

***Editorial***

Dear Readers,

It is pleasure for me to bring out the volume five issue two to you. This issue contains nine papers covering various topics e.g. information technology, E-learning, social media, conspicuous consumption, entrepreneurship, and supply chain.

This edition of journal is coming out with CITE Factor, DRJI, COSMOS and ESJI. I admire the editorial board for their guidance, attention and sharing ideas and knowledge with the team. I appreciate the contributors for their immense work and sharing.

We are striving to make this journal more useful, focused, and thorough to better fit the expectations of the domain and academia.

Your feedback and suggestions are highly solicited.

Arun Kumar  
Editor-in-Chief  
IJRBS



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## **Social Media-A Default Anarchist?**

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### **Abstract**

Communication has always been integral to civilization- originating with sign language moving towards both oral and written to its amazing propagation in the digital era. Social Media communications have added dynamism to communication breaking all the barriers of distance and culture. The generation of users did not have a blueprint to follow, with no knowledge of the depth of Social Media, all delved into it. The purpose of the conceptual paper is to decode the structure of Social Media as it is and create awareness. The extensive study of the phenomenon through published books, research papers, and articles is undertaken to arrive at meaningful nodes or discussion points and suggestions thereof. Social Media is beyond geographical boundaries and across cultures, and hence there is no easy way to define rules, but its the need of the hour. The findings of the detailed study entail that Social Media addiction is real and not just a hoax. The gadgets were created with the intent to make the user overuse them. The whole process applies science (the likes of dopamine, melatonin) (Bono, 2018) and psychology (e.g., random feedback, likes, (Atler, 2017) loss aversion (Ariely, 2008) (Kahneman, 2011), norm theory (Lanier, 2018), Choice and Free, (Ariely, 2008)). The business model of Social Media companies, which aims to earn through behavioral modification (Lanier, 2018), has a crucial role to play in their making the medium addictive. The repercussions of the user's mental and physical health are immense. The lack of empathy is creating a threat to democracy, as individual users are getting different feeds. This lack of uniform information is negating the Theory of Mind (Lanier, 2018). The paper is positioned as a conceptual paper. It is aimed for use by the policymakers and academicians to create awareness around the subject and thereby look at the solutions for the same. Creating awareness would ensure that Social Media companies take corrective measures. The ethics around the usage of Social Media need the research community to work in sync with Social Media companies and developing protocols for a better society.

## **Keywords**

Social Media, Facebook, Instagram, Addiction, CAGE, Dopamine, Likes, and Happiness.

## **1. Introduction**

Social Media has changed the way people - live, socialize, and share. It is a socially networked life. The niche it has acquired in the life of people is evident from the fact that each visiting card has a person's social networking handles on it. The gamut of Social Media platforms like Instagram, Facebook, Snapchat, WhatsApp has so many advantages associated with it, that there is no escape. Thereby, not being on a social networking site is considered queer. Social Media seems to have disrupted life, and many instances support this. Therefore, the article proposes to study the phenomena in-depth and develop ethics and protocol around it.

As discussed above, the paper believes that Social Media usage is not a choice but a compulsion now. Various Social Media platforms are going stable influencing life in both a positive and negative way.

The paper discusses various aspects of Social Media and the attention deficit economy (Odell, 2019). Social networking is a way of life, which needs more understanding than it has at present. The truth about the connectedness, the science behind it, the usage pattern, and the effects it has on mental and physical well-being are all studied in-depth in this paper.

The paper establishes that Social Media usage is addictive. This part where the paper sets the connection between mobile addiction and Social Media dependency so that the two are used interchangeably.

In the next section, the paper discusses Social Media addiction as a behavioral addiction, wherein the "Cue" (Duhigg, 2012) i.e., the smartphone, cannot be ignored or abandoned entirely. The person addicted to alcohol is advised to stay away from the 'Pubs'/Breweries or to avoid going to late-night parties. Now, in case of behavioral addiction to Social Media is established, it is impossible to keep the vehicle carrying Social Media, i.e., the smartphone, at bay.

"Nomophobia," i.e., the fear of missing or no mobile, is a real phenomenon, and it affects most of the users, not necessarily the addicted

ones. So, the carrier of the addictive substance (Smartphone and Social Media apps) used to access personal or work-related messages, e-mails, calls, etc., cannot be shunned.

To live in the real world and practice somehow makes it imperative to use the smartphone, so how do we de-addict?

Another aspect that requires focus is the “suppression” does not work. Various social scientists have proved it with many pieces of research in the field. The results were always the same. Whenever the respondents were instructed not to think about a “polar bear” (Jeff, 2014), the respondents could not stop thinking about it and ended up thinking more about it. (discussed in detail, later in the paper)

Another critical factor in understanding Social Media addiction is that whether the “addiction” is the side-effect the Social Media companies were not aware of? Sadly the answer is “No.” Not only is the addictive pattern known to Social Media, but these apps were created and tested to make the medium or apps addictive. The prototypes that are not addictive enough are worked upon to make them addictive.

The miracle website (Bono, 2018) Facebook that was supposed to keep us connected and happy, has turned out to be the opposite. In 2008, a sample of the students was studied and the research revealed that they felt worse off after using the website. The most ironic finding was the “feeling of unconnectedness” reported by the students, from the website which was thriving on the premise of making the world a smaller and a connected place. Besides, it implied that Facebook usage was associated with lower self-esteem, less optimism, less sleep, more homesickness, and less motivation. The claim and the result in itself contradictory. The dimensions of Social Media are extensive and need a separate line of study.

## **2. Need for the Study**

Adam Atler (2017) in his book, *Irresistible*, claims that school child (8-18 years) spends a third of her sleeping, one third at school and one third engrossed in new media (smartphones, tablets, TV). Is it bad? In 2012, an experiment proved that they were taking a toll on humans (quality of life). Since the phenomenon is new, its impact on the avid users might be evident when it is too late.

Along with the symptoms and criteria prominent in smartphone addiction, there are additional reasons why studying the phenomenon is essential. Though Internet Gaming Disorder has been considered a disorder now included in DSM-5, neither Internet Addiction nor Smartphone addiction (APA, 2013). The inclusion of internet gaming shows that technological addictions are of interest to the mental health practitioners' community. Smartphones are relatively new technologies and clubbed with Internet addiction; it is debated whether to perceive the two as disorders. It should be prudent to include smartphone addiction as a mental disorder that requires further study since there has been an explosion of smartphone usage in recent years. (Fox & Rainie [2014]).

### **3. Objectives of the Study**

The paper proposes to elaborate on the basic structure of Social Media. Starting with Why (Sinek, 2011) is the inspiration to understand and create awareness about the phenomenon i.e., to figure

- a. Why, i.e., the reason for the creation of Social Media and its addiction?
- b. How is Social Media impacting its users and society?

### **4. Research Methodology**

The paper is positioned as a conceptual paper with no numeric data attached to it. Conceptual papers are not required to provide empirical data (Glison and Goldberg, 2015), but the aim is to provide an integration of literature, to aid in creating integrated frameworks, add value to the existing body, identifying gaps and guide further queries in the field. In this paper, the concepts from psychology, business management, marketing practices, and academics have been integrated. MacInnis, 2011 supports the role of understanding patterns connections and accepts the subjective interpretation of thinking. The model emphasizes on conceptual papers on identifying, revising, delineating, summarizing, differentiating, and integrating.

In this paper, *summarization, is the focus. The paper takes stock of the concept of Social Media addiction, right from where it started, to where it is evolving to. Focussing on digesting, recapping, and reducing the manageable takeaways.*



The paper is presented in the form of the following outflow of information from the books and research papers, studied and analyzed. The various outcomes of the excessive usage of Social Media are enumerated by in-depth study and analyzing the same. The framework is intended to serve the understanding of Social Media addiction, the reasons, and implications, thereof, by studying the conceptual papers from the field of psychology and marketing.

## **5. Discussion**

The paper is discussed mainly in three parts to elaborate on the two defined objectives. The first part establishes that the smartphone and Social Media addiction can be addressed as interchangeable terms. The two are inter-twinned, addicted to one medium in most cases means, addicted to the other. The next part emphasizes on decoding Social Media Addiction as a real phenomenon with the aid of science (CAGE, Dopamine, Melatonin, Sleep) and psychology (Feedback, Suppression, Loss Aversion (FOMO), Likes).

The last part of the study discusses the effect of Social Media overuse on the user and the society with a specific focus on Physical manifestations and Emotional and Psychological ones. Physical manifestations include lack of sleep and its impact and Sitting repercussions. Emotional and Psychological ones include Lack of Empathy, Comparison, Likes, Unhappiness, Broken Attention Syndrome (Sharma, 2019), and Anxiety.

### **5.1 Smartphone Addiction and Social Media Addiction**

Smartphones are the tech-devices that have become the extension of our body. It has become an amalgamation of all that we do or want to do in our life. The users start their day by waking up by the alarm beeping, weather, calendar, emails implying the ways to make the day productive. Also, Social Media apps/chat apps give us the dose of gossip that would otherwise require you to go out with friends, clicking and posting pictures, practically for everything.

Without access to the phone, the fear of missing out (FOMO) grips people. Another concern of not being able to find the phone (Nomophobia, i.e., no mobile phone phobia) is a reality. “Nomophobia” is apparent by a familiar sight of people searching their pockets for their smartphone while they are talking on it. In 2008, a study by the UK Post office used the term Nomophobia for

the first time, investigating anxieties mobile phone users suffer (Its SecurEnvoy? 2012).

A study by Dmitri in 2015-16, was done to shorten the Estonian Smartphone Addiction Proneness Scale. The analysis was done by studying approximately 800 people and applying factor analysis, correlation, t-tests established that all of the related addictions viz., smartphone, Social Media use, and Internet share similar processes and effects.

Various researchers have studied the usage pattern of smartphones depicting as to what are the main activities undertaken on the smartphone? This information is of interest to the marketers and the researchers who aim to analyze the results of the overuse of smartphones.

In a study by Flurry Analytics (2015), time spent on Messaging and Social Media usage which was very high, rose exponentially (394%) in 2015-16, and the underlying reason of the growth of mobile phone usage (69%). Commutainment (communication and entertainment combined) are the reasons for this hike; it also includes the voice and video calling applications. The growth in news and magazine sections and the Music, Media, and Entertainment, was depicted as negative and slow respectively, implying that Messaging and Social category has absorbed the media and news industry, as well.

According to Nielsen data, the study of U.S. smartphone users revealed that the usage of news apps has been tipped by Social Media apps by more than 14 times more minutes. Facebook mobile users spend more than 15 hours a month on mobile usage.

Nearly 40 percent of the users claim that they use Social Media apps most often on their smartphones, followed by Gaming and Communication apps.

There tend to be substantial differences between ‘self-reported’ estimates of behavior and actual measures of behavior,” said Dr. Sheana Ahlqvist (Panko, 2018), lead UX researcher at PhD Insights, a user research agency. The users underestimate their app usage because they find it challenging to analyze the number of times they use an app, so they try and give an answer that should be the case, rather than the reality.

The underestimate is further evidenced by a report by Apple, that an average smartphone user compulsively check in the phone around 80 times per day. Kleiner Perkins report estimated the number at 150 times per day. So the average is much higher than being reported by people.

Amongst the Social Media apps used, Facebook leads the way, followed by YouTube, FB messenger, WhatsApp, and Instagram.

The above discussion creates a link and a valid one which relates to smartphone usage as a deterrent, and within smartphones, Social Media apps are the most used. Hence the addictive devices are aiding in increasing the usage of another addictive phenomenon called Social Media.

The subsequent chapters would decipher what makes the medium additive, how does it affect the people? What is the problem with the effect? How can the behavior be checked?

## **5.2 Is Social Media Addiction Real?**

If Yes, how is it any different from regular addiction?

In the previous section, we established the fact that Smartphone and Social Media addiction can be categorized as one. So the two terms may be used interchangeably in the report, with mainly SM Addiction as the dominant one. There is now a plethora of studies trying to define where the addiction is a reality or not.

### **5.2.1 Concept of Cage**

In the words of Dr. Vipul Rastogi, Senior Neuro Psychiatrist at Medanta Medicity Gurugram, the Social Media Addiction is a reality in scientific terms as it fits in the criteria of “CAGE. “C” in CAGE is that people around you or you have felt the need to cut down on the usage of it. “A” is for annoying people with the overuse of it. “G” implying the feeling of guilt of overusing Social Media and “E” if it is being used as an “eye-opener”, doing it, or the urge to use it first thing in the morning. The same “CAGE” principle applies to alcohol, cigarettes, etc.

So in this paper, we shall study and refer to excess usage of Social Media as a behavioral addiction.

The problem is that electronic media or the smartphone is not something without which life today is sustainable. Now with behavioral addiction to Social Media, the scenario is different. As a student, the assignments are shared online, as an employee or an employer, the business is conducted through the smart device, people get information about the momentous events like interviews or auditions through the sharing on Social Media. Therefore, we cannot expect a dependent user, to go cold turkey on Social Media. Some alternatives have to be suggested.

So how it should be viewed has been set up nicely by ReStart (Atler, 2017). ReStart (world's first gaming and internet addiction treatment center) recognizes that it differs from substance addiction because you cannot return to the real world without ever going online. It does not even call itself a de-addiction center but instead “Centre for Digital Technology Sustainability.” It is called “Retreat” and not a treatment center. It teaches patients to use the internet “sustainably,” rather than encouraging them to avoid it altogether.

A complete understanding of the Social Media Addiction is required to suggest ways to overcome this Behavioural Addiction (BA). It is done in detail around the following pointers, which helps establish what causes this BA.

### **5.2.2 Social Media a thought-out Side-effect?**

Is SM addiction a side effect that Smartphone and Social Media companies were not aware of?

Sadly, the answer is ‘No’.

#### **5.2.2 (a) The Science behind it**

Not only is the addictive pattern known to the Smartphone and Social Media companies, but the same was created and tested to be made addictive before launching them. The work on making them addictive continues.

As is said in the case of drug lords, “Never get high on your own supply”. It is a known fact that Steve Jobs and other curators of technology, never allowed their kids to use the gadgets that helped them earn millions. The relation between “blue light” and sleep deprivation, sleep deprivation and health, and the masterstroke of “random feedback” all need specific focus.

Technology is not bad; it is good, it keeps us connected, and we can all connect for a cause or fun. But if the same was created to addict you to the usage, it cannot be right.

The biological drivers of Social Media addiction are Dopamine release and Suppression of Melatonin release.

- **Dopamine:** Dopamine is an organic chemical that functions both as a hormone and a feel-good neurotransmitter. Dopamine is sometimes referred to as a chemical messenger as it transmits messages between nerve cells. The body releases it when we eat the food we like or indulge in activities we enjoy. In laboratory experiments, rats pressed the lever again and again for food, due to dopamine. And the urge to seek more dopamine increases in people who produce lower levels. Hitting the refresh button or accessing the smartphone, again and again, is for dopamine. Not using the phone decreases the release of dopamine, and the moment there is a notification, the release of dopamine increases. We are thereby creating a pattern of excess use.

- **Melatonin:** Our brain waves need to slow down for us to sleep. It is a common practice to use a smartphone before sleeping (Shivani, 2015) and the University of Bergen (Tim, 2019) in Norway found that more than 75 percent of the users use mobiles to play games, surf the web, or text after getting into bed to sleep. The more they use mobile in bed, the more pronounced are insomnia and daytime sleepiness. Is the user to be blamed for the same? Not really, it is the fact that the blue light emitting from the devices hits the back of our eyes, and the pineal gland in the brain stops producing “Melatonin.” Melatonin, a hormone the brain secretes to make us feel tired, sleepy. Lesser melatonin secretion does not let allow the brain to slow down, and we would keep tapping on various apps and not sleep. (The repercussions of sleep deprivation is discussed later in the study). One of the pioneer studies by Professor Hyung Suk Seo (Adam, 2019) presented at the 103<sup>rd</sup> Scientific Assembly, there has been a correlation developed between smartphone addiction and neurochemical imbalances in the brain. (Professor Seo is a professor at Korea University in Seoul). Researchers used a particular type of MRI to measure the brain’s chemical composition while the subject used the smartphone. The results showed significantly higher levels of Depression, Anxiety, Impulsivity, and Insomnia.

## **5.2.2 (b) Psychology behind Social Media Overuse**

### **i. Random Feedback**

The initial version of Facebook did not have the “like” button, the masterstroke of Random feedback. Michael Zeiler (Atler, 2017), in 1971 experimented on pigeons and concluded that their brains released more dopamine when there was an unexpected reward as opposed to when it was predictable. Facebook in 2008, unleashed an experiment on millions of humans

and created a deceptively simple feature called “Likes”. Earlier, you wondered what people thought about your posts; now, you get real-time feedback. And also sometimes you get likes and sometimes you do not. Human beings always look to decipher patterns and hence keep coming back (in this case, keep posting). This pattern-seeking behavior is the driver of gaming addiction. The massive success of Instagram also owes its success to Random feedbacks.

### **ii. Explaining “Likes”**

Users were gambling with feedback every time they shared a photo, a web-link, or a status update. When we get “No likes”-it is privately painful and also public condemnation. Feedback isn't guaranteed, so like pigeons in the Zeiler experiment, we will keep pecking. Something about Zeiler's experiment, The pigeon brains were releasing far more dopamine when the reward was unexpected than when it was predictable. Zeiler had documented an essential fact about positive feedback: that less is often more. His pigeons were drawn to the mystery of mixed feedback just as humans are attracted to the uncertainty of gambling, and for our study, the variable number of “likes” we may or may not get.

### **iii. Repression**

Another issue with the de-addiction is that “Repression” would not work. It never does. To further emphasize this, unprotected sex is more frequent in conservative states of the United States of America. So, instructing the user not to use Social Media would not work. Therefore it is good to try and create a Nudge. The way out is to replace bad routines (excess SM usage) with good ones.

Requesting people not to use Social Media would make them want to use it more. Xianchi Dai and Ayelet Fishback at the University of Chicago asked students in HongKong to abstain from using FB for three days. With each passing day, they issued it more and so inferred that they liked it more, and wanted to use it more often. But the students who used some other Social Media sites as substitutes were immune to this effect-because they had something else to replace it. (Adam, 2017)

#### **iv. Cashing in on FOMO**

“Fear of Missing Out” is not new. As explained in the paper by Dr. Nick Hobson, (Nock, 2018) it was there when the office colleagues went out for dinner, and you had to stay back home, but the same has increased in magnitude because on Social Media the event cannot be ignored, even if one tried.

The explanation of the phenomena by Daniel Kahneman in his book, “Thinking Fast and Slow”, while explaining the human need of “Loss Aversion.” The concept of Loss Aversion is that people are more averse to lose than they are excited about the profit. There have been arguments talking about NASMO i.e., the Necessity of sometimes Missing Out (Odell, 2019). Alternatively, the fear of missing out is so intense that people fear to exit a small WhatsApp group, because they feel that there would be something that they will miss out; to focus on what they would gain, is against the typical human nature.

Being in the present, interacting face-to-face with friends and family, which would give them a better understanding of each other. When they are connected with less number of people, it would narrow their circle of comparison.(explained in detail in the next part, “Comparison is the thief of joy”) All this leads to an



increase in the happiness index. Implying that we gain a lot but the “loss aversion” makes people stay put, though anxious and upset, would relent to “FOMO.”

### **5.3. How does SM Addiction affect People and Society?**

The fabric of the world around us has changed. The fake news is a problem, but the bigger problem is that the users believe it. The happiness that would have resulted in us staying connected all the time and the flow of information would have made us knowledgeable but the reverse is true.

The section is discussed in two parts, the Physical Manifestation of overuse and the Psychological Manifestation of overuse.

#### **5.3.1. Physical Manifestations of SM Overuse**

##### **5.3.1. (a) Sleep**

Sleep is a contentious issue. How many hours of sleep are required or are recommended, all have become debatable. The choose 2 experiment (Ariely, 2008), wherein the students are asked to choose any two out of the three options given viz., good grades, enough sleep, and social life. Invariably, the students left out “enough sleep,” calling it the most obvious choice. Some even called “sleep a waste of time.”

The science of sleep is different, the phrase, “Sleep on it,” and you might get clarity is based on our physiology. The seahorse-shaped structure in the brain called the hippocampus (Ariely, 2008) plays a critical role in the creation and storage of memories. And hippocampus works best when we are sleeping. Research strongly suggests that sleep, which constitutes about a third of our lives, is crucial for learning and forming long-term memories.

So not getting enough sleep gets counterproductive.

Washington University (Tim, 2018) researchers conducted study with a Group 1 and Group 2, group 1 arrived in the lab at 9 am for the first session to go through a list of syllables that appeared individually,

and then returned at 9 pm to recall as many syllables as they could. Group 2, did the reverse, they were shown a list at 9 pm and had to retrieve it from their memory at 9 am the next day. Group 2's 12 hours were separated by sleep, whereas group 1's with routine activities. Group 2 retrieved 46% more than group 1.

The second aspect is that the smartphone, the iPad, or most other gadgets are built to deprive the user of sleep. Too strong a statement? But the science says otherwise, To sleep, we need to help our brain waves slow down.

- Using Mobile before sleeping is a universal norm: the University of Bergen in Norway found that more than 75% of the users use mobiles to play games, surf the web, or text after getting into bed to sleep.
- The more they use mobile in bed, the more pronounced are insomnia and daytime sleepiness.

Why is sleep deprivation a problem?

Most of the modern age ailments are a result of chronic sleep deprivation, Dr Vipul Rastogi, Neuropsychiatrist, Medanta, Gurugram. Sleep deprivation may lead to weight gain, heart disease, high blood pressure, diabetes, depression, stroke, and many more modern-day disease.

Over time, lack of sleep and sleep disorders can contribute to the symptoms of depression. In 2005, Sleep in America poll, the pre-existing condition of depression or anxiety was likely to get less sleep (less than 6 hours). The most common sleep disorder, insomnia, has the most definite link to depression. (Camille, 2014)

### 5.3.1. (b) Sitting

“Sitting is the new smoking” is a statement we hear more often now than we ever did before. The working hours, studying hours, watching television, commuting to the workplace, and back, and now another reason to sit in smartphone usage. The hours spent on SM usage are increasing every day, and we do most of it while sitting. In 2012, Dr. Martha Grogan (Bill, 2015), a cardiologist at Mayo Clinic in Minnesota, stated that “For people who sit most of the day, their risk of heart attack is about the same as smoking.”

- “We are sitting ourselves to death.”

“Today, our bodies are breaking down from obesity, high blood pressure, diabetes, cancer, depression, and the cascade of health ills and everyday malaise that come from what scientists have named sitting disease.”

~ *James Levine, MD, PhD*

### 5.3.1. Physical Manifestations of SM Overuse

#### 5.3.2. (a) Comparison

“Comparison is the thief of joy” said Theodore “Teddy” Roosevelt, the 26<sup>th</sup> president of the United States. On Social Media, that is the most frequented emotion that the user experiences. The race on SM is about the best of everything; best marriage, best vacation, best friends, best parties, best weddings, i.e., nothing but the best and the perfect. The effect on the others is what it may or may not be intended to be- making them feel low and belittle.

#### **Happiness**

$$\text{Happiness} = \frac{\text{What we Have}}{\text{What we Want}}$$

This equation is certainly not a new thought; there is no ‘rocket science,’ but the most obvious things sometimes need special attention. The logic says, if the numerator is more than the denominator, the result is the desired increase, in this case, “Happiness”. “What we have” is dependent on a lot of external factors like money,

health, etc. What seems feasible is decreasing the denominator, which in this case is “what we want”. Arguably, it should be more within our control. “Comparison” is the trouble creator here. Comparison with

- the fitness level or skin color of a movie star (her/his posts may be photoshopped, but that is what we see, (News18lifestyle, 2020),
- holidays pictures of your close friends or colleagues (the reality might be different, but then the photos are perfect, so our denominator increases).
- a new luxurious car your friend/relative just bought and posted (even without Social Media this information would flow to us, but our circle of comparison has increased manifold, from 10 real-life friends and say 40 family members to compare our lives to, we have increased it to thousands).

When the factors increase our denominator, “Happiness” comes down

- The principle of Social Comparison, as discussed by Sam Polk (Atler, 2017) describes how social comparison affects our happiness. If we are making \$40k, we can be happy or sad. \$40 K remains the same, but it will make you happy or sad based on what others make.
  - The feeling of Relative Deprivation (for a school girl with 200 followers, her senior with 2000 is where happiness is.)

Since our world of deprivation has expanded, there is a provision to stay in the “comparison rut” forever.

The comparison is with ourselves as well. “Beamon-esque” can explain the concept better. Robert Beamon set an excellent record in the 1968 Mexico City Olympic Games in the long jump after faltering in the qualifiers, jumped so well that there was no suitable measuring tape in the stadium. “Beamon-esque” term coined to signify an otherworldly achievement that dwarfs its predecessors and even what you can achieve shortly.

Jeniffer Aniston, on her debut on Instagram, in one hour, Aniston's page had attracted more than 116,000 followers (Guardian, 2019), now for her to keep up to it is not an easy thing to achieve. So every time a post gathers good or substantial likes, the next post has to beat the earlier one; otherwise, it is no fun.

The truth is that the decisions taken privately are the real ones, where the fear of being judged is not there. Social interactions are online or offline. The experiment conducted and shared in the book *Predictably Irrational* (Ariely, 2008) the subjects were observed placing orders for the drink to have when with peers and when asked privately. The realization dawned that they did not realize they were not true to themselves when announcing aloud what they wanted to drink. The direct implications for Social Media postings. We start leading a life which might well be appreciated by others, without even realizing how we want it to be.

### **5.3.2. (b) Likes: What do "Likes" mean?**

"Likes" do not necessarily mean that we are appreciated. It might mean a lot of online social constructs, the predominant one being "you liked my post, I am returning the favor." The race to "likes" is a fake appreciation a standard user is counting on. (In the case of celebrities, "likes" do mean appreciation and in common parlance also, it might mean appreciation sometimes.)

