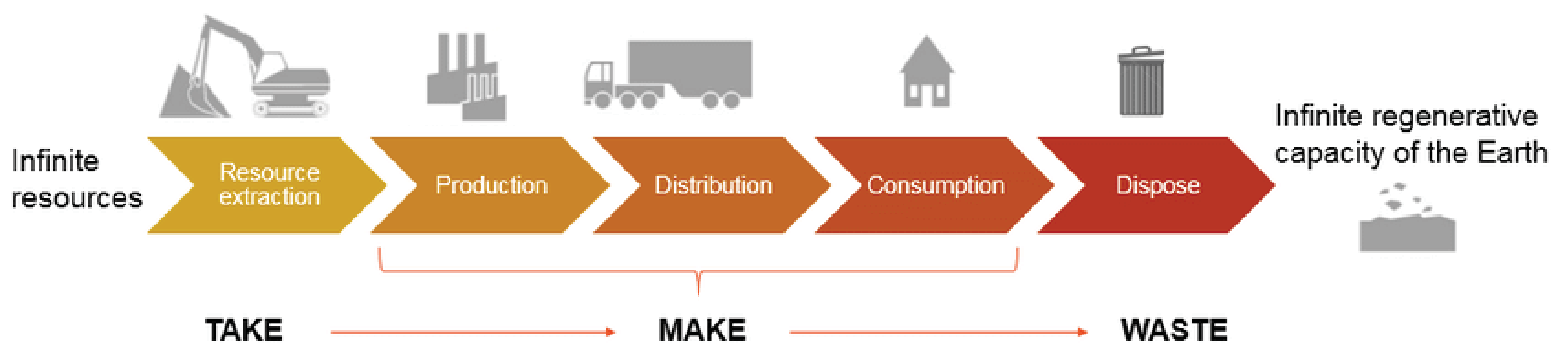
Unfortunately, the earth has neither infinite resources nor infinite regenerative capacity

Uses of plastic

Plastic has become such an integral part of daily life that it is very difficult to see through a day without it. Currently, plastic is used in multiple industries like Agriculture, Automotive, Infrastructure, Electronics, Textile Fibres, Packaging, Medicine etc.

Problems of plastic

However, the reality is, 'The more plastic we use, the more waste we create'. The overall plastic waste generated by the world stands at 8.3 billion tonnes.

India produces more than 25,000 tonnes of plastic waste per day. Official statistics say that 80% of the plastic in India is discarded as waste and at least 40% of it is uncollected. The bigger plastics which do not easily mix with other waste can easily be collected and recycled. However, the thin, lightweight and more trouble causing polyethylene bags often get mixed with organic waste making them difficult to be collected
.

Is plastic really the problem?

