# IDEAL JOURNAL OF MANAGEMENT & IT



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"HANDSOME IS THAT HANDSOME DOES"

Dear Readers,

One needs to be focused if he wishes to achieve even a small thing in life. For this a positive attitude must be there within. Your mind must follow only positive thoughts along with full dedication, devotion, hard work of enthusiasm. There must be a gesture of magnanimity to learn, to make people understand about the things. In fact, you need to unlearn all what you have learnt in your past, if you wish to learn something new in your interest area. Only a true leader can be like this.

I whole heartedly congratulate the proud Editorial Team & the researchers for the outcome as a Journal Volume XII.

With Best Wishes.

Vineet Aggarwal

Magen.

Secretary General

# Message from Editor -in - Chief

# "IF YOU WANT TO GROW YOUR MANAGERIAL SKILLS, THEN YOU MUST GROW YOUR INNERSELF FIRST"

Dear Readers,

Management is the oxygen for all the related activities of the manager and other working hands in the organization, and composed with the mind full of research activities makes it supplementary.

Research is a mountainous task of putting all the hard labour and factual information together at one place for the benefit of the self society and the whole cosmos at large.

The scope of research really provides an excellent opportunity to deal with laborious facts of life to proceed ahead to achieve target.

Success comes to those who really think of success, while sleeping, dreaming or in a turbulent state.

For achieving success one has to work honestly, sincerely and truthfully.

The 12<sup>th</sup> volume of Ideal Journal of Management & IT is being published by the hard working editorial board, is a matter of great pleasure.

I wish the team all the success.

My Best compliments to one and all.

In the service of the nation.

Day

**Prof. (Dr.) Anil Parkash Sharma**Director cum Editor-in-Chief

# From the Editor's Desk

Management is about arranging and telling. Leadership is about nurturing and enhancing.

Tom Peters

Dear Readers,

With 2021, Ideal Journal of Management and IT has completed its Twelfth edition of publication and has established itself as one of the leading journal. On behalf of IJM team, we would like to extend a very warm welcome to the readership of IJM.

Our goal is to create a new forum for exchange of information in every field of research. Our consistent efforts are aimed towards providing the forum for critical issues in every field, latest developments in basis research, regulatory issues, original research and quality of our journal .We hope Ideal Journal of Management and technology will become the forum for researchers to share their valuable research achievements, practical experiences and discuss all perspectives of management and IT in the development of future innovations that will greatly benefit all Academicians ,Research Scholars and Students also.

We hope our readers and patrons share a similar vision and we look forward to a prolific, perfect and a successful year ahead. The success of this journal depends on your feedback for further improvements.

We request our readers to send their critique and valuable feedback for further improvements of our upcoming journal.

With Best Wishes and Season's Greetings,

Ms. Jasmandeep Kaur

Tarmarde

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# A STUDY ON INTERNATIONAL COLLABORATIVE APPROACH FOR ACHIEVEMENT OF SUSTAINABLE DEVELOPMENT GOAL

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#### 1. Introduction

Human race has been evaluated tremulously with time. In early age, all type of resources were available in abundance. Early man does not have the required knowledge to assess, utilise an exploit those resources. Firstly, human learnt basic things about resources then gradually they develop the knowledge about how to use it for own personal benefit. Around the year 1750's European countries were going through the phase of Industrialization that was the beginning point of a better future and a pathetic environmental condition. As human are growing and developing earth is also changing proportionally, the cost of human growth and development has been paid off in the form of environmental destruction, pollution, calamity, hunger, poverty.

Balance is essential in all aspect's life. Earth has life it would not be an exaggeration if it is said that earth itself is life, but due to destructive anthropologic activities balance of earth has been distract one major type of imbalance can be seen among the availability of resource, their distribution and the population who are eventually going to avails it for their personal use.

World population was first estimated in the year 1682 by William Petty, he made an estimation that world population at that particular time could be around 320 million first time homo sapient population hit it's a billion was the year 1804.

Next billon i.e., second human race crossed in a lea of just 130 years around d 1939's. third and fourth billion were crossed only after 30 year and 15 years consecutively. Current world population is 7.9 billion. Now world population is growing with the rate of 80 million people per year. Resources are limited, if we continue using these resources on the same rate as we are doing right now after a period of time human will run out of resources. If world wants to use these resources for a longer period of time, then it's needed to use it in such a way that it should be remain available for our future generation also this is the basic essence of sustainable development.

Sustainable development is not only confined till equal and optimal distribution of resources but it also covers the social, economic, environmental and political aspect of life in a world scenario. For sustainable development the whole world i.e., our mother planet earth is considered as a single unit. Sustainable development is based on the philosophy of common and equal responsibility. The ideology behind sustainable development goal is to bring described social, environmental, economic and political. Evil disastrous and unfortunate to an absolute zero for a better attainment of sustainable development goal we need a better futuristic approach. It would not be possible to attain this goal within given period if only one

country or only a group of few countries tries to achieve the sustainable development goal then it will not be possible to achieve it. each and every country need to make its own effort towards attainment of sustainable development goal.

One major hinders which appears while achieving sustainable development goal is that every country is distinguished from one another on social, political, economic and geographical basis. Because of these differentiations they need different type of methodology got implementing it on the basis of their national condition. Due to various factors like scarcity of resources, geographical condition, religion, social and personal belief, political interference, rule and regulation strength and weakness of countries varies from each other. In this condition international collaborative approach can be competent to give desirable result.

To overcome partial national disability a futuristic international collaborative approach is necessary. The most suitable example of this approach I Kyoto protocol's (1997) carbon credit system in which carbon emission rate for each country has been priorly defined. The carbon emission rate is differentiated for developing and developed countries. If one country crosses the carbon emission limit then it can borrow carbon credit from any of developing country.

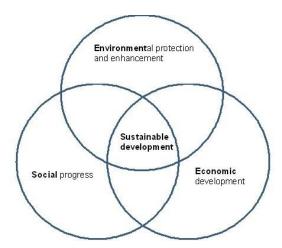
On the behalf pf that developed country need to invest money on that particular developing country for establishment of environmentally friendly plants and machinery. The whole idea is based on a win-win condition. The effectiveness of international agreements depends upon various factors like duration of the agreement, whether it is legally binding or not, contribution of countries, rules and policies of agreement etc.

A sustainable development goals are also known as global goals so for achievement of these goal world need to make a joint effort, only through global practices and efforts we can achieve sustainable development goals and for these countries need to come together, hold together, make joint and collaborative partnership to create a better world.

#### 2. Sustainable development goal: An Overview

United nation's sustainable development goal is successor of millennium development goals were a set of 8 interrelated goals designed by United Nation's. after completion of the period of millennium development goal United Nation's introduce sustainable development goals that contains a set of 17 integrated goals, these goals are further categorised into different targets. Total number of targets under sustainable development goals are 169 which need to be achieved with 17 defined goals.

Sustainable development goals are covers social, economic and environmental aspect. A development that is competent to fulfil the present needs as well as have the potential to maintain the ability to fulfil the need of future generation also can be termed as sustainable development. The focus of sustainable development goal's beyond, it is ensuring a better, healthy and strong society where everyone will have equal rights and opportunity to grow and develop.



The world has financial natural and human kind of resources and ironically all of them are limited in availability. For gaining optimum benefit from these resources it is needed to be utilised in an optimal way. SDG's are a step toward a better world it is a blueprint for attainment of the goal of a developed global society.

SDG's are intended to build a prosperous society with a clen and healthy environment. The goals of SDG's can not be acjeived only be the contributions of one single sector or only few stakeholders. SDG's needs a holistic approach and methodology is not effective in present scenario. So we need to transform the methodology and approach to solve global problem.

#### 2.1 17 Sustainable Goals

In september 2015 the member of united nations have adopted the 17 sustainable development goal in New York Summit. The basic theme of SDG's based on transforming our world. Total 17 SDG's are discussed below:-

- 1. No poverty: Around 700 million people i.e., 10% of total world population are facing the condition of extreme poverty around the world. In present scenario the world is going through the COVID-19 crises and this could enhance the poverty ratio. It is estimated that 8% of total world human population would have to suffer from extreme poverty because of pandemic. People living in such condition have to fight for fulfilling their basic needs. Under SDG's first goal United Nations are committed to eradicate poverty.
- 2. Zero hunger: On one hand where people are waiting foods, giving preferences to industries over agriculture, on the other hand still 8.9% of world population does not have anything to eat. every year 10 million people add in the list of hungry ones. These Is only the number of hungry people around the world apart from them millions are starving, millions are exposed to food insecurity, UN is trying to bring the hunger rate to a zero.
- **3. Good health & wellbeing:** Third goal of SDG's is to ensure a better and healthy condition for living. Due to COVID-19 people around the world are suffering, million are still in critical situation, in the section of third SDG's UN has got a huge success before the invasion of COVID-19. More effort, more dedication and more research are needed to fight this COVID-19 crisis.
- **4. Quality Education:** There is a major difference between necessary education and quality education quality education does not only mean to provide word knowledge to a person but it is about ensuring that after the education he can approach as a

- valuable asset for the world and society. It is also aimed to provide a better living through education.
- 5. Gender Equality: half of the world is still fighting for their fundamental rights and basic needs just because their gender, just because they are women. in Asian countries and African countries, the status and condition of women are more pathetic in comparison to another continent of the world. Women have to go through under age marriage, several girls are aborted, around 18 countries women are not allowed legally to work, around 39 countries girl child does not have equal inheritance rights, millions of women are suffering from domestic violence, one out of five women and girls have either experienced sexual or any kind of physical violence. Women are equally responsible for creation of society. For a peaceful, prosperous and pleasuring society women and girls are needed to treated.
- **6.** Clean water and sanitation: 71% are of world is covered with water rest 29% is available for living as a rock and solid land. 97% of total water in sea or in salty tales only 3% is fresh water which is consumable for human. Out of this 3%, 2% water is in frozen form, less than 1% (0.00192% only is available for use). Water is the very next essential thin just after air for survival. Sixth sustainable development goal assure that everyone gets the access of clean water with better sanitation.
- **7. Affordable and clean energy:** clean energy is basically green energy. Energy Is now become the basic needs like food, shelter, air and water. Energy needs to be produced in such a way that it should not have ant=y harmful effect on the environment and scient along with this it should also be available to everyone in affordable price.
- **8. Decent work and economic growth: -** For a prosperous society, people must have to maintain a better standard of living for that they will need employment. One fifth of total world population do not have access to education, training so they do not have employment as well. For economic growth of everyone it is required to create new job opportunities that should be decent and equal.
- **9. Industry, Innovation and Infrastructure:** establishment of industry brings several. Benefits to the society like development of roads, water, electricity and other fringe benefit. Similarly, innovation helps to generate employment and enhance standard of living of society. Infrastructure of any particular area is the representation of regional growth of that particular area. Investment should be done on the development of industry, innovation and infrastructure.
- **10. Reduce Inequalities:** People should not be discriminated on the basis of caste, religion, family status, gender, nationality or skim of their colour. All individual is same so naturally they should also have equal rights and opportunities. 10<sup>th</sup> SDG's is committed to support the weaken, disadvantaged and marginalized ones.
- 11. Sustainable cities and communities: In the race of urbanization world eventually forget its duty toward environment and society. Nearly half of world's population is urbanised. Because of urbanisation area of slum is also increasing as more and more people moving toward cities it is over burdening the service (like waste collection transportation) and infrastructure. Cities need to be planned in a manner that it should remain resilin, secure and sustainable.
- **12. Responsible consumption and production: -** The concept of 3R (Reduce, Reuse, Recycle) or 5R (Reduce, Reuse, Recover, Recycle, Remanufacture) must be adopted. Treatment of waste should also be scientifically and by using modern technology.

According to WHO, human can prevent themselves from 22 types of diseases just by doing proper solid waste management. Consumption and production should not have any adverse effect on planet.

- **13. Climate Action:** Because of Anthropologic activities climate has gone through several negative changes like increase in greenhouse gases, global warming, ozone depletion, pollution, threat to bio diversity etc. several actions have been taken on this field like NMSKCC, NWM, NMSHE, NMEEE but still lots of action has to be taken to save the planet.
- **14. Life below water:** Every life is important. Each and every species and organism's existence are essential for maintaining bio diversity. Land water has been polluted by industries and agriculture whereas ocean life has been under the threat of tanker spills and oil coating. Being the most intelligent species on the earth its human moral responsibility to protect each and every kind of species.
- **15. Life on hand:** Protection of every living thing on earth comes under fifteenth SDG's. all species share the same planet, directly or indirectly every species is making their contribution in proper and smooth running of earth mechanism. If one species gone away from the list it will definitely affect all others in a negative way. For an example in japan a kind of tree is not able to reproduce because a bird named "DODO" is no more to eat the fruit.
- **16. Peace, Justice and strong institution:** Through sixteenth SDG's, UN is trying to develop a peaceful society, where everyone has equal rights to get justice and such institution which create and develop better human being.
- **17. Partnership for the goal: -** SDGs are global goals. Every contribution whether big or small will be count for attainment of sustainable development goals. public sector, private sector, NGO's, individual, every sector needs to make effort. On global level all countries need to come together for implementation of SDG.

#### 3. An International Collaborative Approach

When multiple stakeholders take initiative voluntarily on international ground then it can be termed as international collaborative approach. The list of stakeholders for sustainable development goal include organisation, industries, governments, intergovernmental, major group and other stakeholder who make their contribution for SDG's, there are three ways through which a collaborative approach can be implemented on international level. These approaches are discussed below;

- 3.1.1 The first category 'Exchange/ leverage' In this type of collaborative partnership two or more partners come together and work for mutual benefit. The mechanism of exchange or leverage approach based on the ideology that one party will make the contribution off another party work or resources has been exchanged among partners. This approach allows to deliver more productivity efficiently and effectively for one or both of the partners. In this type of approach organisation value has been created and it is applicable when each partner has something to offer and that should be beneficial and useful for other partner. Through this practice partner can gain more on exchange. Coca-Cola and the global fund are one of the best examples of leverage/exchange approach.
- **3.1.2 The second category 'combine/integrate'-** when two or more partners come together to share their resources, methodology, technique and knowledge to mutually gain of additional benefit then this type of collaboration can be termed as combine or

integrate collaboration. In combine collaboration each partner jointly earns more than it can earn separately as a single unit. Both type of value organizational and mission can be generated through combine collaboration. This type of collaboration is applicable when partners are bringing their complementary resources together for production and manufacture and it will result in generating value for all.

- 3.1.3 The third category 'transform': For solving a critical situation or tackling a complex challenge multiple stakeholders/actors come together and take collective action for facing and resolving challenges. The challenges have been met and solved through system transformation. System transformation collaboration is like solving a jigsaw puzzle, each partner has a piece of the puzzle, all the pieces are required to combine in order to solve the puzzle. Similarly, each actor has their unique and complementary resources that is needed to be joint together for system transformation organisation value as well as mission value both can be generated via transform collaboration. This type of collaboration is applicable when any complex issue emerged and it cannot be solved through any other collaboration international approach for scaling up nutrition level is an example of transform collaborative approach.
- **3.2** Advantage of international collaborative approach: Any nation can achieve its determined sustainable goal individually but it will take more time and effort. Whether if nation will try collectively to attain SDGs, then is more chance that it will provide more effective and efficient result within time and with limited resources. Nation can avail various benefit by adopting international collaborative approach which are discussed below: -
  - 1. Cost sharing for research and development- Innovation is essential in continuously changing environment. To cope with time and change continue progress is required in the field of science and technology that's why R&D department has been established and financial assistance has given to them. Through international collaborative approach nations can share overall cost of R&D by working together on a same project or by lending technologies and methods to other countries.
  - 2. Sharing of comparative advantage and expertise- Because of geographical and climate condition, availability of resources, political condition and societal formation every country has some specific comparative over other. These comparative advantages can be share to gain mutual benefit via international collaboration. Expert are human resources of organisation or country, individual's expertise varies person to person because of their differentiated knowledge, skills, education etc. expertise of individual can be identified globally and it can be utilised for universal progress.
  - **3. Enable quick solution-** While dealing with a problem which consist mutual benefit for all engaging partner. Collaborative approach enable partner for better decision making by facilitating expertise and knowledge. A better and more effective solution can be drawn through collaboration. Which will ultimately deliver a better result.
  - **4. Fasten the progress rate-** While dealing with sustainable challenges (like protection from pandemic, climate change, protection from nuclear weapon etc.) interest of all nation involves in it. only one nation can not enjoy the perk or cons of the outcome. Sustainable challenges are global challenge so whether it is the advantage of diminishing the challenges and enjoying prosperous progress rate or threat of dealing with unfortunate mishappening all nations are bind to face it together. While on other hand there are very few chances that a collaborative approach would not be able to give a fruitful result almost in every cases it ensures a faster progress rate.

- **5. Promote good global relation-** economic and financial advantage are the base of international relationship, it is a fact that no be denied. For attainment of SDG's nations are making global effort. Nations are working collaboratively as a team and because of that a harmonious and cordial relationship is developing and growing on a global level.
- **6. Increase in capacity through collaboration-** Nations can achieve more through collaboration as it facilitates easy access of expertise, knowledge, technology, skill and resources. Acquisition of scientific invention and technical benefits also become easily accessible for nations which ultimately helps in capacity building.
- **7. Trade, Commerce and tourism-** International collaboration increase the opportunity in trade, commerce and tourism sector, better economic and commercial relation among countries motivate them to invest more on other countries. International collaboration also boosts international business to promote mutual and inclusive growth.

# 3.3 Barriers in implementing collaborative approach:

- a) **Proximity-** Physical distance among nations does not allow them to work freely and efficiently distance become a hindrance while sharing of resources and technologies. Because of long distance the process takes much time and effort that can be utilised to generate monetary or non-monetary benefits otherwise.
- **b) Different from mainstream approach-** Previously collaborative approach has been used only at international level was never been in trend. Adopting and enacting this approach at international level is taking time because actor is not very friendly with the international collaborative approach.
- c) Resource and time requirement- At present scenario when the whole world is bearing the brunt of pandemic and financial crisis (like depression). Availability of resources become scarce and distribution of available r4esources is also not possible because of political rules and policies. On the other hand, time that has been decided for attainment of SDG's is till year 2030. Almost two years has been past when the pandemic first knocks human doorsteps. No major action or major collaboration has been done on last two years.
- **d) High transaction cost-** There are many factors which caused higher transaction cost of international collaboration. Cost of information, transportation, compliance negotiation and enforcement inclusively make the implementing cost higher.

#### 4. Mechanism of international collaboration-

International collaboration means any actors of one nation whether it is government, public or private organisation working with the actor of other nation as a partner and both partners are committed to gain mutual benefit. International collaborations are comparatively complex and long-term process in comparison to local or regional collaboration.



- a) Identify the global needs- A problem well defined means it is half solved. At very beginning actors require to identify the challenges that world is facing at current time. Then it requires to identify the factor that will eliminate the challenge and fulfil their required needs.
- **b) Identify the major players-** Another thing which is needed to be taken care of while performing international collaboration is to identify the major players from government, business, academic institutions and society etc.
  - There would be both active players and passive players however to ensure the higher efficiency and effectivity it is required to identify the major players among the participants.
- c) Find expert and leaders from specified sector- It is not possible to organise am effective collaboration with an extremely large number of people, thus it is needed to find and contact only the leaders and the experts from specified sector as it is always a good idea to choose quality over quantity.
- **d) Define the objective-** In order to successfully achieve the objective, the first requisite is to have a well-defined objective as unless it is known "what to achieve". It would be quite difficult to answer "how to achieve it" thus it is very necessary to define the objective.
- e) Brainstorm for potential strategy- Brainstorming is basically a group activity where each and every participant share their views on the specific problem, as each person has a unique perspective and outlook, brainstorming is an effective to receive a lot of new views, suggestions and ideas, on basis of these information's it would be easy to form a potential strategy.
- **f) Strategy analysis-** Before implementing any strategy it is must to do a complete analysis in order to get a better insight, strategy analysis is also helpful in finding out the flaws in any strategy, it also shows a pathway in which the strategy should be followed.

- **g) Implementation-** One of the most important step is the implementation as it decides the success or failure of the sustainable development goal. Thus, it should be carried out with great precision to ensure that its efficiency and effectiveness would not get affected in the process.
- **h)** Controlling- After the implementation there is a need to supervise the progress to ensure that planned result is achieved, in case of any deviation or problem, corrective action is taken.

#### 5. Conclusion

Sustainable development goal has been determined by considering global prospective and welfare of every living organism. Achievement of sustainable development goal was essential from the time it has been established but since 2019 when the pandemic named COVID-19 came into existence the condition has become worse, so now it has become mandatory to work hard and make more effort towards attainment of sustainable development goals.

Although it is not an easy task to implement international collaborative approach. As it requires lots of skilled person, tons of materialistic resources and several modern and innovative technique along with that it is not possible for one country that it can collaborate with all remaining countries. As our planet or continents are decided into 195 countries. So, one country should have to collaborate with remaining 194 countries that is practically not possible, but one country can definitely collaborate with few other countries. countries should form a group according to their convenience for a particular section of sustainable development goal. Each country has to appoint few representatives for each and every sustainable development goal, these representatives will talk on the behalf of their nation. The representative must pass outstanding expertise of the field they have been assigned of the field they have been assigned for smooth running of the mechanism of international collaborative approach each country needs to take initiative for the success of sustainable development goals so that our upcoming generation can breathe in a peaceful, healthy, prosperous and sustainable world.