Creative "Fake" vs. "Real" Fake

"Fake" is a word we hear commonly now; the discussion around the "perfect" life circumvents the "fake". The attempt to portray what is not true is "fake." Buying a car, when you cannot afford it but because your friends (online/fake) have bought one and got "likes" for it, is artificial life. We can learn to manage the creative fake i.e., the fake we are creating around us with the "perfect "baggage," but the "real fake" is the online friends or followers who are not

real people but created identities to make you seem popular. Fake people have no reason. Also, the real fake like Alexa, Siri, Cortana, is that it!

Unfortunately, these are the two categories; we are aware, but reviews posted may be from artificial people, “likes” and followers and retweets from artificial people. In 2018, the rate of the first 25000 fake followers was \$225. These counterfeit people have an industry dedicated to them. (Lanier, 2018)

How can we fight an army of people who do not exist? Have they just been created to up the likes and followers to an unattainable level?

Competition with fake people would increase the denominator (of happiness) beyond repair and unhappiness rise.

### **5.3.2.(c) Unhappiness**

Studies found a correlation between Social Media use and unhappiness, but was the reverse also correct?

The University of Michigan and the University of Leuven in Belgium (University of Michigan, 2013), developed a study with 82 young adults for two weeks. All of them had smartphones, and Facebook accounts. They were sent text messages at intervals and asked about their happiness at that moment. How much had they been using FB? They used experience-sampling to measure how people think, feel, and behave every moment in their daily lives. This information was taken at random times five times a day for weeks.

The study concluded that as the usage increased, the worse the user felt. The authors also asked people to rate their level of life satisfaction at the start and end of the study. Similar results, conveying that the participants felt less satisfied with their lives, the more they used Facebook.

When they were using FB more, they felt unhappy and not the other way round. (Lanier, 2018). In the meta-analysis study (Cheng, 2014) the study across 31 nations revealed that the prevalence rate of Internet Addiction across world regions. The study concluded that the Internet Addiction (IA) prevalence is inversely associated with the quality of life, as reflected by both subjective (life satisfaction) and objective (quality of environmental conditions) indicators.

It is said that CIA/NASA files can be leaked, but FB and Google's algorithm "no way!!". It is kept protected. People have not been able to access it, though they have tried hard. So, a stranger, Mark Zuckerberg is controlling us with FB, Insta, and Whatsapp. So much power vested with one person has never been the case and monopolies have never been good.

#### **4.3.2. (d) Lack of Empathy**

SM addiction is real and is not a by-product but an intentional move by smartphone and Social Media companies. It is imperative to discuss that it isn't an evil intention that has given rise to the addictive media or devices. The Business Model of behavioral modification is to be blamed for the present chaos.

To explain it further, we are not paying the Social Media companies any money to be on the platform to connect and share our lives with our online friends and family. Facebook is a giant with the ownership of WhatsApp, Instagram, FB messenger, and Facebook itself and is one of the most substantial monopolies probably in history. Mark Zuckerberg is a powerful man, not because users are paying him; the users are not even considered its customers. So, who are the customers?

Its business model is revenue earning through advertising. Advertising is one-on-one in the Facebook regime and is done to perfection. With the data of the world (a little exaggeration) at its disposal, Facebook not only targets the customers with the products or services, referred to as advertising, but has upgraded itself into manipulating the behavior of the users. Facebook came out and boasted that they could manipulate the users into feeling sad or happy by changing or managing their feeds. Also, the Donald Trump victory in 2016 elections had a lot to do with the speed of fake news against Hilary Clinton, and even the movement “Black lives matter,” indirectly kept the black voters away from voting and contributed heavily to Trump’s victory. Had Hilary hired FB to manage its campaign, who can say what the result would have been!

The Illusion of Truth (Emily, 2019) is created by the heavily dependent strategy of Behavioural Modification Addiction, i.e., “A reliable way to make people believe is frequent repetition because familiarity is not easily distinguished from truth”. The Social Media page or WhatsApp shows the user the same message so many times that without even realizing it, the user starts believing it to be true.

Norm Theory is another tool being used to manipulate behavior. Norm theory states that “Strange things when they happen frequently are accepted as Normal”. We meet a close friend at an airport of a foreign land, we are surprised, next month we see the same friend at another unrelated place, the unbelievable nature of the situation decreases, and it is considered normal.

Marketers and politicians have always exploited the illusion of Truth and the Norm theory. The exposure of the user to the media is 24/7, and their task has become more accessible. This new Business model is striking Democracies in an unfamiliar and undesirable



way. In countries besides the United States, like Turkey, India, the challenges are arising as now behavior modification has become the forte of the SM giant/s.

### **Effect of Secretly using the Behaviour Modification Tools**

The problem with the business model of behavioral modification is that the user is not aware of it. It is similar to not seeking permission before trying to hypnotize the user. It is unlike a psychological experiment, where you agree to be tested.

This Behavioural Modification has been made possible by the “Customization” virtue of the world wide web. In ideal circumstances, the user signs up for certain features, like customization of news app, and is happy to receive the feeds based on his/her preferences. The user is now shown the feeds/advertisements/product suggestions even without asking for it.

“Artificial intelligence” and “data mining and analysis” have made it possible. If the user watches a particular video on YouTube, he would be shown suggestions similar to that one. (watching a video that supports the Government, would stream related videos and *vice versa*)

The problem is the propagation of “lack of empathy”.

Each user feed is different, so when debating on a particular topic, the two have no commonality. Compare it to the era of radio, television, the whole city or nation would watch one piece of news or a particular series on Television. The difference of opinion would exist, but people would know where the other person is coming. Now that line has been blurred beyond recognition.

“Lack of empathy” is giving way to “cyberbullying,” which again is a reality. Bullying has existed since time immemorial; the difference is that in the case of “cyberbullying,” the opportunity to bully is 24/7.

Cyberbullying is abuse and mistreatment (verbal and non-action) of someone vulnerable (anyone and everyone online, connected) by someone more robust, more powerful, etc. (this is anonymity and the crowd). Unless you keep away the device, the chances of being bullied at 4 am are as high as noon.

India had the highest rate of cyberbullying (Intel Security, 2015). Social Media is the medium where cyberbullying is prevalent. The interactions on Facebook, Instagram, Snapchat, Twitter; or SMS (Short Message Service); Instant Message (via devices, email provider services, apps, and Social Media messaging features) and Email.

It is not only rude that constitutes cyberbullying. Zero likes aren't just privately painful but publicly humiliating as well. So, silence is a potent tool of cyberbullying (Atler, 2017).

### **5.3.2. (e) Anxiety or Work Burnout/Low productivity**

Fasted modes of communication have increased the pace and productivity of the business, mainly supported by the Emails, which are proof of contract between the two parties communicating. It is an asset that is becoming a tool of anxiety for the user.

The concept of multitasking (Kahneman, 2011) is not a real concept. Multitasking doesn't exist; it's like an animator's flip-book. When we are performing one task, we temporarily stop the other. So, whether it is responding to e-mails while studying or to text messages while driving, the act of leaving one task midstream to pick up another is costly in terms of both time and accuracy. Switch Costs are high: The additional time it takes to reorient ourselves to the passage after each quick diversion. The email notifications, which should increase productivity, actually disrupt the flow of work.

It is far better to recognize separate tasks and to complete them one at a time. It takes up to 25 minutes to become re-immersed in an uninterrupted job (Atler, 2017). So that makes us live in an unproductive zone throughout the day or life!! When we come back to the task on hand, we will have to pay the switch cost, which is more than a few minutes away from work, the time to figure out where you left, also referred to as “Broken Attention Syndrome” (Sharma, 2019).

“Law of Least effort” (Kahneman, 2011) can best explain this behavior. The scenario of doing something meaningful and then immediately switching to Social Media or news app or chat window seems unproductive to the rational mind. But whoever said, we are rational (Ariely, 2008). The law of least effort applies to cognitive as well as physical exertion, implying that Laziness is in-built in the human system. So, while doing something that required deep thinking, the more comfortable option like Social Media account views, chatting, watching videos would be more attractive and hence give way to unproductive behaviors.

Here it would be apt to discuss the much known and accepted System 1 and System 2 approach of the Human mind working. The system which works automatically and quickly without much thought is categorized as system 1 and the effortful, analyzing section is system 2. (Kahneman, 2011) Social Media usage as a pattern seems to be the function of System 1, which cannot be turned off. So, looking at a picture of someone you know, you cannot but recognize the person. System 1 is responsible for it. If the analytical mind function, system two was operating, the excessive use of a smartphone or Social Media should be registered as addictive, and system 2 shall not allow the same. Still, as we see, system 2 is rarely in-charge.

Also, repetitive tasks, reduce the system 2 effort and shift to system 1 mode. According to an Apple report, the average iPhone user tends to unlock his or her device 80 times a day. So, a repetitive task like using a smartphone would encourage the use of System 1.

Again, when feeling overwhelmed or tired, again, System 1 takes over. (Morning person may use Social Media at night and vice versa). Evidence suggests that people are more likely to be influenced by empty persuasive messages, such as commercials when they are tired or depleted. Online shopping at night is more than during the day, is requiring the companies to set up night shifts in London.

System 1 has more influence on behavior when System 2 is busy (and it is said, it has a sweet tooth), so when doing something critical (like studying), the app notifications act like chocolate cake i.e. an irresistible temptation. So we go for broken focus syndrome and live in the low productivity zone.

The syndrome called “Inbox Zero” (Atler, 2017) is not a reality.

“Inbox Zero” “Inbox Zero”-Checking emails as soon as they come.

- 70 percent of the office emails are read within 6 secs of arriving
- people disrupt whatever they are doing to look and answer the email
- it takes 25 minutes to become re-immersed in an interrupted task.

(so if we open just 25 emails a day, we shall be able to spend no time in the zone of maximum productivity).

### **5.3.2. (f) Pictures**

Clicking Pictures are no longer for treasuring the memories but only to post for “likes” and “comments”. Clicking pictures have become the experience. The scriptures of any religion or the spiritual preachings encourage everyone to be “mindful”, which entails living in the present moment. “Mindfulness” goes against the lifestyle of Social

Media and smartphone usage, where even food is clicked (and also posted online) before eating it, also if it implies that the ice cream will melt or the sizzler would be cold when the time to eat comes. Enjoying the sunset has taken a backseat to click the perfect shot of sunset (till the sun finally sets).

### **What is the harm of clicking pictures?**

Deaths by selfies (also referred to as killfies by some researchers, 3.7) are a reality, a report in 2019 found that 259 people died between 2011 and 2017 while clicking selfies at dangerous locations. According to some reports, in 2015, more people died from taking selfies than shark attacks. Some enlisted selfie deaths of Social Media celebrities like, Gigi Wu, an experienced hiker from Taiwan, travel bloggers Meenakshi Moorthy and Vishnu Viswanath, and many more.

Disneyland, a dream destination of most of the kids, banned selfie sticks at its theme parks (3.8), citing safety as a concern. The Russian government (3.9) started the “safe selfies” movement by releasing a guide educating people on how not to die taking one, even banning it at various places.

Clicking pictures and excess checking of the phone has given rise to a phenomenon called Phubbing. An acronym for Phone+Snubbing=Phubbing (Mishra, 2014). Phubbing has proven to be harmful to the emotional well-being of people being phubbed. The research also reveals that people phub the people they love (like their partner or children) more than their colleagues or bosses during the meetings. It is an alarming finding since the relationships are heading southward because of missing “mindfulness”. Phubbing (Matsua, 2005) leads to lower quality of interpersonal interactions, and people are losing the art of face-to-face interaction, lower levels of empathic concern compared to those in the absence of a smartphone on the table.

## 6. Conclusion

The paper reviews the process of how some beneficial inventions (smartphone and Social Media) are creating chaos in the minds of people and hence impacting society at large. The reasons attributed to overuse are the misuse of the technology, but the study delves further into the science behind it. Dopamine release as a result of random feedback and suppression of Melatonin release by the blue light emitted by most of the digital devices. To counter this problem, an online learning company ByJu's has tied up with Lenovo to create the tab for learning with a less blue light so that the kids do not get addicted and stay awake at night. This would give their "hippocampus" enough rest to process the learning. ByJu's is an apt example of what the companies should act. The equivalent example is the situation that arose when made public that lead in paints is not good (Lanier, 2018). No one decided that they would never get their houses painted but waited for better options, in this case, lead-free paint. The situation with smartphones and Social Media apps is similar. No one is expected to shun the use altogether. By creating awareness, usage can decrease. These efforts would make the technology giants take note to promote users' physical and mental health. The simple act of showing only "likes" sans numbers is useful since the numbers lead to comparisons and a decrease in the happiness index.

From the users end, being "mindful" helps, replacing bad habits with good ones and so does the conscious effort of cutting down "multitasking"(which as discussed is not humanly possible) and many more.

The field is worthy of constant research, and the starting point is "Creating Awareness," and the paper can lead the way into that.

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## **A Study of the Roots of Conspicuous Consumption and Conformism in India**

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### **Abstract**

One of the most exceptional behaviour of a consumer is ‘Conspicuous Consumption’. In simpler terms, it means the practice of buying commodities and services to display their economic power. In the following research, attempts have been made in the past to unravel the reason behind this buying behaviour. The objective of this paper was to study the buying patterns of consumers who indulge in ostentatious behaviour. A research was conducted consisting of questions related to conformism, buying behaviour, and product preferences. The sample population includes people belonging to diverse age groups. According to the results, Conspicuous Consumption still exists in today’s time, and it doesn’t seem that it will die down soon. The research was able to establish a relationship between the age group and the social status of people and their buying practice. Furthermore, it was also established that consumers believe that the price of a product is an unimpeachable indicator of its quality.

### **Keywords**

Enterprise, Conspicuous consumption, Buying behaviour, Conformism, Social status, Obvious, Society, Consumer behaviour, Age, and Price.

### **1. Introduction**

The idea of Conspicuous consumption can be explained by considering the motivation to own an expensive phone when a nominally priced phone is enough. Any phone can satisfy the basic requirements of calling and texting, but an expensive phone such as an iPhone will attract attention to the affluent owner.

The word was first coined by economist and sociologist Thorstein Veblen in his acclaimed book ‘The Theory of Leisure Class’. In his book, Veblen states that there isn’t any class distinction or institution of ownership in the primitive society. However, when the institution of ownership began, a class distinction also came into the picture. Terming

the new developments as barbaric, he claimed that the basis of leisure class could be found here. Despite Veblen's satirical and humorous attack on society, he was able to deliver a serious and important economic analysis of society, and stated his idea of "signalling-by-consuming."

Solnick and Hemenway, in 1998|2005, studied and described the phenomenon of not just desiring "more" but more "more than others". They stated that people always compare themselves to each other and always want to have more than others. Not only is the product's absolute value taken under consideration but also the status associated with it. What the product's economic value means to others in society holds a lot of weight while buying a product (Corneo & Jeanne, 1997; Mason, 2000). Certain parameters are associated with the purchase of a product like its cost, wealth, and income of the consumer. However, certain researchers namely, Chen, Yeh, and Wang (2008) ascertain that while it is a signal of wealth it is also used to denote something less quantifiable like status or power. In pellucid terms they defined conspicuous consumption as "the extent of one's behavioural tendency of displaying one's social status, wealth, taste or self-image to one's important to reference groups through consumption of publicly visible products".

Yan and Mattila, in 2017, claimed that "experiential purchases" have garnered more popularity than "materialistic purchases". Experiential purchases are those which one can only feel but not see, like going to see a movie in the world's best theatre, whereas materialistic purchases entail those purchases which one can see like cars, phones, houses et cetera. It has been observed that consumers would spend more on travelling to murky places than shop from luxury stores. Our society's propensity towards "feelings" has augmented so much over the years that we can now be called an "Experience over material" society. In fact, in this era of Social Media one can easily claim that it is not just about one owns but also about "what one has felt" or "who" one knows and this makes this behaviour even more interesting.

While several studies have been conducted in his field, this research's contribution adds more perspective into Indian Society and this ostentatious behaviour when it comes to consuming goods. This paper's primary objective is to study the prevalence of conspicuous consumption in today's Indian society and how germane is it to the modern characteristics of a consumer. The topic of interest is to understand this

interesting pattern of ostentatious behaviour and Social Media. Why the young adults of this country are concerned about their status, probably more than their parents. Along with this, the paper also aims at studying the relation between age and status.

## **2. Objective of the Study**

Profligate consumers who indulge in squander typically to gain a certain status in the society than cover their basic needs are found in every corner of the world. In fact, in his book, “The Theory of Leisure Class” (1899), Veblen states that “In order to gain and hold the esteem of men, it is not sufficient merely to possess wealth or power. The wealth or power must be put in evidence, for esteem is only rewarded on evidence”. This helps us in concluding that one can quantise his/her wealth through consuming ‘*conspicuous goods*’. Hence, we can describe a *conspicuous good* or *service* as something that can be seen by everyone in society.

The objective of this study is to:

study the motivation behind conspicuous consumption and how pertinent is it in today’s society, to decipher a pattern of conspicuous consumption by finding out a relation between a consumer’s age and social status with his/her buying pattern, to study the motivations and inducements behind this economic activity. Lastly, to study its relation with *conformism*. Before we go through, I wish to clarify the definition of conformism. It merely means the act of matching behaviors, attitudes, and beliefs with a certain “*coterie*”.

## **3. Review of Literature**

Consumer buying behavior can be explained as the total of all the attributes, attitudes, preferences, decisions, and intentions that a consumer exhibits while purchasing a good or service. It has been found that gender doesn’t influence buying behavior or consumption pattern. Males and females do not show any difference in brand awareness, shopping frequency, and shopping expenditure (Namita Rajput, Subodh Kesharwani, Akanksha Khanna 2012). Conspicuous consumption is also defined as “visible consumption of goods as a mechanism to enhance one’s social standing” (Grace and Griffin, 2009). Conspicuous consumption has been long considered as ‘wrong’, ‘squandered’ expense that delivers zero value (Mason, 1981). Indulging into expensive ostentatious consumption helps one in singling his status by indicating

wealth and hence status. This can be explained by considering that people believe the high prices to be tantamount to high status. In fact Veblen, in his book, describes two strategies that bolster social impressions- a) Conspicuous consumption, and b) Conspicuous leisure. Conspicuous leisure involves throwing away time doing unproductive activities which will corral attention, whereas Conspicuous consumption involves indulgence in wasting money by buying expensive, lavish items (Veblen, 1899). What can also be a factor in inducing such behavior is the need to be unique and the urge to 'fit' in a particular group. The urge to be unique can be explained by the theory of the snob effect, which makes a person buy unusual, eccentric, and exclusive products (Malgorzata Niesiobezka, 2019). Adding to this, it has been found that young people who are status-concerned are more likely to be impacted by interpersonal influences. There were pieces of evidence that males are more likely to engage in conspicuous consumption than females (Aron O'Cass, 2004). Specific brands can be perceived as brands that maintain exclusivity, and communicate superiority and high social position of the consumer (Zinkhan and Prenshaw, 1994). "The desire for status is not exclusive to the wealthy" (Mason, 1992; Ram, 1994; Underwood, 1994) and "it may be that conspicuous symbols of status are more meaningful to both the affluent and those of modest means" (Bansanko, 1995). Belk (1988) argued that, "even in third-world (developing) countries people are often attracted to and indulge in aspects of conspicuous consumption before they have adequate food, clothing, and shelter". This clearly indicates that irrespective of social status, people are always pulled towards the products that signify wealth.

#### **4. Research Methodology and Study**

A survey and research were conducted wherein the following questions were asked. We appreciate the copious response received. A total of 348 people took part in this survey.

**Table 1: Summary of the Participants**

Mean age	25.17 years
Median age	21 years
Mode age	20 years
Range	60 years
Standard deviation	10.93 years

**Table 2: Survey Questions and Answers**

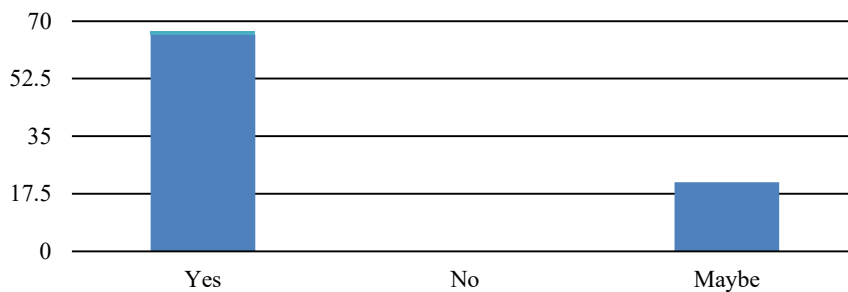
<b>Questions</b>	<b>Percent of people answered YES</b>	<b>Percent of people answered NO</b>	<b>Percent of people answered MAYBE</b>
Does Social Media influence your purchase choices?	62.9%	12.9%	24.1%
Does owning expensive/Luxurious goods give you a sense of superiority?	25%	42.5%	32.5%
Does owning expensive/Luxurious goods make you confident?	43.4%	32.2%	24.4%
Do you think owning expensive items has become a rat race?	78.7%	9.5%	11.8%
When sad or depressed do you feel the urge to shop?	23.3%	62.4%	14.4%
Do you feel people buy expensive items to hide their insecurities?	39.4%	21%	39.7%
Do you feel that people judge you on the basis of your material possessions?	56.3%	37%	33%
Do you think celebrity endorsements help in the selling of a product?	74.6%	16.1%	9.3%
Would you be happy if you spot a celebrity wearing the same item as you own?	57.5%	14.7%	27.9%
Do you feel that one's position elevates in his/her group if they own a luxurious product?	31.9%	39.9%	28.2%
Do you believe that social status is defined by material possessions?	37.1%	31.9%	31%
Is social recognition important?	53.2%	17.5%	29.3%

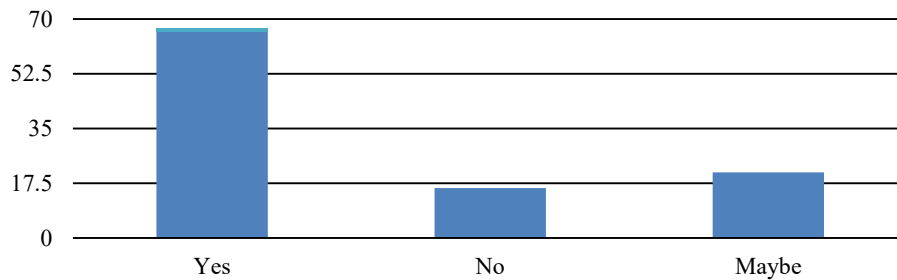
Apart from the above questions, they were also asked to choose one of the following A. *A mobile phone that satisfies your need and is recognised by society as cool and voguish, thus expensive.* Or B. *A mobile phone that satisfies your need but may hamper your reputation.* A total of 79.4 percent of people chose to go with option A.

## 5. Results

From the results, it can be safely inferred most of the young adults from age group 18-21 were affected by Social Media. The following graph suggests that most of the 21-year-olds people responded yes when asked about the incline of Social Media on them. In fact, none of them answered 'no'. Whereas only fifteen 20-year-olds said that Social Media doesn't affect them.

It was also observed that most of the people feel confident if they own Luxury Goods, which also suggests that indulging in conspicuous consumption helps them overcome their insecurities. The peak is observed at the age of 20 and 21, suggesting that people belonging to this age group may indulge in conformism. It has also been observed that one of the motivations behind people buying expensive goods and resorting to conspicuous consumptions could be to 'fit in' their peer group especially in the case of young adults. 74.6 percent of people said yes when asked if they would be happy if they spotted a celebrity wearing the same item as you own which suggests that people look up to famous personalities and would someone want to be like them and would be happy in associating with them on any grounds possible. The response received was very mixed when our subjects were asked if they feel that one's social position elevates if they own a luxurious product. The peaks of all the three options coincide, which implies that for some people owning expensive goods is related to their status in their group.

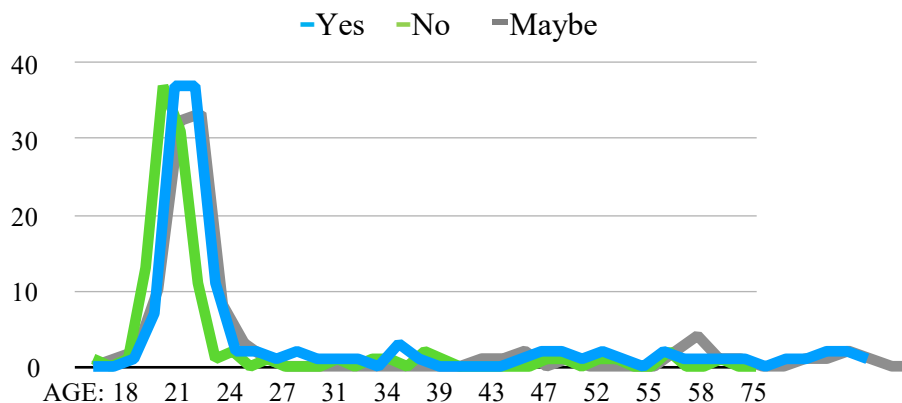




20

**Figure 1: Age Group of People most Affected by Social Media**

The subjects were given two choices: To choose a Vougish phone which is trendy or a normal phone that will satisfy their needs but is not trendy. The survey shows that 79.4 percent have chosen wants over needs. They opted for products which will provide an evidence of their social status.

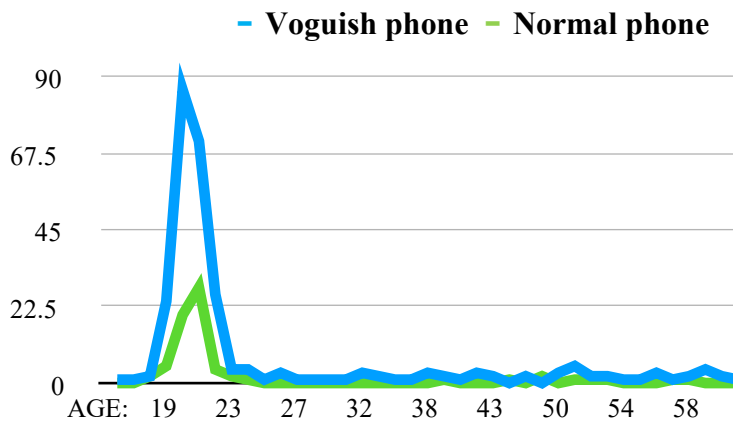


**Figure 2: When asked if they Feels that Social Position is Affected by Owning Luxurious Products.**

## 6. Conclusion and Discussion

Conspicuous consumption still exists in today’s time, and it doesn’t seem that it will die down soon, and most of the young adults indulge in this kind of buying behavior and believe that expensive, luxurious goods provide evidence of their social class and may elevate their position in their peer group. This buying pattern can be related to conformism since people want to fit in their peer groups by changing themselves or their behavior and indulging in activities deemed as ‘right’ by their friends. People believe that social standing is an important aspect of their life and hence sometimes feel judged if they do not own ‘fashionable’ or ‘up to

date' products. In fact, people would keep their wants above their needs. They will readily fritter away more money on a product if it provides proof of their wealth and social status.