Plastic needs comparatively less energy (approximately 25% less) for production than other alternatives. This leads to a lighter CO2 footprint than glass or aluminium. India has a lower per capita consumption of plastics than many developed and developing countries.
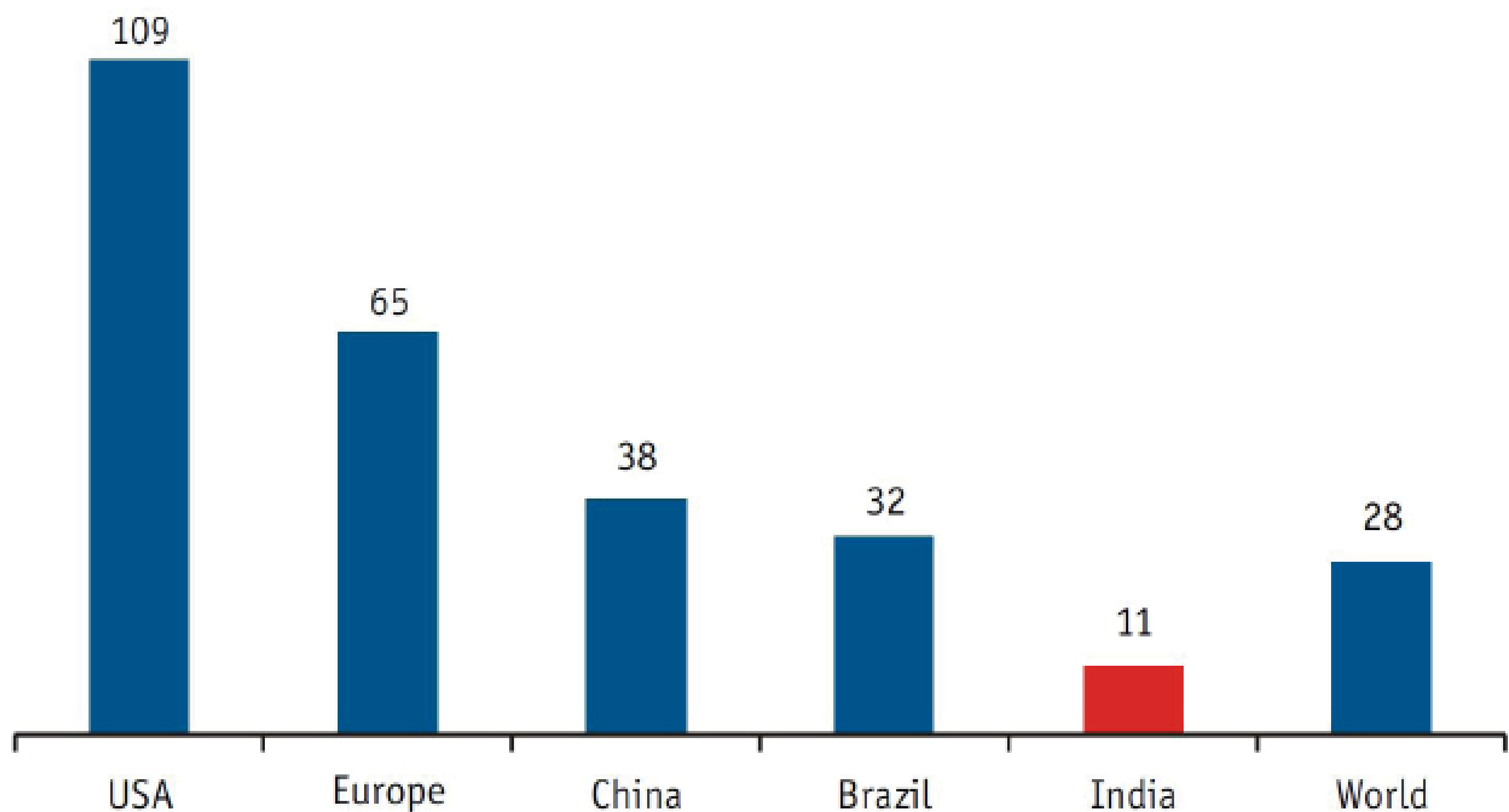
With India on track to become a developed economy, it is essential to tap this unlikely industry to contribute to nation's GDP. As per a report published by the Federation of Indian Chambers of Commerce and Industry (FICCI), the plastic processing industry has grown at a CAGR of 11% from INR 35,000 Cr. in FY05 to INR 100,000 Cr. in FY15 in the year 2017 and it is likely to increase in 2018.

Hence, the problem is not plastic but our ineffectiveness in managing it.

Where does Circular economy come in?

The Linear economy school of thought has provided us the worst perspective to look at day to day things. Our conventional methods of classification of waste has put us on the backfoot. Our perspective has to change, and we must start looking at waste as another form of raw material after it reaches its 'End of Life'.

For example, plastic drinks bottles made from PET (polyethylene terephthalate) can be turned into textile insulation (for thermal jackets and sleeping bags).

When discussing plastic as a potential contributor to the economy, we must also keep in mind that we should not produce more than we can recycle or reuse.