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# ROLE OF DR. B.R. AMBEDKAR IN THE OF DEVELOPMENT OF TRIBAL COMMUNITY: A HISTORICAL PERSPECTIVE STUDY

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#### Abstract

The present Historical Study focuses on the role of Dr. B.R. Ambedkar in the development of Tribal Community. The tribal community became limited to forest due to the covertness of Aryans. Hence, they became incompetent to face the challenges of their life. Tribal communities was dispossessed and exploited to such an extent that these communities could not progress intellectually and socially. Thus, the economical and political aspirations of the community were buried and were made to live in the forest. As the Tribal community habitation was limited to forest, they lived far from the rest of the society in the forest establishing their own rituals, cultures and traditions. Due to Globalisation and Industrialization, the forests were deforested in the name of development. Thus inevitably the tribal communities came in contact with the other communities in the society. It is important to note that that, though these tribal community population lack in sectors like education, investment, technology etc they are leading self reliant and a independent life. Since, Dr. B.R. Ambedkar has keenly studied and observed the sufferings of these tribal communities raised voice against the Manudharma. Dr. B.R. Ambedkar anticipated to the sufferings of the Tribal communities by constituting the Constitution of India. As the development of these tribal communities leads to the development of the whole nation, the present study gains much more importance.

**Keywords:** Development, Rituals, Culture, Tradition, Education, Technology

#### 1. Introduction

Dr.B.R.Ambedkar in his literary work "The Untouchables: Who Were They? and why They Became Untouchables?" has explained about the origin of Tribal community. Dr. Ambedkarhas also explained about the origin of aboriginal tribal communities, nomadic tribal communities and culprit tribal communities. Dr. B.R. Ambedkar in his book proclaims that, Nagas were the primitive inhabitants of India. Further, the author opines that that Nagas were the tribal who developed the Sindhu Plateau civilization. The author explains that the Aryans used the nomenclatures such as Asuras, Rakshasas, Dushyas, Nishads etc to mention the Naga community. It is noteworthy to understand that Nishads were the ancient primitive tribe which lived forests and hills. Dr.Ambedkar briefs that Aryans invaded India somewhere in 1800 BC defeating the original tribal inhabitants of India. There was a conflict between the tribal communities and Aryans wherein some of the tribal communities were defeated. There is scope that, the Aryans vehemently imposed strict measures on these tribal communities and forcefully made the tribal communities to follow the Aryan culture and traditions. Some of the tribal communities resisted to give away their own culture and follow Aryan culture. The tribal communities being defeated by Arvans and disinclined to follow the Arvan culture started to live in the forests. Later these forests became their natural habitation of these tribal communities. Some of these tribal communities started to wonder from one place to other to make their livelihood; these communities were called as Nomadic tribes. Some of these tribal communities indulged themselves into criminal activities to make their livelihood; these communities were called as criminal or culprit tribes. It is important here to note that consistent strict imposing of Political, Economical, Religious and Traditional observances of Aryas on tribal communities has forced the tribal communities to consistently remain deprived and exploited from the rest of the society. Dr.Ambedkar in his presidential remarks in 1936 Annual Conference titled "Abolition of Caste System" has effectively explained in length the reasons and how these ancient civilized tribal communities has survived for these long centuries. Some of the studies reveal that the tribal communities which were excluded from *Varna* System were called as *Non-Aryans*. The studies reveal that the language of several tribal communities was of the Dravidian family. It is evident from the several studies that Naga and Dravida community were the original habitants of India. However it is disheartening to see that even today these tribal communities betrayed from *Varna* System are leading a uncultured and uncivilized life.

#### 2. Objective of the Study

The primary objective of the study is to develop and uplift these backward tribal communities. The study through its historical approach aims to identify some of the important problems of the tribal communities. The study also focuses on economical, social, historical, religious status of the tribal communities. Further through its research findings the study also suggests some of the remedial measures to the government.

#### 3. Research Methodology

The present study mainly accrues data on the secondary sources. The present study includes the literatures and speeches of Dr. B.R. Ambedkar, Indian Census Reports, Planning Commission reports, some selected books, articles, newspapers and essays.

#### Status of Tribal community during Vedic period

As explained in the previous portion, Naga community were the primitive and original inhabitants to India, they arrived to India much before Aryans arrived to India. K.S. Bhagwan reveals that Naga Community started civilization at the Banks of Sindhu River and lead a happy and peaceful life. The society was constituted on the concepts of Equality, democracy, equal rights amongst both male and female and matriarchal family. Arvans started travelling to India from Ancient Central Asia which is termed as cradle of Aryans. Gradually invasion of Aryans to India increased and Aryans started to establish their own civilization in India. The Aryans termed the Nagas as Dasas, Asuras, Rakshas and Piccasi. The Nagas defeated by Aryans were described as Rakshas and Monkeys. The victories of Aryans over the Nagas were praised as Devaamsa Samboota. Aryans made mockery by calling Nagas as the tribal communities fit to be killed in the wars. It was the trend of Aryans to exploit and ill treat the Naga tribes says K.S Bhagwan. The original and primary inhabitants of India were these tribal communities defeated by Aryans. These primary and original inhabitants of India did not accept domination of Aryans over them hence moved towards the forests and hills to make their livelihood. These tribal communities ate tubers and hunted animals and birds in the forest. They learnt fishing; collected forest products like honey, wax etc and sold them to re-establish their livelihood again. Some of the tribal communities started to wonder from one place to other to make their livelihood these classes of tribes are called as Nomads. Even some of these tribal communities indulged in criminal activities to make their livelihood. Moreover Aryans are termed as most responsible for these conditions of tribal communities. The Aryans invading India took over the primary and original inhabitants of India and disregarded the social, economic, educational, political and religious status of these tribes. Thus made these tribe to lead a miserable life.

#### Status of Tribal community during period of Buddha

It is important to know the social status during the period of Buddha. D.D. Kosambi in his reference has stated that Buddha was born in Kshatriya tribal community. Shakya was one of the tribe conquered by king Darias I the Akiminid kingdom. There appears no ethnicity in Shakya tribe. The entire tribe was based on equality concept. There are no evidences of presence of Brahmins There was no scope for vedic observances and traditions in Shakya tribe. However there were few business settlements or habitations in the tribe. The people of Shakya tribe selected their leader on rotation basis. The people of Shakya tribe used to maintain their business by their own. The Shakyas were very self-reliant, evidences of several other settlements belonging to other communities were also found nearbyShakya settlements. Malla and Licchavi were independent and most powerful tribes. Frequent conflicts between these tribes were most common features. It is very interesting and important to note that there existed democracy. Shakyas neighbouring community Cooliar community whole heartedly accepted the Buddhist principles. Generally Cooliar tribal community were considered as original inhibitors. All these tribal communities were called as Naga communities. It is observed that there existed conflict between the two tribal communities Cooliar and Shakyas. It is important to note that, there was equality, fraternity, prosperity amongst these Indian origin tribal communities. It is also important to note that there existed democracy form of administrative model. These tribal communities were in the form of cultural tribal communities. There were many evidences proving the existence of several tribal communities like Vajje, Kosala, Cooliar, Shakyas, Mallas etc. during the period of Buddha and contemporary times. But the traditions and customs of these tribal communities were totally different from that of Aryan culture. Buddha has strived hard for the upliftment of these tribal communities. Buddha has played a vital role in transforming the Angulimala of culprit tribal community into civilized human. This in turn transforms the minds of over 500 pirates residing in hills located to the south of Buddha's palace. Buddha has played an important role in transforming the mindset of over 122 tribal communities and enabled them to lead a civilized life in the society.

Later the persecution of Aryans increased in the nation. As a result of this the class of people who were apathetic to Buddha's concerns, and class of people who were exploited during Buddha's period were happy with the Aryan's persecution. Buddha revolts against the Aryan's religious attack and enables the tribal communities to lead a civilized life.

Buddha's revolution leads to several social changes in the society. Most importantly the society witnesses religious, cultural and educational improvement during the Buddha's period. Moreover during this period many Naga tribal communities establish their own state and starts administering their provinces. As a result of Pushpamitra's counter attack these developments did not last long. Therefore the original tribal communities lost their authority and their life started to decline.

#### Status of Tribal community during period of Manu

The tribal communities underwent several persecutions from Aryans. But during the Buddha's reign these tribal communities gained back the lost social status in the society. But again when the Manudharma was introduced in the India these tribal communities lost their gained social status. The Manudharma introduced origin religion, culture and varna based caste classification system introduced in the system. The tribal communities did not accept the concept of Brahmins being the supreme and did not agree to live as slaves to Brahmins and several tribal communities migrated to forests and hills. Therefore the tribal communities were deprived from civilized life. Dr. B.R. Ambedkar quoting some of the verses of

Manudharma has crititized that Manudharma has shattered the life of untouchables and tribal communities.

Manusmriti Chapter: 1.31: "Brahamins are evolved from face of Brahma, Kshatriya has evolved from shoulders of Brahma, Vaishays are evolved from the lap of Brahma and Shudras are evolved from feet of Brahma.

If Nation constitutes only Shudras and not Brahmins such nation experiences famine and will be destroyed soon by the diseases. (Chapter-8:22)

Only Brahmins are entitled to teach Vedas and this is universal decision (Chapter-10:01)

The individual having a physical composure of both Kshatriya and Shudra is called as 'Terrorist (Ugra)'. (Chapter: 10:09)

The untidy people are to reside at outskirts of the village. These people are not supposed to use good utensils to cook and eat their food. These people are to pet donkeys and dogs. These people have to eat food in broken utensils and these people are not supposed to walk in the villages and towns during night hours. (Chapter 10:31 and Chapter 54)

From the above verses it is evident the Brahmins were considered as superior of all in the society. Brahmins are termed as the landlord of whole universe. Rest of the communities were termed as slaves of Brahamins. As the other communities were termed as inferior they were deprived from imparting education and pursuing education. As per Manudharma the fourth class of verna classification were directed to live in the outskirts of village or town. The people opposing the principles of Manudharma migrated to forests and hills. These people were later termed as tribal communities. Due to the persecution of Manudharma over tribal communities, the tribal communities were forced to lead a miserable and poor life.

In these circumstances, the tribal communities ate tubers grown in the forest to quench the hunger. Gradually the people of these community started animal husbandry, fishing, honey collection and forest products collection. They started trading these forest goods to make their livelihood. Some of these tribal communities started migrating from one place to other seeking work. These people learnt archery for hunting animals in the forest. They also performed tribal dance, sang folksongs, tribal games to amuse and entertain the people. Tribal community people used to train animals and perform their games in the cities and towns. This was the means of livelihood for some tribal communities. Further the people of this community were indulged in begging in the name of god and also some were fortune tellers. These tribal communities also prepared traditional medicines and served the patients in treating the various diseases. Apart from these some of these tribal communities indulged in some criminal activities like stealing, pirate, loot etc to make their life. British Government in 1835 indentified and declared some of these tribal communities as criminal communities. In order to control the criminal activities, the British government brought the ordinance. The tribal communities indulged in stealing, robbery and other criminal activities were sentenced to death or lifetime imprisonment under the article 382 and 986 of the British Penal Code.

#### **Disadvantaged Tribal community**

In 1871 during the British Colonial rule some of the tribal communities were identified as Criminal tribal communities. As these tribal communities were indulged in criminal activities for making their livelihood again in 1911 and 1924 amendment was brought to this rule and the title given to tribal communities as criminal tribal communities was abolished. In 1949, the Indian Government appointed a Criminal Tribal Community Article Enquiry Committee. As per the recommendation of this committee in 1952 though

called these tribes as unpublished tribal communities then there existed about 198 unpublished tribal communities in India (Dr. V. Shanmugam)

The tribal community which are the primary and original inhabitants of this country and the unpublished tribal communities completely disadvantaged and they could not even avail the basic benefits or constitutional rights. Scheduled Caste and Scheduled Tribes were declared according to 1935 Act and as per 1936 orders as two communities. But unfortunately the tribal communities were not included either in Scheduled Class or Scheduled tribe category. The tribal communities remained isolated from scheduled caste and scheduled tribes. J.H. Hutton who was the commissioner of 1931 censes was held responsible for tribal communities being expelled from Scheduled caste and Schedule tribe categories. It is said that J.H. Hutton excluded tribal communities due to some technical problems. During 1931 census a nine index parameters were instituted to identify the scheduled caste ad schedule tribe citizens. But the tribal communities were unable to meet those criteria thus were expelled from being listed under Scheduled caste and scheduled tribe categories. The tribal communities did not meet the cultural and geographical isolation indexes fixed by the census committee. As a result of this the ancient people residing in forests and hills got listed in the Scheduled tribe category. But unfortunatelythese unpublished tribal populations were not included in either of these categories. As the religion column was filled as Hindu instead of tribal communities these communities were excluded from the SC and ST categories in 1931 census. Therefore these communities were neither treated as Hindus nor was treated was tribal. Instead they were treated as mixed culture and thus were expelled from those categories. Even today these communities are suffering from poverty and are leading a miserable life. Lokur Committee which was constituted in 1965 also incorporated same parameters adopted in 1931 census, Thus again these tribal communities were underprivileged from availing the benefits of scheduled tribes.

# Ambedkar's revolution for providing facilities to Tribal Communities

Dr. B.R. Ambedkarhas strived hard and has organized several struggles to strengthen and provide social status to these tribal communities. Providing authority and rights to these tribal communities was the primary goal of Dr. B.R. Ambedkar. The present study aims to analyse some of the aspects of the Dr. Ambedkar's struggle for the tribal communities:

- 1. Government of Bombay Province constituted a Committee under the leadership of Starte on 05-11-1928. The objective of the committee was to identify the deprived and exploited tribal communities. Further the Committee was directed to study the educational, Economical and Social status of this community and provide recommendation for the development of this community. The Bombay province appointed Solanki and Ambedkar as the members of this committee. The members of this committee travelled to several places in the Bombay province and collected the data about the tribal communities. Later in 1930 the members submitted their report to the government. It is important to note that Dr. B.R. Ambedkar has played a vital role in preparation of this report. Establishing public School, constructing hostels, providing scholarships, providing industrial training to the children of tribal communities were the major recommendations made in the report. Further the report also recommended to include representation of tribal communities in the rural cooperation associations, appoint the tribal communities in police and army service, provide housing facilities, distributing the government wasteland to the tribal communities. On the basis of this report the Bombay government established a Backward Class Department.
- 2. Dr. B.R. Ambedkar producing the evidences before the Simon Commission on 23-10-1928 demanded the British government to entrust voting right to both men and women of

tribal communities. Later the British Government calls for organizing the Round Table Conference.

- 3. On 14-10-1931 during the second Round Table Conference, Dr. B.R. Ambedkar proposed the need of civilized life for every individual and community. He recommended the British Government to facilitate civilized life for forest dwelling communities too. Dr. B.R. Ambedkar suggested the Central government to frame and implement various welfare programme.
- 4. On 16-10-1933 in the Joint Constitution Improvement Committee meeting Dr. B.R. Ambedkar urged the committee to incorporate in Constitution the policies to provide social rights and protection of the tribal communities. Further Ambedkar also proposed the constitution committee to focus on educating the tribal communities. Dr.Ambedkar also suggested the government to propose separate budget for the culprit or criminal tribal communities.
- 5. Dr B.R. Ambedkar ensured voting right, education, employment and political reservation to tribal communities under Government of India 1935 Act. Apart from this Dr.Ambedkar also guarantees the accessibility of developmental facilities to the separated or divided regions. Dr.Ambedkar, the Chairman of Constitution drafting committee has recommended several welfare schemes for the tribal communities in the Constitution thus has succeeding in wellbeing of the tribal communities.

#### Status of Scheduled Tribes in Constitution

The constitution existed in Manu period framed very harsh laws against tribal communities and made them to lead a very miserable life. Manu and Manu followers took control over the properties and wealth of the tribal communities and denied them religious and political rights. But the Dr. B.R. Ambedkar ensured tribal communities social, political and economic rights in the Constitution of India.

The constitution which came into existence on 26<sup>th</sup> January 1950 included several essential laws ensuring all the rights required for the civilized society and for the progress of each and every communities in the society.

The tribal communities have experienced exploitation from centuries and they were victims of the untouchability the cruel system existed in the society. These communities served as slaves in the houses of upper class and believed that serving the upper class is the greatest duty of theirs. Hence these tribal communities who were the original inhibitants of India had no respect in the society and were leading a miserable life. Dr Ambedkar by framing certain provisions in the Indian constitution vastly helped these scheduled tribes to progress socially, economically and educationally.

The Articles 12 to 32 of the Indian constitution provides rights of equality, independence, culture and education. The constitution of India has also provided some of the constitutional rights to solve some of the issues pertaining to the tribal communities. The Articles 36 to 51 of Indian constitution includes some of the State policy directive principles.

Article-14: All are equal before the Law

Article-17: Abolition of Untouchability

Article-16(4): Provision of 7.5% reservation in Government Employment and 7.5% reservation for availing education at the Educational institution.

Article-46: Governments are to frame the educational and economical programmes for the progress of these communities.

The directions of the above Articles of the Constitution recommended the governments to establish Social Welfare Department and advised the governments to implement various plans and developmental programmes through Social Welfare department.

Article-244: Recommends Local Administration in Scheduled and tribal regions.

Article-275: Central Government through parliamentary laws are directed to release money for the welfare of scheduled tribes of any state.

Article-330: Reservation of seats in Lok sabha for Scheduled Caste and Scheduled Tribe according the population.

Article-335: Reservation of seats in state Rajya sabha for Scheduled Caste and Scheduled Tribe according the population.

Article-338: To establish a national level commission for monitoring the welfare of Scheduled caste and scheduled tribe

The above articles in the constitution of India have ensured several provisions for the betterment and development of backward tribal communities. By virtue of these constitutional provisions the scheduled tribes are benefitted and are developing. The following statistics represents the progress of scheduled tribes:

As per 2011 census the Scheduled tribe population consists of 8.60 % of total population. The constitution of India has provided education to the scheduled tribes which were deprived for the scheduled tribes during the Manu period. As a result of this the literacy rate which was just 47.10 in 2001 increased to 58.96% in 2011. But when this is compared with total literacy, it is found that the literacy rate which was 64.84% in 2001 increased to 72.99% in 2011. It is observed that the literacy rate is low amongst the scheduled tribes. When the poverty index is observed it is found that it was 45.30% and 24.10 in rural and urban areas in 2011-12. The total poverty rate was 25.70% in rural and 13.70 % in urban areas. Therefore it is evident from the statistics that the poverty rate is quite high amongst the scheduled tribes.

Supreme Court of India in its verdict in State of Maharashtra Vs Kailas vide Application No. 10375/2010 has condemned by saying that that the Adivasi tribal communities are ill-treated and they were called as Rakshas, Asuras and by various other names and this is a unlawful and shameful chapter recorded in the history of the nation. The tribal communities have sustained lot of abuses, exploitation from rest of the communities in the society. The landholdings from these tribal communities were snatched by the other communities and these tribal communities were forced to live in forests far from rest of the world. Due to these inhumane circumstances these tribal communities suffered from poverty, malnutrition, illiteracy and other various hazardous diseases. Today attempts are made to capture the hills and forest the habitation of these tribal communities. In the epic Mahabharata, Guru Dronacharya denies to teach Archery to Ekalavya simply because he comes from tribal community. Later, Ekalavya learns archery by making Dronacharya as his virtual mentor and attains mastery in archery. Then Dronacharya gets thumb of Ekalavya as his fees. But it is ironical to note that today the highest award conferred to sports coach is Dronacharya award. Further the court has also criticized that this award is not pertinent and this award is act of insult to the scheduled tribes.

#### 4. Conclusion and Suggestions:

It is evident from the above analysis that periodically Vedic, Aryan and Manu societal customs has exploited the Scheduled tribal communities to such an extent that scheduled tribe were forced to live in forests and hills, they were to suffer from poverty, they were deprived from availing education, and they were weakened both socially and politically. It is clear that during the Vedic, Aryan and Manu period the every rights of the scheduled tribes were betrayed and were made to live under superstitions. If at all Dr.B.R.Ambedkar had not raised voice against these issues and not framed the constitution the development of these tribal communities would have been not possible. The following suggestions are important for the upliftment of the scheduled tribes.

The tribal communities are to be provided more education. The scheduled caste and scheduled tribes should come together and attain political authority. The evil practices like superstition, idol worship etc of Hindu religions is to be abolished. The tribal community can only flourish if the people of these nomadic communities keep themselves from bad habits and evil practices.

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# INNOVATION INRETAIL: A SOLUTION TO COMBAT THE KEY CHALLENGES FACED BY INDIAN RETAILERS

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#### **Abstract**

All over the world, the marketplace of retail is growing rapidly. In the past, retailers and consumers used to have unpretentious relationship with each other. However, due to various changes over the time, their relationship has seen a lot of new facades. Opportunities and challenges for the retail sector in India has always been an interesting theme for the new researches to be conducted. The present research paper elucidates, the yet to be fully introduced, balanced approach to innovations and transformations, that can be applied in the new normal of today's retail scenario, addressing the threats emerging from the dynamic business environment to the Indian retail organisations. The author puts forward an attempt to elaborate the smart ideas and strategies that can translate into profitable business, amidst the fluctuating consumer's expectations and other environmental barriers. The objective of the paper is to provide answers to questions such as:what are the challenges faced by Indian retailers that threaten their growth? What are the ongoing trends in the retail sector in India that the retailers must adopt? What are the disparate innovations brought in the Indian retail sector? How does the innovative retail practices stand as key driversin bringing value and profits within the organisations and the retail industry as well? What is the consumer's perception over the impact of such retail innovations?

The study is conducted with a sample size of 100 respondents categorized as consumers of Delhi and NCR region using random sampling method. Likert's scale and percentage method will be used for data analysis.