**Figure 3: The Response of People when asked to choose a Voguish Product of the Normal Product which is not Trendy.**

According to the theory of reference groups (Robert K Merton), people compare themselves with certain individuals who hold a certain social position which these people aspire to occupy. This leads to the evaluation and reconsideration of their qualities and attitudes. Thus by applying this theory to our research we can firmly conclude that people aspire to be like those who have a higher social standing than them. This leads to people indulging in conspicuous consumption and activities which will help them believe that they are at a high social standing than others. In some cases, publicly visible goods help people feel confident and hence hide their insecurities. Lastly, since people are affected by the people endorsing a product, it can be believed that conspicuous consumption leads to economic growth and hence is the reason behind the swelling of luxury markets.

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## **Specification of Brief History of Entrepreneurship Development in India**

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### **Abstract**

Entrepreneurship being the central atom of production, operations, and business, needs to be decoded perfectly now more than ever. It ensures the functioning of other factors around it and verifies their optimum use. With the advent of Globalization, Digitalization, and Modern technology the face of Entrepreneurship has also changed in every aspect. This paper studies history of the Entrepreneurship development and growth with Kautilya's perspective and how the British Government has influenced Entrepreneurship as a discipline. Further, the paper summarises the evolution of modern entrepreneurial techniques and its implication and challenges during pandemic 2019, on trade and business. The paper further studies the influence of Entrepreneurship on the legal and economic policies and prospective opportunities for neo entrepreneurship in India. The paper produces few suggestions for reforms in policies in favour of entrepreneurship development in digital India.

### **Keywords**

Entrepreneurship, Digitalisation, Globalisation, Public private partnership, and Women entrepreneurs.

### **1. Introduction**

Hayes (2020) said that there are several factors of production, such as land, labour, capital, and entrepreneurship, and entrepreneurship is a major contributor which enables an enthusiast for taking risks and facing challenges to bring everything together and create a strong base for operations and productions. Hisrich and Peters (1995) described entrepreneurship as the process of creating incremental wealth by an individual with a commitment to provide services or products with value

by exercising necessary resources with time and efforts. Motha (2007) referred to entrepreneurship as a process of action taken by an entrepreneur for establishing an enterprise.

Mathur (2014) lamented that the entrepreneur develops a new idea and takes risk of setting up an enterprise to produce a product or service to satisfy customer needs.

Entrepreneurship is an act of taking unpredicted and unforeseen risks that may arrive in the future due to some of the actions of trade, science and technology being taken now in the present. Entrepreneurship is the very basic nature of human existence, and has helped people evolve, develop, and progress through centuries and thus the power it possesses over humanity and life in general cannot be undermined.

However, as it is evident change is the only constant in this world and so even this noble discipline of Entrepreneurship has witnessed various changes and modifications over the periods of time. Every country has its own form of trading and so does our mighty land of India. Perhaps, given the saddening and British-ridden history of our nation, the journey of Entrepreneurship has not been easy for us. Thus, we divide the growth of Entrepreneurial development in India into three of the given phases.

- Era prior to the advent of the British Empire
- Era of the rule of the British Empire
- Post- British rule and modern-day Era

### **1.1 Phase I: Era Prior of the British Empire**

Being referred to as “Son-chiraiya” which stands for “Golden Bird”, India was a tycoon proving its best practices and adaptations of trade and business in the world. Bharat (India) with its blessed gift of rich heritage and royal culture was the first in the entire world to coin the term “Vasudhaiva Kutumbkum”. This Sanskrit phrase of two words may look like nothing but, it speaks volumes. The phrase signifies that the entire world with all its countries and every part of them is like the one big family. The conduct of the entrepreneurship of India has taken the whole world by surprise and respect. At this time, India had a very good substantial market share in the domain of the world trade. Some of the famous trades which were being conducted at this time in India include the prevalent and most primitive silk trade that was done through the classic silk route, the trade of spices, and herbs. India was the biggest manufacturer of the textile industry before the dominance of the cruel Britishers took over it.

### **1.1.1 Entrepreneurship during Kautilya**

350- 275 BC is known as the period of Kautilya (Chanakya) in Indian history. Kautilya in himself is a highly intellectual and wise person with a strong character and sense of humour in the old India. He was the chief advisor and consultant of the prime minister Chandra Gupta then and was highly accomplished in his field as a scholar. He had quality experience and expertise in the areas of administration and Entrepreneurial development in the court of the-king. He played a diversified and diligent role in shaping the face of Entrepreneurship and Administration in this era with his methodologies and excellent mind powers. He penned down several books on the right and perfect conduction of duties and responsibilities of a man.

In the second book of Arthshastra i.e. the duties of the government superintendents to deal with the business and economic activities of the court, the idea of the correct Entrepreneurship and Governance had been laid out for generations to follow and remain consistent and persistent with the value of trade, business and entrepreneurship had on the society. The book prescribes equal importance to the concepts of divided labour, coordination of people, and the hierarchy of work. Even today, this piece of advice is as beneficial and successful as it was back in the days of Kautilya. It drives peace and unity among men and women coming from different backgrounds with the sole purpose of engaging in advantageous trade and business to help in the entrepreneurial growth of the society.

### **1.1.2 Entrepreneurship during Mughals**

The extremely powerful land of India was not hidden from the greedy eyes of Mughals who had come to acquire and rule her lands. Mughals rule in India lasted for centuries from about 1526 to 1858 AD. Mughals had put their own minds on the successful business of India and amalgamated in it some of their own practices and theories of conducting trade and entrepreneurship development in India. They had conflicting

views and tried to change the Kautilya ways in their own ways of trading, but it did not have negative effects on the business. The business and entrepreneurial development of India went on progressing and growth even in this period of the Mughal rule so much so that its progress at that time was remarkable and unparalleled as compared to any other nation in the world.

### **1.2 Phase II: Era of the Rule of the British Empire**

1858 to the year 1947 has been marked as the British Era in the history of one of the strongest nations of the world at that point of time. Before the interference of Britons, India was highly successful in all its corporate and revenue - generating endeavours. It was a period of entrepreneurial success and benefits from all the trade that India was involved in. It was growing and evolving in all the sectors of trade and commerce. There were major communities in India like the Gujratis, Parsis, and many more who were deeply enjoying the fruits of great revenue.

The sectors extended from spice to textile and there was a huge demand for the products from India. It produced a lot of employment and establishment of major production units which increased the manufacturing capacity and production facilities. Agriculture was the biggest industry and continues to be the main source of income for millions in India even today.

After the rule of Britishers started in India, a lot of these things changed. Reynolds et. al. (2004) found that British Occupation, religion, cultural values, and government regulations had negatively affected entrepreneurship in Indian Culture. Handy et. al. (2000) affirmed that it was government regulation that impeded the process of e-ship in India. The evidence shows that how Indigo Farming has been forcefully introduced in Bengal and the agricultural land was made barren by Britishers, Collection of Rent on Land was an exercise executed with cruelty during British rule. The rules and effects of Britishers changed the course of business, trade, and commerce in India. And it demolished the trade in every sector.

### **1.2.1 The Economic History of India (Source: Cambridge)**

The inferences given above can be taken under consideration of the boom of the Indian economy and its impact on world trade. The early periods in Indian history clearly suggest the massive and impressive growth the commerce had in the country.

### **1.3 Phase III: Present Trends of Entrepreneurship in India**

In a world transformed by cyber culture, everything has changed or evolved taking their actions with this massive cyber facility available at every corner of the world now. Mishra et.al. (2016) concluded that government policies are supportive to the entrepreneurs. Many new-age entrepreneurs have come into the real game and transformed their traditional family business into a digital eco-system that not only includes business activities but the welfare of the mankind.

These days, entrepreneurship is no longer just confined to the family learned management system but has opened its wings to this whole new world of technology. With the advent of technology, risk management, and prediction of business strategies have become a trend in businesses. As said by Forbes India, new entrepreneurs must face the risk of fund and managerial and technical challenges that come their way.

The emergence of start-ups and new businesses have been a new ray of hope to turn India into a digital platform of trade and commerce. The process of business has undergone a complete change now in the present age as entrepreneurship has become more idea-driven and focused on new technology now more than ever. This concept of a new digital era was never imaginable during the period of Kautilya or the British rule in India.

The entrepreneurship thus evolving at this rate is more concerned with the development of socio-cultural factors in the world. For instance, Mahila bank is such an example where the development of underprivileged females has been made possible by providing them basic banking needs and necessities.

The primitive caste system that existed in old India and was followed rather passionately by the ones at the top of the revenue cycle has been totally disregarded and become useless in the 21<sup>st</sup> century making everyone equal. Along with this the racial and gender-based discrimination has come to an end because of the more open and evolved society that exists in the world today.

Present day government has laid plans and facilities to encourage people to take up entrepreneurship and open innovative businesses and models that could change the world for the better. For example, the Atal Innovation units and incubation centres named after one of the greatest politicians of India, Atal Bihari Vajpayee. The purpose of these centres and organizations is to help people with great ideas to get funding to start their businesses. They also help in the benefit of government and country growth and also have the capability to tackle the problem of unemployment by generating business prospects and jobs for people in various sectors and at various levels.

### **1.3.1 Entrepreneurship in 21<sup>st</sup> Century**

After India got independence from the British rule, the Indian commerce market became liberated and free of the rules that they had to follow under Britons. The government immediately started focusing on building businesses that promoted social and economic welfare in the country and on an international level.

However, since India had just liberated at that time, the capital investment that was there was low for the government agencies. But it was not the same for private sectors as they were investing well with a benefitting profit return. This, in turn, did cause a rift between the private and government growth in India and thus since then, there have been numerous debates and discussions and research on this topic. But overcoming the rift, public and private partnership became a pact and a beneficial move towards the growth of India and its progress.



Since 21<sup>st</sup> century has seen a remarkable use of technology and machines the ways of trade have also changed along the line. In India, technology has made its way even to the poorest of poor sections of the society and thus has changed the labour and skilled market extensively. This new sector called as Information Technology (IT) has become a striking necessity that is being used by the smallest of the businesses to the large and massive industries. This has further increased basic literacy and created a lot of employment opportunities in the past and continues to amaze the people of the world with its powers and capacities.

But this knowledge does not limit to the introduction and use of technology but also extends to the trends of outsourcing and crowdfunding. And thus, there are now so many more opportunities and chances of success for new businesses to thrive in the global market and present to the world their innovative and entrepreneurial capacities and talents. There are also many policies and challenges that have come into the way of trade in the 21<sup>st</sup> century.

### **1.3.2 Challenges and Policies of 21<sup>st</sup>Century**

As India got liberated, it wanted to create an atmosphere where each and everyone grows and benefited all. Being in the favour of the welfare of the people, society, and country it is not an easy job to create policies and implement for such a huge country like India. As we are aware that every business has its own needs in the context of carrying business out, the government must ensure that these policies are fair and best for everyone.

Therefore, at this moment of time the government aims at committing its time to ensure that the policies that are formed and implemented favours all and help in the growth of each. The demographic and occupational structure of India clearly suggests that the rural Indian economy is either based on Agriculture and its bi-product industries. Thus, the job of the government is to make sure that the entrepreneurial development is widely distributed to sectors contributing majorly to India's economy. The development and growth of

the rural sector would give a crucial benefit to the growth of the urban working sector and helps in the things like migration and urban economy. The real challenge lies where the government should form policies that help both these sectors to coexist by helping each other.

Apart from that, there are many industrial and manufacturing units that derive its labour from the rural population in India. Therefore, another challenge that lies ahead of the policymakers is to have a system where they help balance the growth of this sector in a naturalised way. This means that rather than focusing on the hardcore capital market the sensitive aspects of this front should also be taken into consideration. And so, the transformation and changes in the policies become important and necessary to promote our country's economy.

The legal system of the country should be made so strong and diverse in the context of entrepreneurship, business, and trade so India could emerge as one of the strongest nations to accomplish peaceful trade systems in a massive country like ours. Since the current system follows most of the rules left for us by the British government, it is high time that our present government digs up our past rules and implements them to secure what we aim for. The improvising in the sector is such that there can exist smooth and uninterrupted functioning of the enterprise and it motivates others as well to perform better in the market. Few of such provisions have been stated and explained below:

### **1. Companies Act, 2013**

The Companies Act came into force on the 29th of August 2013. The basic objective of this act was to develop the economy by encouraging valuable Entrepreneurship. This act of 2013 was implemented to make sure that there are flexibility and simplicity in the way that companies are formed. Further, the act also aims at the ethical and corporate governance. Apart from the motto of entrepreneurial development, the protection of interest of the stakeholder

was also given paramount importance. Also, the government was responsible for the time-bound approvals and implementation, the biggest achievement of this act of 2013 was to have strict control over the frauds that take place at the formation of the companies.

**2. Arbitration and Conciliation Act, 1996**

The Arbitration and Conciliation Act came into force on the 16<sup>th</sup> of August 1996. The aim of this act with concerns of entrepreneurship development was to check if there is an arbitration clause in an agreement then it may be tackled with utmost sincerity and transparency. Also, in addition to the entrepreneurial development, there is a special provision for the conciliation proceedings, where in the disputes can be settled at the earliest in the interest of justice.

**3. Industrial Dispute Act, 1947**

This act of Industrial dispute came into force on 1st April 1947. It came into existence to check if the Entrepreneurs at any level requires handling various issues of the labour-related problems. The main aim of this act was to make sure a healthy work environment in the industrial units. Thus, on one hand, it gives the management a warning to not take away the rights of the labourers and on the other hand to not spoil the working conditions of the industrial units in the way of strikes and illegal lockdowns. Thus, this act is one of the most valuable acts which contributes towards the development of Entrepreneurship in India.

**2. Future Prospects of Entrepreneurship in India**

With the drift in the world as technology advances, the impact of it on the development of Entrepreneurship is sharp and rapid. At this time, the government cannot take the risk of having an unbalanced growth of the economy. As far as the prospects of Entrepreneurship are concerned it has shown rigorous improvement in the past decade and shows positive signs of more contributing changes that can take place in the future.

It can be ascertained by the facts that there have been policies that are formed relating to the factors like population distribution, occupational structure, rural and urban imbalances, etc. and for these reasons, the opening of policies like Atal Innovation Scheme, Atal think Tanks is such a great platform for innovative and smart minds to put on the table what they have to offer. These schemes provide ideas to culture and give them all the educational, financial, and expert guidance they need to establish themselves in the market of their domain. It provides major benefits to all the people looking for any kind of assistance to make themselves and their ideas flourish in the real market.

Along with Entrepreneurial development, the government is also focusing on the issue of women empowerment. Therefore, the policies like Mahila Haat, which is a bilingual online marketing platform that helps us as a user to leverage technology so as to help many aspiring and intellectual women who are entrepreneurs and connected with self-help groups and NGOs to showcase their products and their services to the world with the help of their digital plate. This policy was launched in 2017 by the government of India to help empower rural women and hand them opportunities for skill development and employment. It also helped them enhance their digital literacy and community health. The Mahila Shakti Kendra works towards the benefit of the community and helps in community engagement by using the student volunteers in more than 100 backward districts. Each Mahila Shakti Kendra provides an excellent interface for the rural women to approach the government to avail their entitlements through training and capacity building.

The government is also required to meet with the trends that go on an international level and thus their involvement and commitment are obvious. Therefore, the government should always take on a positive approach to work on the development and growth of Entrepreneurship in India whilst giving equal opportunities to every individual.

### **3. Suggestions for the Policy Makers**

In view of the analysis that has been made above, it is most humbly suggested that the government takes some solid and rigorous actions for the development of Entrepreneurship and its commitment to the development of the same. Some of the suggestions that can be made in this situation and can be wise to implement for the benefit of society and the country are as follows:

- Education policy should be designed to expand economic opportunities for the upcoming young and talented entrepreneurs.
- To encourage women entrepreneurship, all the banks and financial institutions should be asked to provide proper investment plans for the women-owned enterprise.
- Special training courses should be offered for women entrepreneurs to improve their skills.
- There should be the availability of interest-free credit for women entrepreneurs if they are vulnerable and this should be provided by the government, banks and financial institutions, and wealthy individuals.
- Special assistance to be provided to especially disadvantaged groups like women in extreme poverty, destitute women, women in conflicting situations, women affected by natural calamities, women in less developed regions, the disabled widows, elderly women, single women in difficult circumstances, women heading households, those displaced from employment, migrants, women who are the victim of material violence, deserted women and all those who have been underprivileged and are unknown by the basic human rights.
- Development in the software industry, handloom pharmacy, hospitality, and other industrial units.

These are the suggestions for entrepreneurial and economic development, if incorporated in the policies, many positive improvements in the actions and pace of Entrepreneurship, and the overall development of the country can be noticed.

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## **Analysis of Online Product Return Behaviour of Indian Consumers: A Study in Delhi NCR**

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### **Abstract**

With the invention of High-speed internet and seamless online transaction processing, the scope of e-commerce has widened vastly. Online purchasing has invaded every urban household and has enabled services like online product purchases to be used by every person who has access to the internet and a bank account. The success of organizations dealing in e-commerce such as Flipkart, Amazon, Myntra, Zabong, etc is a testimony of how effectively e-commerce has achieved its goals in India. It is rapidly expanding to include more products such as medicines etc in its ambit. However, along with its vast success, there have been many instances where consumers have been left dissatisfied by e-commerce. It can be due to delivery of the wrong product, delivery of similar products with different specifications, etc. under such circumstances, the consumers are expected to initiate the return of products purchased through the online platform. The current paper aims to analyze the behaviour of consumers in this regard. Based upon the type of products purchased, the monetary value of purchase, time elapsed since the product was purchased; consumers behave differently with respect to online product return. The current paper is based on a study conducted in Delhi – NCR. The responses have been sought by urban consumers. The study has been conducted with a sample size between 150-200.

### **Keywords**

Online, Product, Return, E-commerce, Transaction, Dissatisfaction, and Consumers.

## **1. Introduction**

The Indian e-commerce sector has opened business avenues beyond our imagination. With an annual growth rate of 28 percent, the Indian e-commerce space is in a rapidly expanding yet mature and healthy phase. In its current form, it offers the convenience of selecting and buying products, making transactions, and receiving them at doorsteps. E-commerce has transformed the equations of retailing in India completely. An ever-increasing number of consumers are ordering products online. Thousands of products ranging from bags, apparels, footwear, mobile phones and electronic gadgets, books, medicines to food products, furniture, groceries, FMCG items, etc are available online on hundreds of websites, few as popular as Flipkart, Amazon, Myntra, Pharmeasy, Jabong, big basket, and Grofers, etc to name a few. Benefits that e-commerce offers to the consumers are easily seen—a wide range of product categories, lower prices, the convenience of shopping, integration with mobile wallets, etc are some of the advantages of using e-commerce to fulfill daily purchase requirements. E-commerce companies are operating in a very competitive space and the race to win customers is on. For wooing the customers, the online companies set different types of promises such as rapid delivery of products, complimentary gifts, easy return policies, etc. In this way, they try to differentiate their services and claim to be better than their rivals.

The e-commerce space has become really complex with a tremendous amount of orders being processed daily. The distribution networks of e-commerce companies are working day and night to ensure the timely delivery of products to the customers. To add to this complexity, easy return policies of the companies have become one of the ways of service differentiation and customer delight. Lenient return policies have fuelled unnecessary ordering and increasing return rates. This has implications both for the behaviour of consumers as well as online companies. Increasing online returning has made the Indian e-commerce ecosystem all the more complex and cumbersome to handle. More and more consumers are returning products now since it is easy to do so. Reverse logistics is happening at an ever-increasing rate. Companies have included free returns as a part of their overall service offering.



This study aims to analyze the product return behaviour of the online shoppers. The study has been done from the consumer's perspective. It is a relatively new area of research, hence there are less previous researches done on this topic.

## **2. Review of Literature**

Although there is fewer of researches that have taken place on the subject, to quote an article of shopify.com belonging to the year 2019, "In response, businesses are adding to employee strength, increasing their storage space, and setting up departments to handle reverse logistics. Returns are normal and central to customer experience in this new scenario. But they don't have to be troublesome for the company. In fact, how you deal with returns-before and after purchase-can differentiate your brand from the other and help your organization create a competitive advantage, and even make you more profit-earning." (Orendorff Aaron, shopify.com, 2019). The quote highlights return policies as a service differentiator that the companies can use to create a competitive advantage, but it doesn't have to be plagued, meaning, it does not have to be used to the company's disadvantage.

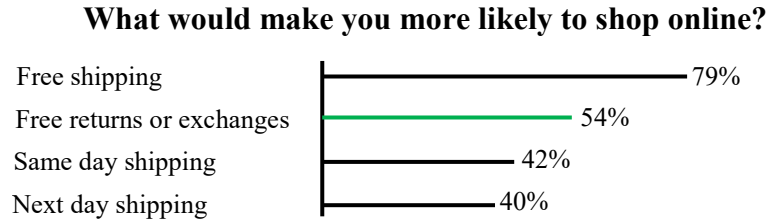
To quote a part of another article by Avinash Tiwary in *financialexpress.com* on Amazon's product returns, "People in the e-commerce industry say 15-25 percent of products bought in the fashion category are returned and, each time a buyer returns a product, the e-tailer's logistical cost escalates three times. Along with cash on delivery (COD), the 'no questions asked' return policy has worked like magic to attract buyers." (Tiwari Avinash, *financialexpress.com*, 2015)

The trend towards easier return policies in e-commerce (Hjort et al. 2013) has significant implications for how consumers search, compare, order, and buy products online. Free return policies are good as well as bad for the organization, good in the sense that these can drive sales upwards, bad in the sense that free returns can encourage reckless purchasing, thereby increasing the reverse logistics cost of the company: recent reports state that online returning by the consumer due to this reckless purchasing has gone up by 20 percent. (The Retail Equation 2014), which characterizes the dark side of e-commerce (see The Economist 2013;

Minnema et al. 2016). This kind of return is becoming very problematic for organizations, especially the ones that operate in the fashion space. Germany based Zolando reports around 50 percent of clothing purchased online is being returned. (Zalando 2014; Thomasson 2014). A recent study published in Harvard Business Review also indicated that this non-stop returning of products is proving very costly for retailers. (Minnema et al. 2016). The organizations can counter the impacts of unnecessary product ordering and return only by understanding the online product return behavior of their consumers closely.

Retail business expert Steve Dennis writes in Forbes.com that when a product is returned back to the seller, not only it increases the reverse supply chain cost of the seller but also, it cannot be sold even at half of its price sometimes, because of wear and tear, damages, etc. He further adds that today, as the direct-to-customer business is almost entirely e-commerce driven, free shipping is nearly ubiquitous, and "hassle-free" returns and exchanges are increasingly common. This has on one hand increasing the average product handling cost while on the other hand, encouraged consumers to order products recklessly. (Dennis Steve, Forbes.com, February 2018)

To quote a paper presented in the World Marketing Congress held in France in 2011, "Authors have coined the terms such as "retail borrowing" (Piron and Young, 2000), "Wardrobing" (Woyke, 2005), and "Free Customer Rentals" (Schuman, 2004) to describe URD behaviours", URD stands for Unethical Return Disposition (of products purchased). (Rosenbaum et. al. "Understanding why customers choose to abuse or not to abuse return policies: The customers return is not always legitimate") (Campbell Colin, The customer is NOT always right? Marketing orientations in a dynamic business World, 2011)



Source: Data via Walker Sands (2018)

**Figure 1: Reasons for Online Shopping**

### 3. Research Methodology and Hypothesis

200 respondents were approached for the study. A structured questionnaire was used for seeking a response. Out of 200 respondents approached, a total of 153 respondents returned complete questionnaires, 38 were weeded out due to lack of experience of online shopping (and thus returns). 9 responses obtained were incomplete, thus were not used in the study.

**Table 1: Number of Responses Received**

Total responses sought	200
Responses obtained (Eligible)	153
Ineligible respondents	38
Incomplete responses	09

In the study, the structured questionnaire was divided into three parts – in the first part of the questionnaire, respondents were asked to provide a brief profile (Age, Gender, City, Level of education, Occupation, etc). In the second part of the questionnaire, they were asked questions related to their online shopping habits like Monthly frequency of online purchasing, Average monthly online purchasing in terms of the value of transactions, platforms (websites) they usually use for online purchasing, types of items they purchase online, etc.