Image: European Parliament
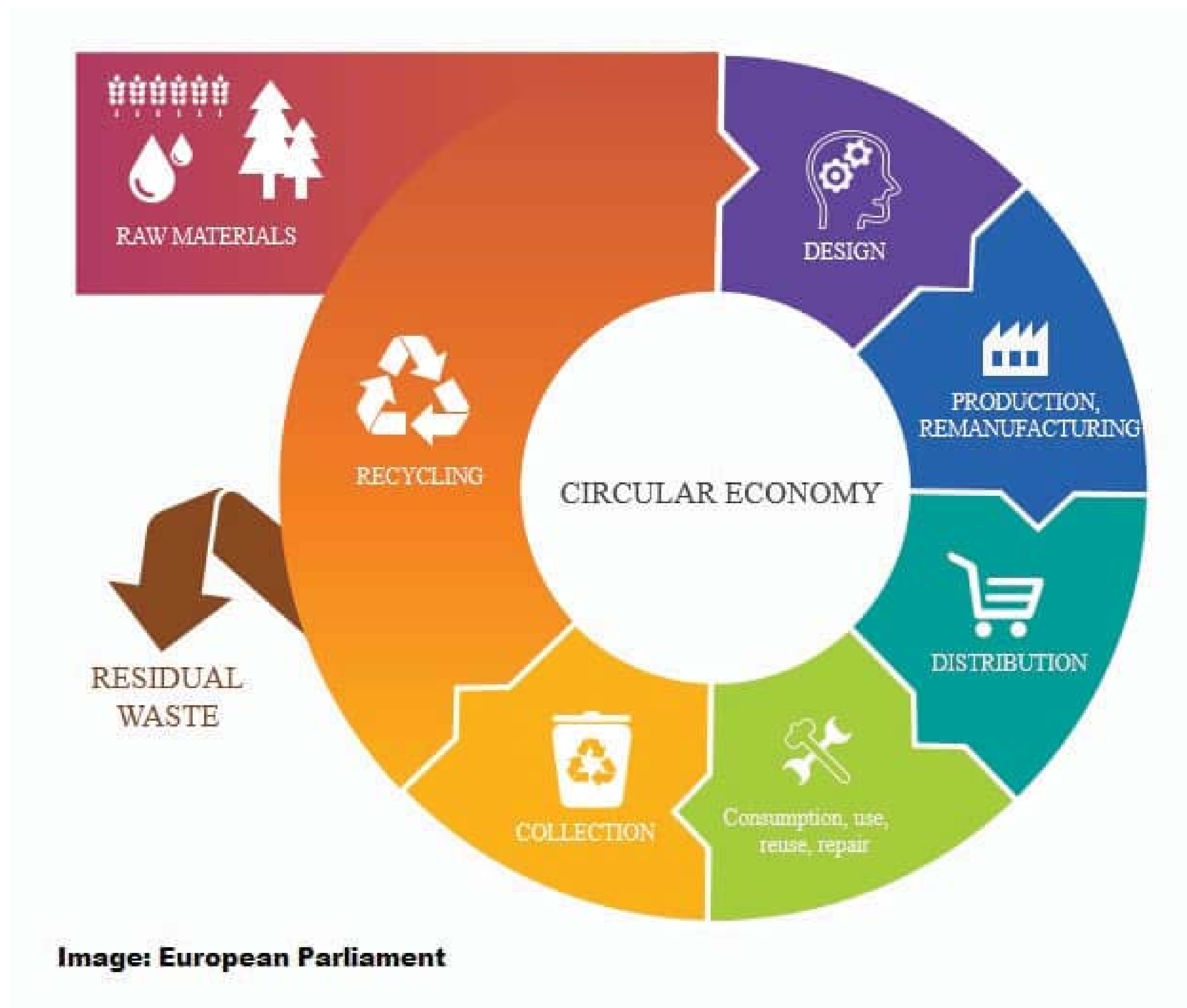
Extended producer responsibility and the role of Indian Government

Extended producer responsibility (EPR) is a strategy designed to promote the integration of environmental costs associated with goods throughout their life cycles into the market price of the products.

In March 2016, the E-Waste policy of the Government of India was amended with the new E-Waste (Management) Rules 2016, being notified by the Ministry of Environment Forest and Climate Change. The new rules set stringent targets for the producers to collect and recycle EOL products starting from 30% in the first two years and increasing to 70% by the seventh year while simplifying the process of applying for EPR Authorization. The Plastic Waste Management Rules 2016 also enforces EPR for plastic producers in the country and has banned the manufacturing of non-recyclable plastics in two years of implementation.

In July 2018, PepsiCo India has said it will work towards the collection and recycling of the PET plastic waste generated in Maharashtra, supporting the extended producer responsibility initiative of the government

What is needed to make this transition?

• *The Government should create a set of 'Best practices' to be followed by consumers and create more awareness among the public.*

• *Research and Innovation should be encouraged and funded to change the conventional product design and upcoming business models should focus on creating a zero-waste industry.*

• *Sustainable packaging industries should be encouraged, and the upcoming bio plastics should be further studied and promoted.*

• *Single use product design must be phased out slowly and then eliminated once and for all.*

• *As part of EPR, the Government should set up a suitable and friendly framework for promoting 'Reverse logistics'.*

• *Cities which generate most of the solid waste should be classified and graded based on their 'Circular economy status' and funding should be provided accordingly.*

• *We as citizens should try to re-imagine and rework on our lifestyle to make it more eco-friendly.*

Raghul K R
(Ist Year, MBA)

Beauty and a Beat
(Medical Tourism-your health can now be outsourced)

Well, we all know who a tourist is, but how many of us have any idea regarding what a medical tourist is? A medical tourist is somebody who crosses the border to obtain healthcare in an environment outside their own. The concept of medical tourism is not new, it's been around throughout the modern era however traditionally speaking medical tourism involved developing world families pooling their life savings and travelling to developed world, to obtain what they perceive to be superior quality medical care, however what we have seen now is that healthcare in the developing world has caught up so significantly that you can now get medical tourism facilitators, claim fast world-class healthcare at 3rd world prices. For people that live in nations with nationalized healthcare plans like Obama Care of US, still face long wait times to obtain services but people also go abroad for procedures that they could not normally get in the home country due to :

a) Legal issues such as in case of unlicensed and unproven stem cell injections.

b) Procedures that are not covered by most mainstream medical providers such as cosmetic surgeries.

c) Lack of technology and doctorial skills in your home country in which a foreign county might have expertise.