**Keywords:** Retail, profits, strategies, trends, expectations, business.

#### 1. Introduction

Indian industry is expected to reach \$1.75 trillion Retail by the 2026(https://www.investindia.gov.in/sector/retail-e-commerce). It is one of the fastest growing retail industries in the world, henceforth, is considered one of the eminent rank holders in various economic and business platforms of the world. The accomplishments of aforementioned sector have enlisted India amongst the most preferred destination for investments and business by international retail giants. The sector's exponential growth is the recompense of retail development observed in Tier II and Tier III cities in addendum to metro cities. Every retail organisation is trying to grasp the advantages of economic growth of the nation, its transformed demographic profiles, rising disposable income of consumers, inclination towards urbanisation along with privatisation and lastly changing consumer behaviours. The collaborations and partnerships amongst domestic and global retailers have provided a considerable boost to this industry.

Apart from this lustrous portrayal of India's retail sector, there also lies an abyss of numerous shortcomings, where the country's retailers are continuously weathering several hardships. Resistance towards adoption of technology by small and medium sized firms is still very high, inadequate infrastructure and logistics facilities, limited skilled workforce, inefficient supply chain management, price instability for essential goods, cultural diversities among Indian population, various financial instabilities, etc. are some of the inherent factors due to which the nation's retail sector is struggling considerably. Therefore, the retailers, especially, the organised retail organisations, are making every possible effort to overcome these barriers and accomplish the established revenue targets by the stakeholders, along with ensuring quality and worthy services to their customers. They are espousing many novel and innovative business notions order to create a mark in the industry. Apart from traditional developments implemented by the retailers, the sector has also welcomed state-of-the-art innovations, metamorphosing in process the entire retail business of the country. These innovations in retail have a promising enhancement in productivity, competitiveness, brand value, recognition, profitability and reduction in cost of production.

The study emphasizes upon the challenges faced by retailers in India regarding incremental rate of growth and the modern trends every contemporary retail organisation must adapt to overcome the common irregularities. It examines disparate innovations spearheading the retail business in India and the path these modernizations will pave as the key drivers in accruing value and profits for the organisations and the industry both. A brief consumer survey is conducted as a part of the study to analyse the consumer's perception towards the impact of such retail innovations.

The paper is encompassed with nature, scope and objectives of the study, research methodology and study area, Literature Review, detailed study grounded upon the stated objectives, analysis and findings of the survey conducted as well as conclusion and recommendations.

# A. Objectives

- 1. To analyse the challenges faced by Indian retailers that threaten their growth?
- 2. To study the innovative retail trends in India that the retailers must espouse?
- 3. To examine the disparate innovations introduced lately in the Indian retail sector?
- 4. To evaluate how, the innovative retail practices will be established as the key driver in delivering value and profits for the organisations and the retail industry both?
- 5. To analyse the consumer's perception over the impact of such retail innovations?

#### **B.** Nature & Scope of the Study

The statistics of Indian retail sector depicts its performance ascending overtime and has revealed that the sector has achieved remarkable progress. The industry has attained a substantial competitive position in the world market. However, due to the underlying shortcomings of the retail sector, the organisations are attempting to approve and implement new ways of retailing aimed at eliminating the primary struggles originating in the business, along with addressing evolved consumer behaviours. The need for innovation, being the critical element for success in the retail business, advocates for a research study, elucidating the role of retail innovations in combating the key challenges faced by the retailers and to evaluate the means through which these modernizations will bring value and profits for the retail organisation and its eminent stakeholders.

Consumer is considered as the most important stakeholder of the retail industry. Therefore, a survey is conducted amongst the consumers in Delhi and NCR who use the innovative retail platforms for their shopping requirements. The survey has helped in analysing the perception of consumers towards these innovative retail practices offered by modern retail formats and its impact on their shopping experience. Hence, the study is exploratory in nature.

## 2. Research Methodology

Research is "creative and systematic work commenced to search and examine the exact problem or an idea once again in a fresh perspective in order to provide an evidence for the well lay down and established facts and principles followed in the study.

This section of the study presents the detailed research methodology aimed at evaluating a balanced approach to innovations and transformations, that can be applied in the new normal of today's retail scenario. It addresses the threats emerging from the dynamic business environment to the Indian retail organisations as well as the disparate innovations carried out in the retail industry lately. Further, it also analyses the consumer's perception over the impact of such retail innovations.

A systematic research process is adopted encompassing all the necessary steps. Firstly, the research problem is formulated to understand how innovation in retail will turn out to be a next best solution to combat the key challenges faced by Indian retailers in the globalized retail industry of India. Various extant literatures are referred as a base for secondary data using recent business reports published by renowned organisations, scholarly articles published in numerous journals, scientific databases, online sources, magazines, newspaper articles, Academia and Research gate, etc.

A quantitative and cross-sectional research study design has beenespoused. The next vital step is the sampling methodology for which the target population is defined as consumers of retail industry in India. To determine the sampling frame, consumers are selected who use the innovative retail platforms for their shopping requirements and were willing to participate in the survey. Non-probability Convenience sampling technique was used as the most suitable and appropriate sampling technique. The sample size comprised of 100 respondents drawn from the consumers residing in Delhi, New Delhi, Faridabad, Gurugram, Noida and Greater Noida. The entire region is a multi-linguistic and multi-cultural. The retail markets in this region have undergone numerous developments along with sustaining traditional retailing roots. Besides, the state has a wide range of selected target population and consumers using innovative retail platforms for their consumption purposes. Therefore, the stated characteristics of the study area made it appropriate for the aimed research.

It is imperative to execute or conduct the sampling process in a systematic and well-conceived manner so as to generate fruitful results. Therefore, in this study also, all the steps have been carefully planned and conducted to arrive at the expected outcome.

To meet the research requirements of data collection, both Primary and Secondary data has been used in this study. The primary data is original, collected afresh for the first time and specifically to meet the research requirements. Since the study encompasses a large base of consumers, it was essential to administer questionnaires to widespread consumers residing in different localities and responses were elicited only from those respondents who were capable to participate in the survey. Therefore, ddistribution of questionnaire was administered in both online mode and offline mode from the consumers. The questions in the questionnaire were 'closed–ended, multiple-choice questions and Likert's five-point scale was employed to determine scores, where respondents were asked to rate each attribute on 5-point scale ranging from strongly agree to strongly disagree. The statements for the questionnaire were

formed after consulting relevant literatures and some related research conducted in that area. Besides attitudes scale, other questions were mainly pertained to extract information regarding the demographic profile of consumers, their broad perspective towards innovation in India's retail sector, as well as an overall consumer perspective towards role of retail innovations in improving shopping experience and customer value in today's retail scenario. Due care was taken so that the questions were simple to understand, non-ambiguous and most importantly, must address the purpose of study. The questionnaire was properly captioned and the purpose of administering the questionnaire was communicated beforehand to the respondents and they were assured about the confidentiality of the responses recorded from them. The data collected was properly checked again for any missing values and analysed using descriptive analysis (percentage analysis and frequency distribution) to arrive at the findings of the survey. The information extracted from various aforementioned secondary sources were also used to form conclusions of the study in a comprehensive manner.

#### 3. Literature Review

**Achit Aggarwal** (2015, pp. 252 - 258) - According to the author, the Indian consumers have a strong proclivity **towards online** operations with regards to retail. The technology has introduced innovations in logistics to provide an elevated and detailed consumer experience. The technological developments have led to e-retailing reforms in the market that has brought a tipping point in the accomplishments of retail sector in India.

**Venkatesh Naganathan** (2013) - According to his research, the consumers of the retail industry in India has developed a keen sense of brand consciousness. There is a growing consciousness about brands in all social and economic classes of people living in both urban and semi-urban areas. The retail markets have seen a significant transition from traditional retail to more contemporary practices i.e. set-up of big retail hubs, malls and markets, operating through various modern retail formats and channels.

- **Ms. S. Kavitha** (2014) According to the author, retail organizations of all sizes and types are concentrating upon the evolution in consumer behaviour. They are synchronizing their business strategies with the structural evolution taking place at both the macro and micro levels of retail industry, based on rapid innovations in business context.
- **Dr. Papori Baruah** (2014) According to his studies, observing the transformations, in the consumer behaviours in India, emergence of foreign retailers, growing competition, etc, the retail organizations have realised the significance of contemporary retail practices to be implemented and scrapping off the traditional ways of retailing. Retailers who did not anticipate the need for technological upgrades, alterations in organizational structures, innovative strategies might find it difficult to sustain in the competitive environment.
- **G. Satheesh Raju** (2018) According to the author, the business models used in retail industry lately, have changed drastically. These models are technologically designed in order to meet the needs of today's customers. There are various innovative notions implemented by the retailers to cater to the demand of the market and additionally increase sales.

## 4. A. Indian retailers confronting key challenges in business growth

Consumer has inherited the central and most vital place in the retail business all over the world. Not only the Indian retail sector, however, the entire world retail markets are undergoing several transitions in order to attain customer loyalty, trust and gratification. The retailers in India perceive the need for implementing product customization for their consumers, as today the buyer wants to customize the product themselves based on their whims and fancies. They are expecting unique experiences in products and services in

exchange for their money and seek a standardised shopping environment. The reason for this transition in consumer behaviour is the prevalence of globalized retail markets.

Another key challenge faced by retailers in India is the need for adapting their business processes in correspondence to the characteristics of the new territories. In today's scenario, no business can be confined to existing markets. However, if the retail organisation wants to expand their business in a different city, market or country, understanding the core characteristics of that particular region or market is deemed critical. The business strategies, approaches, processes must sync with the requirements of respective geographies, taste, preferences and culture of the people residing there. The next biggest challenge is the real estate infrastructure and relative cost of operating in these new markets.

The domestic retailers are already besieged with bureaucratic bottlenecks and several other organizational hardships. Simultaneously, they must undertake this mammoth competitive combat, introduced by entry of foreign retailers in India. Because of the potential growth in the Indian retail industry, every organisation, either domestic or international, are keeping their eyes wide open towards the rising consumer demands besides young population's inclination towards global taste. With the emergence of FDI policy in India's retail sector too, incredible resistance is offered by the small and medium retailers as they are well aware about the financial, infrastructural, technological and operational gaps between domestic and foreign retailers. The domestic retailers with limited competitive edge have considerable apprehensions regarding the price wars created due to superfluous competition in the Indian retail market, where all big and small retailers are competing fiercely with each other for the same consumer base.

Last and not the least, it can clearly be observed that the ongoing COVID-19 pandemic has brought along a new business challenge for the brick and mortar retail stores. The pandemic has introduced new ways of shopping, revised code of conducts for consumers and retailers. The survival complications are dire for the retail stores that do not have their retail offerings via online platforms. The businesses with only offline retail arrangements are adopting innovative strategies for making product deliveries to the customers. The phenomenon of conscious consumerism has been widespread due to the prevalence of the ongoing pandemic, where consumers are re-evaluating their product choices and are buying/consuming more of the goods that already have a high established confidence in consumer community. The COVID-19 crisis has consequently led to rise in demand for sustainable, hygienic, healthy products and services.

# B. Retail innovations introduced in the Indian market and the subsequent adaptation of the business processes

Innovation refers to implementation of a new notion or an invention that leads to change in the present system and thereby bringing improved results and enhanced success, constituting a paradigm shift. The retail sector in India has over the time welcomed various innovations and developments for making the business of selling interesting, effortless and more rewarding. Below mentioned are the recent innovative ideas brought in practice by successful retailers and can be adopted in some extent by retailer of every prominence to boost sales and customer satisfaction simultaneously.

**Digital revolution and technological upgrades**— Acceptance of digital modes of business and upgrades in technology have been imbibed in almost every industry; consequently the retail sector has not lagged left behind. The initial assessment projects and interchange in requirements of retail organisations due to rise in the trend of online shopping. The organizations operating only through online channels are inundated with high number of

customers each day. Therefore, these organizations are planning to expand their reach by opening physical stores additionally, to complement their ability to serve each and every consumer perspective. Whereas, the retail stores confined to physical outlets are struggling with low sales and customer count. This is obliging them to shift toward delivery partnerships or online methods of sales for maintaining their competitiveness in the market.

Adding up In-store shopping experience-The latest disposition in retail industry is the extensive desire of the consumers to engage with well established brands and have a personalised interaction. Therefore, the retailers have to focus on their in-store shopping experience by merging traditional retail models with modern and tech-enabled activities. Consequently, empowering the customers with the opportunity to interact with the brand, give feedbacks, share grievances, offer suggestions, etc. These exchanges accumulate layers and character to the overall buying experience of the customer with the store.

**Experience based shopping-**The e-commerce firms in business pertinent to fashion and beauty products have introduced many innovative practices to provide experience-based shopping such as free of charge styling services. Similar practices can be espoused by retail brands having comparable lines of business. Virtual reality devices/ screens can be incorporated in the stores, where the customers can visualize themselves using potential outfits or products and finalize their purchase thereafter.

**Multi-channel sales-**With the budding followership of consumers on social networking sites, it has become imperative for retailers to adopt multi-channel approach. The consumers today surf through multiple channels before finalising a product/service. This calls for organisations to have an active presence on the trending SNS, marketplaces, etc. where consumers can observe and follow them readily. The retailers must recurrently interact with their customers using mediums of social commerce, such as exchanging pictures, videos, reviews, ratings, etc related to their products or brand. With the advent of these practices it has become possible to win over customer confidence quickly and utilize their willingness to buy.

**Unified Commerce-**The presence of Unified Commerce has turn out to be a boom for retail sector in India. It gives customers every information about the product, its price and availability, etc. and thereby provides synchronization to the expectation consumer holds while shopping or searching for a product. The retailers can adopt this method of retailing by creating a link between sales channels and corresponding backend operations. Due to the emerging need of omni-channel business (marketing through different channels requiring high software integration in the business processes). Unified commerce enables in integrating such software and eventually increases the visibility of the company on all platforms. The retailer can effortlessly guide the customers in their buying process and this model offers customers the possibilities to see each and every minute detail about the brand or product and have a frictionless shopping experience.

**Experiential store formats-**Innovations in store formats is the upcoming trend in retail businesses. The set-up of experiential model is based on the central premise that "consumers can have real time experience of using the product, before actually buying the same". An example of this new retail practice can be observed in practice in the Decathlon stores established in various Indian cities. Most of Decathlon's outlets are set up in malls and at highways using freestanding destinations, they offer the possibility of evaluating a product physically, playing with a sport equipment, cycling on the bicycle models available in store, in order to get a first-hand idea of the look and feel of a product. This undoubtedly, provides customers a truly enjoyable& satiating experience before spending out their money.

**Product innovations-** Developments in existing products or invention of new products is capturing the attention of many retailers nowadays. By introducing innovations in a product, significant growth of retail business is very much possible. Customers eagerly consume readymade food packets which they themselves cannot cook at home, or to avoid putting efforts to do the same on their own. Also, convenience is provided to them by offering new ideas of services, making the normal life effortless and straightforward. This can enable the organisation in expanding their customer base.

Robotic store assistants and artificial intelligence- The introduction of smart techniques in retail sector, has played a substantial role in adding up retail & e-commerce development. Stores rely on such technologies for inventory management, warehousing, putting up price tags or codes on products, supply chain management, customer service, etc. Such smart machines integrate with human capabilities by comprehending, sensing, learning, and acting with them. These innovative retail practices understand the desires of consumers; customize products according to the commands received and are aimed to drive the entire action towards the fulfilment of the demand.

**Other inventions**- There is no end to the innovations in the retail arena. Many more developments can be briefed as self-service kiosk, interactive shop windows, touch screen monitors and desks at stores, image recognition software, digital signage, etc.

# C. Innovative retail practices being the key drivers in bringing value and profits for the organisations and the retail industry simultaneously

Retail organisations, all over the world implement innovation as a business strategy for accomplishing the primary objective of growth and profit along with reduction of the risk pertinent to the survival in this highly competitive industry. The future of retail sector is reliant upon customer convenience, customization of products and financial strength of the retail organizations to bear the expenditure of ongoing technological upgrades in their existing system. The retailers, who possess suitable retail formats having appropriate technologies, flourish in creating a platform that offers the possibilities of attaining expedient and personalised shopping environment where customer's expectation can be assessed that the right time and in the precise manner. These intelligent inventions have the capacities to address and surpass the anticipations of customers and surprised them in a delighted manner.

According to the retail experts, retail operations performed by means of internet and mobile services has lately become one of the leading growth drivers for the retail industry. These technologies swiftly deliver convenience in buying and selling of goods altogether. Consumers today, favour mobile communication for buying products as they have developed the habit of shopping anywhere and anytime using a multitude of apps on mobile phones. The retailers as well agree to the fact, that creating a seamless shopping experience by selling goods through multiple sales channels is the next big innovation in the retail market, as consumers nowadays expect to avail limitless choices in mode of sales, sales channels, modes of payment, pick-up locations etc. The trend of customizing products and providing various selections as per the consumers desires is crucial to build sturdier customer-retailer relationship and helps in pouring long-term sales. Therefore, convenience in shopping, personalized offerings and seamless sales environment has a significant impact on the success of retail business in the current scenario.

The retail innovations offer greater transparency about product's pricing, availability, specifications and comparison made with other related products. Nowadays, consumers look out for social media channels to research about products availability, seek advance payment options to shop and go, prefer self-services during purchase process, etc. All these facilities

are made accessible using innovative retail tools such as big data capabilities, smart kiosk, instore technology, chat bots, and many more. Using these modes of selling also aids the retailers to gather relevant information regarding consumer's preferences and purchases made in the past.

The retail stores designed with real time experience format seem to dominate the retail markets in the current times. The traditional store-based retailers that now operate with online presence will flourish too in this transformed retail industry as these creative methods of selling offer consumers a reason to visit these retailer/stores again, beyond a simple one-time purchase. Eventually, this has rendered the prospects of simple store formats relatively gloomy.

Further, the technological developments in retail operations enable the firms to generate, store and analyse sufficient information about the consumer regarding choice, methods of shopping, price - quantity ratio of sales, etc, useful for delivering value in customer service. For example, it has been observed that the growing trend of innovative retail practices such as, augmented reality and virtual reality techniques (AR/VR), facial recognition technology, robots/artificial intelligence, delivery through drones enable the retailers to fulfil the consumer demand timely and efficiently. It also helps in luring consumers towards products/brands, offer personalised shopping experience and execute the entire buying process effortless. Innovative product design and fresh idea generation have been critical practices in maintaining customer loyalty and having higher sales. Hence, the outlined developments in retail sector provide the innovative, stimulating and upgraded shopping environments that consumers are quickly responding at.

Observing the ongoing COVID -19 pandemic situation it has been consequently perceived that the trend of online shopping will stay for a very long time in the retail industry. Various research studies stated that almost every consumer at present prefer online store/websites over physical stores for shopping the goods they need. Therefore, retailers can create custom storefronts on the Facebook and Instagram to showcase their products, display banners, share videos etc. to reach out to wide global audiences. Consumers now demonstration higher trusts towards sellers who voice their authenticity and pertinent information via these online platforms. Hence, it helps in building brand equity for retail organizations.

Although, there is no denial of the fact that retail operations will continue to shift to the virtual space, but this does not diminish the importance of physical stores. If used correctly, it can accompany its online counterpart to bring value for a brand and give it a cutting edge against competitors. The investments made in innovative technologies helps in streamlining the flow of information in a single window for customers, automate demand forecasting, inventory management, enhancing relationship between customers and suppliers, management of logistics and several other marketing activities. Therefore, it is worthy endeavour to investments in commensurate innovative retail processes for a retail organisation. Innovation is a key driver for company's growth and survival in the long haul, particularly in a dynamic & complex market and ambiguous economic situations.

#### 5. Data Analysis & Findings

The findings of the study are based upon the survey conducted to analyze the perception of consumers towards the innovative retail practices offered by modern retail formats as well as its impact on their shopping expectations. The data is analysed using the responses generated from the consumers surveyed through distribution of questionnaire.

The demographic profile of consumers depicts that both male (53%) and female (47%) consumers are part of the sample size. 29% respondents belong to the age group of 18- 29 years, whereas 41%, 18% and 12% respondents belong to the age group of 30 -39 years, 40 - 50 years and above 50 years respectively. According to the marital status of the respondents, 52% are married whereas 45% are unmarried. Only 3% of the total respondents are either separated or divorced. 33% respondents have some kind of business as their source of income, 48% are professionally occupied whereas 19% are students. Education-wise too, the majority of respondents (69%) are graduates, 22% are post graduates and 9% hold doctorate degree. Looking at the income side, mostly respondents (53%) are from the income group of above Rs 10 lakhs p.a. 30% respondents stated they earn Rs 5-10 lakhs p.a. and only 8% respondents said they possess income less than Rs 1 lac p.a.

Majority of consumers, i.e., 62% believe 'Newness' as a key measurement of perceived innovation in retail sector. 59% consumers give the opinion that greater transparencies brought by innovations in retail practices has led to increased trust of consumers in the related brands. Similarly, the responses of 62% consumers show that trust between customers and retailers has a positive effect on the intention to purchase online. 62% consumers believe that technological innovations have created a perceived convenience in using web portals or digital screens set up by the retail organisations. 49% consumers opine that these web-based systems of retailers support customer loyalty besides their own profitability. 57% consumers stated that innovative retail practices affect the consumer satisfaction emerged from the shopping experience provided by the retail organisation. It has been observed that 61% respondents believe that consumers who seek high control in the buying process are more willing to use the technology as it increases their participation in the decision-making process of buying goods and services. 81% consumers stated that they are subjected to more influences in the virtual stores where they are enabled to interact with an adaptive atmosphere created by retail firms through technology. 67% respondents agree to the statement that innovation in retailing has increased the addictiveness to the retail settings, possibilities of more interactive sessions and thereby, appeal the consumers and offer them with more advantages in retail trade. 32% respondents stated that their peer groups, family and media groups influence them in attaining awareness about the advantages of innovations in retail market. 57% respondents believe innovations in retail have brought hedonistic values in terms of enjoyment and satisfaction and boost consumer satisfaction. 36% consumers agree that the technological tools act as an auxiliary for physical contact with sales persons in retail stores. Many consumers (44%) said they are involved in purchasing new products just because they desire innovations in the products with time, as well as, 36% consumers stated that they choose innovative products because they get bored by buying products having similar specifications. Most of the consumers (74%), believed that retail innovations have introduced advantages like electronic payment system through credit card and digital money, convenience in comparisons between products and eventually straightforward product ordering mechanism. 67% respondents perceive innovative retail systems provide a smooth link between various products of a single supplier and also between several sellers of similar product too. Lastly, it is perceived from the responses of 64% respondents that young consumers are more fascinated about new innovations in retail market during their buying process as compared to the older ones.