The third part of the questionnaire dealt with the manner and type of returns that the consumers make. The returns were divided into two distinct types:

- a) Unplanned returns (returns due to damaged product, wrong product delivered, etc)
- b) Planned returns (intentional returns, unethical on the part of the consumer)

**Only planned returns have been considered for the purpose of the study.**

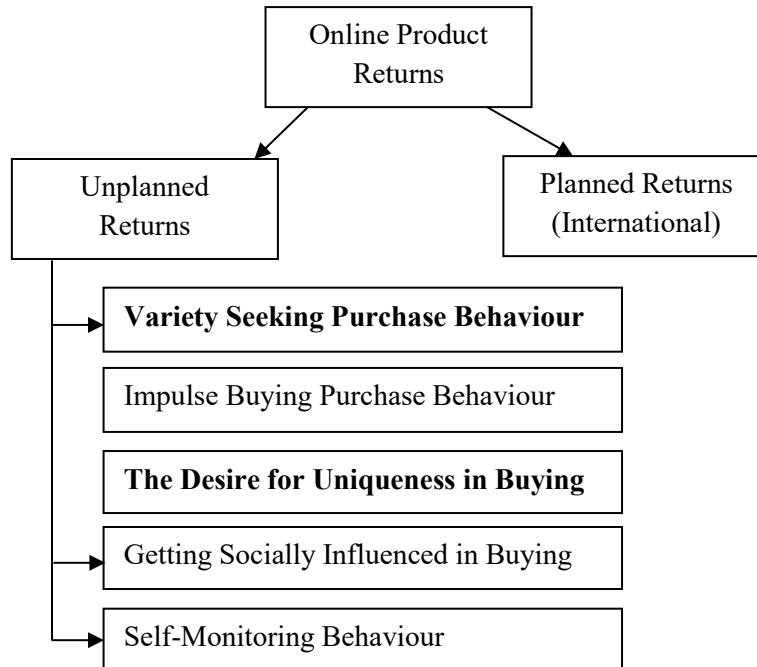
In this part, the customers were supposed to rate themselves on a scale of ten on the following consumer characteristics:

- a) Degree of variety-seeking behaviour
- b) Degree of impulse buying behaviour
- c) Degree of desire for uniqueness in purchasing
- d) Degree of getting socially influenced
- e) Degree of self-monitoring

### Hypothesis

**H1:** Variety seeking behaviour is positively associated with unplanned return behaviour

**H2:** Desire for uniqueness is negatively associated with unplanned return behaviour



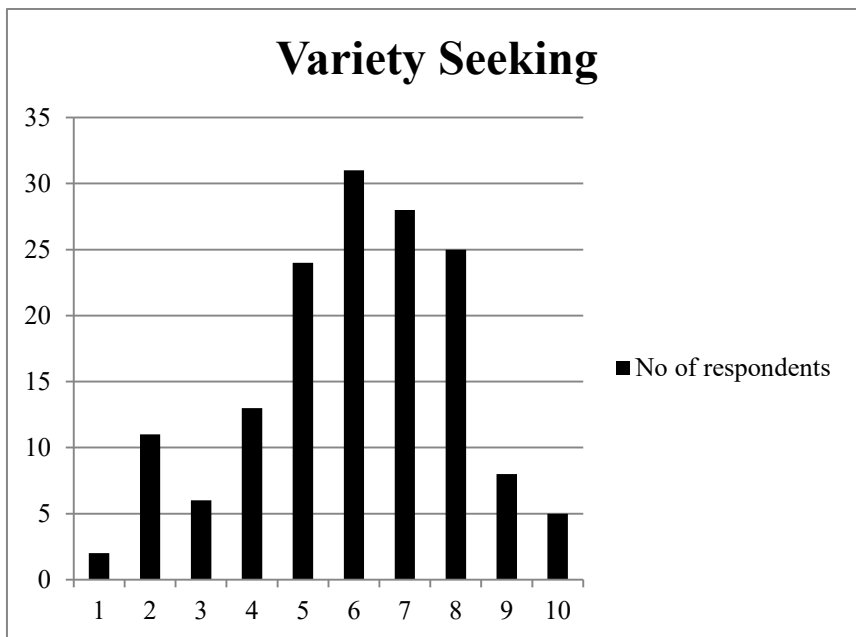
**Figure 2: Nature and Reasons for Product Return**

#### 4. Results and Discussions

Scores of Self-administered questionnaire for the characteristics under study (part 3)

**Table 2: Scores of Self-administered Questionnaire for the Characteristics under Study**

Characteristic/Score	1	2	3	4	5	6	7	8	9	10
Variety seeking purchase behaviour	2	11	6	13	24	31	28	25	8	5
The desire for uniqueness in buying	3	13	11	18	22	20	37	9	11	9



**Figure 3: Variety Seeking Purchase Behaviour**



**Figure 4: The Desire for Uniqueness in Buying**

**Table 3: Average Scores for Variety Seeking Behaviour/Desire for Uniqueness in Buying**

S. No.	Characteristics	Average Score
1	Variety seeking purchase behaviour	6.00
2	The desire for uniqueness in buying	5.78

## 5. Conclusion

- The characteristic of variety seeking purchase behaviour has an average score of 6.00, 97 out of 153 respondents (more than 50 percent respondents) have given themselves a score of more than 5 on this variable.
- As most of the correspondents who have given themselves a score of more than 5 on ‘variety-seeking’ variable have also rated that the returns made by them are ‘unplanned’, we conclude that consumers with variety-seeking purchase behaviour tend to make unintentional returns or genuine returns.

- The characteristic of uniqueness seeking purchase behaviour has an average score of 5.78; 86 out of 153 respondents (more than 50 percent respondents) have given themselves a score of more than 5 on this variable.
- As most of the correspondents who have given themselves a score of more than 5 on the ‘uniqueness seeking’ variable have also rated that the returns made by them are ‘unplanned’, we conclude that consumers with uniqueness seeking purchase behaviour tend to make unintentional returns or genuine returns.  
The study will further be conducted for the remaining variables using a better and more scientific methodology.

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## **Impact of Loan Waiver Scheme on Indian States Fiscal Position with Reference to Uttar Pradesh: A System Dynamic Analysis**

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### **Abstract**

This paper is an attempt to evaluate the farm loan waiver scheme so far implemented in Uttar Pradesh's agricultural and rural debt relief scheme of 2017 based on the secondary data collected from different official sources. The state government's loan waiver scheme was valid only to loans taken by small and marginal farmers. The analysis is done using systems analysis using causal loops, stock flow diagram and simulation is done on the basis of available information. An exploratory model is developed with realistic assumptions based on generally practiced policies. It reveals that the scheme besides benefitting the relatively households, agricultural revenue of the government, GSDP and also had negative impact on the repayment behavior of the borrowers which affects the Debt. Also two extreme situations that is pessimistic and optimistic systems behavior have been identified to see the impact on variables.

### **Keywords**

Agricultural loan waiver, Small and Marginal farmer's, Agricultural loans, Gross State Domestic Product (GSDP), and System dynamics.

### **1. Introduction**

The frequently announced loan waivers with the reason of reducing the farm debt burden have drawn criticism both on the ground of benefits and its harmful effects on working of the rural credit system. In this regard, loan waivers have brought forward the perseverance of designing permanent solutions to the structural condition that affects Indian agriculture. Also, there are distresses about financial and macroeconomic implications, how long they will continue to impact the economy, the possible biases that they could confront public policies with, and the

ultimate incidence of the financial burden. The foremost impact of any waiver scheme is on the balance sheet of financial institutions, be formal or informal. This is essential in the predictable lags in the timing of waves and the arrival of payment from the government. In this lag, the quality of assets depreciates and budgetary provisions crowd out new loans. In the second round, waivers impact the public finances in the form of budgeted revenue expenditure. This, in turn, has to be funded by additional market borrowings which increase interest rates, not only for the States but for the whole economy. Even if the loan waiver is included within budgetary provisions, it will force a drop in other heads of expenditure. Experience showed that capital expenditure is a risky category. In turn, this will involve weakening in the quality of expenditure and in turn will lead to severe consequences for productivity as asset forming investment, including for the sector itself. If, budgetary provisions are exceeded, higher spending and broadening of the fiscal deficit as experience has shown, inflationary consequences, and possible spillovers that could challenge external viability (the twin deficit argument).

Debt relief is just a Band-Aid for rural distress. These measures will buy time, but the real solution is to shift the underemployed population in agriculture to more productive urban employment. Uttar Pradesh's Rs. 36,400 crores debt waiver is correspondent to one-fourth of the total expected farm debt in the state. While the effect of increased public liability will go up over the long run, the increased interest burden because of higher debt will hit state finances.

## **2. Objectives of the Study**

1. To develop a System Dynamics based exploratory model to study the impact of agricultural loan waiver scheme 2017 on state fiscal position.
2. To understand the impact of the key factors of loan waiver scheme on state capital through simulation of various meaningful scenarios.
3. To provide recommendations to enhance government effectiveness for the growth of agriculture sector using the System Dynamic model based simulation scenarios Research Methodology.

### **3. Review of Literature**

A review of literature was performed to understand the broad concept of the impact of the loan waiver scheme on Indian state's fiscal position. Unrestricted debt relief leads to significant allocating of new credit to the receivers of the program and no significant improvement in the loan repayment behavior as measured by loan default rate (de and tantri, 2016). Empirical research on agricultural debt waivers in India are generally focused around the Debt Relief Scheme (ADWDRS) 2008 and Agricultural debt Waiver of the Government of India (GoI), under which 525.16 billion of agricultural debt issued by commercial and cooperative banks were waived. Past research found mixed evidence of the impact of ADWDRS on agricultural households.

On the borrower's side, while debt relief was found to help reduce the overall household debt (Giné and Kanz, 2017; Kanz, 2016) there appears to be a differential impact on distressed beneficiaries who benefit from it compared to non-distressed beneficiaries whose loan performance degrades after the waiver (Mukherjee et al., 2017).

#### **Agriculture Waiver and Debt Relief Scheme, 2008**

The scheme required diminishing the anguish of the farming community specifically, and small farmers, to de-clog institutional lending channels, to increase the flow of credit to agriculture to boost production and productivity of agricultural products. The scheme distinguishes between loans taken by small farmers. In the case of small farmers, the scheme covers their short-range production loans and installments of loans that were outstanding. However, in the case of various other farmers, the scheme offered facility of one-time settlement, if the farmer repaid 75 percent of the balance in three installments, a cash rebate of 25 percent of the eligible amount was given on this condition.

Interest payments of Indian states are at present high, and often hide their spending on various infrastructure areas such as roads and irrigation.

### **4. Research Methodology**

In this article, Systems Dynamic modeling is the approach that is used for studying the behavior of Agriculture output with respect to the loan waiving and other-related variables. The reasons for the choice of Systems Dynamic modeling to study the implications are as follows:

1. It is based on a non-linear complex system, consisting of the quality of government-related variables linked to agriculture growth with a number of feedback control loops.
2. The interactive interdependent governance-related variables make long-term impacts on agri output. To comprehensively study this dynamic behavior of the system, the application of the stock flow diagram becomes very relevant.

The CLD is used for mapping the feedback loops structures of the system. The causal relation between loan waiving and state fiscal position related variables has been evolved. Significant feedback factors have been well-defined through five reinforcing and four balancing loops. The SFD has been developed using Stella software (version 9.1.3) of System Dynamic to holistically understand the system behaviors by studying various relevant simulation scenarios.

#### **Application of the System Dynamics Model**

A Systems Dynamic-based model is developed with an objective of studying the long-term impact of dynamic forces of the key elements of loan waiver on agriculture output revenue. An exploratory model is developed with realistic assumptions based on generally practiced policies. The key variables used in the model are summarized in the Table 1.

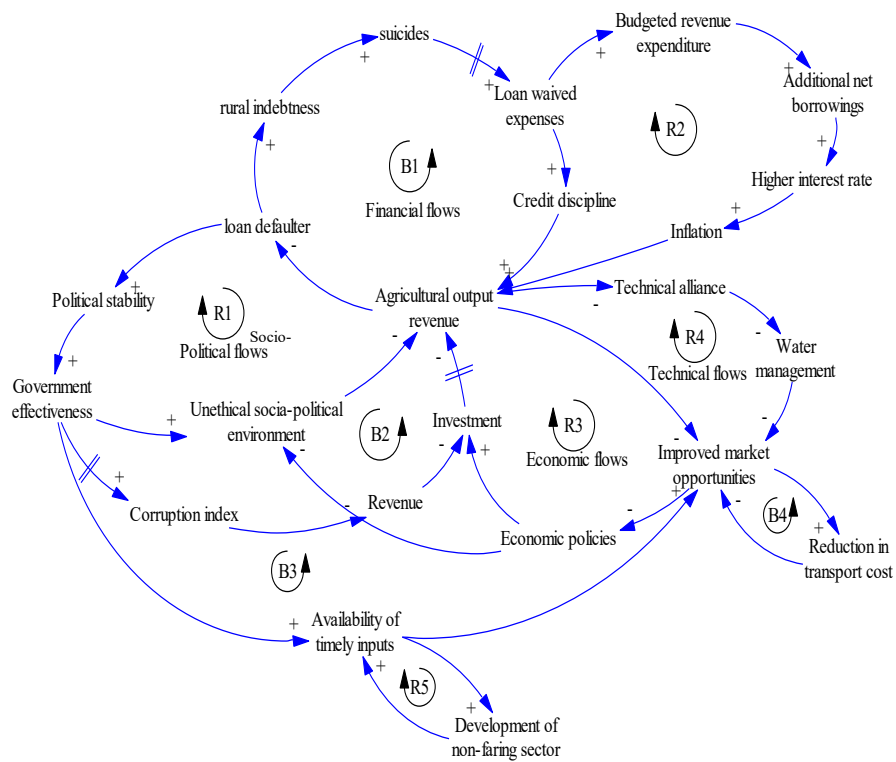
**Table 1: Key Variable used in the Model**

<b>S No.</b>	<b>Key variable</b>	<b>Description</b>	<b>Unit</b>
1	Agricultural output revenue	Money earned after selling the agriculture produce in a year	INR
2	Loan defaulter	Number of the person who were unable to pay loan amount	Numbers
3	Rural indebttness	Amount of debt in rural areas	INR
4	Suicides	Farmers who suicide	Numbers
5	Loan waive expenses	Government spending on loan waiving	INR
6	Growth rate	The Growth in agricultural Output with improving rural development and irrigation and allocation rate	Allocation rate *expenditure + rural dev.+ irrigation

7	Budgeted revenue expenditure	The Government budgeted expenditure set for a year	INR
8	Additional net borrowings	The amount to be borrowed due to loan waiving	INR
9	Higher interest rates	Rise in the interest rate due to fiscal deficit	Fraction w.r.t borrowings
10	Inflation	The rate of inflation in the respected year	Fraction w.r.t fiscal deficit
11	Technical alliance	Government collaborating with tech companies to modernize agricultural inputs	
12	Water management	The irrigation facilities are given by the state	
13	Improved market opportunities	Development of market due to other agricultural schemes	Fraction <_1
14	Reduction in transport cost	Improvement in roads of rural areas which lowers the transport cost	INR
15	Economic policies	Decisions made about government spending's and borrowings	INR
16	Investment	Quantum of investments from reserve to the agriculture sector	INR
17	Revenue	Amount collected from tax (direct or indirect)	INR
18	Availability of timely inputs	Irrigation, seeds, pesticides, and godown facilities availability	
19	Development of non-farming sector	Development in other sectors like transport	
20	Corruption index	Unwarranted expense to offices made in sector	Fraction <_1

### Causal Loop Diagram (CLD)

To map the impact of loan waive expenses on the growth of agriculture sector, a CLD represents causal relationships and interdependencies as well as feedback processes of the model. Figure 1 shows nine feedback loops that consist of four balancing and five reinforcing loops. The CLD indicates the existence of variables that can be categorized into four major flows: political, economic, financial, and technological.



**Figure 1: Causal Loop Diagram-Causality between Variables of Agriculture Revenue, Loan Waiver Scheme and its Implications**

**Table 2: Causal Loop Explained**

S No.	Loop Name	Loop Variables	Explanation
1	R1 (Political flows)	Agricultural revenue	When the agricultural revenue decreases the loan defaulter increases which causes political instability as the government seeks to waive loan for vote bank, which creates moral hazards and unethical political as a well as social environment
		Loan defaulter	
		Political stability	
		Government effectiveness	
		Unethical socio political environment	
2	B1(Financial flows)	Loan defaulter	With the low agriculture revenue, the loan defaulters will increase which in turn will lead to rural indebtedness, which will increase the number of suicides due to loan repayment, which forces the government to announce loan waive schemes. Such schemes gives a reinforcing results as the results tend to accumulate its effects
		Rural indebtedness	
		Suicides	
		Loan waived expenses	
		Moral hazards	
		Agri output revenue	
3	B2	Political stability	The government ineffectiveness causes corruption as in name of loan waiving the funds are distributed amongst the party members and none is distributed to farmers which affects the revenue and investments
		Government effectiveness	
		Corruption index	

		Revenue	in agriculture sector from. FDI or internally
		Investment	
4	R2	Expenditure	As the loan waive expenses lead to increase in the budgeted revenue expenditure of the state government found in one of the literature, which thus affects the additional borrowing capacity, to higher interest rates and then leading to inflation and this loan waiving scheme makes farmers cutoff to access credit in future, as banks list them as defaulters thus giving shift to informal source of finance and this circle of debt continues
		Rate of borrowing	
		Higher interest rates	
		Inflation	
5	R3 (Economic flows)	Improved market opportunities	If market opportunities are increased there will be better scope for economic policies and investment in this sector
		Economic policies	
		Investment	
6	B4	Reduction in transport cost	This is related to the development of roads which will decrease the cost and can be utilized in farming inputs
		Availability of timely inputs	
7	R5	Development of non-farming sector	Other sector needs to be developed so that cost is minimized for better output
		Improved market opportunities	



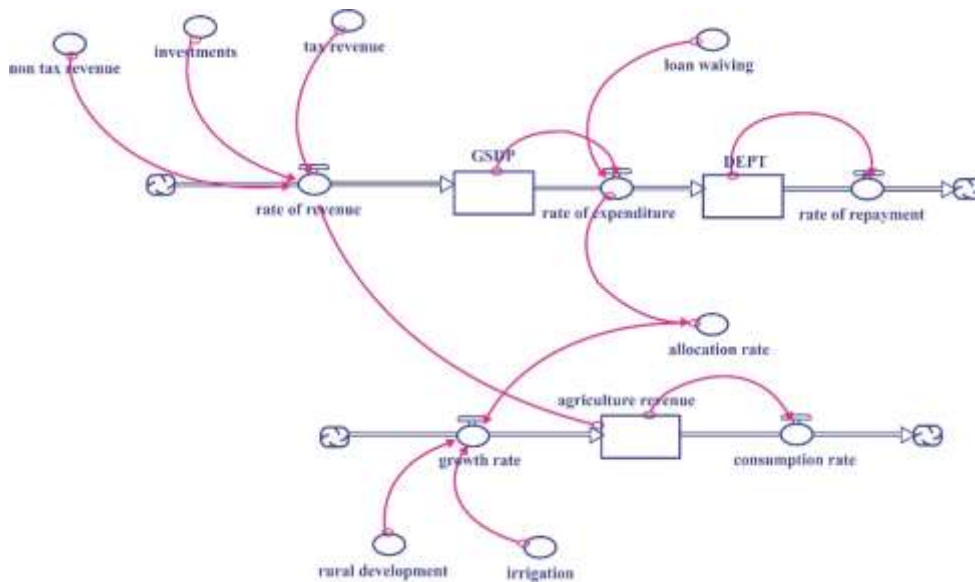
8	R4 (Technical flows)	Technical alliance	If we have proper technical alliance which will give proper irrigation facilities to the farmers for better output
		Water management	
		Improved market opportunities	
9	B3	Political stability	If agriculture revenue is lower, the need for loan waiving arises which does not give timely inputs to the sector and there is no scope of improved opportunities, thus creating an unethical socio-political environment
		Govt. effectiveness	
		Availability of timely inputs	
		Improved opportunities	
		Unethical socio-political environment	

**Stock and Flow Diagram (SFD)**

The CLD provides the causal relationships amongst factors and is not able to capture the stock and flow structure of systems; the need for SFD becomes necessary. The three significant stocks identified in the linkage between agricultural output revenue and loan waive expenses are Debt (accumulation in INR), GSDP (accumulation in INR), and Agricultural output revenue (accumulation in INR) as presented in Figure 2.

The SFD also indicates the accumulations and flow-related relationships between different endogenous variables- a rate of revenue and rate of expenditure and rate of repayment, growth rate and consumption rate and auxiliary variables non-tax revenue, investments, tax revenues, loan waiving, allocation rate, rural development and irrigation indicated in the in Figure 2.

The inputs for creating the SFD were obtained from the academic experts who provided the relations between variables as well as behavior trends and values of variables. The model was developed for performing number of Systems Dynamic-based simulations with the application of the software, Stella V 9.1.3.



**Figure 2: Stock Flow Diagram Linking Loan Waiving with Agriculture Output Revenue**

### 3. Model Validation

The Systems Dynamic model developed was validated using six standard tests—boundary adequacy, structure assessment, dimensional consistency, behavior reproduction, parameter assessment, and extreme condition.

The boundary adequacy test ensures the appropriateness of the model boundaries. Identification, development, and clearly defining the 23 relevant system variables in the model developed defined the boundaries. Further, the 9 feedback loops to define the inter-relationships among variables to develop the CLD ensured the completeness of the boundary adequacy test. The inputs received from the academic and industry experts for the systems dynamic model development process, coupled with the real system behavior outputs obtained from the SFD, ensured the model's consistency. This confirms the validation through the structure

assessment test of the model. The units of measure were allocated to the 13 variables used in the SFD (accumulation in INR and fraction).

The consistency in dimensioning the 13 variables was checked in the SFD developed using the system dynamic software, Stella V 9.1.3. This ensured the completeness of the dimensional consistency test. The parameter values of the agriculture output revenue were taken from the Indian agriculture sector context. The values for the other two variables — GSDP and Public debt — were based on CAG reports final accounts. Therefore, the parameter assessment test can be considered to have been completed.

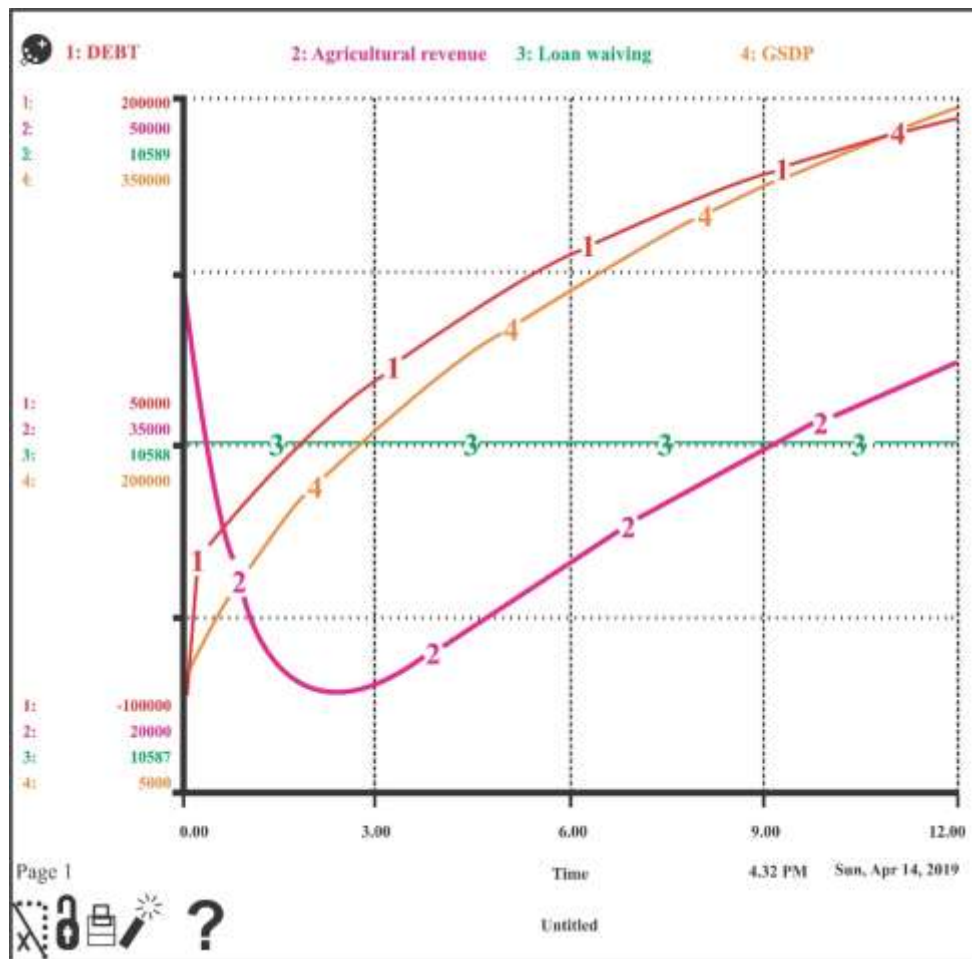
The extreme digits of the three key variables that significantly impact the agriculture output revenue — allocation rate, rate of expenditure and growth rate — were considered for the extreme value test. The extreme values of the allocation rate ensured the extreme values of GSDP and debt. The test outcome, in terms of agriculture output with negligible growth, was realistic in reference to the current real world.

The other end extreme digits have indicated an exponential growth in revenue, which is also consistent with intuition. This ensured the completeness of the extreme value test performed on the systems dynamic model.

## **5. Findings and Suggestions**

The three scenarios simulated from the system dynamic model developed were studied and summarized as follows:

1. The system behavior is the most likely scenario, with a realistic annual loan waiving and the allocation rate to agriculture is 39.3 percent of the total expenditure. All the three stock variables Agriculture revenue, GSDP, and DEBT shows improving trend as presented in the fig 3. The trend graph of agriculture revenue is firstly decreasing due to less revenue but then as loan waiving is done the output increases. After some point as the revenue from agriculture increases the debt reduces and the GSDP tends to increase. The agriculture revenue is the summation of the amount allocated for irrigation facilities, rural development, and the allocation from the expenditure of state government. The debt is the difference between the state revenue and the expenditure, the GSDP is the combination of investment, non-tax revenue, and tax revenue of the government.



**Figure 3: System Behaviour Scenario 1**

- The system behavior in the optimistic scenario with reference to assumed figures is a high annual loan waiving and the allocation rate to agriculture is 70 percent of the total expenditure. All the three stock variables Agriculture revenue, GSDP, and DEBT shows high a improving trend as displayed in fig 4. The trend graph of agriculture revenue is increasing with that of debt and SDP. This is the over riding impact of the allocation rate of the agriculture sector. Which is higher than the scenario 1 (most likely) and the trend which GSDP and DEBT showed is lower than that of scenario 1 as the allocation rate of the agriculture sector increased from 40 percent to 70.