Medical tourism has diversified so greatly that you can now cross borders to get dental work done, plastic surgery, even sign up for surrogacy program. Medical tourism is generally formed, as this activity that is hugely beneficial for economic development, creates more healthcare jobs, and you can get access to the latest and greatest in healthcare technologies that are supposed to improve the quality of life for everybody involved.

Top Medical Tourism Destinations Around the Globe
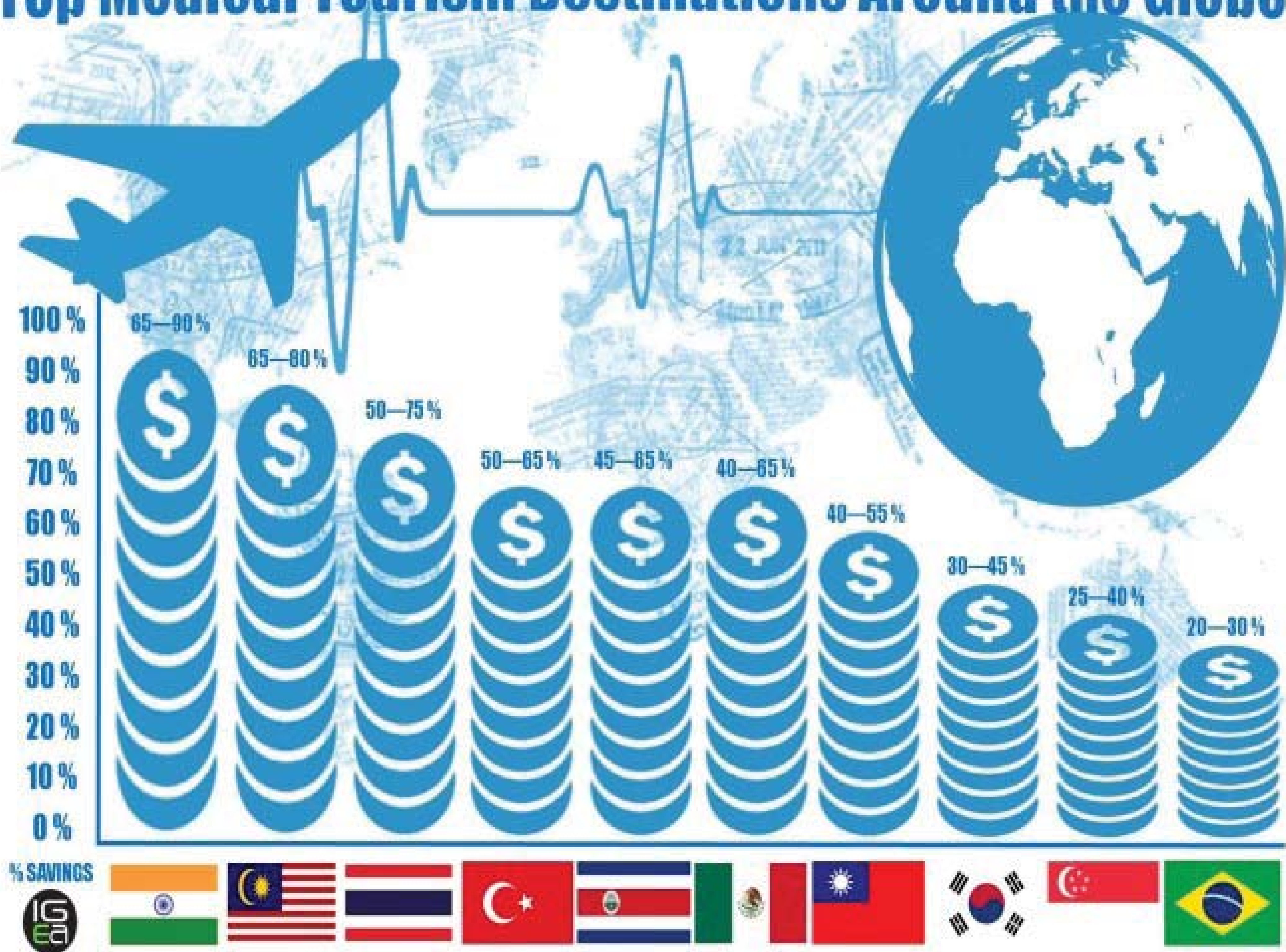
The pictorial data states how India today has embarked itself on a way to top the list of medical tourism destinations throughout the world.

Hold on that's seems good, but what it has for me being a management student?

There are several opportunities for us in this newbie sector, and you will be surprised to know that the investments here seem to be less along with a huge return.

a) act as a 3rd party authorized licensing agent between the foreign patient and your homeland medicals.

b) Health consultancy services which would act as an FAQ for various needy patients.

c) Act as a beneficiary provider like rental rooms, transportation services, catering to foreign medical guests.

d) Part-time NGO's which could also be linked as a CSR activity of your start-up business.

e) Various jobs in health supplement manufactories and medicals in terms of HR, Marketing, operations etc..