There are few negative impacts of retail innovations as per consumer's perception besides the stated positive impacts. 44% consumers stated that they have a sense of insecurity or risk while purchasing a product through a new technology because this experimental action might increase chances of vulnerabilities or regrets in the purchase decision later. 58% consumers have an opinion that these innovative technologies in retail may have undesirable

consequences such as flaws in the overall safety of the system, risk in privacy of personal information of the buyer, quality of the product obtained, etc. 38% consumers assume they have reluctance in using new retail practices as they do not have any prior experience of using these technologies. 56% consumers perceive there is an additional cost of value-added services that might hinder in the acceptance of such innovative technologies. Many consumers (63%) stated that due to the absence of face-to-face contacts while buying goods via innovative mechanisms brings along ambiguity, self-doubt, lack of control that might leads to potential opportunism by retailers. 33% respondents hold a very strong opinion that there is a lot of social pressure that leads to unwilling usage of a new retail system.

## 6. Conclusion and Recommendations

## A. Conclusion

Innovation has been a boom for the retail sector. With the growing demand for consumer goods, transformation in consumer behaviour as well as rising competition among retail markets within the national and international boundaries has deemed the implementation of technology and innovative business ideas much more imperative for survival and growth of retail organisations. The Indian consumers have become highly tech-savvy and therefore seek a gratifying shopping experience for meeting specific demands. Before finalising their buying decisions for a product or service, they expect from the retailers to provide every possible detail about the offerings. Any undisclosed or missed details are presumed to be a sloppy representation by the retailer. The retail industry has become a smart and well-connected world where the technology has enabled its players to be well informed about each other. Customer convenience, product personalisation, innovative and experiential retail formats besides need for an investment in right technology has become the current necessity of the retail sector in India. The retail organisations that is able to accomplish all this efficiently can lead the success stories of today and tomorrow.

It is evident that perceived risk and insecurities towards the newly launched innovative retail mechanism has been an imminent factor for consumers that hinder their participation with the retailer through these mediums of shopping. The risks regarding loss of privacy in personal information of consumer, fraudulent payment systems, lack of trust and experience in the technology, immature legal system, uncertainty in product quality and delivery, lack of personal touch with the seller, less control over the operations, etc are few drawbacks of the technological innovations introduced in the retail arena. Therefore, the development of a system to tackle such drawbacks and ensure a smooth operation of the innovative practices and its subsequent profitability are crucial for the success of given progresses in the retail industry.

Analysing the positive and negative aspects of innovation and technological developments in retail operations, it can be concluded that these upgrades in the traditional retail systems can be justified by stating its merits. These innovative retail systems assist in offering intelligent solutions for simplifying purchase journey of goods and services, coordination between time and cost, effective product or service delivery, minimizing the impact of barriers in retail, retrieval of information regarding customer, retailer and product, recording post sales feedback of customers and hence creating a smooth shopping experience.

## **B.** Recommendations

 The retail organisations must update their traditional retail practices with smart selling techniques to cater the demands of uncertain retail habitat and evolved consumer markets.

- 2. The innovative retail mechanisms serve as communication tools between buyers and sellers: Therefore, the retailers can interact with the customers, increase their visibility, address consumer's expectation enquiries and respond quickly and efficiently to issues in the complete business process.
- 3. The retail organisation operating through innovative mediums of retail must demonstrate security of consumer's personal data in order to build a trustworthy relationship with their customers.
- 4. Retailers need to understand how these influential technologies can help to deliver personalised products, convenience in buying process in addition to a secure shopping environment within an economic standpoint.
- 5. By analysing the relevance of technological developments in retail, the organisations must analyse and address the future of such inventions and their impact upon the consumers and the industry as a whole, before making huge investments.
- 6. The retail organisations should build strategies for their commercial growth and advancements by understanding the dynamics of retail markets, future of innovative retail systems and ever transforming consumer demands.
- 7. Other theoretical implications are for the future researches that might be conducted on the similar theme, w.r.t., impact of retail automation upon consumers in India, comparative study upon extent of retail automation adopted by retailers operating in different states of India, role of automation in enhancing revenues of retail organisations, comparative study upon types of retail automation in other developed countries and India, to name a few.

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# Tables related to the analysis and findings are as under:

Demographics		Frequency	Percentage
Gender	Male	53	53%
	Female	47	47%
	Total		100
Age	18-29 years	29	29 %
	30-39 years	41	41 %
	40-49 years	18	18 %
	50years & above	12	12 %
	Total		100
Marital Status	Married	52	52%
	Unmarried	45	45%
	Separated/ Divorced	3	3%
	Total		100
Occupation	Business	33	33%
	Service/Profession	48	48%
	Student	19	19%
	Total		100
Education	Graduation	69	69%
	Post-Graduation	22	22%
	Doctorate	9	9%
	Total		100
Income (p.a)	Less than Rs 1 lakh	8	8%
	Rs 1-5 Lakh	30	30%
	Rs 5-10 Lakh	39	39%
	Above Rs 10 Lakh	53	53%
	Total		100

Table 1.1 Demographics

Parameter	Strongly	Agree	Neutral	Disagree	Strongly	Total
	Agree				Disagree	
			Freque	ncy		
Innovation can be perceived as	24	38	20	10	8	100
'newness' in product/service						
Innovative retail practices bring	20	37	12	25	6	100
increased satisfaction and better						
experience	1.0		100		<u> </u>	100
Interactive retail practices give	10	51	20	14	5	100
higher control to customers in						
purchases			1	<u> </u>		
Virtual retailing influences	28	53	9	7	3	100
customers in positive manner						
Innovation increases adaptiveness	24	43	16	12	5	100
to the retail settings, possibilities						
of more interactive sessions,						
appeal the consumers and offer						
them with more advantages in						
retail trade						
Innovations in retail has brought	15	42	8	23	12	100
hedonistic values in terms of						
enjoyment and satisfaction						
Technological tools act as an	13	23	28	20	16	100
auxiliary for physical contact with						
sales persons in retail stores						
Retail innovations have	18	56	17	5	4	100
introduced advantages like						
electronic payment system						
through credit card and digital						
money, convenience in						
comparisons between products						
and eventually straightforward						
product ordering mechanism.						
Innovative technologies in retail	26	32	24	12	6	100
may have undesirable						
consequences such as flaws in the						
overall safety of the system, risk						
n privacy of personal information						
of the buyer, quality of the						
product obtained, etc.				1		1.0 -
Innovative technologies bring	32	24	20	15	9	100
along an additional cost of value-						
added services						<u> </u>
Absence of face-to-face contacts	16	47	12	16	9	100
while buying goods via innovative						

mechanisms brings along			
ambiguity, self-doubt, lack of			
control that might leads to			
potential opportunism by retailers			

Table 1.2- Consumer's perception over innovative retail trade

Consumer's perception over innovative retail trade				
Parameter	Yes	No	Total	
	(in%)	(in%)		
Trust between customers & retailers drive online sales	62	38	100	
Greater transparencies brought by innovations in retail practices has led to increased trust of consumers in the related brands	59	41	100	
technological innovations have created a perceived convenience in using web portals or digital screens set up by the retail organisations	62	38	100	
web-based systems of retailers support customer loyalty besides their own profitability	49	51	100	
peer groups, family and media groups influence consumers in attaining awareness about the advantages of innovations in retail market	32	68	100	
You (consumer) purchase new products just because you desire innovations in the products with time	44	56	100	
You choose innovative products because you get bored by buying products having similar specifications	36	64	100	
innovative retail systems provide a smooth link between various products of a single supplier and also between several sellers of similar product too.	67	33	100	
young consumers are more fascinated about new innovations in retail market during their buying process as compared to the older ones.	64	36	100	
You have a sense of insecurity or risk while purchasing a product through a new technology because this experimental action might increase chances of vulnerabilities or regrets in the purchase decision later.	44	56	100	
You have reluctance in using new retail practices because of not having any prior experience of using these technologies.	38	62	100	
Do you feel there is a lot of social pressure that leads to unwilling usage of a new retail system?	33	67	100	

Table 1.3 - Consumer's perception over innovative retail trade

# A STUDY OF ADVENTURE SPORTS COMPANIES WITH RESPECT TO PLACE AND PROMOTION MIX AND THEIR ROLE IN SERVICE QUALITY

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## **Abstract**

Service quality is the buzzword for the decade and its growing relevance is undeniable over the past decade in the service industry.

One such industry targeted for the current research study is adventure sports. Adventure sports or extreme sports basically are non-traditional sports like bungee jumping, hiking, river rafting, sky diving etc. These sports are considered to be risky and at the same time exciting. The nature of sports is such that a lot of effort has to be put on the service quality. Adventure sports companies are companies which are delivering these adventure sports to people. It is assumed that a study of marketing mix is important to understand their relation with service quality. This paper aims to study the relation between two of the marketing mix components which are place and promotion in relation to service quality. This paper is based on secondary data. There has been an attempt to extensively study the role of place and promotion mix in affecting service quality.

**Keywords:** adventure sports; service quality; marketing mix; place and promotion mix.

## 1. Introduction

## Adventure Sports

Adventure sports are basically non -traditional sports and involves a lot of risk although its equally thrilling and challenging .Over the past few years it has been observed that there has been a lot of craze among people for adventure sports .The reason could be an urge for thrill in life, sense of achievement ,instilling confidence .Due to this reason, a lot of companies has come into the market to deliver adventure sports as it has become a craze in the millennials as well as young adults .The exciting nature of sports boosts confidence ,morale and instills a lot of energy as the nature of the sports are quite risky hence service quality becomes all the more important .In many studies, service quality has been considered an antecedent to consumer response (Romiti, Anna & Sarti, Daria. (2016).The 7p's of marketing mix holds a lot of significance here being a service industry. The present study will focus on two P's namely Place and Promotion mix.

## Marketing Mix

Marketing mix for services means a combination of 7P's which includes product, price, place promotion, physical evidence, process and people. The correct marketing mix strategy is needed to make the business a success .It needs a lot of research, planning to make it effective. Adventure Sports Company being a service industry needs to focus on all P's strategically with the aim to deliver high service quality.

# Service Quality

Service quality generally means customer's comparison of service expectations with respect to company's performance. A business with a superior level of service quality is capable of meeting customer needs while also remaining economically competitive in their respective industry. The rating of service quality is given by customers on the basis of their expectations and services received. Service quality in adventure sports is of utmost importance as it's not an ordinary delivery of a service but it involves a lot of risk hence needs to be extremely foolproof customer expectations in case of adventure sports remains high and he expects the companies to promise a high service quality component. The 7 P'S of marketing mix affects the service quality in various ways and each of them has their own role to play in affecting service quality.

## Role of Place In Affecting Service Quality

Place as in marketing mix means distribution as in how the companies are making their products and services available to the consumers at the right place and in the right quantities. role of place in adventure sports is of utmost relevance as the location or place of delivery is not congenial .Adventure sports includes sports like bungee jumping ,river rafting ,sky diving ,trekking ,scuba diving to name a few.it involves places like mountains ,oceans ,rivers etc. apart from the risk associated with the sports, the place (distribution) is also risky. Adventure sports companies owe a big responsibility in ensuring that customers who are availing adventure posts service do these activities at minimum risk and the place selected is safe .The companies need to take proper authorization and safe measure so that minimum risk is involved .Size of place ,availability of medical emergencies has to be taken care of .Hence its very clear that place plays a big role in affecting service quality .Consumers judge the quality of service provided by companies considering the location of delivery of adventure sports. Reliability ,ease of use ,accessibility remains the main focus area .With respect to adventure sports place of distribution would mean the various places from where adventure sports services are being rendered. Hence it becomes imperative that it is reliable ,accessible ,safe .customers are going to perceive it's service quality with respect to these parameters .It brings a lot of responsibility on adventure sports companies to be extremely cautious with respect to place component .any gaps in this component or in various parameters the impact on service quality would be grave, various incidents reflect how a single mishap influence the brand image because the service quality is directly impacted.

## Role of Promotion in Affecting Service Quality

Promotion as in marketing mix means how companies are communicating about themselves to the target market .The entire purpose of business would go in vain if the right customers don't receive the right information at the right time .In today's scenario customers do get influenced by various promotional strategies be it discounts ,coupons ,celebrity endorsements .A new product needs product awareness hence the promotional strategy should be likewise .An existing product

needs reminders hence correct use of right mode is important, understanding of target market and the right mode of communication has to be taken care of .Adventure sports as discussed involves risks and thrill at the same time .Hence effective promotional strategy with high degree of influence is needed to improve survive quality .The less the gap between services as praised in promotion and services received the more superior becomes the service quality .adventure sports is becoming popular in all age groups but particularly the young generation is most influenced .The correct promotion strategy is needed here to position the product in the minds of these customers .The companies need to understand the strategy which will bring maximum influence .websites design ,brochure , Eflyer etc are the various parameters which will bring a direct impact on service quality .various promotional schemes ,attractive events ,surprise prizes will boost service quality.

## 2. Literature Review

According to Achumba (2003), a customer is the center point of any business. Thus, the relevance of the high quality service is of of high priority. This theory has become very prominent in the highly competitive market .Different industry work differently as service is heterogeneous with respect to different sectors.

According to Wai- Ching Poon (2008) that the consumers' actually measure the service quality when the compare service received to service promised.

Raza, et al. (2015) through research had also provided an analysis which displayed a highly positive relationship between different variables, namely, reliability, tangibility, assurance and responsiveness with the customer satisfaction.

According to a researcher (Sakhaei et al., 2013) reliability becomes a very important component in impacting service quality. There were several other research studies in the same domain.

According to Gupta and Bansal (2012) that there existed many quality dimensions with reliability seen as prominent dimension which has a motive to determine customer satisfaction. Several other dimensions that were discussed could be identified as security, efficiency, responsiveness and which were also important in determining the customer satisfaction.

Johnston (1995) had also identified the several dimensions including responsiveness as a major reason of satisfaction among the customers. Few other dimensions that were quoted were attentiveness, care, friendliness as the major sources for bringing the customer satisfaction whereas low integrity, reliability, availability and functionality were found to be the main sources of customer dissatisfaction.

According to a research study submitted by Jain, R. (2018), results were provided with regard to the adventure travel admitting a jump of about 178% in India as per the findings from a report given by Thrillophilia. As per the details shared in the report, it was discovered that people are now moving towards non -conventional leisure activities which includes adventure sports.

There was another study conducted by Brymer, E., and Schweitzer, R. D. (2017). The title of the paper presented was 'Evoking the ineffable: The phenomenology of extreme sports'. This paper documented the fact the since, there had been a steep inclination towards extreme sport activities, thus, conducting examinations in this domain could serve utility. According to the study, extreme sports were referred to as being unique as they involve a degree of physical power, thrill and self-esteem.

Lucian, M. A. (2013) documented a study regarding the "Sport Marketing Mix Strategies". This research was focused on the marketing mix specifically concerned with the sports sector. It was a secondary research. It presented a precise overview of a very significant element of the sport marketing management which could be referred to as the model of marketing mix. It was expressed in the paper that a considerable amount of the sport marketer's time was actually spent over the several functions related to the marketing mix itself. It was also documented in the paper that the marketing mix was indeed a strategic combination of the components namely, product, price, place and promotion which were referred as 4 Ps of marketing. For making decisions and strategies with respect to sports marketing, the marketer had to keep each point in mind. It was also stated that in order to make effective decisions, market research was required which involved focus on the consumer, competitor and company along with the given climate.

According to Parasuraman, Zeithaml and Berry (2006), another important dimension was competence which implied "the possession of the required skills and knowledge to perform the service."

According to Suresh kumar (2013), consumers come to buy a product because of the kind of price offered, promotional strategies and service quality offered.

According to Hussein Khodadadi (2017), quality of product ,promotion and service quality has a major impact on customer satisfaction.

Oh H, Parks SC (1996) documented that strong positive relation between customer satisfaction and service quality.

# 3. Research Methodology

# A. Research Objectives

- To understand the adventure sports and its marketing mix
- To understand the role of service quality
- To reflect the role of place and promotion in affecting service quality

# B. Methodology

The current research is based on secondary data. The data collected for research is through published sources i.e. journals, articles, blogs.

## 4. Findings and Conclusion

- Different research studies and various other sources reflected that adventure spots has become a rage in the present scenario. The urge for excitement, thrill in life makes it more popular and demanding. It not only does bring thrill but also boosts self-confidence. Team building high level of achievement n overcome fear. Despite of so many positives, it cannot be denied that it involves risk with it. Hence the various components of marketing mix hold utmost importance .the current study focusses only on two components namely price and promotion.
- Place with respect to adventure sports means the place of delivery. It has huge impact on service quality. Customers perceive it as a major determinant of increasing expectations

with respect to service quality, security measures, ease of access , choices in terms of services offered.

- Various locations where adventure sports activities are carried on should be safe and must be located easily.
- The ease of access plays a important role in customer's decision making thus impacting service quality.
- Transportation plays a pivotal role with respect to these services.
- Various options provided by adventure sports companies to customers in choosing which and from where they are ready to take the services is of utmost significance for impacting service quality.
- The more the customer is satisfied and delighted the more high would be the rating of service quality.
- Promotion of any product or service means effectively communicating about it to the right target market and right set of customers.
- Promotion of adventure sports services means choosing the right media, right channel and right strategy to make it effective.
- Promotion involves a lot of promise and on the basis of that a customer perceives and develops an attitude about a product or service.
- The gap between a promised product and received product should be minimum to increase the service quality.
- Celebrity endorsements is an important of promotional strategy with respect to these services .it should look and sound realistic to instill confidence and trust among customers.
- The message delivered should be promising, convincing and realistic thus increasing service quality.
- Appropriate and achievable promotion strategy always have a high impact on increasing service quality.

Thus, It can be concluded from the above study that place and promotion as part of marketing mix for adventure sports plays a significant role in impacting service quality. The gap between perceived customer expectations and service actually received should be minimal to ensure high service quality. Any organizations aims to achieve high service quality to ensure long term gains and survival in such a competitive industry. This study would provide an insight to adventure sports companies as to how they should optimally design their place and promotion strategy to ensure high service quality.

## 5. Recommendations

• Companies should study market, customer expectations and take frequent customer feedback to design effective strategies.

- Adventure sports services is used in families as well as youth .Both have different perceptions so proper segmentation to be dome with respect to place strategy.
- Celebrity endorsements is another way to build high service quality. The choice of the celebrity should be so made that he/she reflects qualities like fitness, popularity, adventurous, risk-takers and the ones with the target market can relate.
- Adventure Services involves experience, hence choice of location should be considered with respect to weather and seasons making it more comfortable, enjoyable and safe.
- Product should be advertised both offline and online considering the competition around.

#### 6. Limitations

- This study focusses only on two P's namely place and promotion and their role in service quality. The other P's holds equal importance.
- There is a limited research on this particular aspect of studying service quality hence literature review is not vast.

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## **BLOCKCHAIN LAW: A NEW BEGINNING**

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## **Abstract**

A blockchain is a time-stamped series of immutable record of data that is managed by cluster of computers not owned by any single entity. Each of these blocks of data are secured and bound to each other using cryptographic principles. Bitcoin is the most popular example that is intrinsically tied to blockchain technology. It is also the most controversial one since it helps to enable a multibillion-dollar global market of anonymous transactions without any governmental control. Hence it has to deal with a number of regulatory issues involving national governments and financial institutions.

Since blockchain technology only creates an infrastructure or medium enabling a variety of applications, it is yet to stir up much regulatory controversy in and of itself. This is as opposed to, say, crypto-assets, which may disrupt traditional value-transfer systems and have governments around the world scrambling to understand their legal consequences.

Legal frameworks are based on national borders, it is highly relevant from a legal perspective especially in the countries in which any legal act has been performed; it is relevant to understand which law applies and which government has the authority to enforce the law. However, the actual relevance of the law remains limited.

**Keywords:** BLOCKCHAIN, BLOCKCHAIN LAW, CRYPTOASSETS, BITCOIN, BLOCKCHAIN TECHNOLOGY

# **BLOCKCHAIN LAW: A NEW BEGINNING**

## 1. Introduction

A blockchain is a time-stamped series of immutable record of data that is managed by cluster of computers not owned by any single entity. Each of these blocks of data are secured and bound to each other using cryptographic principles. Bitcoin is the most popular example that is intrinsically tied to blockchain technology. It is also the most controversial one since it helps to enable a multibillion-dollar global market of anonymous transactions without any governmental control. Hence it has to deal with a number of regulatory issues involving national governments and financial institutions (Michale Crosby, 2015).

Since blockchain technology only creates an infrastructure or medium enabling a variety of applications, it is yet to stir up much regulatory controversy in and of itself. This is as opposed to, say, crypto-assets, which may disrupt traditional value-transfer systems and have governments around the world scrambling to understand their legal consequences.