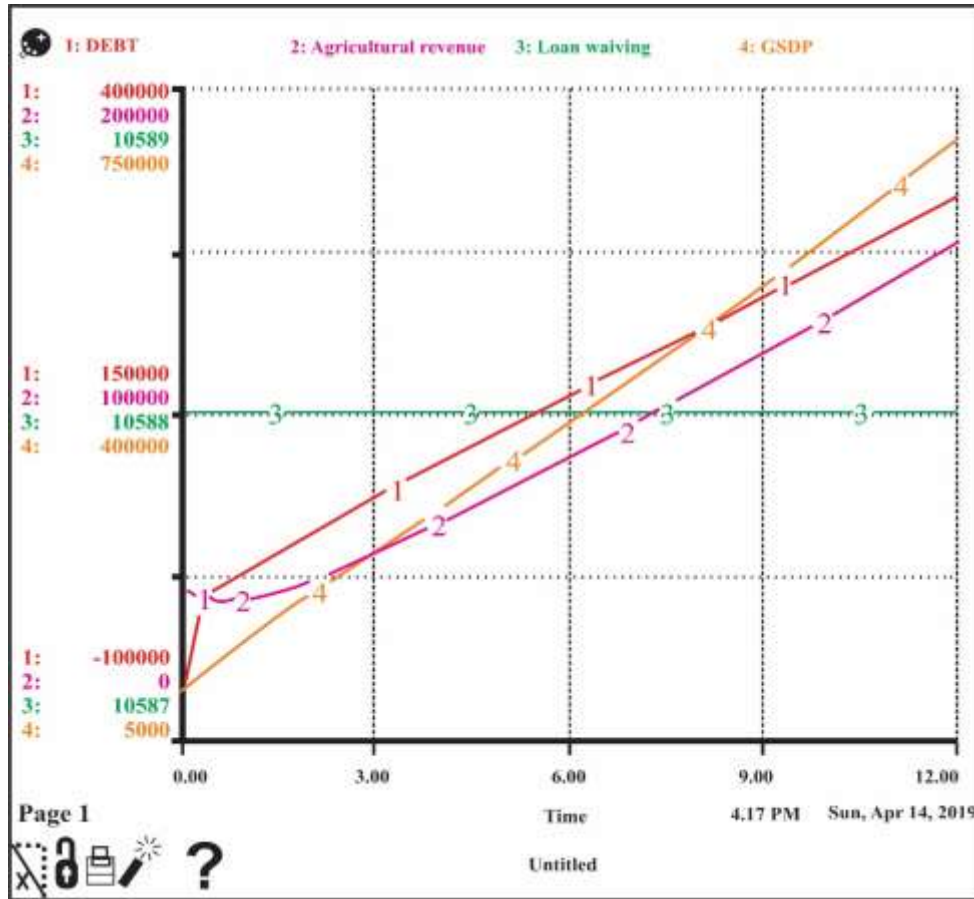


Figure 4: System Behaviour Scenario 2

- The system behavior in the pessimistic scenario with a very low allocation rate with most likely loan waiving to agriculture is 10 percent of the expenditure of the state. All the three stock variables Agriculture revenue, GSDP, and DEBT shows a low improving trend as revealed in fig 5. The trend graph of agriculture revenue is firstly decreased due to low allocation rate and then it is constant. This is the overriding impact of the allocation rate given to the agriculture sector. Which is much lesser than scenario 1 (most likely) and the trend which GSDP and DEBT showed is higher than that of the scenario 1 as the allocation rate of the agriculture sector is decreased from 40 percent to 10.

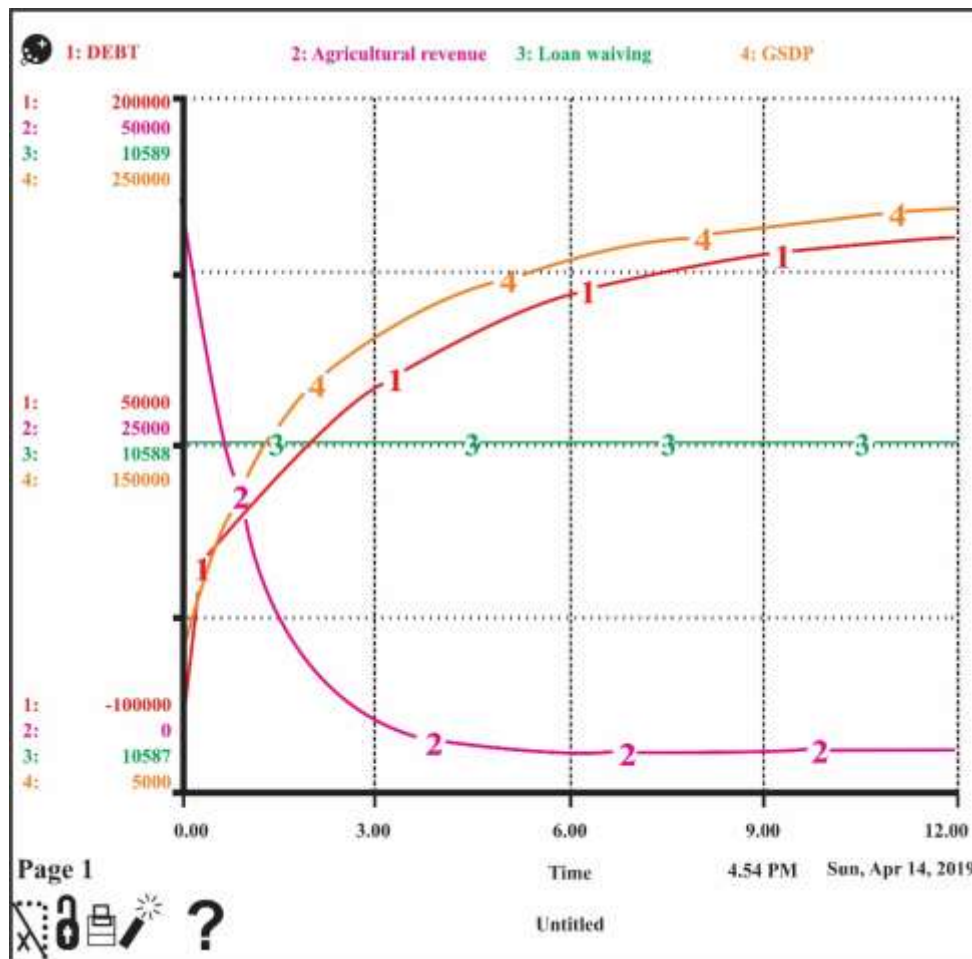


Figure 5: System Behaviour Scenario 3

## 6. Conclusions

Based on the insights obtained from the system dynamic simulation model and its analysis, few recommendations are made as a collected pile of evidence from the economic stream that suggests that farm waivers have not been particularly beneficial even to the intended beneficiaries of the scheme. This leads to a captivating puzzle as to why policy-makers continue to announce loan waivers. Through this paper, I attempted to make a beginning towards disentanglement of the roots of the policy. I find a mismatch between the public rationale for the scheme and its actual implementation. Another I observed that prior to 2016 policy-makers were generally conscious of the fiscal position of their state but this sense

of fiscal responsibility seems to be declining in recent years. The economic stream evidence so far suggests that waivers have not even worked as an effective measure, which means that we need to be more creative even with designing the immediate relief measures. While the search is on for an alternate policy the best that can be done right now is to work on the design and implementation of waivers so as to target benefits to the most vulnerable farmers. To a limited extent, the state government's waiver scheme has aided to reduce the rural indebtedness of small farmers. However, the overall indebtedness of farmers continues to remain high in the case of formal as well as informal sectors. Thus, the debt waivers scheme is not a lasting solution for rural indebtedness it can only improve the problems faced by farmers which is temporary relief.

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## **Impact of Information Technology on Human Resource Management**

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### **Abstract**

Smart organizations know the advantages of going beyond the established order. By modern HR practices and policies, they can move ahead and in moving ahead they can create a brighter future. The paper highlights impact of data technology in employment recruiting and management personnel.

This paper looks at a number of the HR practices implemented by such organization which may accomplish a prosperous future through changes, advanced technology, creativity, and strategic thinking. Human resource mainly focuses on. In any organization, the main focus of Human resources is based on the strategic goals of the organization.

These strategies must be led to include an IT-related strategic plan for the organization: Working together for a far better future. During this paper, we explore innovations like these are supplemented with the knowledge technology to make a positive impact on HR. Globalization makes us understand how technology can contribute to the accomplishment of business plans within the frame of HRM so as to direct business towards quality and to succeed in the competitiveness within the market. Paper divulge that IT creates achieving the HR goals moderately.

### **Keywords**

Globalization, Information technology, Strategic plan, Human Resource Management (HRM), Performance Indicator, and Deployment.

### **1. Introduction**

HR experts should remember that employees are at the heart of every organization. If we create an excellent environment of workplace experience for them, they'll return you back 100 fold in feedback and productivity”, Craig Bryant Nowadays, many business intellectuals and entrepreneurs have admitted the facility of data technology (IT) tools for meeting the business goals.

It helps not only to fulfill the target of business but also to boost the process of work. HRM comprises of activities like recruiting, training, developing, and rewarding people within the workplace. HRM must aim at achieving competitiveness within the area of HR by delivering regular programs of education and training for the personal and professional growth of the workers of the organization. Information Technology may have a big smash on organizations that exist during a dynamic environment.

This may increase the efficiency as well as effectiveness of the Human Resources. Yet, innovation in HRM can display itself in a number of ways:

1. To find out the solutions quickly and flexibly during a negotiation.
2. To find out new schemes for products and services.
3. To find out the new markets.

The direction of the company on human resources starts to be altogether. One among the major job of strategic management and Human Resources play a vital role in all the decisions which are related to strategic plans. Managers of Human Resources invite more strategic positions of their department within the organization with the aim to urge to the essence of the matter the way to manage, to motivate and to extend the performance of the organization professionals must examine the opportunities for the economic, socio, political-legal, economic, and technological environment to revamp HRM processes and implementation that are essentials success factors to the organization's goal and objectives.

There is no underestimation of the importance and effect of HRM. Lately, human resource management and its requirement are getting the main target of every single employer in every organization. The company's orientation on human resources begins to be altogether. One among the key chore of strategic management and human resources play an essential role in all strategic decisions. Human resources managers require a more strategic position from their department within the organization so as to urge the guts of the matter, the way to manage, motivate, and increase the organization's performance. Importance of humans likely for the corporate increases proportionally to the speed of

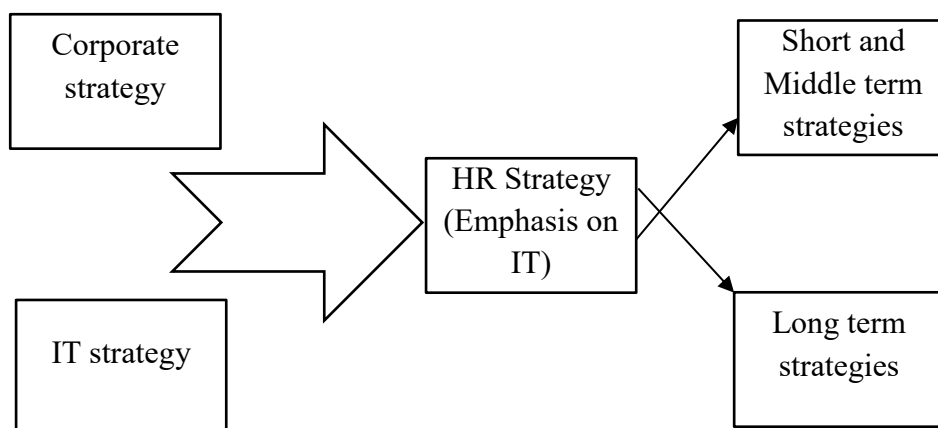
the changes that appear within the venture area because human capital constitutes a basic qualitative parameter of the fertility of every change. Subsequently, employment recruiting and management personnel should aim to realize the company's competitiveness within the area of human resources by giving regular programs related to education and training for the private development of employees.

## 2. Review of Literature

It has been scientifically proven that one of the pillars of support that can contribute HR Strategy (Emphasis on IT) Short and Middle term strategies to the completion, of personal policy is the use of IT technologies in human resources.

Information and communication technologies (ICT), a general term used for mobile communication, the internet, new media, and PCs, allow companies to improve their internal processes, key competencies, organizational structures, and relevant markets on a global scale. ICT is spreading in all sectors of the economy and has implications for almost all companies. (Helfen and Krüger, 2002)

Human resource processes must focus on strategic objectives. These strategies aim to prepare a strategic IT plan which, in turn, translates into an adequate strategic human resources plan in the IT field, as shown in Figure 1 (POWELL, 1997)



*Source: Faculty of Industrial Engineering, K.N.Toosi University of Technology, Tehran, Iran. 2006, p.1190. (ARMSTRONG, 2002)*

**Figure 1: The Substructure of Information Technology Employment Recruiting and Management Personnel Plan**

IT plays a fundamental role in improving and integrating corporate and human resources (BONDAROUK, March 2009). The significance of using human resources tools - IT, the authors express the following: "In the statements, the weight of the growing need to Technological progress, human and cultural facts and challenges is a role that is important to you. However, technology is often looked over by management as an essential means of competition in the global market. For that technology, including application technology, providing the expected results, the most important problem in determining what the technology is like with respect to human organizational aspects, how to analyze and understand human factors guided by modules, shared courts, and HIP organizing, as well as the values of the individual, to know-how "culture". (Zakaria and Yusof, 2001)

Information systems in employment recruiting and management personnel (human resources) (Armstrong, 2002): IT strategy Long term strategies

- provide better services to line managers
- act as a policy that links a personal policy and personal operations throughout the organization and, therefore, to ease personal management in the business
- propose important data for a process drawn from the personal decision and allow the rapid acquisition and analysis of information for human resources
- reduction of the cost of carrying out personal actions.

The study entitled "Effects of HRM Practices on the Use of IT" (Lee, 2009) shows that technological rules for the human resources sector, such as employee participation, clearly affected jobs and formal training integrated. Oppositely, in a survey, companies that use IT features, only internal career opportunities have used IT tools. The function of human resources employed by IT for administrative processes, mainly payroll commitments, with little attention to the so-called practices of the transformation of human resources. (DeSanctis, 1986)

However, the results are present in the document (Bondarouk and Ruël, 2009) that “in 2006, as the CedarCrestone 2006 HCM Survey dies, companies expand and the scope of HRM applications: the area of HR management too while still the most popular app (62% of companies surveyed), companies have seen increasing use of strategic apps like talent acquisition services (61%), managing return (52%) or compensation management (49%) (LEE, 2009)”.

### **3. The Direction of the Research**

The primary aim of an empirical study conducted within multinational manufacturing companies with over five hundred employees is to spot the extent of use of IT RR tools. IT tools are often utilized in the sector of HRM. The exploration is compiled through forty questionnaires and consecutively through direct observation in companies and structured interviews with fifteen human resource managers. The incognito questionnaire and interviews focused on the subsequent fields:

- Use of IT tools in the area of human resources,
- Efficiency in the use of IT tools of human resources,
- Administrative support for the application of human resources information systems,
- Advantages and disadvantages of using IT human resources tools,
- Implementation of IT tools for human resources,
- Human resources IT tools with respect to the strategic objectives of human resources

### **4. Research Result**

98 percent of the respondents confirmed the use of IT tools in the field of Human Resources.

1. Efficiency of using HR IT tools.
  - 66.7 percent of the total respondents confirmed the efficiency in their daily work on using HR IT tools, whereas only 33.3 percent agreed that these tools has helped them moderately.

2. Reaching Strategic Goals using the HR IT tools.
  - 50 percent of the respondents confirmed that HR IT tools helped them in reaching their objectives whereas very much supported by 22 percent and slightly supported by 25 percent with 3 percent saying these tools hasn't helped them at all.
3. Areas of HR where IT tools are used most.
  - All the respondents confirmed the best use of IT tools are made in the field of career management followed by 2<sup>nd</sup> most accessible area of using IT tools, is recruitment (85%) followed by Idea Management (70%), Training (66.7%), Communication (50%), Health & Safety (33.3%) and all the other area where respondents use HR IT tool falls under 20 percent.

## **5. The Employment Recruiting and Management Personnel Role in IT Human Resources Development**

Profession planning tool may be a generic, learning, knowledge-based system that helps top leaders to manage the private development and path career of employees. One of the foremost important online supports within Human Resources is to know the Human Resources Development Core Processes.

An incident from many companies points out that an agreement between employee and supervisor for an individual goal is an essential part of tool which should be directly connected to a business target. This is often also connected with the very fact that companies use the determination of individual goals for workers within the full home in order to succeed in the strategic goals of the corporate. The tool should also include the reporting, it means to provide information about the workers who required or needed training, report which includes the different ideas for further personal development of an employee. The above-mentioned reports helps human resource department to make their work much easier.

### **The Human Resource Role in Information Technology Recruiting**

Nowadays, managers realize that human capital has become the last competitive value and IT recruiting can broadly support efficient hiring alongside forming the workforce.

So as to draw in the simplest candidates, it's vital that both HR and computing departments cooperate together. The HR IT tools can support hiring and retaining high potential. It begins with launching the career website what's a really good promotional tool. The employer can present all required details or information associated with the job, careers, or personal development of every applicant there.

The career website should focus not only on potential employees, but the target group should also include scholars, graduates, or school. The cooperation with students can ransom the prices especially if the company needs specialists for future business needs. One big advantage which companies should use via career websites is to possess the opportunity to use for employment online.

Additionally, the company can present information about corporate culture or the environment. Further, it is often connected to the interior recruiting track system which may help HR generalist in communication with candidates to arrange the choice processes. The system should cover the entire application process, from position approval to candidate approach.

#### **The Role of Human Resources in the IT Idea Management Tool**

To maintain a high-performance culture, the corporate must maintain continuous improvement of its core processes and activities. The tool that supports idea management processes should provide the number of improvement proposals submitted by employees. You'll also provide information on income and price savings by implementing improvement proposals.

The most important objective of online support within the management of ideas is to make a tool that gives all employees the chance to present their applicable and well-founded ideas, on the one hand, and on the opposite, the corporate becomes more competitive. The IT support mentioned above has the following advantages:

- save money
- avoid costs

A considerable advantage is that the immediate ability to make multiple reports and eventually see if the corporate meets the goal of a key performance indicator. One of the last advantages of the web IT system is that it helps to supply availability of improvement proposals at any time and, therefore, avoids the printed form. The above provides a summary of how technologies can assist RR processes. HR to realize corporate goals.

## **6. Discussion**

The survey confirms that companies are using Research Related (RR) tools. HR's must contain all parts of Research Related (RR) tools. HR contains all parts of Research Related (RR) tools.

Research shows the importance of using (Human Technology) HT-IT is increasingly important not only because it increases the productivity of human resources, but at an equivalent time increases the worth of the organization, including the foremost important resource: human capital. First, the implementation of RR tools. HR Requires analysis to supply insight into the advantages of using IT. Even during deployment, attention must be paid to protecting confidential employee data. If the tools are implemented at a better level, they will generate cost savings for the corporate, reduce process times, the standard of labor and, finally, the most crucial advantage is the contribution to the strategic development of the corporate. it's essential that the tools are easy to use for all employees, provide data and reports necessary for the work of the workers.

The subsequent point to stay in mind is that the implementation of human resources: IT tools can increase costs. Purchase of structures, that is, companies must realize it during the preparation of the budget. However, human resources IT tools must help all employees because an incorrect implementation can have negative consequences, e.g.

Employees can understand the utilization of tools as an inevitable evil that has no effect on them or corporate.



## 7. Conclusions

Despite the fact, the questionnaire revealed that information technology moderately supports the achievement of human resources objectives, an accurate implementation plan of the human resources information system can significantly support the human resources strategy within the company to achieve key indicators.

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## **An Analysis of Technology Adoption of E-Learning Tools in School Education: Using System Dynamics**

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### **Abstract**

In the era of digital technology, learning in schools has been observed as a means of improving quality of delivery, approachability, and learning among the students and teachers in the educational stages of primary, secondary and tertiary education in India. Thus e-learning is an innovative standard change in the education sector for the quality enhancement of learning and concentrated knowledge within the students and it is also a medium for convenient teaching for the teachers. The analytical study focuses on the enablers and barriers in the adoption of electronic-learning tools in school's education with the help of system dynamics. The analysis is carried out using systems analysis using causal loops, stock-flow diagram and simulation is done on the basis of available information which represents that how potential schools for technological adoption will convert into actual adopters irrespective of the various challenges faced by them. Both types of data primary and secondary will be employing in study. This study is also relevant to the performance assessment of schools that are using e-learning tools in the perspective of the teachers and students.

### **Keywords**

Technology integration, E-learning tools, Education, System analysis, System thinking, Enablers, and Barriers.

### **1. Introduction**

For the quality education concern teaching and learning has been certainly important factors. Since emerging of this century, the education system has faced a variety of challenges in terms of social, cultural, economic, and technical. As the research and practice of accelerating learning and advancing performance (Januszewski & Molenda, (2008), technology trying to attempt and overcome challenges by developing new approaches and frameworks in the domain of education. In this

situation, (ICTs) information and communication technologies signify a new approach for strengthening the transmission of information and serving to meet these challenges. According to Lever-Duffy, McDonald, & Mizell, 2003; USDE, 2000; ISTE, 1999 ICTs consist of the use as a minimum of a computer and the Internet as well as computer software and hardware, networks, and a host of devices that adapt information (text, images, sounds, and motion) into extensive digital formats.

For the effective integration of ICTs in the schoolroom, curriculum, school administration, library, and any educational setting a prearranged process is important. With the implementation of ICTs the value of education enhances by serving educators to do their job and by helping learners to acquire more effectually. In these situations, teachers' shifting role in the 21<sup>st</sup> era includes an essential mission, which is towards the borderline for applying technological innovations to the learning and teaching process. At this time, the necessary skills and the level of future teachers' willingness are key factors in implementing new ICTs. Therefore, school's teachers play a critical role in developing future teachers to turn out to be effective in ICTs integration into the curriculum.

In this article, the practice of system dynamic modeling helps to know, envisage, and explore the use of technology integration in schools. In the social system of education, technology integration is a dynamic social practice which facilitates the teaching-learning process.

Therefore, with the help of a systems approach, we will be able to find out the frequency of adoption of e-learning tools in education and how much they are impacting the teachers and students and the factors like enablers and barriers affecting the rate of adoption along with the overall performance of the schools. The model introduced in this study draws out together identified components of integration and conclusions from a large-scale technology plan to create an initial casual-loop diagram of technology integration in school teaching. Apparently, in this paper, model presented feedback and multiple effects in the system of education. Consequently, the use of the systems approach can possibly support a shift from focusing on teachers' technology use to student outcomes, and the feedback loop of students' technology use on teachers' practice. Implications for technology integration, teacher change, and learning are discussed.

With the purpose to provide a more realistic view of technology integration and possible teacher and student change, particularly in relation to the impact of barriers to integration, student learning, and input of support and training with the help of the system approach model.

## **2. Objectives of the Study**

- To identify the enablers and barriers to the adoption of e-learning tools in education.
- To find out the impact of enablers & barriers for technology adoption of e-learning tools in education.
- To aware of the importance of e-learning tools in school's education for the enhancement of quality using the SD model-based simulation scenario Research Methodology.

## **3. Need of the Study**

The study implies advances the acknowledgement of academic staff to the value of using the interactive characteristics of e-learning as an important asset in teaching students. The present study is based on a non-linear complex system, consists of the enabling and disabling variables related to an with adoption rate of technology in education leading to performance and growth of the education sector. To explore this problem, we present a system dynamics based exploratory model of technology integration that builds upon the existing body of research analyzing factors of teachers' technology integration.

## **4. Enablers & Barriers**

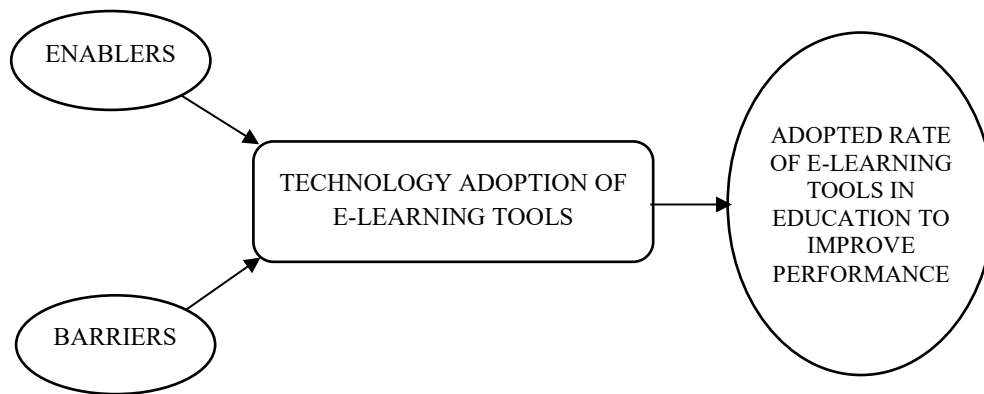
In the words of following (Baylor and Ritchie 2002; Ertmer and Ottenbreit-Leftwich 2010; Hew and Brush 2007; Inan and Lowther 2010) there is not a set group of agreed factors limiting or promoting teachers' use of Information Technology in the classroom. But from the literature, there are several commonly identified factors, such as resources, curriculum, teachers' attitudes, and beliefs, knowledge, and skills, assessment, and the institution, and subject culture. Researchers have tended to discuss these factors in relation to how much they would affect the adoption of ICT's in schools and act as an enabler or barrier to teachers' use of Information Technology in the classroom.

According to Ertmer 1999, 2005 enabling factors supported and motivated integration whereas barriers were identified as limiting factors in teachers’ technology integration.

**Table 1: List of Enablers and Barriers**

<b>Enablers</b>	<b>Barriers</b>
Having technology plans	Access to technology
Offering in-service training	Technical support or time limitations
Allocation of more financial resources	Lack of in-service training
Teacher readiness	Lack of basic knowledge/skills for ICTs
Quality of teaching and learning	Lack of appropriate software/materials
Technical support in the school	Adoption Delay
Proper knowledge/skills for ICT integration	Lack of knowledge/skills for ICT integration
Decreasing course load of teacher educators	Lack of appropriate administrative support

### 5. Conceptual Framework



**Figure 1: Conceptual Model**

## **6. Review of Literature**

According to (Zhao et al. 2002, p. 482); said with the diversification of technology integration in teaching and learning in the ground of educational e-learning tools, research remains be struggling. Whereas (Ertmer et al. 2012 p. 423) said that in the past years, research work has identified the complicated and disordered process of classroom technology integration and, that there are thousands of research articles examining, exploring, and investigating, essentially trying to unpack, technology integration in schools. So far, the interplay and complication of technology incorporation continue to be illusory.