Thus concluding my article I would like to quote the World Health Organization (WHO): "Healthcare is a human right- the enjoyment of highest attainable standards of health is one of the fundamental rights of every human being.........."

So just spare out few minutes of your life and think of the opportunities that this newbie is having with it and just thank that you can get an operation done along with a sweet vacation. Isn't that a Beauty and a Beat!!!!!!!

Siddhartha Harichandan
(Ist Year, MBA)

Artificial intelligence
## A gateway to Technological Singularity

With the advent of the internet in 1990, people felt that this is the ultimate innovation that can happen in the field of technology but who could ever think of a Robot getting citizenship of any country. Yes, I am talking about Sophia, a social Humanoid Robot. Who could have ever thought movies like Terminator, Rise of Machines, The Matrix Revolutions, Avengers, Transformers will be made. This all has become possible because of revolution in the field of science and technology called Artificial Intelligence. Smart Robots, Virtual Assistants, Natural Language Processing, Machine Learning and Speech Recognition technique etc, all these are possible today and with these features, AI has created buzz on the Global map.

The term artificial intelligence was first coined by John McCarthy in 1955 and he held the first academic conference on the subject at Dartmouth conference in 1956.

AI has dramatically changed the business landscape. The concept of OLA and Uber are the best examples which not only showed the world the new way of doing business but also paved the way for others to think out of the box using AI in the best possible way. Today with the help of AI almost everything can be done, not only rule-based automation, but AI is also capable of mimicking human interaction.

AI has ubiquitously made its impact into our daily lives. For example, today we have digital assistance, from Apple's Siri to Amazon's Alexa which possibly handles everyday task which includes setting reminders or playing our favourite music tracks.

AI is going one level up and entering into the so-called third-wave, which will create more versatile and interesting applications for the technology. Unlike Siri and Alexa which only respond to one instruction at a time, Aigo which is a new AI assistant is more adaptive today. They not only remember and learn from your preferences but also are able to sustain the meaningful conversation with users as if we are having chat with an actual person. Today we have various AI-driven data and analytics tools which an ordinary user can also use. For example, Growthbot compiles and analyses marketing data and research. You have to ask its chatbot questions in order to get periodic insights about your business and also your
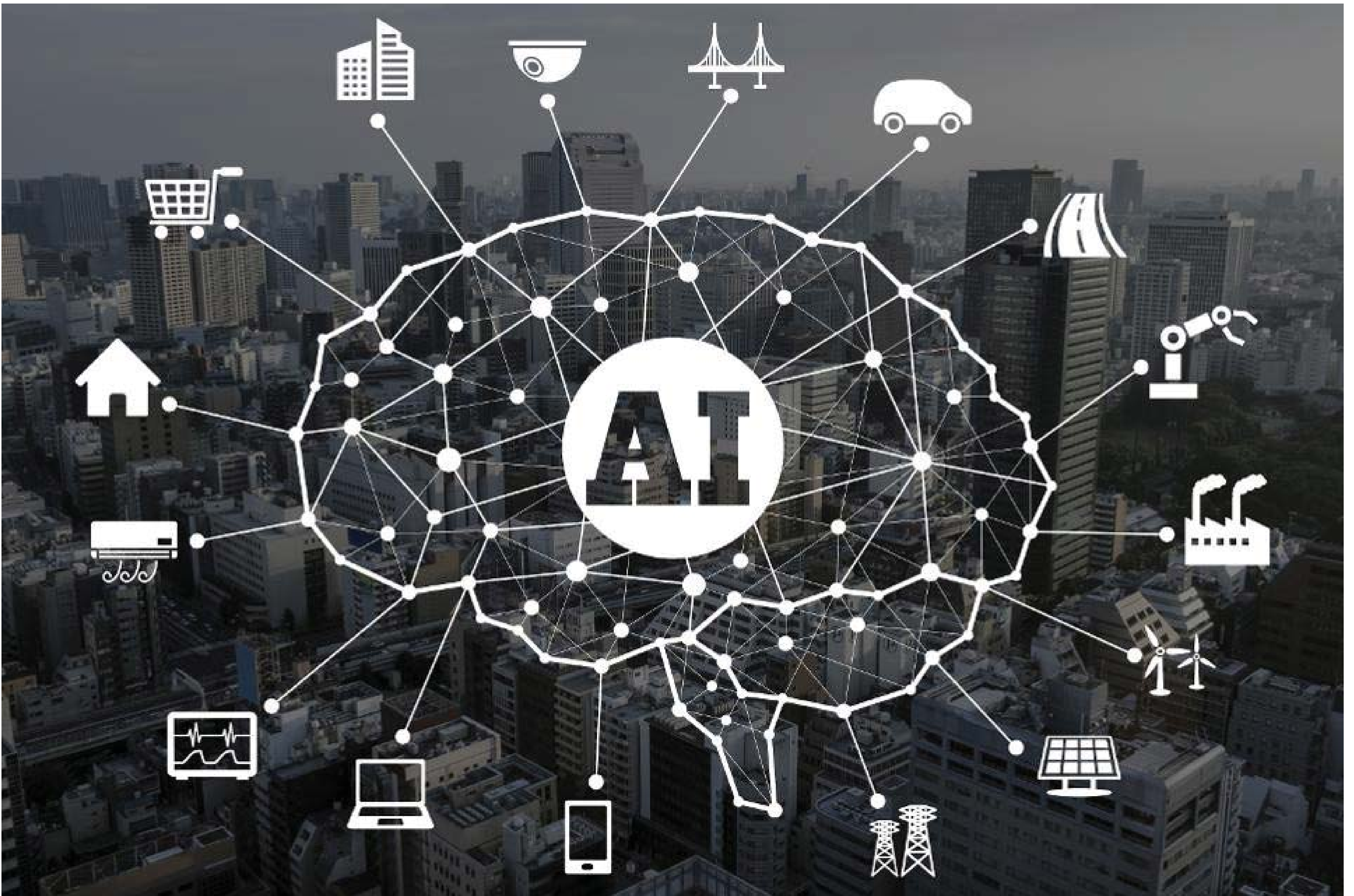
competitors. Trove is another AI driven tool which is a cloud-based tool, it helps in finding patterns in a conversation and makes them searchable so that it helps users have an accurate view of their relationship and provide a better interface to navigate their social connections.