Legal frameworks are based on national borders, it is highly relevant from a legal perspective especially in the countries in which any legal act has been performed; it is relevant to understand which law applies and which government has the authority to enforce the law. However, the actual relevance of the law remains limited.

## 2. Materials and Methods

The methodological basis of the study was made up of the following general scientific and special methods of cognition of legal phenomena and processes in the field of blockchain & Law: a system-structural analysis method; method of synthesis of social and legal phenomena; comparative legal method; formal logical method.

# 3. History & Origin

Blockchain technology was first outlined in 1991 by Stuart Haber and W. Scott Stornetta, two researchers who wanted to implement a system where document timestamps could not be tampered with. However, it wasn't until almost two decades later, with the launch of Bitcoin in January 2009, that blockchain had its first real-world application. The Bitcoin protocol is built on blockchain (Blockchain Explained, 2021). In a research paper introducing the digital currency, Bitcoin's pseudonymous creator Satoshi Nakamoto referred to it as "a new electronic cash system that's fully peer-to-peer, with no trusted third party.Nakamoto improved the design in an important way using a hashcash-like method to add blocks to the chain without requiring them to be signed by a trusted party (Bitcoin and Cryptocurrency Technologies, 2016).

Blockchain is not a new technology; rather it is an innovative way of using existing technologies. The technologies underpinning blockchain are asymmetric key encryption, hash values, Merkle trees, and peer-to-peer networks. Blockchain allows parties who may not trust each other to agree on the current distribution of assets and who has those assets, so that they may conduct new business. But while there has been a great deal of hype concerning blockchain's benefits, it also has certain pitfalls that may inhibit its utility (Blockchain: Background and Policy Issues, n.d.).

# 4. Regulation & Innovation

Blockchain technology only creates an infrastructure or medium enabling a variety of applications, it is yet to stir up much regulatory controversy in and of itself. This is as opposed to, say, crypto-assets, which may disrupt traditional value-transfer systems and have governments around the world scrambling to understand their legal consequences. As opposed to crypto-assets, most regulators' statements on blockchain technology have been positive. Led by the U.K., many countries including Australia, the U.S., Hong Kong, Malaysia, Singapore, Switzerland, Thailand, and United Arab Emirates have implemented or are exploring the idea of 'regulatory sandboxes' for blockchain (and other types of) innovation (Faden, 2019).

Regulatory sandboxes allow organizations to experiment with innovative business models without fear of regulatory consequences, as long as they meet certain consumer protection norms. In India, the RBI's Report of the Working Group of FinTech and Digital Banking also seem to indicate that the RBI will consider regulatory sandboxes for India (Reserve Bank of India - Press Releases, 2016). The draft Payment and Settlement Systems Bill, 2018 also has the concept of a regulatory sandbox. On a separate note, as mentioned previously, the governments of Canada, China, Japan, India, Netherlands, the U.K., and Sweden have all been reported to be exploring the issuance of digital versions of fiat currency on the blockchain (Ward & Rochemont, 2019).

Such government authorization will pave the way for the adoption of blockchain technology in mainstream financial transactions.

However, there may be a dichotomy in the various governments' approach to virtual currencies given the governments appear concerned about in light of the consumer protection

risks, and blockchain technology as such on which the authorities have expressed no negative view. Since the blockchain is a new technology, most existing privacy laws around the world, would not contemplate privacy protections for blockchain participants in this sense (Johnston, 2016).

Most Internet privacy laws deal with a situation where a website/app collects personal information from an end user. So, though participants would have these ordinary Internet privacy rights, such rights will likely not extend to the blockchain because there is no centralized organization collecting information.

It is believed that about 10% of the global GDP will be stored or recorded on the blockchain technology by 2027 (TrustBar, 2018) (WORLD ECONOMIC FORUM, 2016). Indeed, from a GDPR perspective, no technology would be prohibited or regulated by nature — only its application to a specific purpose may be regulated, inasmuch as it involves personal data — whether relating to the participants and miners or the payload data itself- and falls within its broad geographical scope (Blockchain and Data Protection: Trustless Should Not Mean Distrusted | FinTech Law Watch, 2018).

## 5. Legality of Blockchain

The notion that crossing a border changes a set of laws, from which side of the road we drive on to fundamental rights stemming from the United Nations Charter is quite known to us. Although there's still a lack of clarity between the emerging technology and the regulatory environment (McCracken, 2019); the Internet has now blurred those national borders: with the press of a button on your computer, you can conduct a legal transaction within a country in which you are not physically located. Since our legal frameworks are based on national borders, it is highly relevant from a legal perspective especially in the countries in which any legal act has been performed; this is relevant to understand which law applies and which government has the authority to enforce the law. However, the actual relevance of the law remains limited (Naves et al., 2019).

The decentralized nature of Blockchain technology means it is not possible to determine which laws apply generally to Blockchain, because every legal area sets the conditions for applicability within its domain. Thus, it is believable that a particular State's civil law will apply to a Blockchain transaction while the respective authorities can levy taxes on the same transaction. In fact, regulations from many different legal systems could apply to a Blockchain depending on the context (Naves et al., 2019).

At the transaction level, it is usually quite clear which laws apply. If a Blockchain transaction is executed between two parties in the same country, then the civil law of the country in question generally will apply. However, national private law will have to determine which civil law applies to a transaction between parties from different countries (Naves et al., 2019).

## TYPES OF LAWS RELATING TO BLOCKCHAIN

Laws and regulations relating to blockchain technology and cryptocurrencies can be divided into two categories – enabling and prohibitive (Austin Mills, 2017).

1. Enabling Legislation — There is certain legislation that enables blockchain technology to be more fully utilized for all of its various use cases. One example is digital signature enabling legislation. Subject to certain exceptions like consumer loan documents, digital signatures are generally recognized as a valid signature throughout the United States and many jurisdictions throughout the world. This allows smart contracts to authenticate and validate transactions in a legally binding manner and

- also allows private keys and other digital signatures to be recognized as a valid form of signature(Austin Mills, 2017).
- **2.** *Prohibitive Legislation* On the other hand, most laws, rules and regulations prohibit or restrict certain types of activities, or require certain actors to behave in a certain way. Several such existing regulations apply to blockchain technology and cryptocurrency, depending on the specific nature of the use case(Austin Mills, 2017).

# LAWS INTERACTING WITH BLOCKCHAIN

Blockchain's promised benefits from the legal perspective in order to provide a general understanding on how the technology is observed to interact with three major fields of law, namely Contract Law, Intellectual Property Law & Personal Data Protection Law and it is pertinent to understand how technology and law intermingle. The blockchain technology attracts these specific areas of law for the following reasons (Paolo Balboni, 2019) –

- 1. **Contract Law:** The implications that blockchain technology may bring for smart contracts.
- 2. **Intellectual property law:** the potential benefits brought about by blockchain-based systems to holders and users of copyright, registered and unregistered trademarks and designs, and trade secrets.
- 3. **Personal data protection law:** the contradictions between blockchain and the European General Data Protection Regulation.

Blockchain offers a different way of looking at the current legal system. This does not mean that Blockchain technology does not raise important questions within current legal frameworks (Salmon & Myers, 2019). The use of blockchain, Distributed Autonomous Organizations, popularly known as the DAOs and smart contracts raises some significant and provoking legal questions, the answers to which are difficult to determine with certainty.

## 6. Conclusion

Blockchain is not a new technology; rather it is an innovative way of using existing technologies. The technologies underpinning blockchain are asymmetric key encryption, hash values, Merkle trees, and peer-to-peer networks. Blockchain allows parties who may not trust each other to agree on the current distribution of assets and who has those assets, so that they may conduct new business. But while there has been a great deal of hype concerning blockchain's benefits, it also has certain pitfalls that may inhibit its utility. The Blockchain Technology works on the following three pillars — Decentralization, Transparency and Immutability.

The Blockchain Law, also called the Distributed Technology Law is not yet defined and recognized but is an emerging field of law due to the recent dissemination of distributed ledger technology application in business and governance and political and legal environment (Gatto, 2017). The Blockchain Law may be referred to as the study of law, which examines the complicated legal, policy and regulatory issues concerning the digitized, decentralized, distributed public ledgers or blocks and the data and information stored thereon as well as their interplay with human and automated activities and conduct (Blockchain Law Epicentre, 2017). The resistance of the blockchain to the workings of the law represents both strength and weakness (Law and the Blockchain, 2019).

Any distributed ledger used by an enterprise or industry needs to conform to data requirements in the countries in which it operates. Existing blockchains based on Bitcoin and Ethereum codebases can indiscriminately broadcast private data to all participants of a

network, and therefore may not always be suitable for use in financial services. Distributed ledgers have been developed that share certain data only with participants who need to see it. These distributed ledger technology implementations are more flexible and can more easily meet existing and potential future data requirements. Legal requirements are evolving rapidly and it is important to ensure that the implications of new technologies are reviewed by appropriate counsel (Adrian Lawrence).

Article 12 of the Universal Declaration of Human Rights and the OECD Privacy Principles developed in the 1980s provide a common source for many data protection regimes, there is significant variation around the world. Mapping such varied and sometimes even conflicting regimes onto global distributed ledger implementations poses obvious difficulties, particularly where logical relationships between nodes bear no necessary connection to the physical jurisdictions in which they are located. However, this is not a new issue for global networks — the question of which law or laws apply to distributed digital activity has been a central concern for the application of laws online for the last 20 years, if not longer (Adrian Lawrence).

Since blockchain technology only creates an infrastructure or medium enabling a variety of applications, it is yet to stir up much regulatory controversy in and of itself. This is as opposed to, say, crypto-assets, which may disrupt traditional value-transfer systems and have governments around the world scrambling to understand their legal consequences. As opposed to crypto-assets, most regulators' statements on blockchain technology have been positive. Led by the U.K., many countries including Australia, the U.S., Hong Kong, Malaysia, Singapore, Switzerland, Thailand, and United Arab Emirates have implemented or are exploring the idea of 'regulatory sandboxes' for blockchain (and other types of) innovation (Faden, 2019).

However, there may be a dichotomy in the various governments' approach to virtual currencies given the governments appear concerned about in light of the consumer protection risks, and blockchain technology as such on which the authorities have expressed no negative view. Since the blockchain is a new technology, most existing privacy laws around the world, would not contemplate privacy protections for blockchain participants in this sense (Johnston, 2016).

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## HEALTH MONITORING SYSTEM USING IOT

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#### **Abstract**

A health monitoring system is an extension of a hospital medical system where a patient's vital body state can be monitored remotely. Traditionally the detection systems were only found in hospitals and were characterized by huge and complex circuitry which required high power consumption.

Continuous advances in the semiconductor technology industry have led to sensors and microcontrollers that are smaller in size, faster in operation, low in power consumption and affordable in cost.

This has further seen development in the remote monitoring of vital life signs of patients especially the elderly. The remote health monitoring system can be applied in the following scenarios:

- 1. A patient is known to have a medical condition with unstable regulatory body system. This is in cases where a new drug is being introduced to a patient.
- 2. A patient is prone to heart attacks or may have suffered one before. The vitals may be monitored to predict and alert in advance any indication of the body status.
- 3. Critical body organ situation.
- 4. The situation leading to the development of a risky life-threatening condition. This is for people at an advanced age and maybe having failing health conditions.
- 5. Athletes during training. To know which training regimes will produce better results.

Health has prime importance in our day-to-day life. Sound health is necessary to do the daily work properly. This research aims at developing a system which gives body temperature and heart rate using LM35 and pulse sensor respectively.

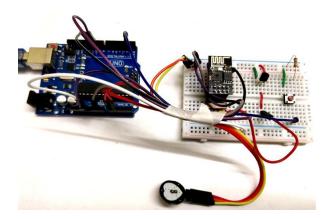
These sensors are interfaced with controller Arduinouno board .Wireless data transmission done by Arduino through wifi module. ESP8266 is used for wireless data transmission on IoT platform i.e. Thing speak. Data visualization is done on Thing speak. So that record of data can be stored over period of time .This data stored on web server so that it can seen to who logged.

- Old age patients and children with heart problem should be periodically monitored.
- And their loved ones or consulted Doctors need to be informed about their health status from time to time.
- This proposed system uses sensors that allow to detect heart rate of person using temperature as well as heart beat sensor, to keep track of patient's health, even if the person is at home.

**Keywords:** HMS, Dual In-Line Packages, Liquid Crystal Library

#### Introduction

This research "HEALTH MONITORING SYSTEM" are used to collect health related data i.e. for data acquisition. Communication can be done by controller for sending data on internet wirelessly. It can be used by rural hospitals. Continuous health monitoring can save up to 60% of human lives through timely detection to prevent heart attack.



## **SYSTEM REQUIREMENT SPECIFICATION**

# **Software Requirements:**

ArdiunoIDE

# **Hardware Requirements:**

Ardiuno UNO

Pulse Sensor

LM35 (Temperature Sensor)

ESP8266 (WI-FI Module)

LCDdisplay[16\*2]

Breadboard

Resistor

hookup wire

7805 voltage regulator

# Programming languages used:

Embedded C

# **Technology Overview**

## IoT:

The term "The Internet of things" (IoT) was coined by kelvin Ashton in a presentation to proctor & Gamble RFID (used in bar code detector) for the supply-chain management domain

The 'things' in IoT can be any device with any kind of built –in-sensor with the ability to collect and transfer data over a network without manual intervention.

IoT is a concept that connects all the devices to internet and let them communicate with each over the internet.IoT is a giant network of connected devices- all of which gather and share data about how they are used and the environments in which they are operated.

# **SOFTWARE REQUIRED**

## **Ardiuno IDE:**

- The Ardiuno integrated development environment used to write and upload programs to ardiuno compatible boards, but also, with the help of 3<sup>rd</sup> party cores, other vendor development boards.
- The source code for the IDE is released under the GNU General public liscence, version 2.
- The Ardiuno IDE supports the language of C and C++ using special rules of code structuring.
- O Ardiuno is a micro-controller development board series Uno Mega, Nano Mini etc. are a few examples. Now, any micro controller (here it is Atmega 16U2 on the Ardiuno UNO) That needs to be programmed is basically fed with hex code version of the code written in high level(english) language. So, ardiuno development boards are fed with the code via their Arduino IDE.
- This document explains how to connect your Uno board to the computer and upload your first sketch.
- O The ArduinoUno is programmed using the Arduino Software (IDE), our Integrated Development Environment common to all our boards and running both online and offline. For more information on how to get started with the Arduino Software visit theGetting Started page.
  - Use your Arduino/Genuino Uno on the Arduino Web IDE
  - Use your Arduino/Genuino Uno on the Arduino Desktop IDE
  - Install the board drivers
  - Open your first sketch
  - Select your board type and port
  - Upload the program

# **Hardware requirement**

## **Arduino UNO**

Arduinouno is microcontroller based on ATMega 328. Simulation is done on Arduino IDE software. The ATMega 16U2 provides serial data to the main processor and has a built-in USB peripheral Arduinouno power cable standard A-B USB cable. It has 14 digital I/O pins.



There are two components in an arduino board from a programming perspective, one is the microcontroller that stores your program and another is an IC which acts as the bridge between the computers USB and the microcontroller that is Atmega328p.

Now the microcontroller is same on both the boards that is atmega328p, the programmer is different.

In case of Atmega16U2 one ,it is a microcontroller which has been formatted with a firmware to act as the USB to TTL convertor, this is the official method used by original arduino boards after they discarded FTDI, This is better and efficient although Unless and until you have serious applications it does not offer much improvements and is costly

# **Pulse sensor:**

Pulse sensor is design to give analog output of heart beat when a figure is placed on sensor. It starts working; LED on top side will starts blinking with each beat. To see the sensor output, output pin of sensor is connected to controller. The working principle of sensor is based on light modulation by blood flowthroughnerves at each heart pulse.

Heart beat **sensor** is designed to give digital output of heat beat when a finger is placed on it. When the heart beat **detector** is working, the beat LED flashes in unison with each heart beat

# Pulse Sensor is a plug-and-play heart-rate sensor for Arduino.

It can be used by students, artists, makers, and developers who want live heart-rate data into their projects.

# The Pulse Sensor Kit includes:

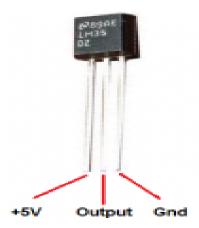
1) Soft braided-wire ribbon cable. Not kidding, that's one nice cable!

- 2) An Ear Clip that's perfectly sized to the sensor.
- 3) A Velcro Finger Strap, just like the pro's.
- 4) Transparent Vinyl Dots, which make electrical insulation simple.
- 5) The Pulse Sensor also has 3 sewing-holes, for you "Wearable's People".



## **LM35(Temperature Sensor):**

The LM35 is an integrated circuit sensor that can be used to measure temperature with an electrical output. The LM35's low output impedance, linear output and precise inherent calibration make interfacing to readout or control circuitry especially easy. It has find its applications on power supplies, battery management, appliances etc.



The LM35 IC has 3 pins-2 for the power supply and one for the analog output. It is a low voltage IC which uses approximately +5VDC of power. The output pin provides an analog voltage output that is linearly proportional to the Celsius (centigrade) temperature.

## Working of LM35(Temperature sensor):-

There are two transistors in the center of the drawing. One has ten times the emitter area of the other. This means it has one tenth of the current density, since the same current is going through both transistors.

This causes a voltage across the resistor R1 that is proportional to the absolute temperature, and is almost linear across therange. The "almost" part is taken care of by a special circuit that straightens out the slightly curved graph of voltage versus temperature.

The amplifier at the top ensures that the voltage at the base of the left transistor (Q1) is proportional to absolute temperature (PTAT) by comparing the output of the two transistors.

The amplifier at the right converts absolute temperature (measured in Kelvin) into either Fahrenheit or Celsius, depending on the part (LM34 or LM35). The little circle with the "i" in it is a constant current source circuit.

The two resistors are calibrated in the factory to produce a highly accurate temperature sensor.

The integrated circuit has many transistors in it -- two in the middle, some in each amplifier, some in the constant current source, and some in the curvature compensation circuit. All ofthat is fit into the tiny package with three leads.

## ESP8266(Wi-fi module):-

ESP8266 is Wi-Fi enabled system on chip (SoC) module developed by Espressif system. It is mostly used for development of IoT (Internet of Things) embedded applications.



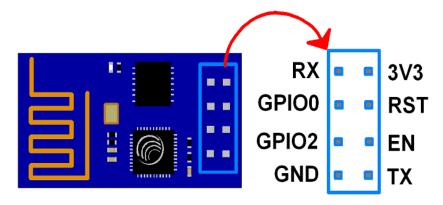
## ESP8266-01 WiFi Module

ESP8266 module is low cost standalone wireless transceiver that can be used for end-point IoT developments.

To communicate with the ESP8266 module, microcontroller needs to use set of AT commands. Microcontroller communicates with ESP8266-01 module using UART having specified Baud rate.

ESP8266 Firmware has been provided in binary format files (.BIN) that can be downloaded directly on the ESP8266 chip.

These binaries are generated using ESP8266 SDK (Software Development Kit), which is an application development platform produced by Espressif. Linux OS is required to compile the ESP8266 SDK. Windows user can use virtual machine.



ESP8266-01 Module Pins

**3V3**: - 3.3 V Power Pin.

GND: - Ground Pin.

**RST**: - Active Low Reset Pin.

**EN**: - Active High Enable Pin.

TX: - Serial Transmit Pin of UART.

RX: - Serial Receive Pin of UART.

**GPIO0 & GPIO2**: - General Purpose I/O Pins. These pins decide what mode (boot or normal) the module starts up in. It also decides whether the TX/RX pins are used for Programming the module or for serial I/O purpose.

To program the module using UART, Connect GPIO0 to ground and GPIO2 to VCC or leave it open. To use UART for normal Serial I/O leave both the pins open (neither VCC nor Ground).

## **LCD Display**:

The LiquidCrystal library allows you to control LCD displays that are compatible with the Hitachi HD44780 driver. There are many of them out there, and you can usually tell them by the 16-pin interface. The LCDs have a parallel interface, meaning that the microcontroller has to manipulate several interface pins at once to control the display. The interface consists of the following pins:

A register select (RS) pin that controls where in the LCD's memory you're writing data to. You can select either the data register, which holds what goes on the screen, or an instruction register, which is where the LCD's controller looks for instructions on what to do next.

A Read/Write (R/W) pin that selects reading mode or writing mode

An Enable pin that enables writing to the registers

8 data pins (D0 -D7). The states of these pins (high or low) are the bits that you're writing to a register when you write, or the values you're reading when you read.

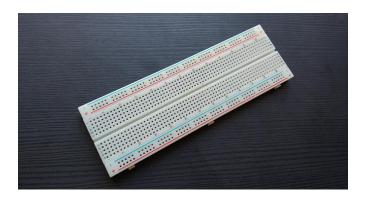
There's also a display constrast pin (Vo), power supply pins (+5V and Gnd) and LED Backlight (Bklt+ and BKlt-) pins that you can use to power the LCD, control the display contrast, and turn on and off the LED backlight, respectively.

The process of controlling the display involves putting the data that form the image of what you want to display into the data registers, then putting instructions in the instruction register. The LiquidCrystal Library simplifies this for you so you don't need to know the low-level instructions.

The Hitachi-compatible LCDs can be controlled in two modes: 4-bit or 8-bit. The 4-bit mode requires seven I/O pins from the Arduino, while the 8-bit mode requires 11 pins. For displaying text on the screen, you can do most everything in 4-bit mode, so example shows how to control a 16x2 LCD in 4-bit mode.