(Borko 2009 and Thompson 2013) identified the technology specifically refers to information and communication technologies (ICTs). What can be an ICT? This could be a smartphone, educational games, laptop, social networking website, etc. that facilitating a teacher and a student in the teaching and learning process in a classroom. We are talking about the use of digital technologies. This could be as part of direct teaching, classroom task, work in a computer lab. Technology does not include the teaching of computing skills. It is known that teachers' integration of ICTs in teaching and learning is a wicked problem.

Rittel and Webber 1973 stated that Wicked problems which are vigorous, contextually hold, and autonomous explained by having a big number of compound variables.

Borko 2009, also defined the problems related to technology integration. Technology integration, as a problem, has been defined by a number of dynamic factors, such as technological aspects of new tools, effective practices, potential to transform learning, new forms of teaching and learning spaces.

According to Law 2008 and Ertmer 2012, technology integration is a more effective factor for the enhancement of quality in school's education and has the largest potential impact when used in problem and project based tasks, and underpinned with constructivist pedagogy. Ertmer and Ottenbreit-Leftwich 2010 states that many studies have shown that students' use of technology is related to learning gains digital information skills are an essential part of the practice of most professions, for 21<sup>st</sup> century use of ICTs is considered to be an essential skill learning in schools and throughout life.

Yet, young people are unlikely to independently use technology in ways resulting in positive learning gains, these skills and practices must be integrated into learning by the teacher (Ng 2012). Over the last decades, pedagogy research has tried to understand how to bring about these changes in teachers' practice and better results in student's learning with effective use of technology in the classroom, but we still have very mixed results in the area. What is known about technology integration has caused complexity.

## **7. Research Methodology**

Understanding the attributes of technological changes becomes a critical domain of technological innovation. Thus far, research on technological innovation was conducted in the framework of defining its characteristics, appearance, and pattern. Recently, there was a remarkable increase in studies in which the "system approach" concept was introduced to technological change in order to create an understanding of this subject.

This paper analyzes the changing pattern of technological innovation by using System Dynamic Simulation. SD is a framework that can substitute the existing manner of static and linear thinking with holistic and dynamic thinking. Dynamic thinking is supposed to describe the deviations in behavioral design of problems as an interval of time instead of, to detect the cause of the problem for an exact time. Since technological changes take place continuously, from the point of view of a long-term view, it is not possible to assess the technological change at a particular point. Thus, the analysis examines behavioral structure as time strategies instead of focusing on a particular event at a certain point in time.

The Casual Loop Diagram (CLD) has been used for mapping the feedback loop structures of the system. The causal relationship between Teacher ICT integration and Learning Outcomes related variables has been evolved. Significant feedback factors have been detailed through five reinforcing and four balancing loops. The Stock Flow Diagram (SFD) has been developed using the Stella software (V9.1.3) of SD to holistically understand the system behaviors by studying various relevant simulation scenarios.



Researchers have collected data from the secondary sources comprising various reports, magazines, periodicals, articles, blogs, newspapers, research papers published in esteemed national and international journals, and web references.

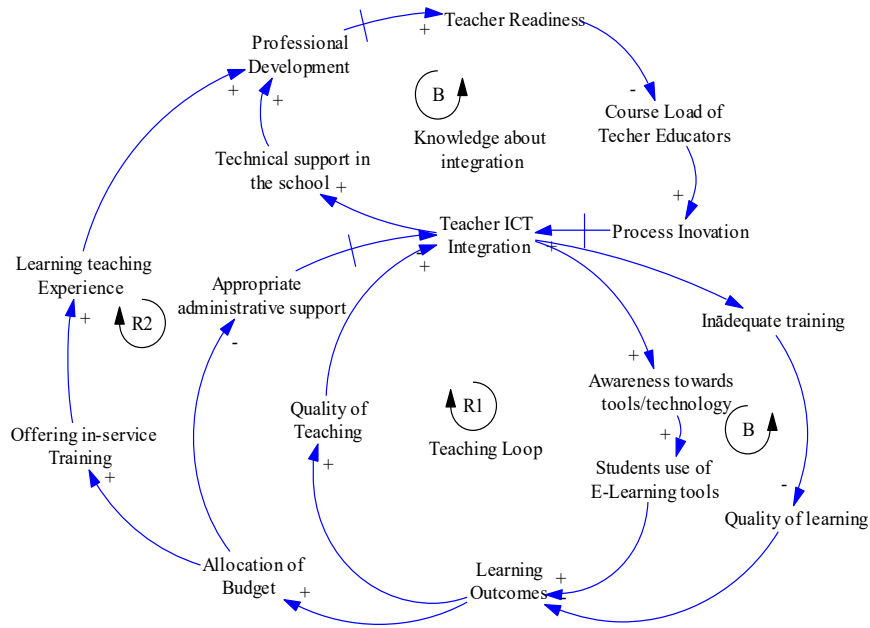
The CLD Model was prepared using VENSIM software, explaining the dynamic of the relationship between technology adoption in the education.

**Table 1: Key Variables used in the Model**

<b>Variables</b>	<b>Type of data</b>	<b>Sources of data</b>
Complexity in adopting tools & technology	Secondary	Progress report of school
Rate of adoption	Primary	Questionnaire
Professional development	Primary	Interviews: Deans/Prospective teacher
Learning outcomes	Primary	Surveys from teachers & students
The Output quality of the tool	Primary	Surveys from teacher & students
Teacher readiness in adopting e-learning tools	Primary	A Questionnaire using 5 point likert scale
Teaching productivity	Secondary	Annual report of schools
Knowledge about integration	Primary	Through workshops
Awareness of tools/technology	Primary	Questionnaire
Adoption delay	Primary	Educational surveys
Potential adopters of technology used in education	Primary	Educational surveys
Adopters of technology in education	Primary	Educational surveys
Learning time	Primary	Educational surveys

## **8. Causal Loop Diagram (CLD)**

To map the impact of teacher ICT integration on the growth of professional development and learning outcomes, a CLD has been developed which represents causal relationships and interdependencies as well as feedback processes of the model. Figure 2 shows four feedback loops that consist of two balancing and two rein forcing loops.



**Figure 2: CLD Causality between Variables of Teacher ICT Integration, Learning Outcomes**

**Table 3: Showing the Name of the Different Loop and their Effects with other Variables**

Causal Loop	Factors/ variables	Description	Known Effect Loops
Teaching loop (R1)	ICT integration	Teachers' use of technology in education.	People do not certainly think or know about educational technology adoption unless they are exposed to it.
	Student Use of ICTs	How students are expected and asked to engage with ICT in learning? Teachers' will perceive an effect on learning outcomes.	Students using technology result in higher grade points than those not using technology.

Learning outcomes	Outcomes from students' engagement with ICT (e.g., engagement, higher-order thinking skills).	Teachers experiencing positive outcomes from students are more likely to integrate technology.
ICTs support learning	Views about the effect of ICT on students' learning outcomes.	Predicted teachers' value of technology is that ICT is important. Positive experiences with, integrating technology build assurance as an instructional tool.
Teacher readiness	Teachers' perceptions of confidence and capability to use technology in teaching.	Direct relationship to technology integration .The best predictor of ICT adoption.
Professional development	Formal or informal training under taken by teachers to improve their practice or technology use.	In general, today's teachers may be more familiar with technology, still, they may not be fully prepared or able to integrate computer technology in their class rooms. The direct relationship to teacher readiness to use technology.
Offering in service training	Teachers' requirement, and want, to learn about technology integration.	Teachers' experience about technology adoption facilitated their 'inner drive' to improve practice teachers more competent using ICT were more likely to attend ICT-related professional development.

	Inadequate training	Teachers are not getting proper training to operate the e-learning tools and other technologies.	Less will be training provided to teachers will result in low e-teaching standards and this will lead to less learning outcomes by teachers and students.
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## **9. Stock and Flow Diagram (SFD)**

The CLDs provide the causal relationships amongst factors and are not able to capture the stock and flow structure of systems; the need for SFDs becomes necessary.

There are two significant stocks identified in the linkage between potential adopters of technology in education and adopters in technology in education as shown in the SFD of Figure 3.

The SFD also indicates the accumulations and flow-related relationships between different variables—adoption delay, learning time, and teaching productivity effect on the rate of adoption indicated in the SFD in Figure 3.

The inputs for creating the SFD were obtained from the academic experts who provided the relations between variables as well as behavior trends and values of variables. The model was initiated for carrying out a number of SD-based simulations with the application of the software, Stella V 9.1.3.

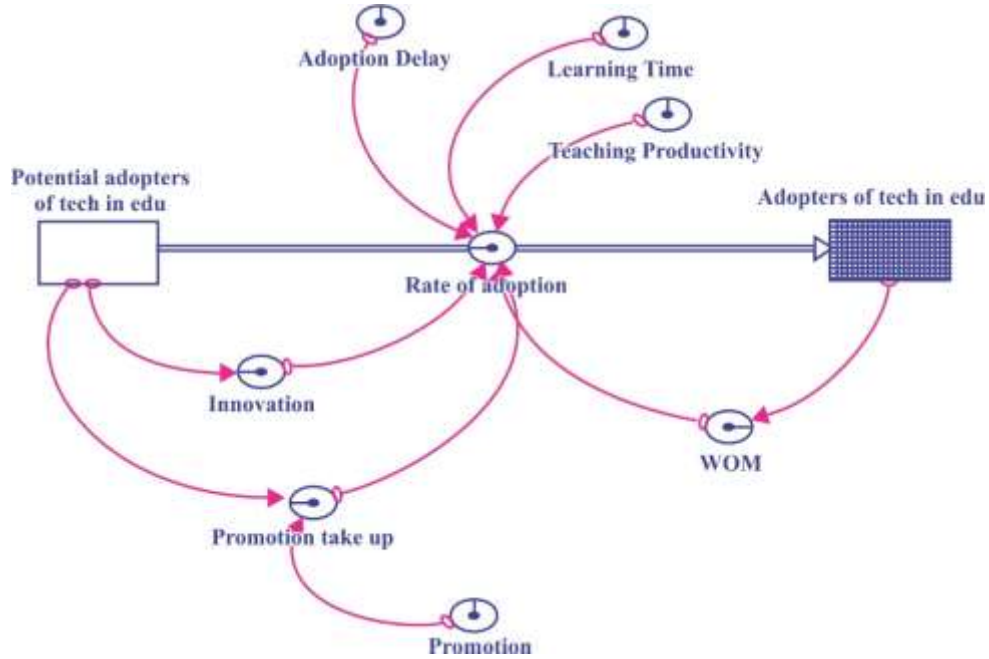


Figure 3: SFD Linking Potential Adopters of Technology in Education with Actual Adopters of Technology in Education

### 10. Simulation of Model

- GraphPad

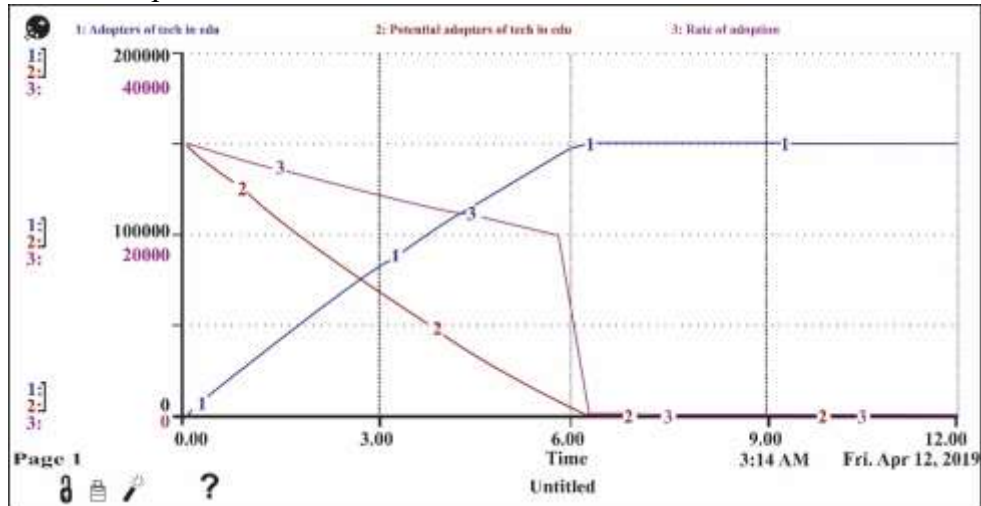


Figure 4: The Result of SD Simulation with regard to the Technology Adopters

## 11. Results and Interpretation

The scenario stimulated from the SD model developed were studied and summarized as-

The SD model presented in the study is based on the bass model, as it is showing how potential adopters are converting into actual adopters of technology in school's education.

The trend graph of actual adopters is increasing due to the high adoption rate and then it is constant. It resulted from the study that technology adoption has been taken place at a high rate of adoption irrespective of various barriers faced by them.

Result from the study shows that technology integration has been particularly beneficial for the quality enhancement of the school's education.

The included factors for the rate of adoption are the following: Innovation, Promotion takes up, Word of Mouth, Teaching, Productivity, Learning Time, and Adoption Delay.

As it is shown in the graph that as rate of adoption declines shows the potential adopters are converted into adopters.

This means the system dynamics model helps this study to find out the importance of e-learning tools in the education sector.

**Table 3: Simulation through Table Pad**

9:54 PM 4/14/2019		Table 1 (Untitled Table)			
Time	Potential adapters of tech	Adopters of tech in edu	Rate of adoption		
.00	150.000.00	0.00	30.008.44		
.25	142.497.89	7.502.11	29.482.92		
.50	135.127.16	14.872.84	28.966.60		
.75	127.885.51	22.114.49	28.459.32		
1.00	120.770.68	29.229.32	27.960.93		
1.25	113.780.45	36.219.55	27.471.28		
1.50	106.912.63	43.087.37	26.990.17		
1.75	100.165.09	49.834.91	26.517.50		
2.00	93.535.72	56.464.28	26.053.12		
2.25	87.022.44	62.977.56	25.596.86		
2.50	80.823.22	69.378.78	25.148.60		
2.75	74.336.07	75.663.93	24.708.18		
3.00	68.159.03	81.840.97	24.275.48		

## **12. Conclusion**

This study is based on the implication of system dynamics modeling to examine the factors affected by technology integration in an education field.

As this method helps to better understand the complexities and dynamics of possible changes in the factors such as in this study, the researcher used the model on possible changes in the nature of learners and teachers for the technology adoption in their pedagogy.

It is also concluded from this study that technology integration is considered to be more effective for the learners as well as teachers from the perspective of the education sector.

Researchers have presented a system model of technology integration and demonstrated how it could be used to employ systems thinking to understand some of the complexity and dynamic of technology integration, possibly make new patterns and influencing factors visible and refocus technology integration on learning.

It is important to note that the system approach builds on exiting research and simply provides a method to examine factors as components of a system and observe their multiple effects.

However, using various variables in the CLD diagram of teacher integration and learning outcomes is able to suggest important interactions in terms of reinforcing loops and balancing loops in the fig. 2 and feedback in the system.

This has provided a key step in beginning to incorporate systems thinking and methods in educational technology research.

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## **Impact of Customer Review on Social Media Marketing Strategies**

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### **Abstract**

This paper focuses on the study of online customer reviews and their influence on social media marketing strategies. It seeks to analyze and understand the power of such customer reviews which may fall either in favor or against the companies practicing to promote their products and services over such platforms to increase their market reach. It includes the systematic study of available related articles and research works on Social Media Marketing, Customer Reviews, and the Electronic World of Mouth (e-WOM), etc. The analysis derived from referred cases, supported by the key finding of survey reports, signify the explicit and significant impact on reviews over companies and brands. Though most of the highlighted cases referred during the literature review process were possessing negative impact resulting in heavy loss of brand image and monetary losses as well. These monetary and non-monetary losses to the companies were derived from a single negative customer review only. To deal with or escape such failures; the unfair practice of the social media marketing strategies lured marketers to create fake and revenue-based reviews to handle the review of suffered customers or to increase the sales. But generating fake reviews without working on their own weaknesses situations in few cases referred had turned into irreversible disasters, causing the shutdown of the companies.

The facts and data strongly support the importance of having strong customer connection over social media platforms with a transparent and quick standing in real-time. Hence, the power of social media marketing is like untapped potential if channelized in an organized way with a dedicated team. If used properly it pumps the business with opportunities to expand like never before and that too in real-time. So the explicit impact compels marketers to have proper knowledge, how social media platforms work and in paying attention to online customer reviews they receive every moment. The study is

completely based on secondary data and is exploratory in nature. The limitation of considering secondary data leaves the scope of exploring the new aspects when the same carried with the primary data.

## **Keywords**

Social Media Marketing, Customer review, Marketing strategy, Digital marketing, e-WOM, Customer trust, and Star rating.

## **1. Introduction**

From the initial days of media, World of mouth is considered the most effective way of spreading a message. The increasing popularity of social media platforms is today's e-WOM. There is a list of facts to support its popularity across the globe. On one hand, it has dissolved the barriers of two-way communication over the internet and became the driving force to bring customers to the center of the marketing. On another hand, it has created immense pressure on marketers to be on their toes to survive the competition. Because ignoring these reviews for a few minutes can harm companies severely. According to a study carried by Harvard Business Review reported that for an increase of one-star rating at Yelp (one of the top review rating websites of the world) has pushed 5-9 percent of its revenue.

In the last two decades of business history, customer reviews as one of the most important marketing tools have armored small businesses and start-ups to stand and even surpass the well-established competitors of the related industry expending big budgets but with poor social media marketing strategy. Further access to the related literature shows contradictory results about customer reviews. Though it has become a powerful tool to today's marketing strategy bringing the customer in its core. Instead different studies present many proofs that even 100 percent customer satisfaction feedbacks or reviews hamper the revenues putting companies in doubt of doing fraud to create fake positive comments over social media platforms and review websites.

The pace of the internet, accessibility of social media platforms, and its availability over portable digital devices had completely thinned the circulation time period of any kind of information written or shared through audio, video or written modes could have a positive or negative contagious impact in a fraction of time.

This shift of focus from 4Ps (out of seven) to 4Cs of marketing matrix has been proposed by Robert Lauternborn, an advertising professor at the school of Journalism and Mass Communication at the University of

North Carolina. 4Cs include consumer (wants and needs), cost (to satisfy), convenience (of buying), and communication. This shift means, today customers became a stronger driving force for a product or service-related decisions (Vieira & Almeida, 2019).

## **2. Objectives of the Study**

- To explore the colossal impact of customer reviews on purchases.
- To explore the inseparable contradictory factors associated with the customer reviews.

## **3. Review of Literature**

The customer review has turned the ways of marketing 1800. These reviews are the personal feelings and emotions of the customers presented in the form of feedback, star rating, or a message for the companies in visual, audio, or video forms. A few of the most criticized incidents in the history of social media marketing are proof since the initial days of social media platforms came into existence.

The poor handling of baggage's by United Airlines resulted in breaking off the guitar of one of the travelers resulted in the loss of millions to the concerned company. When the story of disaster was uploaded in the form of a video song on YouTube crossed over 3 million views within one week (Deighton & Kornfeld, 2010). The next on disaster raised when a video of an unhygienic way of making pizza, was posted on the social media platform by the employees of Domino's Pizza. Dell Hell case took place on Twitter account when Jeff Jarvis shared a 144 words' blog post that turned into a nightmare for dell (Gracia, 2014).

Even in today's time, personal social media profiles at Facebook and Instagram or at Twitter etc encounter positive or negative feedbacks more often. These feedbacks and ratings generally act in building a strong to the concerned products or services either positive or negative. Abrupt results with high intensity of negative customer reviews based on a single customer's negative review compel marketers to be on their toes 24×7 in the customer review driven world. This means for marketers it becomes necessary to keep their senses open more towards such negative comments and should be replied quickly, honestly maintaining the transparency over the same medium (Scott, 2017).

**i) Power Shift in Traditional Marketing**

Writers from Marketing 4.0 have redefined the word market-ing as an ever changing market. This the feasibility associated with all kinds of digital devices and the savvy nature of customers' are the reason behind high level of engagement and interaction between brands and customers (Kotler, Kartajaya, & Setiawan, 2018). Though the power shift in traditional marketing had opened an immense opportunity for the companies and brands to work on themselves and keep on upgrading themselves more often bases on reasonable customer reviews rather than wasting time and effort to copy the other competitors. The intensity of customer connection is considered the game, changer effecting many perspectives of traditional marketing. The authors of the book entitled 'Marketing in a Digital Data and Word' have shared how the price factor of the marketing mix now focuses the Cost factor, because it is the cost that derives the price of a product or service, similarly promotion and communication (Vieira & Almeida, 2019). A study conducted in 2014-15 says that the probability of selling to a new customer is 5-20 percent against existing customers having the probability rate of 50-70 percent. Hence supporting the impression of online customer reviews. Today social media platforms are the virtual social world where dealing with the customers in real-time can actually favors the research and development of the products and services with more effectiveness and efficiency. Using these social media platforms as a marketing tool is now more than just increasing likes and shares of the organizational driven contents.

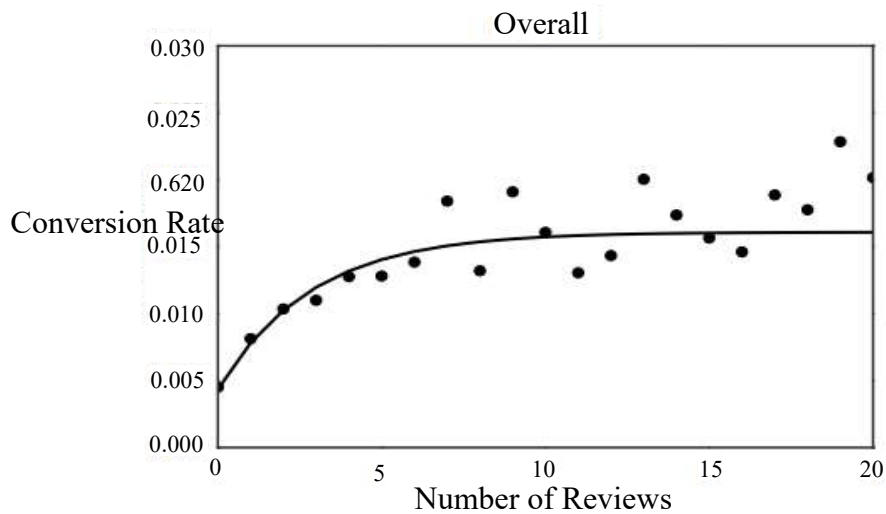
**ii) Customer Reviews Impacting Customer Trust**

Positive or negative customer reviews are aspects of e-WOM that impact the purchase and the trust between the customer and brand or company. The importance of customer review becomes essential with the accelerated pace of life that has reduced the total time spent on exploring all kinds of information available at different sources. To avoid the chaos of solving the puzzle and then reaching to a certain decision it is much easier and convenient to access the related customer reviews. Days are gone when attractive company advertisements over Television, radio, or in print media and only a few relatives and friends used to play a major role in purchase decisions. The key finding of a survey from BrightLocal shows that

76 percent of the customers trust on reviews equally important as recommendations received by the family or friends. Philip Kotler and his co-authors in their book 'Marketing 4.0' have talked about high-touch engagement where a purchase decision is the result of the trust on communicated recommendations made by their network, family, and friends. These online networks generally provide their recommendations as reviews given or expressed in the form of feedbacks, and ratings for most of the online or offline purchases including pre and post experiences associated with them. Though the sources of such reviews are unknown to them (Connolly, 2020). Instead these reviews impacts are drawn by analyzing the different aspects received from many customers. According to a report published by Spiegel Research Centre, under the topic 'How Online Reviews Influence Sales' found that online reviews have a positive impact on sales of expensive products and services, and riskier items more in comparison to the less expensive ones.

**ii) Diminishing Marginal Value and Biasness associated with the Customer Review**

A part of the survey clarifies that perfect ratings (5 stars) and more reviews create doubts about fake reviews among customers. Hence the source of customer reviews also matters if received from verified buyers because these are considered authentic and worthwhile. This research also confirmed how the conversion rate of sales is higher with the initial reviews but after a certain level, it stops affecting the conversion rate (Maslowska, Malthouse, & Bernritter, How Online Reviews Influence Sales, 2017). The proposed model of the exponential learning curve shows how customer reviews affect conversion rates. Researchers find that customer reviews can cause an increase in 270 percent of conversion rates. Though this study also confirms a diminishing marginal value if a product or service keeps on accumulating more and more reviews. That may create? confusion and doubt of fake or paid customer reviews. By portraying the adoption of an unfair marketing strategy to grab the customers' attention with an intension of increasing sales. Means the presence of negative comments supports the establishment of the authenticity of the customer reviews hence supporting the brand or company. Similarly having an excellent or absolute star rating becomes suspicious, where being "Too Good to be True" brings the brand under suspicion.

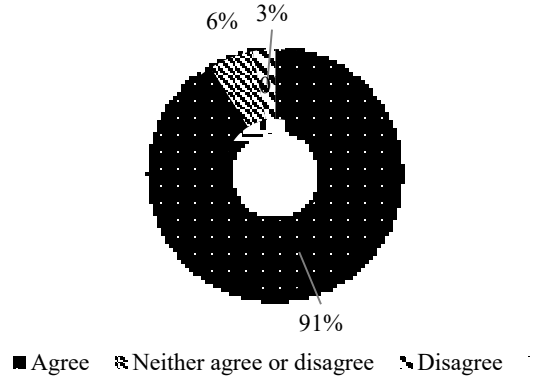


Source: <https://dl.acm.org/doi/10.1145/2959100.2959181>

**Figure 1: Effect of Displayed Reviews on the Conversion Rate**

The image represents more customer reviews intent to bring more conversions in comparison to the products and services with lower customer reviews (Askalidis & Malthouse, The Value of Online Customer Reviews, 2016). The reason behind the diminishing marginal value of excessive customer reviews might lie in another study that says online customer reviews could be noisy and complex some times for customers as well as for companies too. Because the increased flow of information between B2C cases may provide incomplete information to both caused by inaccuracies, the difference in opinions, or omissions (Tancer, 2014). Despite this limitation customer reviews started playing a crucial role in today's marketing strategies. In surveys and personal interviews with several businesses came up showing their frustration towards online reviews stating reviews are the small sample of reviewers versus all customers and they felt that the reviews generally come from the customers having unsatisfactory behavior leading to a mess and demotivation to the companies. As a result, marketers focus on those imperfections as an attack on their businesses becoming a victim of cognitive dissonance (Ibid). Local Survey Consumer Review Survey report drawn in 2019, by BrightLocal says, 91percent of the customers buy products based on positive reviews.