AI has huge practical applications, whether we talk about AI in e-commerce by leveraging advance feature of visuals or we talk about AI to improve workplace communication using an intelligent virtual assistant helping take care of mundane tasks, saving time by understanding user goals or needs. AI has also proved its significant role in Healthcare domain by offering both clinical decision support during critical medical events as well as documenting those events electronically in real time.

AI has also played a major role in taking the business to a greater height be it a small business or a bigger one. Today every businessman wants to invest in AI. One survey state that 30% of those using AI at scale or in core process have achieved massive increment in the revenue. Investment in AI is growing and is being supported from organizations outside the tech space. Success stories of AI are numerous and diverse from Amazon powered KIVA warehouse robots to GE keeping its industrial equipment running by leveraging AI for predictive maintenance.

Emotion recognition, Image recognition, Cyber defence, text analytics and NLP (Natural language processing), Robotic processes automation, Biometrics, Deep learning platforms, Decision Management, Machine Learning platforms, Virtual Agents, Speech Recognition; all these possibilities have been touched by AI.
Now the question is What Next?

Rohit Kumar
(Ist Year, MBA)

Artificial Intelligence Integrated With Marketing Accelerating B2B or B2C

"Learning from the past, evaluating the present, and envisioning the future" is one of the main strategies used by marketers throughout every business.

Marketing defined by many as "Management process for identifying, anticipating and satisfying customer requirements profitably- CIM"

Nowadays customers/buyers not only shop for satisfaction, they expect more than that

- *Consistency: 75% of consumers/buyers expect consistent experiences across multiple channels.*
- *Responsiveness: 66% of millennial consumers/buyers expect real-time responses and interactions.*
- *Personalization: 66% of customers/buyers expect their interactions with brands to be personalised.*

So, to fulfil all these expectations of the buyer, marketers need to start moving from a one-size-fits-most to the perfect way of "Promoting and selling the perfect product to the right person at the right time".

And here is where Artificial intelligence (AI) comes into play which is defined as "The capability of a machine to imitate intelligent human behaviour"

But when both marketing and Artificial Intelligence are integrated together they are termed as "Artificial intelligence marketing", which is a form of marketing leveraging artificial intelligence concept and models such as machine learning and Bayesian network to achieve marketing goals. The main difference from the traditional way of marketing resides in the fact that this type of marketing is performed by computers and algorithms instead of humans completely.

AI has become the major demand of time in this fast-developing world even in the field of marketing, as one of the most important aspects of marketing called B2B marketing and its future is poised to be touched by Artificial Intelligence. The need of time is to integrate marketing with AI because of many reasons, some of which are:

• Also to address every minute of business customers and reach maximum acquisition, B2B marketing space must be filled with concentrated efforts towards learning their customers. Be it end users or corporate clients, each individual leaves behind a plethora of information through their online clicks and search, chat and e-mail communication, website visits and purchase decisions. Pyramid of data like this needs a high-calibre automated system like AI that can organise, process it and create powerful insight after learning about customer mind set, demographics and their behaviour.