## 2.2.6. Breadboard

A breadboard is a simple device designed to let you create circuits without the need for soldering. They come in various sizes, and the design can vary, but as a general rule they look something like this:



If you've never seen one before, you might wonder how to tell which holes do what. It becomes a little easier to understand what's going on when you see one from the bottom.

The two larger pieces of wire down each side are typically used to connect a power source to the board. They are usually referred to as **power rails**. The other smaller pieces of wire running perpendicular all the way across the board are used for **components** in your circuit. This diagram will help visualize this pattern from the top. The power rails run horizontally as two rows at the top and bottom. Meanwhile, the vertical columns run inwards as you move down the board.

If you were to pull any one of these metal pieces out, you would see their purpose. They're designed to grab onto the legs of any components pushed through the breadboard holes. This allows you to test circuits without having to worry about soldering, or making a good contact with the board.

As a general rule, this is how all breadboards operate, though they can come in a variety of sizes. Some breadboards have **binding posts** to attach to a power supply, but you can get by just fine without them. Also, most breadboards are designed to clip together, in case you need loads of room for a mega-project!

# Integrated Circuits (IC) and Dual In-Line Packages (DIP)

See that little gap in the middle of the breadboard? That gap is there for a reason. Integrated Circuits!

Integrated Circuits (IC) are in almost every electronic device. They run motors, regulate voltage, act as timers, perform logic tasks, and do pretty much anything you need them to.

ICs can have different numbers of pins, sizes, and functions. However, many ICs comply to a standard called Dual In-Line Packages (DIP), meaning they all share a set width. That width is—you guessed it—exactly the right size to fit across the gap in the middle of the breadboard. This makes it much easier to work with ICs without worrying about accidentally connecting the wrong pins together.

## **Resister**

Resistors are the most commonly used components in electronic circuits and devices. The main purpose of a resistor is to maintain specified values of voltage and current in an electronic circuit. A Resistor works on the principle of Ohm's law and the law states that the voltage across the terminals of a resistor is directly proportional to the current flowing through it.

The unit of resistance is Ohm. The Ohm symbol shows resistance in a circuit from the name Geog Ohm – a German physicist who invented it.

There are different types of resistors available in the market with diverse rating and sizes. Some of these are described below:-

- Wire wound resistors
- Metal film resistors
- Thick film and Thin film resistors
- Network and Surface Mount Resistors
- Variable Resistors
- Special resistors

## Hook-up wire



Hook-up wire and lead wire

# When Would Hook-Up Wire Be Used?

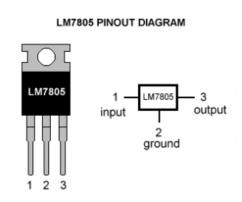
Hook-up wire is in the family of lead wire that may be used for low-voltage, low current applications and is a single insulated conductor. Hook-up wire is frequently used in control panels, automotives, meters, ovens, as internal wiring of computers, electronic equipment, business machines and appliances. The wire is most often used within enclosed electronic equipment. Certain types of the lead wire may even be used in challenging military applications.

# What Types of Insulation Materials Are Available for Hook-Up Cable?

- PVC
- PTFE
- EDPM (ethylene-propylene diene elastomer)
- Hypalon
- Neoprene
- Silicone rubber

## 7805Voltage regulator

Voltage sources in a circuit may have fluctuations resulting in not providing fixed voltage outputs. A voltage regulator IC maintains the output voltage at a constant value. 7805 IC, a member of 78xx series of fixed linear voltage regulators used to maintain such fluctuations, is a popular voltage regulator integrated circuit (IC). The xx in 78xx indicatethe output voltage it provides. 7805 IC provides +5 volts regulated power supply with provisions to add a heat sink.



## 7805 Rating

- Input voltage range 7V- 35V
- Current rating  $I_{c} = 1A$
- Output voltage range  $V_{\text{Max}=5.2V}$ ,  $V_{\text{Min}=4.8V}$

## Pin Details of 7805 IC

Pin No.	Pin	Function	Description
1	INPUT	Input voltage (7V-35V)	In this pin of the IC positive unregulated voltage is given in regulation.
2	GROUND	Ground (0V)	In this pin where the ground is given. This pin is neutral forequally the input and output.
3	OUTPUT	Regulated output; 5V (4.8V-5.2V)	The output of the regulated 5V volt is taken out at this pin of the IC regulator.

As you may have noticed, there is a significant difference between the input voltage & the output voltage of the voltage regulator. This difference between the input and output voltage is released as heat. The greater the difference between the input and output voltage, more the heat generated. If the regulator does not have a heat sink to dissipate this heat, it can get destroyed and malfunction. Hence, it is advisable to limit the voltage to a maximum of 2-3 volts above the output voltage. So, we now have 2 options. Either design your circuit so that the input voltage going into the regulator is limited to 2-3 volts above the output regulated voltage or place an appropriate heatsink, that can efficiently dissipate heat.

## What to do with all the heat?

7805 is not very efficient and has drop-out voltage problems. A lot of energy is wasted in the form of heat. If you are going to be using a heatsink, better calculate the heatsink size properly. The below formula should help in determining appropriate heatsink size for such applications.

Heat generated = (input voltage -5) x output current

If we have a system with input 15 volts and output current required is .5 amperes, we have:  $(15-5) \times 0.5 = 10 \times 0.5 = 5W$ ;

5W energy is being wasted as heat, hence an <u>appropriate heatsink</u> is required to disperse this heat. On the other hand, energy actually being used is:  $(5 \times 0.5 \text{Amp}) = 2.5 \text{W}$ .

So twice the energy, that is actually utilized is wasted. On the other hand, if 9V is given as input at the same amount of load:  $(9-5) \times 0.5 = 2W$ 

2W energy will be wasted as heat.

What we learn: Higher the input voltage, less efficient your 7805 will be.

An estimated efficient input voltage would be at about 7.5V.

# Programming language used:-

# Embedded C

C is widely used general purpose high level programming language mainly intended for system programming. Embedded is an extension to C programming language that provides support for developing efficient programs for embedded devices.

## **Purpose:**

# 5 Reasons to Build a Health Monitoring System for a Hospital-

According to the Centres for Disease Control and Prevention (CDC), in the US, about 1,700 people die every day from heart disease. One of the main reason for the high number of deaths is the absence of timely and qualified assistance. Continuous health monitoring can save up to 60% of human lives through timely detection to prevent heart attack.

## The purposes are:-

# • It is portable

Heart rates vary by age with young people usually have a higher heart rate than people over 60 years old. One common issue for every age group is that they are not very good at dealing with medical equipment. Also, larger, stationary monitoring equipment can only be used in hospitals while a patient is in bed. The need for a device, which allows patients to track their own health conditions is clear.

Qualities of a smart health monitoring systems:

- small size
- easy-to-use
- light weight
- portable

## • It can monitor health conditions all the time

People use HMSs in hospitals and clinics, for home care and to track the vitals of athletes including their heart rate, blood pressure, and body temperature. All this data can be tracked by various sensors integrated into the HMS.

Health issues are occurring more frequently than 30 years ago because of industrialization, climate change and technical progress that has led to decreased physical activity. Saving lives requires monitoring the health conditions of people who have chronic diseases or heart-related problems daily. Detecting problems early can extend lives and reduce morbidity from disease.

# • It can be cheaper than existing solutions

The cost-effectiveness of the solution is one of the main factors when deciding to develop an HMS. Either way, the number of lives that could be saved depends on whether they have the

necessary tools. This is why development a system that only has the necessary functions will help reduce expenses on the HMS design.

Another aspect that can reduce costs is using easily accessible, widely used and fully configurable components to develop the HMS. Using programmable components removes the likelihood that you will choose an inconvenient, non-cost-effective device for the system. The best solution is to build a healthcare monitoring system based on IoT.

# • It simplifies health monitoring for medical staff

A simple system is most useful when it comes to monitoring health conditions of a particular patient. This patient can stay at home and people close-by or doctors on duty will always be updated to respond to emergencies.

However, medical organizations have many patients and using a system like this for each patient is not cost-effective or efficient. They need one advanced system to monitor every patient in a facility. This is why a health monitoring system for hospitals is needed, so that the HMS would be able to store and recognize data for each patient.

# • It is multifunctional

The multi-functionality of the HMS provides medical staff with timely information and suggestions to stabilize a patient.

The data received from the sensors is stored in a cloud database. The data from the sensors is then processed in two ways:

- 1. On-board processing
- 2. On-server processing

The first way means processing data on the PC to detect abnormalities immediately and take the necessary steps before the patient reaches a hospital. On-server processing requires more resources for processing but it provides more accurate analysis.

An HMS like this provides the following services:

- Hospital services
- Cloud storage services
- Real-time action suggestions
- Emergency response services
- Parental monitoring services

## **Future scope:**

- In order to get alerts on mobile phone when a patient is in danger, we can also set a threshold value. And when the result will greater the threshold an alert will be send to the parents as well as docter.
- We can also implement a GPS along with this to see the location of patient from any random location.
- ECG sensor can be used with it to see the electrocardiogram of patient and also monitoring purpose

# Conclusion

Health monitoring system using IoT update the data on website. Many further improvement can be made in this system to make it better and easily adaptable such as adding more advanced sensors.

Cost reduction pressures and the need for shortened in-patient stays are promoting the use of wireless patient monitoring system in hospitals.

In this pandemic situation, this system is very helpful to people.

To better process management, superior flexibility and increased efficiency within hospitals is further underliving the appeal of wireless networking options the patient monitoring system.

Here I am tacking the input parameters as heart beat this is sensed by fronted electronics circuit and then the heart beat is calculated with real time clock.

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# NPCI'S VOLUME CAP CIRCULAR:- IMPACT ON DIGITAL PAY-MENT PLAYERS AND ITS FUTURE IMPLICATIONS

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## Abstract

In the journey of Digital India, India is moving towards becoming a cashless and paperless economy. Establishment of National Payments Corporation of India (NPCI) is major step towards the digitalisation of payments. This Not for profit corporation is established by Reserve bank of India along with the Indian banking association (IBA) under the provisions of the Payments and Settlement System Act, 2007, for creating a robust payment and settlement infrastructure in India. The company is focusing on bringing innovations in the retail payment system with the use of technology for achieving greater efficiency in operations and widening the reach of payments system. NPCI develop different technologies to accomplish its objective of paperless and cashless economy. These innovations include RuPay, Immediate payment service (IMPS), Aadhaar Based Payment System (ABPS), Unified payment system (UPI), Bharat Bill Payment System and many others. Unified Payments interface (UPI) has been termed as the revolutionary product in the Indian digital payments system. With the help of UPI we can easily transfer our funds from one bank account to another. UPI with the help of payment service providers performs the function of funds transfer. These payment service providers are different banks. At present there are 220 live banks are the members of UPI. There are various mobile apps and Third party application providers provide UPI fund transfer services. Some of these are Paytm, Google pay, Phonepe, Amazon pay etc. To regulate payments market, NPCI issue guidelines to these payment systems. With different circulars and notifications, NPCI monitors the working of these service providers. This research work relates to one of such circulars issued by NPCI to fix a volume cap on digital payment players. NPCI fixes the volume cap of 30% for third party application providers. This guideline is going to affect different e-payment players differently. Apps like Phonepe, Google pay are covering about 81% of the payments market. Without mentioning name, NPCI is trying to monitor the market share of these private players to prevent them from becoming only holders of payment markets. The main purpose of this research is to study the impact of this restriction of 30% cap on the digital players and to study the requirements behind fixing such caps. Main finding of this research work is that this is very optimistic step taken by NPCI because in long run this is going to benefit all the payment players and mitigate the risk of supporting bank.

**Keywords:-** Digital payments, Payment service providers, third party application providers

## 1. Introduction

India is moving towards becoming a cashless economy. The dream of Digital India of our present Prime Minister Mr. Naredhra Modi is about to become real in coming future. Advancement of e-payment system is proof of this. In India's journey towards becoming a cashless economy, two words play a big role. These two words are 'Demonetization' and 'Covia-19'. These are not only words. These leverages are pushing India to adopt the digital technologies wholly. Demonetisation is performed the role of foundation brick up an expansion of digital payments and Covid-19 is becoming the most source to create up the digital payments ecosystem.

"As per the recent forecasting done by Accenture and released on November 24, 2020 – about 66.6 billion transactions worth USD 270.2 billion are expected to shift from cash to cards and digital payments by 2023 in India, and further increase to USD 856.6 billion by 2030. Consistent with the report, the payment gateway aggregator market in India is currently estimated to be at Rs.9.5 trillion." (New Indian Express, 2020)

Covid-19 looks like another catalyst for the industry. Digital payment providers are quite hands-on in terms of responding to the present situation, by offering enhanced support on essentials like offering groceries, masks, sanitisers, offering integration with donations.

There are sort of modes are used for digital payments in India. These all modes are collectively contributing towards increasing digital payments. These modes are banking cards, USSD, AEPS, UPI, mobile wallets, bank prepaid cards, point of sale, internet banking etc.

# 2. Research objective

The main purpose of this research paper is to review the impact of 30% volume cap on working of various digital payment players. NPCI put some restrictions on the third party application providers to watch their transactions. There are various payment players working to grab the share of online transactions like Paytm, Phonepe, Googlepay, Amazon pay, whatsapp pay and so on. These guidelines are getting to affect these players positively or negatively. The most research objective is to review its future implications on digital payment players.

# 3. Research methodology

The most source of knowledge is official sites of UPI and NPCI. Different published articles in periodicals are main source. Statistics have followed from published reports of NPCI and UPI. Articles published on different website form the bottom for the findings of this research work.

## 4. Review of literature

Sr.	Title of the paper	Publication year & Au-	Publishers	Description
no.		thor		
1	NPCI: chartering a payment freeway	G.Ramesh, Anand Jangid, Lewin Sivamalai et al. (2020)	IIM Bangalore Research paper	This paper tells about the NPCI and its growth and its journey towards providing the 'best network globally'. This paper tells us how efficiently NPCI is working and providing best payment structure for all say, B2b, B2C, P2P, G2P etc. (G.Ramesh, 2020)
2	UPI based mobile banking application -security analysis and enhancements.	K. Krithiga Lakshami, Himanshu Gupta, Jayanthi Ranjan,( 2019)	Amity interna- tional confer- ence on artifi- cial intelligence	This paper discusses UPI based mobile apps and information securi- ty enhancement pro- posals w.r.t. authentica- ton and authorization. (K.krithiga Lakshami, 2019)

3	Unified Payment	Rahul Gochhwal(2017)	American	This paper impart us
	Interface (UPI) -		Journal of In-	with the knowledge of
	An advancement in		dustrial &	technology working
	payments system		Business Man-	behind UPI and how
			agement	effortlessly and in real
				time UPI transfer funds
				from one account to
				another account.
				(Gochhwal, 2017)

The above-mentioned research works frame a base for our research work and provide us details on the workings of NPCI and UPI. Before studying the impact of NPCI's circulars on UPI, allow us to undergo their meanings.

## 5. National payments corporation of India (NPCI)

National payments corporation of India may be a not for profit organisation, which was established in 2008 as an apex body for operating retail payments and settlement systems in India. NPCI has initiated by RBI and IBA for creating a robust payment and settlement infrastructure in country. The main objective behind its formation was to integrate all the payments mechanism available within the country and to form it uniform for retail payments. It has provided a number of ways to make payments. These are

- 1. Rupay cards
- 2. Unified payment interface (UPI)
- 3. BHIM(Bharat interface for money)
- 4. Immediate payment services(IMPS)
- 5. BHIM Aadhaar

Recently, it has launched UPI2.0 to offer more secure and comprehensive services to consumers and merchants. As per the statistics provided by NPCI on retail payments, UPI is the most preferred way for digital retail payments. The statistics of Apr'21 shows 59.03% of total volume of financial transactions have transacted via UPI. This percentage is 61.25% in May'21 and is 60.80% in June'21. (national payments corporation of india, 2008)

## **6.** UPI (Unified Payment Interface)

Unified payment system is a moment real time payment system developed by National Payments Corporation of India facilitating inter-bank transactions. UPI introduced on April11, 2016. Reserve bank of India regulates this interface and works by instantly transferring funds between two bank accounts on a mobile platform. "As of December 2020, there are 207 banks available on UPI with a monthly volume of 2334.16 Million transactions and a value of Rs.4161.762billion (US\$58 billion) UPI witnessed 2210.23 Crore transactions till November 2020. As of May 2021, the platform has 100 million monthly active users in India with plans to achieve 500 million by 2025". IIT Madras is also working to integrate voice command feature that can support English and Indian vernacular language in future. (Wikipedia, 2020)

On 16<sup>th</sup> August 2018, UPI 2.0 launched which enabled users to link their overdraft accounts to a UPI handle. Users were also able to pre-authorise transactions by issuing a mandate for specific merchant. 2.0 version included a feature to view and store the invoice for the transaction.

## **6.1 Payment service providers (PSP)**

Banks that facilitate UPI are termed are payment service providers (PSP). PSP include that banks which have their own mobile applications to facilitate transactions.

## 6.2 Services provided by UPI

UPI is a real time payment system that allows sending and requesting money from one bank account to another bank account. Any UPI client App may be used and multiple bank accounts may link to single app. Money could send or request via

- Virtual payment address
- Mobile number
- Account number and IFSC code
- Aadhaar card Number
- QR code

# 6.3 Mobile applications and Third Party Application Providers

A third-party service provider is any unaffiliated person, company, or entity that performs service for a company. Third party service providers paid for their services, but do not have a stake or share in the company. Common third party service providers are marketing agencies, web-hosting platforms etc. these can be termed as mediators, arbiters. A mobile application is a computer program or software. A mobile application may be a first party application or third party application. Paytm, axis app are first party applications because these are controlled by same organisation or person who owns the AuthO domain. Google pay, what'sapp pay are third party applications because these are controlled by someone who most likely should not have any administrative access. All UPI transactions are possible with these types of applications.

Any UPI app can use payments and transfer fund from and to UPI enabled banks. Below is the list of some of the important mobile applications. These applications and various Payment service providers list down below:

TABLE 1

UPI apps	PSP
Airtel thanks	Airtel payment bank
Amazon pay	Axis bank
BHIM	NPCI
Google pay	Axis bank, HDFC bank, ICI-
	CI bank, SBI bank
Mi-pay	ICICI bank
Mobikwik	HDFC bank
JIO pay	JIO payments bank
Phonepay	Yes bank, ICICI bank, Axis
	bank
Paytm	Paytm payments bank
Samsung pay	Axis bank
What'sapp pay	ICICI bank, HDFC bank,
	Axis bank, SBI bank, JIO
	payments bank.

# 7. Regulation system followed by NPCI

NPCI issue various guidelines to manage its payment service providers and third party app providers. Up to May, NPCI have already issued 100 plus circulars to regulate and to direct different service providers and third party app providers. For instance, with circular number: - NPCI/2021-22/NETC/001, NPCI fix the responsibilities of its members and provide them a list of compliance documents checklist, which they have to submit timely to the NPCI.

# 8. Circular # 97: 30% volume cap on TPAP

As per the quantity cap circular no. NPCI/UPI/0C-97/2020-21 dated November 05, 2020, the following points are applicable:-

- 1. PSP and every TPAP should make sure that the total volume of the transactions initiated through the TPAP shall not exceed 30% of the general volume of the transactions processed in UPI, during the preceding three months (on a rolling basis) and
- 2. The Above said volume cap had been effective from 1<sup>st</sup> January 2021.
- 3. Existing TPAPs will have a period of two years from effective date of this volume cap to suit the provisions hereof (NPCI, 2008).

In indirect way, NPCI with this circular tries to limit the share of top leaders in payments business. Under the new rules, an app that has reached 25% of market share will receive an alert from NPCI, which it must acknowledge. The main objective behind such step is to supply diverse opportunity to the UPI ecosystem.

# 9. Why we'd like this 30% cap

Private partners like Phonepe and Google pay are covering approx 81% of digital payments market. No doubt, these are boosting UPI transactions day by day by providing smooth and secure transfers. These apps not only provide transfers but also ensure security and hurdle free transactions. NPCI is more concerned about future transactions and security associated with these transactions. These transactions are in Millions today, but in near future the amount of transactions are going to be in billions per day. With the rise in number, the probabilities of system collapse also increases. It is going to lead towards monopolisation of digital payments market. This is often the rational NPCI fixed such volume caps. We will understand the wants of this volume cap with the assistance of following research work.