### Positive reviews make more likely to use a business



Source: <https://www.brightlocal.com/research/local-consumer-review-survey/#Q17>

**Figure 2: Impact of Positive Reviews on Purchases Decisions**

Whereas 82 percent of surveyed customers confirmed that they drop the decisions of purchasing goods and services having more negative reviews. Customers consider online recommendations as personal recommendations. Only three months older reviews are found effective in making the purchase decisions. Primarily positive or negative reviews are the result of extreme self-selection biases because the comparatively extreme feeling of satisfaction or dissatisfaction tends to write reviews in response despite moderate experiences of goods and services. According to the survey report of ReviewTrackers 62.7 percent of respondents trusted online reviews important while 63.29 percent of respondents trusted reviews having 4-star rating and only 2.5 percent trusted reviews having 2-star ratings (Bhole & Hanna, The effectiveness of online reviews in the presence of Self-selection bias, 2017). The above data is validated with the study carried over the review of Amazon.com which shows that reviews generally with extreme ratings either 5 or 1 and 2-3 ratings given are less in numbers. The question of biasness of review is also well supported by the investment of time and effort hence it is just a fraction that considerably represents the whole customer base. The next level of biasness in review writing comes when it is incentive or reward-driven rather than being organic.

#### **4. Research Methodology**

The nature of the research is exploratory and is based on secondary data procured from different business analysis reports, conference proceedings and journal articles, websites, and books. The snowballing approach has been used for systematic and effective referencing. The major part of the secondary data has been collected through the internet.

#### **5. Findings**

The study of available literature strongly confirms the impact of customer reviews over a company or brand hence supporting its role in developing strong social media marketing strategies.

- Study shows how customer reviews across social media platforms immensely affect the purchase decisions of particular products and services and in building their market image. Most importantly, the survey results proved that 90 percent of customers refer to reviews before deciding on a purchase.
- Available literature also shows how strong monitoring of customer reviews over social media platforms has helped organizations to reach their target customers and establish a stronger relationship with them.
- These customer reviews have? Helped many organizations and brand to improve their products and services continuously.
- Different study reports has grabbed the focus of the marketers towards social media marketing strategies that can work as immunity to their holistic marketing strategies.
- The shift of the P (Price) of traditional marketing mix with the C (Cost) of marketing illustrates how the Cost to retain a customer is much lower than the cost to grab a new customer.
- The most interesting part of the study found was, how customer reviews also demonstrate the diminishing marginal value that creates a contradiction and question mark to the belief that higher customer reviews with absolute star ratings will bring higher sales.
- Study of reports reveals how most of the reviews or ratings are driven by extreme human emotions, because they involve time and effort. So, it merely comes from a few of the highly satisfied or unsatisfied customers that unfortunately causes severe harm to companies and brands getting negative or unfavorable or very poor reviews.
- These human emotions sometimes cause frustration at both ends including the reviewer and the company leading to a disaster that causes irreversible harm to the companies.



- The contradictions associated with human psychology and behavior have an unpredictable impact that is very difficult to measure with accuracy.
- The bombarded marketing reposts justifying the strong impact of customer reviews on social media platforms compelled many marketers to practice fake by creating false reviews.

## 6. Conclusion

Instead of possessing several contradictions. Reviews from customers adhere to the core while formulating the real-time Social Media Marketing Strategies. Dealing in real-time situations always comes with an increased trust factor between the company or brand and its customers. The trust factor not only strengthens the bond between the two but also makes the customer feel privileged hence increases the loyalty of the customer towards the company.

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## **Understanding Coordination Failure: A Reason for Underdevelopment**

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### **Abstract**

Coordination failure is a sophisticated problem that arise in many organizations and thus in many countries especially less developing. There are often complementarities between members' choices, and these complementarities can lead to multiple stable outcomes. Organizations may be successful in coordinating on a good outcome, or they may become trapped in an inefficient situation even though better outcomes are also potentially stable. The process of development has always been the top priority of governments of several developing and developed countries for which there were many more models of development has been well explained in a meaningful manner. Some of the useful model among them are Malthusian population theory, Rodan's big push, Lewis and Nurksey theory of surplus labour with the concept of dualistic development, Harrod Domer model of steady growth rate, Harris Todaro model of migration, leibenestien model of critical minimum effort etc. But the most sound model in the field of development economics was the Malthusian population theory' {1798} in which he made direct prediction that population growth will only lead to continual poverty as growth in food production will always be slower than population growth. This model was important because it gives the meaning of scarcity which is declared to be mother of economics. By this vary word developing economies are forced to choose only that resource which is abundant in their country say labour in order to achieve the development. Before the advent of 1970's, nearly all economic growth models concluded on savings and investments as an important driving force of economic development. There are several major failings with savings driven growth models. Thus the paper aims at making a growth-driven direction for under developed economy by the removal of several hindrances among which coordination failure is the top of the most. Also the paper deals with the changing role of organizational behavior with dynamic leadership.

## **Keywords**

Productivity, Happiness at work, Emotional system (Limbic system), Neurotransmitters, and Happy hormones.

## **1. Introduction**

The process of development had always been the top priority of governments of several developing and developed countries for which there were many more models of development, has been well explained in a meaningful manner. Some of the useful models among them are Malthusian population theory, Rodan's big push, Lewis and Nurkse theory of surplus labour with the concept of dualistic development, Harrod-Domer's model of steady growth rate, Harris-Todaro model of migration, Leibenestien model of critical minimum effort, etc.

But the most sound model in the field of Development Economics was the Malthusian population theory' {1798}. Where he stated a direct forecast about population growth that will only lead to continual poverty because income growth or growth of food grain production is always slower than population growth. This model was important because it gives the meaning of scarcity which is declared to be the mother of economics.

By this vary word developing economies are forced to choose only that resource which is abundant in their country say labour in order to achieve the development. Before the advent of 1970's, mostly all the growth models were leading the same conclusion that saving and investments are the major growth drivers for any economy but actually this has happened in the case of developed countries only. Thus it is rightly acclaimed that these models will fit the developed world.

However, the situation within less developed countries is quite different. Most of these developing countries are not endowed with significant natural resources or infrastructure for technology and innovations. But these countries are extremely doing better as much as they can do because they have learned many things via learning by doing. In fact, these countries are well attracting foreign capital in several forms that work as a lifeline or good cholesterol for development. Reviewing all these the most problematic thing is to keep the equilibrium among resources

allocated in different sectors of the economy and to remove the negativity of autogenous factors such as market failures. This is however said to retain the coordination among firms' productivity, factors, resources, etc., therefore a deep microeconomic intervention is needed. In fact, earlier these interventions are driven by outward-oriented development strategies, export promotion, intensive programmes for small and medium enterprises, attracting foreign investments, etc. These programs were deeply supported by various international institutions like IMF/IBRD etc. But these kinds of supports are biased in some or other way and almost against the developing world in general and the Indian economy in particular. Thus another kind of hurdle is seen in the form of coordination failure.

## **2. Objective of the Study**

The paper explores the understanding of coordination failure and its impact upon the economy as well the paper serves upon the remedies by which the coordination problems can be removed.

## **3. The Concept of Coordination Failure**

Under the concept of coordination failure price setters in the market and firms fail to coordinate between themselves. Later Rodrik (2004) and Rodriguez-Clare (2005) came up with an excellent explanation for this kind of market failure. Rodriguez-Clare pointed out that the success or failure of an action depends on the context in which it is undertaken: "A firm's productivity is not only dependent on its own hard work, abilities, and on general economic conditions (e.g., the macroeconomic setting and the lawful system), but also on the similar actions of other firms, infrastructure, directives, and other public goods". In such a case, different agents' actions are said to be "complements". Hence, it can be said that the absence of complementarities in an economic arrangement results in coordination failure.

Due to thick market effects, internal economies of scale, knowledge spillovers, including other problems of non-excludability, the provision of these inputs and services are plagued by market failures. Ample reviews explored these market failures that often lead to multiple equilibria i.e. the combination of good and bad equilibrium. If complementarities are present, a discourse taken by one firm, worker, organisation, or administration increase the incentives for other agents to take parallel actions. In particular, it can be said that these complementarities often involve investments whose over returns that sometimes solely depend upon other investments being made by other agents. In other words, coordination failure occur when a group of firms are capable of attaining more advantageous equilibrium but fail , because they are unable to harmonize their decision-making. Thus decision making is now a day gaining its momentum and its absence can give rise to coordination failure. The concept is opposing to classical economists where they and their gradual post followers, Singer, W. Arthur Lewis , Nurkse, Prebisch, Hirshman, and Leibenstein, etc. Rosenstein Rodan pointed economic growth as a synchronized process that only requires the methodical reallocation of factors of production from a low-productivity, decreasing returns, traditional technology mostly primary sector to a high-productivity, increasing returns modern technology, and most industrial sector. But, later on the neo-classical development economists assumed that there are few institutional and technological impediments to the mandatory resource-reallocation. That is and generally hindered by economic rigidities, which are both technological and institutional in nature. Investment lumpiness, inadequate infrastructure, imperfect prudence, and absent or missing market with asymmetric information are the major restraint for smooth resource transfers among sectors which hampers individual profit maximization and thus causes “underdevelopment”. And this nature of under development leads to coordination failure that would cause a country into the poverty trap. The poverty trap is not the new concept as a hurdle of underdevelopment. But almost all the theories of development have been given to remove this hurdle by the heavy chunk of investment. Most famously, Rosenstein-Rodan (1943) argued that investments done by a single firm are the effect of the simultaneous investments done by others. In other words, the higher investment gives rise to an increase in

cumulative demand i.e. aggregate demand under which economies of scale increases the productivity of investment elsewhere in the economy (Murphy, Shleifer, and Vishny, 1989 for a modern formalization) in these states of affairs there can be said multiple equilibria (a low-investment and a high-investment equilibrium.)

Everybody would be more affluent at the high-investment equilibrium, but no market forces taking an economy from the small-investment to the grand-investment equilibrium. Some kind of coordination is required to move from the bad to the good equilibrium. Thus, if the economy resists the bad equilibrium then it is said to be in the coordination failure in the long run situation.

#### **4. Coordination Failure by Multiple Equilibria: Different Case Studies**

**Case One:** Let's suppose that there is an industry agglomeration (i.e., increasing industry size in a single location) which, is far enough to generate the benefits of increased specialty, now Imagine that a good can be produced with two technologies: a backward technology that is said to be labour intensive, and a contemporary technology or capital intensive which are specific for the particular intermediate goods.

If all the firms use the backward technology, and as a result, the market for inputs will be small, multiple equilibria exist and hence there will be only a few specialized inputs, in turn making the modern technology uncompetitive. By contrast, if firms use capital-intensive technology, the market for inputs will be huge and this will generate incentives for many firms to enter into the fabrication of particular inputs.

As a result, there will be many varieties of particular inputs, and this will make it advantageous to use the modern technology, thus the later was treated as a good equilibrium state whereas the former was a bad equilibrium state.

**Case Two:** Suppose firms are needing some specialized skill to locate themselves in an area and workers in that particular area are acquiring those skill then there will be no multiple equilibria but if the firms would not move to that area or region where there is no suitable worker and workers thus not acquiring the skills because no firms are coming there to employ them then two equilibria exists- one in which workers acquire the skills and firms come and hire them and one in which the workers don't.

**Case Three:** Let's suppose there is subsistence agriculture persist in which every farmer grows crops that enable them to be self-sufficient and on the contrary handsome farmers are specialized in a single (cash) crop because it requires good market access; contract etc. Thus again: two equilibrium at the same time are possible - one in which every farmer is in subsistence; and the other one in which every farmer is specialized. So it is something negative mechanism where underdevelopment becomes the outcome of bad equilibrium. Thus for the sake of pushing the economy towards the self-sustaining better equilibrium deep intervention is needed, to move the economy to a preferred equilibrium or even to a higher permanent rate of growth with no incentives to go back to the behavior associated with the bad equilibrium.

## **5. Review of Literature**

**Matsuyama {1995}** has an emphasis on the problem of coordination failure and suggested the particular role of an entrepreneur instead of a government mechanism and says that the entrepreneur should enhance the efficiency of firms because they only can set the methodological issues between the firms. Further, he says that the entrepreneur is the representative agent of the society being able to solve the coordination problem well.

**Themdanirodrik {Feb 2000}** emphasizes the importance of knowledge spillovers on a local basis. And for the requirement of absorbing local knowledge, the most effective tool is the participatory political. Democracy is the mixture of formal and informal both kinds of institutions for eg. government, economy, education, family, and religion both go altogether. Thus for the sake of handling coordination failure the concept of meta-institution is needed.

**Karla Hoff {April 10 2000}** has drawn the causes of low-level equilibrium "traps". He says that it may happen that both low-level and high-level equilibriums are possible.

He further pointed out that also with strong spillovers, it is not always necessary to find the dynamic and good equilibrium in any certain condition of an economy. This article signifies how modern economic theory broadens our view of the sources of spillovers that could lead to "traps" with low innovation and incompetent institutions. The article



argues for an ecological viewpoint on development, where the influence from others in one's environment is a critical determinant of outcome.

**Andrés Rodríguez-Clare Inter-American Development Bank {December 2005}** discusses coordination failures, its consequence to developing countries, and the state of affairs under which they happen, arguing that the clusters can be seen as agglomerations of firms and institutions in interrelated economic behavior among which coordination failures are expected to happen. The article refers to the causes behind the development are industrial clusters that provide an opportunity for microeconomic involvement encouraging coordination and communal actions to advance productivity. Afterward the article presents a small economic model inundated by sectors but there again cluster-specific coordination failures, demonstrate that policy should be premeditated in such a way as it nurtures collaborations in sectors where the economy already shows comparative advantage.

The next attempt is by **David de la Croix1 Frederic Docquier {2 May 2010}** explores that the complementarities between poverty in developing countries and high-skill emigration. The model is built focusing on indigenizing human-capital accumulation, productivity, and high-skill migration. Two countries opening with the same characteristics may wind up either in a “low poverty/low brain drain” path or in a “high poverty/high brain drain” path. After identifying country-specific parameters, it is found that, in most of the countries, the pragmatic equilibrium has a higher income. In 22 developing countries (including 20 small states with less than 2 million residents), poverty and high brain drain is deteriorated by a coordination failure. For 25 other countries, economic performances are worsening rapidly. These results are fairly vital for identification assumption and the insertion of a brain-gain apparatus.

After reviewing the literature we can make the concept of coordination failure in all aspects but there is a great need to find the failure in the terms of the Indian economy and then there should be an aim to remove the disequilibria created by it.

## **6. Problem of Coordination Failure and its Implication in Indian Economy**

In India, although there have been many more practices done for the development a steady growth rate is still not found since the independence. Earlier we were the golden bird but exploited brutally by East India Company and still, we are the exporter of primary products mainly despite of grooming day by day in international trade the Terms of Trade are against us and we have to look others for a manufactured product. After liberalization tax reforms, monetary policy reforms basic trade sector reforms were done to boost our economy but we are still lagging behind in the reforms based on the agriculture sector. We are improving ourselves in service-led growth basically and this again arising the adjustment problem between the agriculture sector and industry/services that led to coordination failure. Although agricultural production has increased than before population growth has shown its response in multiple terms as the Malthusian concept advocates. Thus we are in a bad situation of food production that always remains behind the population. As of Economic Survey India's average yield in 2013 was 3075 kg/ha which is lower than the world's average of 3257 kg/ha. The picture is most surprising because almost all Indian states have registered yields below in paddy production than that of China and even at some places yields are below than of Bangladesh. And on an average countries like Brazil, Myanmar, and Nigeria has a higher yield than that of India. This is pitiful for the Indian economy where on the one hand we are based on the rain-fed and {those who grows is hungry} on the other our economy is becoming more and more service-based where not only agriculture but also the manufacturing sector is decreasing with the decrease of manufacturing jobs per year.

There are two main reasons for the decline: increases in substantial productivity which means fewer workers are needed to maintain manufacturing output; and outsourcing, especially to countries that have much lower wages also an attractive option for companies in quest of to uphold their competitiveness and enhance their bottom lines. Thus India is emerging as a new economy that is praiseworthy but in which

competence, competition, and coordination failure run hand in hand. Competence and competition is our strength but coordination failure is our weakness.

**The major cause of coordination failure between sectors in India are:**

- The problem of Food Security and the existing Malthusian Trap
- A Primary mode of Agricultural without evergreen Revolution
- Rural migration
- Ideological Shift toward Commerce and Commercialism
- Lack of governance as Market Creators
- Corruption

for the reason of the removal of this failure, some initiatives have to be taken as a deep intervention like Make in the India by Indian government. The initiative indicates that India has the probability to attract possible Investors. But to grab the potential through the Make in India strategy is a real challenge. The challenge becomes more complex in India due to Indian demography and diversity. How to ensure inclusiveness with sustainability through Make in India is also a major challenge.

Indian diversity is a challenge but it could be a potential driver for Make in India, also as per Lewis has proposed Dual Sector Economic Theory which states that the Capitalistic sector takes cheaper labour from labour sector and hence economy develops gradually. Due to its diversity, India behaves like the multi sectoral economy. A Multi-sectoral economy means it has all Types of surplus Labour spectrum. India has surplus engineers, non-skilled labour, skilled labour, and intellectuals evolving high skills also, it has the uppermost percentage of youth population at this time and now it is proven.

One another challenge for the agriculture sector is that this sector is appealing to another revolution like the 1960s Green Revolution. Something strategic like MAKE IN INDIA, and SKILL INDIA. The government has to explore the crops where India has a comparative advantage as well as there is a need for linkages between services /industry and agriculture sector.

**What has to be done for securing the agriculture sector, linking up with the industries, and removing coordination failure:**

- Creating sustainability dimensions for agriculture.
- Enhancing R&D spending on agriculture.
- Exploring the process of innovation in agriculture.
- Improving quality standards and efficiency.
- Improving rural development and local sustainability, mitigating poverty, increasing household income, and preventing labour migrations to urban areas.
- Accepting the priority of agricultural development, requirements emerged in policymaking and implications of rural industries as well as urban industries in the agriculture sector including agricultural tools and equipment.
- Agriculture sector development must lead the income redistribution towards rural areas.
- Adequate and reliable infrastructure system that can promote trade and mitigate market failure.
- Building capacity for monitoring and evaluating the rate of return on the investment proposals in different sectors mainly the promotion of public funding in the agriculture sector.
- Removing legal and institutional weaknesses and avoiding unnecessary budgets.

## **7. Conclusion**

To conclude it is said to be that there were many development frontiers in the history of development theories but the most dangerous problem is seen as the coordination failure for underdevelopment economies in which all the positive efforts are seen as lost. This argument particularly starts from Murfy, Sheilfer, and Vishney's idea of underdevelopment which is something different from the basic ideas. W. Arthur Lewis, Rosenstein Rodan, Nurkse, Singer, Prebish, Hirshman and Leibenstein, Rostov, etc. all these development economists viewed economic development as a generalized process that requires the methodical reallocation of factors of production from a traditional technology, low-productivity, decreasing returns, mostly from the primary sector to a modern technology, high-productivity increasing returns, in the

industrial sector. But, the later neo-classical development economists and modern economist like Amartya Sen, and Debraj Ray assumed that there are few technological and institutional impediments to the requisite resource-reallocation and these resource reallocation processes are hampered by rigidity Investment unevenness, insufficient infrastructure, defective foresight, and absent markets, or market failures basically causing the dis-coordinated behavior and generates multiple equilibria i.e. the combination of good and bad equilibrium at the identical time. Now the policy framework is needed and the government should act as a “prime mover” in such a way by which the “big push” and the Hirshman's unbalanced strategy can be put into the practices smoothly, along with these the under developing countries should avoid single approach like Make in India initiative, only for improving industrial capability and not for agricultural a bit. Thus a transformed and corrected kind of planning is needed to ensure coordinated development as well.

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## **The Role of Commercial Vehicles in Logistics and Supply Chain Operation- A Study with Reference to Textile Units in Coimbatore**

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### **Abstract**

The Indian commercial automobile industry takes a significant role in the sustenance of the country's economy. Around 66 percent of goods and 87 percent of the travellers in the country travel through motorway. Commercial vehicles can be categorized on the basis of their usage as Goods Carriers and Passenger Carriers. Further, the Commercial Vehicles are categorized based on their Gross Vehicular Weight (GVW) as Light Commercial Vehicles (LCV) and Medium & Heavy Commercial Vehicles (M&HCV).

The commercial vehicle industry is capital intensive in nature and is highly capable of technological changes with environmental norms. Consumers are trying better technology vehicles and it has become authoritative for the companies to either have technology partners or a strong domestic R&D. In spite of volatile demand, the contribution of commercial vehicles to the textile industry is more. The success of the textile industry depends on the efficient operation of logistics and supply chain.

Textile units of Coimbatore city have been selected, collected the relevant data, analysis were made, findings & necessary suggestions are highlighted in the study.

### **Keywords**

Logistics, Supply chain, Commercial vehicle, Textile industry, and Contribution.

## **1. Introduction of Commercial Vehicle Market**

The commercial vehicle market is an incredibly competitive market, and the report covers both the major and niche players such as Ford, Toyota, Renault, Volkswagen, Ashok Leyland, General Motors, Hyundai Motor, Isuzu Motors, Tata Motors, Opel, Daimler, and Eicher. Commercial vehicle (CV) primarily consists of pickup trucks as they can be used as passenger cars and commercial vehicles. The dynamic nature of the vehicle enables it to be modified and used as per requirement Technavio's market study identifies the growing inclination for pickup trucks in emerging countries to be one of the prime development factors for the commercial vehicle market. Emerging economies like India and China are the major markets for CVs post removing the ban on pickup trucks. Subsequently, General Motors and Ford are planning to export pickup trucks to China. Our market analysts estimate that in terms of units, the market will witness sales revenue of more than 19 million by 2021.

Third-party telematics companies are offering customized telematics packages specifically for CVs. This package is an aid to the fleet of vehicles in maintaining an online track record of tours done by the vehicle, miles travelled, fuel used, and maintenance cycles. Integration of telematics offers several advantages. This integration increases their usage efficiency by monitoring their movement and location. These factors result in the combination of telematics systems in CVs be one of the key growth factors for the commercial vehicle market.

## **2. Logistics and Supply Chain Operation in Textile Industry**

The textile supply chain is described as a chain of the firms being suppliers of each other, and their end customers also. That means the chain is consists of the procedure from the raw material to the final good. Every firm here are the supplier to the other/s starting from the delivery of raw cotton from fields' to delivering its final products (apparels) to the end customers.

A supply chain in the textile industry consists of a lot of Procedures, suppliers, middlemen, and customers. Both physical and knowledge product flow are significant in this chain. New marketing approaches are completely customer-oriented. So firms have to be in interaction



continuously and dynamically with their customers. The purpose of competition among firms is to successfully complete the supply chain. Those who manage and build the management of the supply chain ineffective, economic, and productive way, and enjoy the larger market share. All at once, suppliers represent the firms that supply necessary inputs to ensure the production of goods. According to porter, the industries having strong suppliers will have high competition. It is obvious that if the suppliers are strong, the cost of supply will be high and this being reflected in production costs resulting in the final cost of products together with a market price will be high.

Even though they change from one to another industry, the leading suppliers in the textile industry are dyeing plants, thread makers, contract production clothing plants/teams, accessory merchants, contract weaving plants, packaging goods, sellers, and transport companies. With this in mind, it is clearly said that there aren't the power and industry guidance of suppliers in the textile industry. Only partial power of raw material suppliers mentioned. A few years ago the thread makers had a strong supplier structure, but at present, the supply is increasing because of import and investment.

Therefore in the systems where supply chain philosophy is the norm; independent business entities are the distinct profit and decision centres. Where the supply chain system moves autonomously and the transfer of goods and information takes place among them. The key objective of the supply chain is to capitalize on production value. The value which was produced by the supply chain is the difference between the value which the customer sets and the cost of the efforts of the supply chain to meet the needs of the customer. Bigger the difference; the bigger is the success of the supply chain. Supply Chain Management provides an important competitive advantage for the firms and is an important indicator of the work performance of the firms as well.

Today, not only the organizations but also the supply chains of these organizations compete among themselves. To manage the supply chain means to provide the product faster with the lowest possible cost to its customers. By providing both members of supply chain activities in themselves and connections among themselves in the most productive way. To be able to have a successful supply chain, apart from being fast

and having low-cost products it is necessary to have qualities like agility, easy to adapt, and aiming the profitability of supply chains.

The necessary things to do is to have these qualities summarized as agility, adaption, and arranging profit share. The agility concept in the supply chain aims to adapt to the changes in supply and demand quickly.

### **3. Statement of the Problem**

Commercial vehicle plays a vital role in the distribution of goods. These commercial vehicles are either owned by the business houses or are taken on rent or lease. Medium and big size businesses may buy commercial vehicles for their own use. Small size businesses will be depending on the service vendors who offer the vehicle for rent or lease. Both, the owners and the service vendors who render vehicle for rent or lease may follow some strategies. As transporting the goods is one of the main functions in developing the business, the buyer has to take adequate care in the vehicle selection, which may be of various factors and reasons associated with it. Commercial vehicles are being an important asset to increase the growth of business units. The commercial vehicle role in the textile sector becomes necessary for effective logistics and supply chain operations.

Hence the role of commercial vehicles in logistics and supply chain operation- a study with reference to textile units in Coimbatore was identified and collected information has been analyzed in order to help the textile business units of Coimbatore.

### **4. Scope of the Study**

The study has been concentrating on the logistics and supply chain of Commercial Vehicles. The samples are taken within the Coimbatore city, and the required data have been collected through primary and secondary data sources. The output of the study is expected to help the textile business units in the selection of commercial vehicles for the smooth running of the business.