• Also, to address every minute of business customers and reach maximum acquisition, B2B marketing space must be filled with concentrated efforts towards learning their customers. Be it end users or corporate clients, each individual leaves behind a plethora of information through their online clicks and searches, chat and e-mail communications, website visits and purchase decisions. Pyramid of data like this needs a high-calibre automated system like AI that can organise, process and create powerful insights about customer mindset, demographics and their behaviour

•• *As customers are true heroes and work as an inspiration for establishing new channels of communication developed through unique innovations. So here the proactive use of AI robots and algorithms will enable B2B marketers to assemble and organise more data to properly imbibe the functioning of their existing business network made up of customers, suppliers, partners, distributors, and marketers.*

• *Also, optimizing the cost is one of the dreadful challenges of marketing. But with the entire business cult getting online, machine learning sounds like a great choice to tackle marketing challenges pertaining to cost.*

Machine Learning *is the key of this Artificial intelligence that provides systems to ability to automatically learn and improve from experience without being explicitly programed. Various real-time scenarios of this machine learning are:*

• *Chatbots and Voice Assistants: Like those of Google, Amazon and Facebook*

• *User Engagement: Like Airship and Microsoft Azure which help merchants run their commerce more efficiently by proactively sensing the customers' pulse and boosting retention rate.*

• *Natural Language Processing: As done by Quantic Mind.*

Now formulating an equation using this Machine learning we get*:*

Machine Learning + Intelligence + Digital Marketing = Empowered Customers

The equation stands to be right as the adoption of artificial intelligence in B2B marketing will not only help marketers and business, but it will also touch customers by empowering them more than they can expect. This is where marketers can reap insights from their intelligent software and transform them into smart purchase decisions for customers.

So, in the nutshell it can be well said that marketing geared up with AI can act as controller in the market. Marketers can forecast what customer/buyer wish for and can satisfy them specifically with what they demand or even more or simply to say artificial intelligence can drive marketing prophecy.

So, in a nutshell, it can be well said that marketing geared up with AI can act as the controller in the market. Marketers can forecast what customer/buyer wish for and can satisfy them specifically with what they demand or even more or simply to say artificial intelligence can drive marketing prophecy. Also, top marketing influencers confirm that smart people (marketers) combined with machine learning will be the future of B2B marketing. Marketers can harvest new opportunities by using artificial intelligence in B2B sales and marketing thereby having a great story to tell

Yashu Mittal
*(I*st *Year, MBA)*

Being Data Driven

"Being data-driven is a culture of an organization and the earlier an organization adopts, the better it is ". In conversation with our prestigious alumni Mrs. Mathangi Sri , recognised as one of the Top Ten Data Scientists in India. She is currently leading the Data Sciences team at Phonepe. She has over 14 years of a proven track record in building world-class data sciences solutions and products. She has extensively worked on building chatbots, pricing systems, credit scoring systems and productizing text mining insights. She has 6 Patent grants and 20+ patents pending in the area of intuitive customer service, indoor positioning and user profiles. She is adept across machine learning, text mining NLP technologies & tools. Prior to Phonepe she has built data sciences team across organizations like Citi, 247 customer, Emirates NBD.

1.You have been in the field of Data Science since very long. We have seen a lot of transformation in this sector, a lot of new techniques introduced from time to time. So how did you manage to keep in pace with the Data Analytics of the modern era?

-In all fields as you grow up, learning becomes an essential element. Keeping updated and learning is a must to survive in any field and that adds to the charm of any job. Given Data Sciences evolves on an everyday basis - reading about various techniques, listening to academic lectures and referring research papers are necessary to stay relevant in this field

2. What are the current tools and techniques that you are using?

-It totally depends on the problem. I use Python extensively. The flavour of the problem determines the type of ML algorithm. If it is a text problem then I tend to use a lot of NLP tools like Spacy, NLTK and other libraries

3. Which is more important to you, Model Accuracy or Model Performance?

-I think by this question you mean accuracy in the training set (Test carved out of model build dataset) or stability of accuracy across various validation sets. Accuracy does not mean much if it is measured only in what is referred to as 'in-sample' test set. Accuracy should hold true across various out of time datasets. By accuracy, I refer to a wider range of metrics like - AUC, F-Score, R square, MAPE etc.

4. Most of the big players in the market today are following the data-driven path, but what about the small and medium businesses. How can they be integrated into this platform?

Data Science is not only when data is big. Most of the times we build algos on a smaller sample. I also have come across a lot of relatively 'small' data use cases. I don't see the size of the enterprise restricts the application of machine learning. Being data-driven is a culture of an organization and the earlier an organization adopts, the better it is .