# 10. Research work

#### 5.1 Third party application providers in India

There are total 16 TPAPs working in India. Amazon Pay, Bajaj Finserv Direct Ltd., Cointab, Cred, Google Pay, Phonepe, Samsung pay, WhatsApp are within the list. (national payments corporation of india, 2008)

# 5.2 Top third party application providers in India

# **Top UPI apps in APRIL 2021**

Currently, there are almost 16 major third party applications providers operational in India on UPI. According to recent reports published By NPCI, some of them are garbing the more market share. Recent statistics published in April 2021 also shows the phonepe as leading app in UPI transactions followed by Google pay and paytm payments bank respectively. These statistics are as follows:

TABLE: 2 (Transaction Statistics of April 2021)

TPAPS/ mobile apps/ payment	Customers transactions initiated	Customers transactions initiated
banks	in Volume (millions)	Value (in crores)
Phone pe	1189.89	234023.33
Google pay	905.96	190106.71
Paytm payments bank	320.78	36859.20
Amazon pay	49.12	4272.42

Source: NPCI

# 11. Research analysis

According to the April 2021 report, approximately 81% of total transactions had performed on Phonepe and Google pay and remaining share has distributed among different payment banks and Mobile apps. This market share is increasing day-by-day. (NPCI, 2008)

#### 12. Advantages of this volume cap

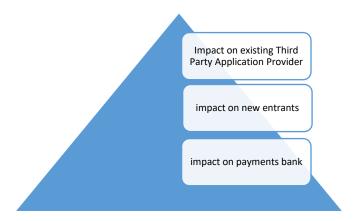
- A. **Increasing monitoring requirements**: Increasing share of only of a couple participants is forcing NPCI to place in situ a SOP i.e. standard operating procedure to watch the market share cap of TPAPs and take corrective measures just in case of any breach by a TPAP.
- **B.** Smooth running of UPI ecosystem: Once we check out the longer term of UPI, getting to billion transactions each day there is a requirement to smoothen out all the transactions within the UPI ecosystem. When there are multiple payment players then chances of system failure are often minimised.
- **C.** To stop the monopoly or duopoly: With the increasing market share of Phonepe and Google pay, the probabilities of monopolistic activities increased, which can ultimately led to the exploitation of consumers. To curb these monopolistic activities, NPCI wants to offer the chance to other market players also to enter the payment markets. With the multiple players, the extent of competition increased, which can cause benefit the purchasers. Otherwise, top leaders will start to dominate the payments market.
- **D.** To mitigate the danger of system failure: By fixing volume cap, NPCI is trying to scale back the danger of system failure with the rise in number of per day transactions. There are expectations that the number of transactions would be in billions per day. And if there is just one app supported by one or two banks (PSP), there are chances system failure as we all witnessed this just in case of Yes bank crisis.
- **E. Providing opportunity to other payment players:** As per NPCI there are sixteen third party application providers which include Amazon pay, Google pay, Cointab, Cred, Mi-pay, Mobikwik, Phonepe, Samsung pay, Whatsapp pay, ultracash and so on. NPCI is making efforts to permit other players to grab their market share. This is often only possible when major players allow them to enter. NPCI left with only chance to put restrictions on these major hubs. This may also cause growth of other payments bank also like paytm payments bank and jio payments bank because these guidelines are not for payments bank.

# 13. Disadvantages of this restrictions

- From a business perspective, the anti-competitive environment created by the quantity cap would have negative consequences on the entire UPI ecosystem by influencing quality, growth, and innovation.
- Upon reaching 30% volume, TPAPS will not have any reason to compete with one another. Inadequate competition will end in complacency, which, in turn, can also cause decline in quality of customer services.
- The circular can also discourage TPAPs from investing within the UPI ecosystem.
- Inadequate competition may create security threats to the customer payments.
- It can also negatively affect the image of umbrella organisation NPCI that can result in new umbrella organisations in payments market. (Chowdhury, 2021)

# 14. Impact of guidelines of NPCI: -

We can study the impact in three ways.



#### Impact on existing third party application providers

These guidelines will have neutral impact on top leaders because they are already doing well. NPCI provide them next two years to suit with the provisions. Users of Google pay and Phone pay do not have any sort of risk. Companies also got the chance to seem towards the peer-to-peer transactions and B2B transactions. With the expansion in digital transactions, these top leaders will automatically get their share. They will grab their market share with any extra ordinary efforts. This volume cap may be a positive chance for those that have very negligible share in the e-payments market. Companies like Amazon pay, What'sapp pay, Mobikwik, Cred etc. can increase their volume with some extra efforts. These sorts of restrictions ultimately cause innovations. These low share companies can cover every niche to extent their share.

#### Impact on new entrants

Such restrictions are just a call for participation to the new potential entrants to come and obtain their desired share. The number of persons using digital payments is on increase day by day. This is able to cause unexpected increase in number of transactions. To handle increased burden we would like more parties. That is why NPCI is taking such sort of steps.

#### Impact on payments bank

These guidelines are for third party application providers, not for payments bank like Paytm payments bank, JIO payments bank, Airtel thanks etc. These guidelines are like boosters for these payments bank. Paytm stands third at the present as per above data. It can increase its share by checking out its failures. This is often an excellent opportunity.

# 15. Future implications

- This will help to deal with the risks and protect the UPI system because it further scales up.
- ❖ All the players within the UPI ecosystem will have a chance to grow their volume further. This may increase the probabilities for brand spanking new entrants.
- ❖ The 2 years timeline provides for the sufficient time to review the balance within the UPI market share with the emergence of latest players and do not hinder UPI volume growth to the extent possible.

# 16. Findings and conclusion

With the COVID-19 pandemic, the move to digital has become even more important and thereupon, the expansion of Indian financial technology players. Over the past one year, UPI, India's burgeoning digital payments bet, has seen exponential growth. Apart from a small dip because the nationwide lockdown started, UPI's numbers had been growing constantly and these are getting to increase in future. With the increasing payment players, it becomes important to manage the e-payment market otherwise; it might become a market of one or two players. NPCI keeps in mind this view and with the assistance of such policies and guidelines try to regulate e-payments market. One more reason behind such step is increasing number of players in UPI ecosystem. These new players are struggling for his or her share. By putting market cap, NPCI give them an opportunity to grab the market share.

We can conclude for a regulated and safe payment market, it is important for NPCI to require such steps time to time. This is often an optimistic decision that is getting to benefit all, i.e. new entrants, existing players and our digital payments users. Various critics in sight that this step of NPCI will increase the competitors in E-payments market which will ultimately benefit our customers. On other hand, this circular will discourage TPAPs from investing in UPI ecosystem that will cause poor quality customer services. This might end in various security issues in payments market. New entrants will need to create trust within the users' mind which existing players already have.

In short, the circular of 30% volume cap have both sorts of impacts, positive also as negative. The necessity of the hour may be a consultative solution-based approach to deal with the various uncertainties in respect of NPCI's new thrust for digital payment apps.

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# MICROFINANCE: A STEP TOWARDS FINANCIALLY INCLUSIVE FUTURE IN INDIA

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#### **Abstract**

MFIs have come a long way in helping poor free themselves from the clutches of poverty. In Indian context Microfinance has gained much importance in the recent decades, primarily due to their efficiency in reaching out to the unbanked section of society. But, researchers have expressed progressive and adverse views on the contribution of Microfinance in India. MFIs still need to broaden their outreach to bring larger number of underprivileged within its purview. Due to the ever increasing demand for rural finance, Microfinance has a large number of opportunities its way to target this section of society. The formal financial institutions being incapable to cater to their needs, MFIs have a larger audience to target. Government needs to assist MFIs in making them more accessible to the poor by offering wider range of services, not only to survive but to raise their standard of living by adopting Financial Inclusion. The present paper focuses on the attempt made by microfinance in making trouble free credit available to the poor at an affordable price, thus achieving financial inclusion in India. The paper also suggests policies which can be tailor- made to cater to a wide variety of requirements of the poor.

Keywords: Financial Inclusion, NGOs, Microfinance, SHGs, banking, financial institutions.

#### 1. Introduction

Finance plays a pivotal role in the growth and development of a nation. Its availability and affordability are two important parameters which help in contributing to the upliftment of disadvantaged section of society. Hassle free accessibility of funds by the poor is an essential requirement to empower them economically and socially. Microfinance is one such source that is actively working for pulling out the poor from the vicious circle of poverty. It offers a wide range of services but most commonly used services are: microcredit, micro savings and micro insurance. The accessibility and impact of Micro financial services varies in different parts of the country. For example in southern states the contribution and success rate is higher as compared to other states. Primarily because of the active participation by the SHGs and NGOs in spreading awareness and reaching out to the poor. Other states need to cope up by increasing their scope with the support of government.

Financial Inclusion is also a process on the lines of Microfinance but it goes a step ahead of it. It is a process that offers financial solutions to each and every individual of the nation without any pre-requisites like the formal financial sector. It also takes in its purview mentally and physically disadvantaged, senior citizens, unemployed. Since the primary

motive is to provide financial access to all, there it utmost transparency in the system and there are no hidden expenses. Table 1 below shows the current status of financial inclusion in India:

Category of farmer house	Size class of land hold	Total farmer households (lakhs)	Non — indebted farmer households	Incidence of Exclusion	Proportion of non- indebted households in percentage
Marginal	Less than 1	589.06	324.04	55.0	70.6
Small	1.01-2.0	160.60	78.68	49.0	17.1
Semi- Medium	2.01-4.0	93.50	39.10	41.8	8.5
Medium	4.01-10	42.58	14.84	34.9	3.2
Large	10.0+	7.76	2.60	33.6	0.6
All sizes		893.50	459.26	51.4	100

Table no. 1: Status of financial inclusion in India

It can be inferred form the above data that the picture of financial inclusion in villages is quite dismal. Despite a humongous establishment of new branches of schedules commercial banks the outreach still is unable to cover the small farmers. The positive side is that atleast some of the farmer families have been financially included. The figures of the financially included farmers are expected to rise with the exponential hike in the scheduled commercial banks.

#### 2. Literature Review

**Ghosh (2005)** mentions that the banks and financial institutions have utterly failed in their attempt to eradicate poverty in the country. Microfinance emerged as an antidote to poverty. The only shortcoming faced by microfinance is limited outreach.

**Dev** (2006) makes a comparison of the use of formal and informal sources of finance by the farmers in the study area. It was observed that the studied sample use both informal and formal sources of finance for their financial needs. It was concluded that majority of households resort to informal sources of finance despite being aware of banking services.

**Subbarao** (2007) through his study opines that the size of debt owed by the households to urban and rural financial institutions is a very important indicator of degree of financial inclusion in a country.

Madira Sama(2008) emphsized on the fact that a number of factors are responsible for bringing about financial inclusion in India. Infrastructural development and connectivity does play an important role but socio-economic factors cannot be overlooked as regards financial inclusion. Iliteracy, income disparit affect financial inclusion greatly. The author has researched on the topic using financial inclusion index and suggests that in India financial inclusion is a matter of utmost priority.

Sarma and Pais (2008) highlights the role of infrastructure to ensure a better outreach of financial services of the unbanked. Not just the development of transport but also

development of communication services like telephone and internet would make banking outreach better.

**Sharma** (2009) in his study reveals that the banks need to resort to technology to make their outreach even better and technology should be applied in the entire channel of service providing. This will lead to higher degree of financial inclusion.

**Bateman** (2010) has opined that even the international donors like the World Bank and USAID were unable to contribute to the process of Financial Inclusion. The credit plan which was implemented to, spread microfinance in the nooks and corners of the country, resulted into a debacle and brought about more vulnerability to the poor. Thus enabling the elite class earning profits at the expense of the underpriviliged.

**Sharma and Pias 2011** conducted a study thereby concluding that there is correlativity between financial inclusion and level of human development. They used the Financial Inclusion index devised by Sarma and found out how important is an individual's income for increasing the level of financial Inclusion. Not only this they also emphasised on other important factors like literacy levels, income disparity and extent of urbanisation.

(Ghosh, 2012) compares the pattern of bank service usage in the high and lower income states. The lower income states show a lower use of banking funds and vice-versa. This shows the extent of limited outreach of banking services in low-income regions.

Pal & Pal (2012) in their study consider income as an important indicator for financial inclusion. They conducted a study in a poor region and concluded that roughly 26% of the families are financially included which shows a dismal picture of the status of financial inclusion in the country.

Anamalai and Vijayrani (2014) in their study conducted in Dhampuri district of Tamilnadu. The respondents consisted of tribal residents of Dhampuri. The study analysed the impact of financial services provided in the study area. The results show that more than 70% of the respondents were financially included and have bank accounts. More than 50% of the respondents are not aware of the concept of financial inclusion and financial literacy and its significance. They have opened zero balance account for their wages.

**George Muthoot ,CEO of Muthoot Finance (2014)** shows a grim picture of the status of financial inclusion in the country. Through his empirical findings he concludes that Finacial inclusion still seems to be an illusion because as per his findings only 35% of the Indian population is financially inclusive. A significant portion of more than 6,00,000 villages do not have any bank branch.

Monalisa (2015) conducted a study in the district Hisar to analyse the extent of financial inclusion. It also examined the problems faced by the respondents in availing banking services. The sample was collected using convenient random sampling. Out of the studied sample around 65% of the respondents were financially included. The respondents also suggested techniques to fix the problems being faced by changing the methodology of banking services.

**Pratishtha Paamshri Deka** (2015) in her paper emphasizes on the outreach of finances to all sections of society. She discusses the relation of financial inclusion with women empowerment. How imperative it is to enhance financial literacy at the lower levels too and steps should be taken to improve the accessibility of finance. Financial inclusion can make India a global player and will also make the unprivileged sections of society empowered. The author of this paper discusses the pertinent issues of financial inclusion.

**Verma & Garg (2016)** in their study highlighted the impact of the Pradhan Mantri Jan Dhan Yojna on the residents of a village in Ajmer in Rajasthan. Primary data of the study was collected from the workers of University of Rajasthan. The results showed a dismal picture of level of awareness regarding financial literacy and it was evident from the study that financial inclusion in the study area is a distant dream as of current situation.

**Novia Dewanty & Yuyun Isabanah** (2018) in their paper on Determinants of Financial Literacy assess the affect of various demographic factors on financial education. They also found out that the age, marital status do not influence the financial literacy. They opined that the level of education, income have positive implication on the level of financial literacy. The paper concluded that emphasis should be laid on enhancing financial literacy at an early age only.

**Kavita & Suman** (2019) in their study on financial inclusion discussed the determinants of financial inclusion. The government schemes like Jan Dhan Yojna and Pradhan Matri yojna were discussed. The paper focuses how each determinant of financial inclusion contributes to the accomplishment of the goal of financial inclusion inn the country.

#### 3. RESEARCH METHODOLOGY

# A. Research Objectives

- To examine the need for financial inclusion in India
- To highlight the role of SHGs in financial Inclusion in India.
- To study the approaches to Financial Inclusion.

# B.Methodology

The current research is based on secondary data. The data collected for research is through published sources I.e. journals, newspapers, annual reports. Data was collected through online sources like RBI website, Government committee reports, Ministry of Finance reports, IMF, NABARD, World Bank. Special reference of some articles related to financial inclusion in India and role of Microfinance in financial inclusion has been given. Annual reports for the period from 2009 to 2019 have been taken for study.

# 4. Findings and Discussion

# A. Financial Inclusion: Meaning and importance

Financial inclusion is a process of including anyone and everyone within the purview of banking facilities. The unbanked section of the society comprises of households which are not just unbanked but also unaware of the banking facilities. Banks have many specifications before lending money, such as income level, creditworthiness and work profile of the borrowers etc, therefore they are called 'fair weather friends'. The underprivileged strata of society are unable to fit into the banks' criteria of advancing money. They check the financial viability before lending to an individual or group of individuals.

Moreover, the process of applying for loan is lengthy and cumbersome, which discourages and scares away the poor from the very idea of borrowing money from banks. The document requirement laid down by the banks is too complicated to be met and fulfilled by them. They neither have the awareness, nor any sources to furnish such documents from government. The primary reason of underemployment and poverty in India is the inability of financial organisations to reach this less fortunate segment of society.

The aim of Financial Inclusion to include each and every individual to be a part of the financial literacy. The underprivileged households cannot reach the banking sector and

oblivious of the services and products being offered by banks other financial service providers.

The primary motive of financial inclusion is to make the poor capable of generating their income and becoming financially independent, thus providing a long term solution to poverty. It also aims at spreading credit awareness amongst the poor regarding the easy availability of credit for people from all walks of life. To educate them that the informal sources of finance are undependable and exploit them by charging exorbitant rates of interests. Table no. 2 below shows the progress of financial inclusion till the financial year ending 2017.

Table no. 2: Progress	of financial	inclusion	till the	financial	year	ending 2017

Parameter of financial inclusion	March 2010	March 2016	March 2017
Number of Bank branches in villages	33,378	51,830	50,860
Number of Business Correspondents (BCs)	34,174	531,229	543,472
Number of other forms of banking touch points	142	3,248	3,761
Total number of banking touch points	67,694	586,307	598,093
Number of BSBDA* (in millions)	73	469	533
Deposits in BSBDA (Amount in Rs. billions)	55	636	977

It is evident from the above table that banks and other services have substantially been increased in a span of 7 years. Not only the number of branches have risen, but also, many innovative practices have been introduced to increase the outreach.

# B. Objectives of financial inclusion

# • To render financial services to all

It aims at helping all the people avail financial service at low cost. It is a process to provide a wide range of services to everyone without any discrimination.

#### • To include poor in the financial system

It aims at bringing the poor within the ambit of financial services through the formal sources of finance by setting norms that exist in the financial industry.

# • Financial sustainability

It aims at building a financially sustainable future for the poor so that the weaker section are able to enjoy the services they deserve and they strive to avail.

# • Offer wide variety to poor

Financial inclusion proposes to offer a wide variety of financial institutions and financial services to the poor to choose from. This would increase the market competition and lower down the service costs.

#### C. Barriers to Financial inclusion

#### Lack of Financial Awareness

Majority of the unbanked crowd is unaware of availability of banking services. Or there is limited awareness o only limited products. They are unable to make full utilization of all the banking facilities and suffice their purpose and to eradicate poverty.

# • Unavailability of documents

The most common barrier is that the documentation required for availing banking services are unavailable with the poor. This is a failure on the part of the government to be unable to cover all rural population for their documentation.

# • Geographical distance

Financial organisations are usually setup in urban or semi-urban areas due to high percentage of banked population. The rural areas are excluded due to lower use of banking services in these areas and also due to the lack of financial literacy. The poor are thus neglected and are becoming even poorer due to inaccessibility to financial services.

# • Lack of trust on financial organisations

The poor are unable to trust the financial organisations for the purpose of resorting to them for their financial needs. They still prefer local money-lenders over financial organisations, being unaware of the fact that they are being exploited at their hands.

#### Low income

Due to low incomes also, the financially excluded section of the society are unable to open any bank accounts as they have nothing to save. Neither do they have knowledge about managing finances.

#### Unaffordable transaction costs

Banks charge fees for all the services rendered by them. Even the nominal charge by banks can be unaffordable for those living below the basic subsistence level. They barely have any savings to spare, so paying fee to banks might seem like wastage.

# • Lack of suitable products

Banks focus mainly on the banked section of society and ignore completely the unbanked section for designing their services. The services of banks are tailor-made to suit the needs of higher income group and not to suit the needs of low income group. They are reluctant in lending to the unbanked population.

# • Gender discrimination in the society

Women are more likely to be financially excluded due to the gender norms in our society. They are paid lower wages and are given less priority in the rural sector. They are still not given the social status which they deserve and are ignored with the point of view of financial awareness.

#### D. Microfinance and Financial Inclusion

Microfinance has risen as an antidote for the needy and the unbanked section of the society. Commercial banks being reluctant in lending money to this section have not proved very helpful. In such a situation MFIs have come to being to support the vulnerable and helpless poor strata of society. The Microfinance services give a long term solution to the borrowers by not only giving them credit, but also giving them solutions to eradicate their poverty completely. Some such assistances offered are management and marketing training, entrepreneurial support, basic financial education etc. The micro borrowers who are reluctant to borrow from the formal financial institutions because of the rigmarole involved prefer local money lenders due to the ease in availing credit. They are oblivious to the exorbitant interest rates that they are charged on borrowing form the local authorities. For them Microfinance is a savior due to the collateral free lending and interest rates primarily. The nature of services being offered by MFIs has broadened recently. It can be said to be one of the fastest growing institutions with the easy accessibility and affordability(Planning Commission, 2006). But the government support still lacks specially in the Northern states of India. Urban poor areas are also not fully developed in terms of lending Microfinancial support. There are certain issues that need to be addressed to make the full use of Microfinance Services for the economic development of the country.

# E. Role of SHGs in Financial Inclusion

A self —help group is a group of individuals from the financially excluded segment of the society formed with the common motive of addressing to the financial problems of the group members. The members jointly pool their savings which becomes the group corpus. This group corpus is utilized to meet the financial requirements of the members turn by turn depending on the requirements for co-members. All the members are jointly liable in case of default of any co-member. This helps them in managing the funds more judiciously and develops group cohesiveness. Gradually, the size of loan is also increased once the members learn to manage them properly. This encourages the banks to advance more loans to the SHGs without any collaterals.

SHGs help in bridging the gap between the poor and the formal financial institutions. SHG Bank linkage programme is one such step towards financial inclusion. The idea behind this programme is to link the banks(which includes commercial banks, retail banks, rural banks and cooperative banks) with the financially excluded segment of the society(which includes labourer, farmers, small traders). This initiative was started with a pilot project undertaken by NABARD in the year 1992. In this project some SHGs were linked with the banks. It became successful and thus increased the number of such programmes.

# *F. Role of microfinance in the economy*

Microfinance acts as a channel that connects the unbanked population with the financial organisations. It facilitates the poor in finding their way out of poverty by providing long term solutions. It aims at nnot just eradicating poverty but to empower the poor in raising their standard of living. Though the tool of Microfinance has not properly being utilized by the government. The past four decades have created an impact on the poverty position of the country after the initiation of programmes like Pradhan Mantri Jan Dhan Yojna in the year 2014. There have been persistent efforts by RBI to increase the penetration of financial services. Microfinance with the help of technological advancements plays a key role in bridging the gap between the unbanked and the banking institutions. It identifies, facilitates and provides services to the poor to make them productive. It is an important tool in making the nation financially inclusive by reaching out to poor in geographically isolated areas.

With the directions of RBI, the banks have also put efforts in achieving the goal of financial inclusion. There are several channels which are being setup to help the poor designed specifically to suit the needs of labourers, small businessmen, and other poor workforce. The MSMEs contribute a sizeable portion to the national income. RBI has made new legislations in respect to providing financial support to them to further encourage them by providing credit, imparting financial education, assisting them in marketing their products. Therefore according to RBI the idea being financial inclusion is to provide low cost banking services to the weaker and the vulnerable section of society thus making them a part of the financial chain. It can be summed up as under:

# • Impart financial education

Financial inclusion intends to educate the underprivileged class regarding the importance of finance and financial management in our lives.