### **5. Objectives of the Study**

- To study the perception of various commercial vehicles by textile business units for logistics and supply chain operations.
- To identify the level of satisfaction of textile business units on commercial vehicle for logistics and supply chain operations.

- To identify the problem associated with commercial vehicle in logistics and supply chain operations.
- To offer a suggestion based on the findings of the study.

## **6. Research Methodology**

i) The study focuses on commercial vehicles working in textile units for logistics and supply chain operations within Coimbatore city. A quantitative research study was done. Whereas the descriptive information was curated for the purpose of the study. The researcher used the survey method using schedules. That was the direct source of primary data received from the respondents. The respondents are registered textile business units of Coimbatore city. Research design shows the overall sketch of the research. It indicates a plan of action to be carried out in connection with proposed research work and it is a blend of both descriptive and analytical methods of study.

### **ii) Source of the Data**

**Primary data:** The study has used primary data collected from the respondents who have registered their textile business units under the textile commissioner office.

**Secondary data:** Secondary data have been collected from various books, journals, publication magazines, and the internet.

### **iii) Collection of Data**

a. For data collection, a well-structured questionnaire was framed, distributed, and collected from different parts of Coimbatore city.

b. Population and sample size.

**Population Size:** In Tamil Nadu, there are 1029 textile business units, registered under the textile commissioner's office. The population size has been collected from the Coimbatore commissioner office website. Out of the total registered units, Coimbatore alone has 559 textile business units on the list. For the study purpose, Coimbatore textiles business units were considered.

### **Sampling Design:**

- The probability sampling method has been used since the population size is finite  $N = 559$  units in Coimbatore which is the scope of the study, to give equal chance to every unit in the populations, probability sampling methods are followed.

- By examining the populations, it is found that these textile units are MSME (micro, small, medium enterprises) and large textile units.
- So the population is distributed into two segments i.e., strata as MSMEs and large units.
- There are 539 MSMEs units and 20 large units.

Following the thumb rule, it is decided to take 20 percent of the population; a sample. That is  $559/100 \times 20 = 111.8 - 112$  are taken to be the sample. The tabulation below gives the sample size determination.

<b>Group</b>	<b>Total units size</b>	<b>The sample size for the study</b>
MSME ( micro, small, medium enterprises )	539	99
Large Scale enterprises	20	16
Total	559	115

vi) **Geographical area of the study**

Coimbatore is a major centre for textile manufacturing and automotive components in India. The city is also an important centre for the automobile industry, from personal to commercial and farm vehicles. The area selected for the research study is restricted to Coimbatore city only.

vii) **Period of the study**

The study period between 2010 and 2018 (9 years).

viii) **Tools for analysis**

Data collection instruments were developed as a part of the study's total research design to systematize the collection of data and to ensure that all the respondents are asked the same questions and in the same order. A Schedule was designed to know about the Purchase behaviour of textile business units on commercial vehicles. The schedule designed includes both substantive questions that are relevant to commercial vehicles and their utility to textile units.

## **7. Sampling and Data Collection**

The sampling plan addresses three questions: Whom to survey (the sampling unit), how many to survey (the sample size), and how to select them (the sampling procedure). The size of the sample is dependent the size of the budget and the degree of confidence that the researcher wants to place in the findings.

Here are the trial dimensions of 115 textile business units selected throughout Coimbatore city using the Random sampling technique that is registered at the Textile Commissioner Office.

- Only 20 percent out of 559 units of Coimbatore registered textile units are the respondents. Various forms of data analysis tools were used to analyse the data collected through the schedule, by using descriptive analysis, ANOVA, Chi-Square test, and weighted average analysis.

## **8. Limitations of the Study**

Data were collected from the 115 textile business units only. This study was confined to Coimbatore city only. So that whatever the findings derived from the study, it is pertaining only to Coimbatore city. The study has been done only by the support of the registered textile business units and also from secondary sources. Hence, the process of analysis and interpretation reveals and reflects the same. As far as the period of the study, it deals between 2010 and 2018 (9 years only).

## **9. Review of Literature**

**Thangam and Uthayakumar (2008)** a two-level supply chain of a retailer and “non-identical” customers.

**T. T. Nguyen, Lin Crase, & Geoffrey R. Durden., (2008)**, study reviewed that the extant literature pertaining to logistics processes within organizations.

**Patricia J. Daugherty (2011)**, the paper’s objective was to provide an overview of the evolution of relationship-related research in the areas of logistics and supply chain management.

**Vidyavathi (2012)**, her study focus is shifting from product-based marketing to need based marketing.

**Anand Gurumurthy (2013)**, study pointed out that Supply Chain Management (SCM) has gained significant importance due to the opening up of the domestic economy as a result of globalization.

**Sona & Vaithanathan (2016)**, their study revealed that the Indian textile industry has a significant presence in the economy as well as in the international textile economy.

**Sigal Kaplan, Johannes Gruber, Martin Reinthaler, Jens Klauenberg, et al., (2016)**, Light and heavy-duty commercial vehicles are a cause of concern in urban areas because of their cumulative stress on the system in terms of air pollution, congestion, and noise.

**Reham Abdelbaset Sanad (2016)**, aims to make a comprehensive review of factors affecting purchaser decision towards apparel and textile products.

**Sowmya Kethi Reddi (2017)**, Information sharing on supply chain management (SC) has become a potentially significant way of information sharing and improving organizational performance.

**Renganathan. R., Vijayabanu. C et al., (2018)**, said, in the automobile industry; after-sales service is very important. As the corporate dealer, TVS & Sons associated with Ashok Leyland, for the Intermediate Commercial Vehicles (ICV) and Heavy Commercial Vehicles (HCV) range of products in Tamil Nadu, Kerala, Karnataka, and Madhya Pradesh.

## **10. Analysis, Interpretation, and Findings**

For any research data analysis is very important because it provides the an explanation of various concepts, theories, frameworks, and methods used for proving the hypothesis. Data analysis helps in structuring the findings of the data collected from different sources. It helps in keeping human bias away from the research concluded with the help of proper statistical tools. It's a process of obtaining raw data and converting it into information which will be useful for the decision-making process. Data collected were scrutinized, analysed, and tabulated along with the graphical representations with its elaborated interpretations.

### **Statistical tools applied for the study**

- a. Descriptive analysis
- b. ANOVA
- c. Chi-Square test
- d. Weighted average

**A. Descriptive Analysis**

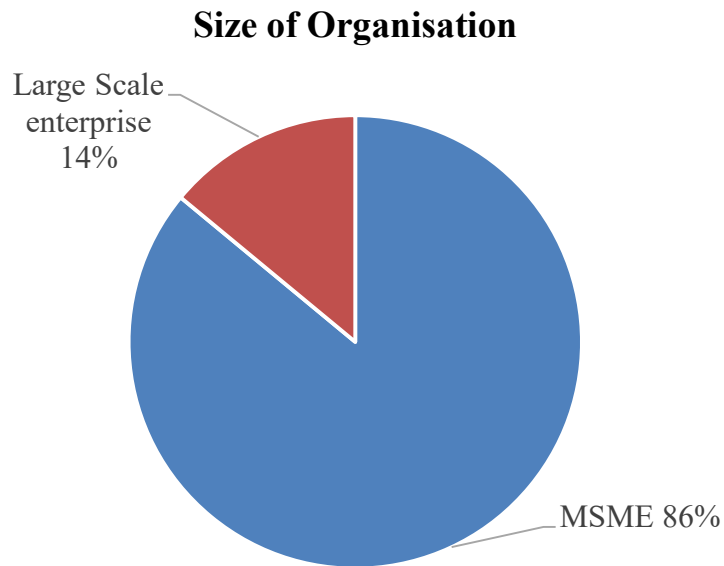
Size of the organization

**Table1: Size of the Organization**

Size of the organization	Number of respondents	Percentage
MSME	99	86.1
Large Scale enterprise	16	13.9
<b>Total</b>	<b>115</b>	<b>100.0</b>

The table reveals that out of the total sample size majority, 86.1 percent of the respondents belong to MSME and 13.9 percent of the respondents belongs to the large scale enterprise.

**Majority 86.1 percent of the respondents are running MSME.**



**Chart 1: Size of Oranisation**

**Business turnover (per annum)**

**CV vehicle owned by textile business units**

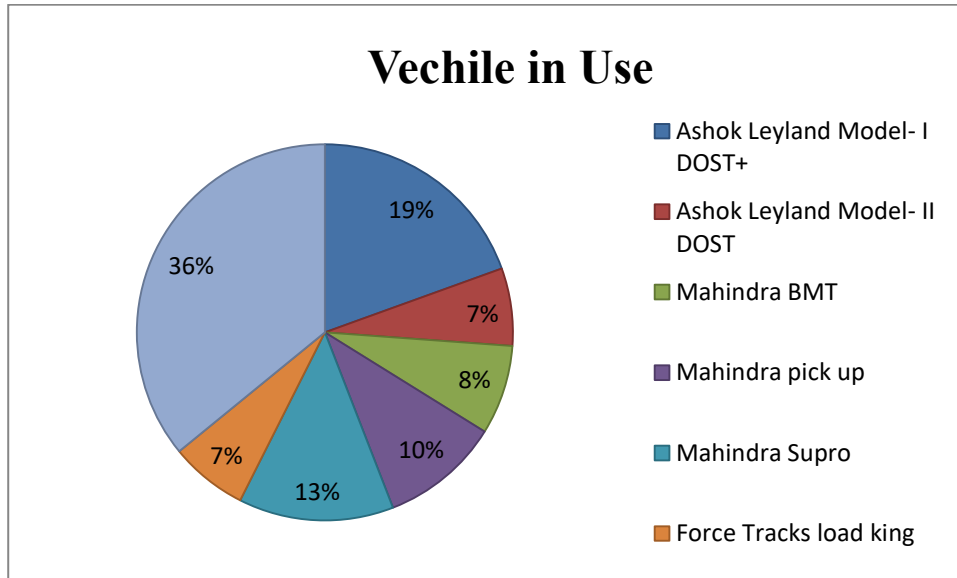
**Table 2: Vehicle Owned**

<b>Vehicles used by the respondents</b>	<b>Number of respondents</b>	<b>Percentage</b>
Ashok Leyland Model- I DOST+	38	19.49
Ashok Leyland Model- II DOST	13	6.67
Mahindra BMT	15	7.69
Mahindra pick up	20	10.25
Mahindra Supro	26	13.33
Force Tracks load king	13	6.67
Tata ace	70	35.9
<b>Total</b>	<b>195</b>	<b>100.0</b>

It's found that, out of 195 respondents, 70 (35.9 percent) of the respondents use Tata Ace, 38 (19.49 percent) of the respondents use Ashok Leyland Model-I, DOST+ 26 (13.33 percent) of the respondents use Mahindra Supro, 20 (10.25 percent) of the respondents use Mahindra pickup, 15 (7.69 percent) of the respondents are using BMT and 13 (6.67 percent) of the respondents use both Ashok Leyland Model-II DOST and Force tracks and load king.

**The majority of the population i.e. 35.9 percent of the total respondents have Tata Ace vehicle brand as vehicle utilized in their business.**





**Chart 2: Levels of Satisfaction towards Attributes of the Commercial Vehicle**

**Table 3: Satisfaction Level on Quality of the Commercial Vehicle**

Attributes	Highly Satisfied	Satisfied	Neutral	Dissatisfied	Highly Dissatisfied	Total
Reliability of the commercial vehicle	13 (11.3)	71 (61.7)	31 (27.0)	0 (0)	0 (0)	115 (100.)
Spare parts' quality	0 (0)	69 (60.0)	46 (40.0)	0 (0)	0 (0)	115 (100.)
Mileage quality	12 (10.4)	44 (38.3)	49 (42.6)	10 (8.7)	0 (0)	115 (100.)
Engine quality	0 (0)	70 (60.9)	35 (30.4)	0 (0)	10 (8.7)	115 (100.)

It is indicated from the Table no. 3 that 61.7 percent and 27.0 percent of the respondents are satisfied and neutral about the reliability of the commercial vehicles. 60 percent and 40 percent of the respondents are satisfied and neutral about the spare parts' quality. 42.6 percent and 38.3 percent of the respondents are neutral and satisfied with the mileage quality. 60.9 percent and 30.4 percent of the respondents are satisfied and neutral on engine quality.

**So, 61.7 percent (majority) of the respondents are satisfied with the various attributes related to the quality of the commercial vehicles.**

**Table 4: Average Business Turnover (per annum)**

<b>Average Turnover</b>	<b>Number of respondents</b>	<b>Percentage</b>
Below Rs.10 lakh	3	2.6
Rs.10 lakh - 20 lakh	4	3.5
Rs.20 lakh - 30 lakh	9	7.8
Rs.30 lakh - 40 lakh	52	45.2
Above Rs.50 lakh	47	40.9
<b>Total</b>	<b>115</b>	<b>100.0</b>

The above Table no. 4 describes that out of the total respondents selected for the study, 45.2 percent of the respondents opined organization's average turnover falls between 30 lakh – 40 lakh. 40.9 percent of the respondents opined that organization's average turnover falls above 50 lakh. 7.8 percent of the respondents opined that average turnover falls between 20 lakh – 30 lakh. 3.5 & 2.6 percent of the respondents opined that organization's average turnover falls between 10-20 lakh and 10 lakh respectively.

**So, 45.2% percent (majority) of the respondents opined that their average business turnover is between Rs.30 lakhs to Rs.40 lakhs per annum.**

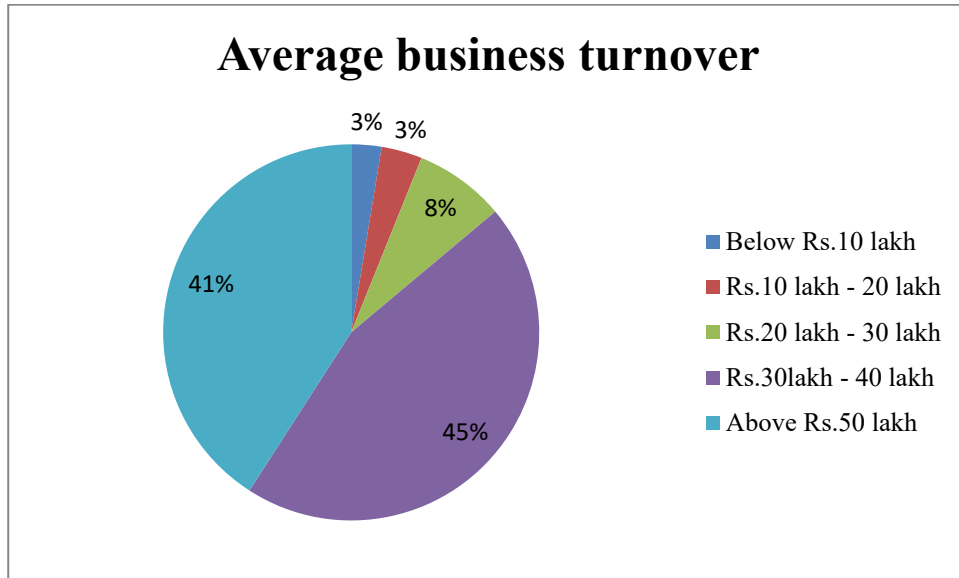


Chart 4: Average Turnover

Table 5: The Problems faced with Commercial Vehicle

	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	Total
	Count	Count	Count	Count	Count	Count	Count	Count	Count
After sales service	13	13	12	10	0	0	0	10	58
Maintenance problem	32	13	13	0	0	0	0	0	58
Non availability of spares	0	22	0	0	13	0	10	13	58
More consumption of fuel	13	0	23	12	0	10	0	0	58
Safety & security	0	10	0	13	22	0	13	0	58
Agreed promotional	0	0	0	23	0	23	0	12	58

offers not provided									
Exchange of vehicle	0	0	10	0	13	0	35	0	58
Resale value	0	0	0	0	10	25	0	23	58

From the above Table no. 5 it clears that out of 58 respondents 32 respondents gave 1<sup>st</sup> rank to maintenance problem. 22 respondents gave 2<sup>nd</sup> and 5<sup>th</sup> rank to Non availability of Spares and Safety & security as a problem. 23 respondents gave 3<sup>rd</sup>, 4<sup>th</sup> and 8<sup>th</sup> rank to more consumption of Fuel. Agreed promotional offers not provided and Resale value as a problem by 25 respondents giving 6<sup>th</sup> rank to Resale value 35 respondents gives 7<sup>th</sup> rank to Exchange of vehicle.

**The majority of the respondents ranked maintenance difficulties as first by the Commercial Vehicle customers.**

**B. Analysis of Variance (Anova)**

The respondents have given their opinion on various items like price, place, promotion, and post-purchase.

**Number of vehicles owned in business and constructs**

**Null hypothesis:** Respondents belonging to the number of vehicles owned in business groups receives an average (mean values of groups) the same level of satisfaction towards various attributes on the constructs under study.

**Alternative hypothesis:** Respondents belonging to the number of vehicles owned in business do not receives an average (mean values of groups) the same level of satisfaction towards various attributes on the constructs under study.

**Table 6: Table of Means – Number of Vehicles Owned Constructs**

Constructs	Vehicles owned	Mean	Std. Deviation	F	Significant	Significant /Non Significant
Quality of the	less than 2	12.3548	2.86994	54.205	.000	S
	2 - 4	15.6389	.96860			
	4 - 6	12.0833	.28868			

commercial vehicle	<b>Total</b>	<b>14.3826</b>	<b>2.33051</b>			
Brand image	less than 2	22.9355	3.57711	44.544	.000	S
	2 - 4	26.4444	1.72707			
	4 - 6	21.0000	0.00000			
	<b>Total</b>	<b>24.9304</b>	<b>3.06286</b>			
Dealer/after-sale service quality	less than 2	33.0000	0.00000	49.297	.000	S
	2 - 4	40.8056	5.12283			
	4 - 6	33.0000	0.00000			
	<b>Total</b>	<b>37.8870</b>	<b>5.54371</b>			
Cost of ownership	less than 2	14.0323	5.35714	7.512	.001	S
	2 - 4	16.5417	1.70284			
	4 - 6	15.0000	0.00000			
	<b>Total</b>	<b>15.7043</b>	<b>3.25785</b>			
Value for money	less than 2	6.6452	.95038	7.664	.001	S
	2 - 4	7.2083	1.23263			
	4 - 6	6.0000	0.00000			
	<b>Total</b>	<b>6.9304</b>	<b>1.16017</b>			
Overall brand satisfaction	less than 2	9.9677	1.42557	19.112	.000	S
	2 - 4	11.4306	1.67691			
	4 - 6	9.0000	0.00000			
	<b>Total</b>	<b>10.7826</b>	<b>1.75110</b>			
Brand loyalty intention	less than 2	9.9677	1.64284	34.041	.000	S
	2 - 4	11.6250	1.16809			
	4 - 6	9.0000	0.00000			
	<b>Total</b>	<b>10.9043</b>	<b>1.58377</b>			

**Note:** S-Significant @ 5% level (P-value ≤ 0.05), NS-not significant @5% level (P value >0.05)

From the analysis of variance, it is found that the analysis significance for the constructs of the level of satisfaction towards the following attributes on quality of the commercial vehicle, Brand image, Dealer/after-sale service

quality, Cost of ownership, Value for money, overall brand satisfaction and Brand loyalty intention of the respondents are greater than 0.05 level and the fixed level of satisfaction on various constructs and hence the null hypothesis is rejected. It is concluded that the respondents belonging to the various number of the owned vehicle have a different level of satisfaction towards the various attributes of the commercial vehicle.

The magnitude of the mean value indicates that the respondents belonging to a different number of an owned vehicle have a different level of satisfaction on Dealer/after-sale service quality.

**Kilometres driven per month and constructs**

**Null hypothesis:** Respondents belonging to vehicle given a kilometres driven per month give an average (mean values of groups) the same level of opinion on the constructs under study.

**Alternative hypothesis:** Respondents belonging to a vehicle given a kilometres driven per month do not give on an average (mean values of groups) the same level of opinion on the constructs under study.

**Table 7: Table of Means – Number of Vehicles Owned Constructs**

Constructs	Kilometres have driven	Mean	Std. Deviation	F	Significant	Significant /Non Significant
Price	below 4000 km	7.0222	1.27009	3.842	.024	S
	4001 - 6000 km	6.5745	1.41028			
	above 8000 km	6.1304	1.01374			
	<b>Total</b>	<b>6.6609</b>	<b>1.31714</b>			
Place/availability	below 4000 km	8.8000	1.34164	6.412	.002	S
	4001 - 6000 km	9.3191	1.57572			
	above 8000 km	10.2609	2.02748			
	<b>Total</b>	<b>9.3043</b>	<b>1.66583</b>			
Promotion	below 4000 km	15.3333	2.23607	74.281	.000	S

	4001 - 6000 km	14.1064	1.02648			
	above 8000 km	19.3043	1.52061			
	<b>Total</b>	<b>15.6261</b>	<b>2.55281</b>			
Post purchase	below 4000 km	17.9111	3.73450	6.893	.002	S
	4001 - 6000 km	20.3830	2.68290			
	above 8000 km	19.3913	3.04122			
	<b>Total</b>	<b>19.2174</b>	<b>3.36333</b>			

**Note:** S-Significant @ 5% level (P-value  $\leq$  0.05), NS-not significant @5% level (P value  $>$ 0.05)

From the analysis of variance, it is found that the analysis significance for the constructs of purchase decision attributes on price, place, promotion, and post-purchase of the respondents are less than 0.05 levels, the fixed level of satisfaction on various constructs and hence the null hypothesis is rejected. It is concluded that the respondents belonging to various vehicles given a different reasonable level of satisfaction towards the various attributes of the commercial vehicle.

From the above Table no. 7 it is observed that the Table significance for all the constructs are less than or equal to ( $\geq$  0.05), level of significance. Therefore the null hypothesis is rejected.

The overall level of satisfaction differs significantly below 4000 kms, 4001 - 6000 kms & above 8000 kms driven per month of post-purchase. The magnitude of the mean value indicates that the respondents belonging to a different vehicles was given kilometres driven per month, have a different levels of satisfaction on post-purchase.

### C. Chi-Square Test

The chi-square test is applied to test the significant difference between observed ( $O_i$ 's) and expected values ( $E_i$ 's). In this research, the researcher is interested in finding correlation before purchase activities done by the respondents.

Their opinion on activities that will be carried out before purchasing LCV is analysed using the chi-square test. Since the questionnaire consisted of multiple-choice questions. So, the sample total here is different (480 instead of 115).

### **Sources of Awareness**

#### **Awareness**

To find out the source from which the majority of respondents get information the chi-square test is applied.

**Null Hypothesis:** All the items of sources of awareness under study are equally considered.

**Alternative Hypothesis:** All the items of sources of awareness are not equally considered.

**Table 8: Sources of Awareness**

<b>Sources of awareness</b>	<b>Observed N</b>	<b>Expected N</b>	<b>Residual</b>
Friends and relatives	63	43.9	19.1
Advertisement	92	43.9	48.1
Sales representative	67	43.9	23.1
Family members	14	43.9	-29.9
Exhibition	43	43.9	-.9
E-commerce websites	14	43.9	-29.9
Social Media	14	43.9	-29.9
<b>Total</b>	<b>307</b>		

<b>Test Statistics</b>	
Chi-Square	134.410 <sup>a</sup>
Df	6
Asymp. Sig.	.000



Since the Table no. 8 significance is 0.000, which is less than 0.05, the level of significance of the null hypothesis that all sources of awareness are equally considered is rejected.

From the above Table it is found that advertisements, friends and relatives and sales representatives are highly influential sources than others.

#### **D. Weighted Average Analysis**

The weighted average is applied to find out the importance attached to each item under study and comparison is made based on these weighted averages in finding the important factor based on which respondents will be influenced to purchase the Light Commercial Vehicle's ('LCV's.)

The factors under study are Heavy and dense load over a long distance, Better fuel efficiency, Better power, For captive application, Efficient supply chain, Cost-effectiveness, Affordable price, Resale value, Brand image, Superior mileage, Excellent pick-up, Tiers grip, Warranty, Easy maintenance. The number of respondents gave their response on Very Important, Important, Moderately Important, Somewhat Important, and Not Important were taken.

The Tabulation below gives the weighted average for the factors considered.

**Table 9: The Weighted Average on Various Factors of CV**

Factors	Not Important	Somewhat Important	Moderately Important	Important	Very Important	Weighted Average
	1	2	3	4	5	
Heavy and dense load over long distance	0	10	2	46	57	4.30
Better fuel efficiency	0	0	13	67	35	4.19
To avoid rental cost	0	0	16	55	44	4.24
Better power	0	0	13	89	13	4.00
For captive application	0	0	13	81	21	4.07
Efficient supply chain	0	0	13	64	38	4.22

Cost effectiveness	0	0	12	78	25	4.11
Affordable price	0	0	13	64	38	4.22
Resale value	10	0	3	77	25	3.93
Brand image	0	0	25	77	13	3.90
Superior mileage	0	0	23	45	47	4.21
Excellent pick up	0	10	16	67	22	3.88
Tiers grip	0	0	13	64	38	4.22
Warranty	0	10	16	64	25	3.90
Easy maintenance	10	0	3	55	47	4.12

The factors, Heavy and Dense Load over Long Distance has a highest weighted average (4.30), the next is to avoid the rental cost (4.24), affordable price, and efficient supply chain and tiers grip (4.22) and dense load over long distance, to avoid the rental cost, affordable price, efficient supply chain, and tiers grip are very important factors for good.

## **11. Conclusion**

Indian commercial vehicle industry takes a very important and major role in modelling the country's economy. Textile business units are in need to transport the output or production from one point to another and also it passes the raw materials into finished products. Well planned, systematic, efficient logistic and supply chain operations are the success mantra of any business units.

The sample size of the study is 115 textile business units in Coimbatore city were cooperative in carry out the research work throughout the research period. The researcher has gained knowledge in the respective study area and has got elaborate exposure on the role of the commercial vehicles more specifically with commercial vehicles (CV) and its contribution towards textile business units in Coimbatore city. This particular research experience has motivated the research scholar to carry out different research programmes with different research issues in order to contribute more solutions to the business society which will help for sustainable development.

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