5. Being in such an industry which demands a lot of assiduousness, how do you maintain your work-life balance?

It was tough in the beginning. Around the time when my daughter turned 5 (She is now 8), I consciously decided to allot and chunk some time for her. As they say, a lot of time management boils down to prioritization. I have slowly developed the ability to balance work and life to the best extent possible. I try to have an hourly plan post office hours till I sleep to juice the best out of the time I have for my family. I also run a small drama club for children in my spare time :-)

6. Can machine learning algorithms help explain human learning?

Yes of course. ML has been successful in replacing as well doing better than human-based decisions. The best things about machines are they are scalable, traceable and consistent. Things like credit decisions, customer lifecycle management decisions are well replaced by AI today. There is also a long way to go and I feel we are well poised to do so and the future is going to be pretty exciting.

7. How to maintain the enthusiasm and excitement even after going through huge datasets?

Huge datasets should be more exciting isn't it? :-). Computing power is so cheap these days that a typical data scientist is more focused on algorithms and tuning the models to the data at hand than what it was a decade ago. If you are true to the problem at hand and solving it for the overall benefit of the organization, there will be enough enthusiasm and excitement however big or small the datasets are.

8. What was the turning point in your career? As we know that you have been through a plethora of opportunities in your career so far, how did you transform as a stalwart in the field of data science?

I am not a stalwart at all. I really enjoy the work I do and I am very grateful for the opportunities that I have had. I am also grateful for the trust my managers placed in me over the years while handing out critical data problems for the organizations. My turning point would be my tenure in '247.ai' where I had the opportunity to work on plenty of different data problems - be it weblogs/text/IVR call logs. I also had the opportunity and the freedom to deploy the solutions to many clients as well as to a lot of internal stakeholders.

9. A message for the students who want to pursue their career in the field of Data Analytics? What is the first step to getting started towards this domain?

It's a great field and a growing field. Competition is also pretty heavy. Any data scientist's first focus should be the problem at hand followed by the data available. Algorithms you apply and optimize for the goals at hand and unfortunately there are people in the industry who seek problems for the algorithms at hand In terms of first steps - equip yourself with the right skill (be in R/Python/or any other programming language), work on algorithms - get an in-depth understanding, start hacking problems in Kaggle or any other data hackathons. Once you have done this start looking for jobs where you can apply your skill set and be true to the job. Once you are in a job, get curious about the business and see how data science can help solve the problems. All the best

Anupam Verma
(Iˢᵗ Year, MBA)

The rise of the Cloud

With the digitization of business happening at a rapid rate than one could ever expect, traditional IT systems don't hold the key for businesses anymore. Every industry is in a need to provide better customer experience, innovate further, cut down their operational costs, increase revenues for which they need their IT infrastructure to be more agile, flexible, faster, efficient and more importantly to save money. The result is the growth in the adoption of Cloud infrastructure and Applications.

Amazon and Microsoft lead the race with their public cloud offering. The potential of the market is clearly evident when Amazon introduced per-second billing (from the existing per hour billing charge) nearly a year back and in no less time, Google and Azure followed the same for their compute and container instances respectively. Not only the public cloud but hosted private cloud is also becoming the most popular deployment model across global companies today. Private clouds provide access to new cloud-native infrastructure and development tools along with the cloud-like delivery models.

While the multi-cloud environment has its own challenges like integration, platform learning curves, management and connectivity, the rise in hybrid-cloud deployments is a new wave. The primary reason is hybrid cloud models provide flexibility and the companies want to manage the right workloads in the right cloud platforms. For example, if the company wants to move the application to the cloud yet concerned about the security issues coming along with the public cloud, hence prefers the public cloud. But still needs an integration between the other applications hosted in public cloud where the multi-cloud environment becomes inevitable.

Enterprises don't only want to execute one-time moves of workloads; they also desire the ability to easily and dynamically migrate data between clouds and especially into a hosted private cloud.

While most companies adopt cloud infrastructure for easy setup, configure, update, monitor and manage for IT operations team, the cloud computing holds a lot for the future. Obviously, it plays a major role in organizations increasing the use of big data platforms for better insights and analytics, support more types of connected devices, IoT data and workloads and microservices based application development.

Entering into cloud infrastructure needs its own strategy and also comes with limitations and challenges. The major one being the security concern over the data stored in the cloud followed by latency concerns and also most companies also suffer due to the lack of staff and management skill sets to manage and monitor the infrastructure. As firms become more hybrid, differences between platforms and latency between them are major obstacles to overcome. The companies are not worried about the complexity of any one cloud platform they are worried about managing the differences between them.

Worldwide spending for the cloud platforms has always been in the rise through years and predicted to be so also. While it is obvious that cloud platforms come with a lot of the above-stated advantages and the opportunities, moving the entire workloads doesn't guarantee one success. It still depends on the company's objectives, its current position in the market and its knowledge on kind of cloud solution that it must adapt.

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