# • Offering tailor made services

The range of services offered by banks are not made to suit the needs of the poor section. So, financial inclusion also aims at providing customized services to the poor as per their financial conditions and preferences.

# • Digital banking

Financial inclusion intends to offer digital financial solutions to the poor and thus educate them the use of electronic banking.

Table No. 3 below shows a region-wise distribution of scheduled commercial banks

Table no. 3: Region-wise distribution of scheduled commercial banks

Regions	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Northern	14069	15087	16176	17905	19681	22000	23843	24700	25481	25868
North Eastern	2181	228	2378	2556	2769	3129	3345	3562	3739	3847
Eastern	13670	14359	15138	16345	17469	19376	20893	21703	22361	22698
Central	16244	17280	18194	19948	21581	24096	25926	26797	27657	28168
Western	12664	13543	14417	15751	17013	18673	19821	20261	20880	21174
Southern	227974	24423	25814	28300	30766	33691	36654	37835	39203	39615

Source: RBI publications

The above data clearly shows that there has been a considerable increase in the number of commercial banks branches being opened form year to year till the year 2018 all over India which covers all the majority states and Union territories. This adds to the growth of financial Inclusion in the nation.

#### 5. Recommendations

# Wider range of financial organisations to be introduced.

There is a need to develop a wider variety of financial organisations that render services suiting the need of all segments of society. The existing financial institutions also offer a wide variety of products and services and apply varied business models but still fail to include the needs of weaker section. So, a legal framework needs to be designed and policies

to be made which promote healthy competition in the market to provide services at economical costs to all the users.

# Enhance the use of technology and drop the traditional methods of banking

It is apt to say that technology cannot be replaced by any other ways. For better and faster working advanced technology is the best tool to be applied. No industry can do without applying technology. Especially in the field of banking technological advancement can do wonders by solving the issues of outreach in a cost-effective manner. By using innovative practices better financial products can be offered at much lower transaction costs. The government must take necessary measures to design a framework and setting policies for monitoring the working of technology driven institutions and to allow new players in the market with advanced technology.

#### Widen the network of services

Just developing the infrastructure for banking is not sufficient to achieve the goal of financial inclusion. A strong channel to promote the services needs to be developed. Some cost-effective delivery channels can be setup to increase the awareness and outreach of financial services for the vulnerable section of society.

# • An advanced system for supervision to be developed

For achieving financial inclusion the policy-makers cannot leave any stone unturned. Therefore dopting technological methods for easy outreach can be resorted to for offering financial services to the poor yet that is not enough. A proper system for supervising the entire chain needs to be developed. An automated system for reporting is resorted to by many developed countries.

# • Introduction of need based financial products

The unbanked section of society is unbanked for a reason. One of the primary reasons is lack of savings while the other one is their unique requirements which the formal financial organisations are unable to meet. Customer-oriented products can be designed to address the overall requirements of the low-income groups.

# • Investing on better-quality financial infrastructure

Government has a key role to play in the development of financial infrastructure. Underdeveloped credit reporting systems are a major reason for the inaccessibility of poor to financial services. Advancing the reporting systems and introducing improved methods to expedite retail payments thus increasing the efficiency.

# Consumer protection by ensuring transparency

It is pertinent to note that the financial services may reach the consumers through developed systems but ensuring their proper delivery is also important. Like in case of informal money lenders, the financially illiterate or illiterate borrowers may be exploited and are charged unreasonable interest rates. Some standard systems need to be developed for rendering the services and to keep the borrowers.

# 6. Conclusion

The government visualizes financial inclusion as a step towards overall economic development. All the policies and procedures have been designed to achieve the primary goal of financial inclusion. All the financial sectors are working in coordination with each other to make financial inclusion a reality. This goal can only be achieved if the unserved are served the financial services of all kinds. SHGs, MFIs and NGOs are doing a commendable job in

spreading awareness and educating the poor, thus bridging the gap between the unbanked and the banking sector. The formal financial institutions are also playing pivotal role in making the funds and various other financial services easily accessible at the doorsteps of the poor.

The current study examines the role of MFIs and SHGs in the process of financial inclusion. It is appropriate to opine that by achieving financial inclusion the economic development of the country can be ensured but that does not work like a magic wand. Several policy and regulatory amendments need to be made by the authorities. The services rendered should not only encompass lending money to the low income group. Credit is not a long term solution to poverty in India, neither is it the best solution. Empowerment should be the long term goal which aims at financially sustainable future of the country. A suitable database should be developed so that only the deserving poor are served the loans and not the undeserving ones. MFIs ensure to develop a centralized system with the database of the borrowers to keep a track and to avoid duplicacy in lending chain. Government needs to provide the MFIs with all the required reinforcements like managerial assistance, technological tools and policy framework to help them achieve financial inclusion.

#### LIST OF ABBREVIATIONS USED

Abbreviation	Explanation
used	
SHG	Self Help Groups
NGO	Non-governmental Organisation
MFI	Microfinance Institutions
MSME	Micro Small and Medium Enterprises
NABARD	National Bank for Agriculture and Rural Development
IMF	International Monetary Fund

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Table no.3	Region-wise distribution of scheduled commercial banks

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# E-KRANTI: OVERVIEW OF ELECTRONIC SERVICE DELIVERY

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#### **Abstract**

Digital India is an ambitious plan by the Indian government to transform India into a digital society. The priority areas are: to create a digital infrastructure that is useful to all citizens across the country, and to ensure good governance on-demand services and citizens' digital authorization. The mission of the Digital India Project is to prepare India for the future of knowledge by making technology a central role in achieving change. Digital India is based on nine pillars: broadband, universal mobile access, public Internet access, technology-driven governance reforms, E-Kranti, information for all, electronics manufacturing, employment IT and early harvest programs, these are digital legacy capabilities These documents can provide a platform for all scholarships provided by the Indian government, from simplified online registration and hospitalization appointments to the widespread use of signatures, from the establishment of a national flexible electronic center to the establishment of an electronic development foundation (from the establishment of an electronic foundation) across the country The optical fiber backbone network infrastructure to develop next-generation networks heralds the convergence of voice, data and multimedia services. Digital India is the most comprehensive plan currently being implemented, aiming to use the huge potential of digital technology to push India forward.

# Keyword:- Digital India, broadband highways, e-government,

# 1. Introduction

e-kranti and the Indian government put the Digital India project at the top priority, which is a comprehensive plan to transform India into a digital society and knowledge economy. India's plan, e-government: technology-driven government reform and e-licensing (the provision of e-services), is directly related to e-licensing: the National E-government Program (NEGP)2. Kranti is essential to digital technology. India, and ensure the country's e-government, convenient management and good governance. The ITU Cabinet approved e-Kranti's approach and key components at its meeting on March 25, 2015, especially e-Kranti's vision, mission, key principles, methods and methods, planned management structure and implementation strategies, Including 44 mission mode projects and basic ICT infrastructure. E-Kranti's vision is to "transform governance through e-government transformation" and its mission is to "provide public services to citizens electronically through a multi-mode integrated and interoperable system, thereby promoting the transformation of the entire government while ensuring Efficiency, transparency and reliability. The prices of these services are reasonable.

Digital India consists of three main components: The safe and stable development of digital infrastructure. Provide public services in digital form. Universal digital capabilities. It is both a tool and beneficiary of other major government programs in India (such as Bharat Mara,

Sagamarah, Dedicated Freight Corridor, Industrial Corridor, UDAN-RCS, Bharat Net and Made in India). Digital India connects rural areas through high-speed Internet networks and improves digital literacy.

# 2. Research Methodology

The collection of the data was done primarily and secondary source and exhaustive review of related literature was done and a questionnaire was prepared in which the views of stockholder was taken. The finding reveals the clear state of stakeholder and their acquaintances with using digital India cam pan . The paper will focus on the few relevant suggestions which are needed for strengthening the application of digital India.

# The vision of the Digital India Project

The vision of the Digital India Project is the comprehensive growth of electronic services, products, manufacturing and employment opportunities. Bharat Broadband Network Co., Ltd. (BBNL), the government organization that implements the national fiber optic network project, will serve as the curator of the Digital India (DI)project.BNLordered United Telecommunications Co., Ltd. to connect 250,000 villages through GPON to provide broadband based on FTTH. The project is expected to be completed in 2017. The plan plans to create 28,000 BPO positions in each state and establish at least one shared service center in every Gram Panchayats in the state. In the 2016 budget of the Federation of India, 11 technical plans were announced, including the use of data analysis to detect tax evaders, which provides IT companies with huge leeway to develop the required systems. The plan is to connect 550 farmer markets in the country through the use of technology. Among Englishspeaking Indians, 10% live in rural areas. Everyone's peace of mind depends on their spoken language so that everyone can live their own lives. However, at this time, email addresses can only be created in English. In order to link rural India with digital India, the Indian government encourages large email service providers such as Gmail, Office and Rediff. Provide an email address in the regional language. Email companies have shown positive signs and are working in the same process. India's Data Xgen Technologies Pvt Ltd has released the world's first free language email address, named "DATAMAIL", which generates email IDs in 8 Indian languages (English). And 3 foreign languages: Arabic, Russian and Chinese. Data X Gen Technologies provides email services in 22 languages for a limited time. The pillar Indian government hopes to achieve multi-faceted growth through the "Digital India" plan. The government's goal is to identify the nine pillars of Digital India: universal access to broadband backbone mobile communications Public Internet access program. E-governance-government reform using e-licensing technology-electronic service information provision for the entire electronic product. Suitable for IT in the workplace. Applies to all urban and national information infrastructures. .

- 1:-By December 2016, 250,000 rural panchayat will be covered by broadband in all rural areas. DoT will be the hub department, and the project cost is estimated to be approximately Rs 32,000.
- 2:-In broadband networks in all cities, virtual network operators are used to provide services and communication infrastructure in new urban development's and buildings. going to need. .
- 3:-The National Information Infrastructure will connect networks such as State Wide Area Network (SWAN), National Knowledge Network (NKN) and National Optical Network (NOFN), as well as national and state cloud-based data centers. Provides horizontal

connections with 100, 50, 20 and 5 government offices/service points at the state, region, community and Panchayat level.



**Component 1:** The electronics and information technology department (DeitY) will be the node department and cost of the project. The two-year implementation and five-year service and support costs are estimated to be approximately Rs 15,686.

**Component 2:** Universal Mobile Access The plan is designed to penetrate the network and narrow the connection gap in the country. Covering 42,300 confirmed villages to ensure universal mobile communications in the country. DoT will become the hub department, and the cost of the project in the 2014-2018 fiscal year is approximately Rs 16,000.

**Component 3:** Public Internet Access Program The two sub-components of the public Internet access program are the Public Service Center (CSC) and the post office as a multifunctional center. Shared service centers will be strengthened, and the number of active companies will increase from approximately 135,000 to 250,000. 1 CSC per gram panchayat. CSC is becoming a viable multifunctional endpoint to provide government and corporate services. Gov. will be the focus of this plan. It is proposed to establish a total of 150,000 post offices as multiple service centers. The post will be the hub for the implementation of the plan.

**Component 4: E-government:** Government reform through technology The most important thing is to use IT to improve government business processes to improve transactions. The transformation of the government must therefore be implemented ministries/departments. The guiding principle for government reform through technology is: simplify forms and reduce profits: forms should be simple and easy to use, and only collect minimal and necessary information. Need to provide an online application to track your status and inter-departmental interactions. It should be mandatory to use online repositories, school passports, voting cards, etc., so that citizens do not have to provide these documents in actual form. Services and platform integration, UIDAI (Unique Identity Verification Agency in India), payment gateways, mobile platforms, electronic data interchange (EDI), etc. should be authorized to facilitate the provision of integrated services and interactions for citizens and businesses.

**Electronic database:** All databases and information should be electronic, not manual. Automation of government work processes: The work processes of government departments and agencies need to be automated to ensure effective government processes and make these processes transparent to citizens. Solve long-term problems. These will be improvements that have undergone major revisions.

**Component 5:** e-Kranti (NeGP 2.0)-Provide services electronically. The project includes 31 MMP projects (task mode).In addition, the Apex National Electronic Governance Program

(NeGP) Committee chaired by the Cabinet Secretary added 10 new MMPs to e-Kranti at its meeting on March 18, 2014. -All schools of e-courses will be connected to broadband. All middle and upper grades will provide free WiFi (covering approximately 250,000 schools). A national digital literacy training program was launched. (MOOC) has been developed and used for health technology e-education. Electronic health includes online medical consultation, online medical records, online dispensing and patient information sharing throughout India. The cover took place within three years.

**Agricultural Technology.** This will make it easier for farmers to obtain real-time price information, online resource ordering and cash payments, loans, and online support through **mobile banking.** Take preventive measures in real time and minimize the loss of life and property. Strengthen by using electronic court, electronic police, electronic prison and electronic law enforcement. Planning technology implements the draft national GIS task system to promote GIS-based planning, conception, design and implementation of decision-making. height. Cyber security technology is establishing a national cyber security coordination center to ensure the country's secure cyberspace.

**Component 6:** All Open data platform information and online hosting of information and documents make it easier for citizens to openly and easily access information. Will actively participate through social media and online platforms to keep citizens informed. **MyGov.**in has been introduced as a medium for exchanging ideas/suggestions with the government. This will promote two-way communication between citizens and the state. Support citizens on special occasions/programs via email and SMS. This leads to heavy use of existing infrastructure and requires limited additional resources.

**Component 7:** Electronics manufacturing-target import PURE ZERO target import PURE ZERO is a clear manifestation of intent.

- A. This ambitious goal requires coordinated action on many fronts. Taxes, incentives.
- B. Economies of scale, eliminating cost disadvantages

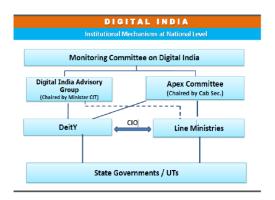
C. Fields of activity-impeccable design of high-quality products, set-top boxes, small-caliber terminals (VSAT), mobile, consumer and medical electronic products, smart meters, smart cards, micro ATMs, incubators, clusters, etc. Capacity development of government procurement. It will definitely fit. The existing structure is not sufficient to achieve this goal and needs to be strengthened.

**Component 8:** IT knowledge in the workplace A Corer student from small towns and villages received a 5-year IT knowledge training. Gov will be the focus of this plan. This agency has been established in all states in the Northeast to promote ICT-based development in these states. Trained 3 million service personnel to develop the skills to operate a viable IT service business. Will be the node department of the circuit. The telecommunications service provider (TSP) will train 5,000 farm workers to meet their own needs. The Department of Telecommunications (DoT) will be the focus of the plan.

Component 9: Early Harvest Project IT messaging platform DeitY has developed a mass messaging application that can reach elected officials and all government officials. Mobile phone 36 Cr and email 22 million are part of the database. -Provide welcome template. The My Gov platform can guarantee crowd sourcing of email greetings. The greeting portal was launched on August 14, 2014. Biometric Support The AADHAR-supported Biometric Support System (AEBAS) will be installed in all central government offices in Delhi by December 31, 2014, and elsewhere by January 26, 2015. Wi-Fi in all universities The plan

covers all universities in the National Knowledge Network (NKN). The Human Resources Development Department is the central department implementing the plan. Secure e-mail in government e-mail is the main communication method. Increase level by 1 million employees In the second phase, the infrastructure will be further expanded in March 2015 to cover a cost of 980,000 rupees and cover 5 million employees. God is the end of this plan. Public Wi-Fi hotspots Cities with more than 1 million residents and resorts will promote digital cities through public Wi-Fi hotspots. The plan is implemented by the Ministry of Telecommunications (DoT) and the Ministry of Urban Development. All books as e-books become e-books. The central agency of the program will be the Human Resources Department/Godhead. Provide SMS-based weather information, disaster warning, SMSbased weather information and disaster warning. The spiritual being Seva mobile platform is currently prepared and may be used for this purpose. The National Disaster Management Authority (NDMA) of the Indian science Department (IMD)/Ministry of the inside (MHA) of Science (MoES) are going to be the main target of the plan. National Lost and located Office. This makes it easier to gather and share data concerning missing and missing youngsters in real-time, and there's still an extended thanks to come in fighting crime and up timely response. The Ministry of girls and kid Development (WCD) will be the focus of the project.

#### MONITORING STRUCTURE



#### 3. Conclusion

The overall scope of the arrange is:

- (I) Prepare Republic of India for the long run of knowledge.
- (II) it's transformative, that is, IT (Indian talent) + IT (information technology) = IT (Tomorrow India) realizes
- (III) creating technology the key to change.
- (IV) As a cross-departmental framework arrange, the plan concentrates an oversized range of concepts and thoughts into an overall vision, therefore every plan and thought is considered a part of a broader goal. This structure makes the task transformative.
- (V) The Digital Republic of India arrange can integrate several existing plans for reorganization, adjustment, and coincident implementation. the stigmatization of programs akin to Digital India highlights its transformative impact. value and impact assessment, the overall cost of Digital India's current system is 100,000 rupees (only DeitY, DOT, and not different government departments pay 13,000 rupees on new plans and activities.
- (VI) The impact of Digital Republic of India will have an effect on the 250,000 broadband in rural villages in 2019, and it'll be popularized from 2020. internet imports of phone

services the value of wireless net access in colleges of all universities is 250,000 rupees; public Wi-Fi hotspots for voters to access digital integration: 1. seven points for IT, telecommunications and electronic monition preparation produce employment opportunities: direct 1.7 points, indirect value a minimum of 8.5 Divided into egovernment and e-services: throughout India, the govt is claimed to be the leader within the use of IT in the service industry-healthcare, education, banking digital citizenship-public cloud, net access. Challenges and changes have not designed a program of this scale. Each component/program has its own problems.

#### Personnel issues

- 1) NIC-needs to be updated and reorganized
- 2) Deit Y-needs a plan manager at least 4 more senior officials
- 3) ministries-requires CIO / CTO
- 4) can start from the top 10 CIO ministries
- 5) can be anyone, internal Or the government's external financial resources

#### 4. CHALLENGES & CHANGES NEEDED

- 1) Organize mainly around the current plan the best approach, some reorganization is required 2) Others are process improvements or better use of resources
- 3) Some new plans may be needed, especially in electronics and capability development in product manufacturing.

#### Coordination issues

- 1) The plan covers many other sectors.
- 2) Commitment and hard work.
- 3) Leadership and support are essential to success.

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# A Study on Rural Development Scheme and It's Contribution towards State Bank of India in Uthukuli Talauk

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#### **Abstract**

A Rural development usually refers to the method of enhancing the quality of life and financial well-being specifically living in populated and remote areas. This research aims in achieving the development of rural women by making use of the benefits offered and their valuable contribution towards SBI.

#### 1. Introduction

The central government provides a number of facilities and welfare schemes for women in India including loans and incentives for self-employed women. The government of Tamilnadu is providing an incentive of Rs.50000 for urban and rural women especially those with two daughters. They can make good use of this savings. This means that they can get the most out of their Savings, if they open a hundred rupees saving scheme in bank from the age of twenty onwards. So all these offers are not known to all the people of uthukuli viilage but only few get to know about it. All these offers can be availed by all the people if the awareness about the facilities and schemes of SBI through Television, Social medias, Newspapers, and Radio.

# 2. Objectives

- > For a female child
- > For women
- > For educated women
- For Agriculture women
- For urban women
- For Women Entrepreneur

# For female child:

An account opened for female child increases the interest rate on savings in rural areas whereas the free coupons will be offered yearly once for urban areas according to age.

#### For women:

Loans for those who have been following a bank account since childhood will be given to start their business after the age of twenty without any kind of interest. Additional benefits are also provided to rural women for their betterment. Even if there one or two are in a family, all the offers should reach them. If a family with two daughters have bank accounts from an early age till the age of twenty, both of them can easily start their own business without interest. The above statements can only be used by them if they create awareness among the people. By this way, women will not have to face difficulties when need of money later on.

#### For agriculture women:

The numberless women in our country are engaged in agriculture as men withequalimportance. Educated women are involved in farming in rural areas because of the central government providing loans for crops, fertilizers, and other requirements needed in agriculture. Most of the farmers will be able to avail of these benefits through SBI in India.

#### For urban women:

Urban women doesn't have enough land to cultivate, so they can be given extra privileges if they are interested in farming on the roof of the house without interest. This will enable women to showcase their talents in this society as well as the living criteria gets equalized as of the men.

#### For women Entrepreneur:

The countless women in India are doing their own business. The women in UK are of the opinion that they should start their own business. But they could not do their own business because they didn't have enough cash. They will get the benefits if they are done with below interest. Women, who are self-employed will be benefited if they get some discount on the loan taken from the bank (or) extend the grace period in case of loss in their business.

# **For Education women:**

In India, the central government provides numerous educational incentives. Tamilnadu is implementing this project well. SBI of India in UK also avails education loans to women for higher studies. Uthukuli rural women will gain some benefits, if they are given more time to repay their education loans.

# **Women Self Help Group (SHG):**

There are innumerable women self help groups. These village groups don't know that they will get some benefits in good away. SBI should make some kind of awareness through television, social medias, etc,. So, this will increase the number of women's self-help groups in Uthukuli. The government of Tamilnadu is providing bank credit facilities to a group of six or twelve members.

#### 3. Conclusion

All rural women will be benefitted, if all the above benefits are implemented not only in Uthukuli area but also in all the rural areas of Tamilnadu.

#### References

- > State Bank of India in Uthukuli
- ➤ Net source

# **GUIDELINES FOR AUTHORS**

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