International Journal of Research Culture Society

ISSN (O) : 2456-6683

Monthly Peer-Reviewed, Referred, Indexed Research Journal

Internationally approved Journal with Global Indexing

Impact Factor: 5.245 & 4.526 (SJIF)

Special Issue : 17

National Conference on

'Economic Instability: Antidote for Sustainability'

26th February, 2020

RESEARCH CULTURE SOCIETY & PUBLICATION

Email: editorijrcs@gmail.com

Web Email: editor@ijrcs.com

Cont. No: +91 9033767725

WWW.IJRCS.ORG

National Conference

on

Economic Instability: Antidote for Sustainability

26th February, 2020

The Managing Editor:

Dr. Chirag M. Patel

(Research Culture Society & Publication – IJRCS)

Co-editors:

Dr. R. Karunamoorthy

(Academic Administrator, Gopalan Foundation)

Dr. Siji K.

(Principal, Gopalan college of Commerce)

Organized By:

GOPALAN COLLEGE OF COMMERCE,

Seetharam Palya Basavanagar, Hoodi,

Bangalore, Karnataka - 560048

National Conference

on

"Economic Instability: Antidote for Sustainability"

26th February, 2020

(Conference Proceedings – Special Issue)

Disclaimer:

The author/authors are solely responsible for the content of the papers compiled in this conference proceedings – special issue. The publisher or editors does not take any responsibility for the same in any manner.

Published By:

International Journal of Research Culture Society (ISSN: 2456:6683)

Research Culture Society and Publication.

(Reg. International ISBN Books and ISSN Journals Publisher)

Email: editor@ijrcs.org / editorijrcs@gmail.com

www.ijrcs.org

ABOUT THE COLLEGE

Gopalan College of Commerce is one of the institution under the Gopalan Foundation provides variety of stimulating environment for intellectual development, free thinking, and personal growth. GCC Challenges its students with dynamic learning opportunities and equips them with the skills, insights, attitudes and practical experiences that are necessary to take up responsibilities in the society.

The institution aims at preparing students for positions in management and commerce, providing them with a broad, fundamental and specialized education, in a rapid changing interdependent, competitive business world. We provide students with specialized knowledge concepts, tools and their applications and to render practical exposure to perform professionally, ethically and successfully and to make them global leaders.

ABOUT THE CONFERENCE

A National Conference on "Economic Instability: Antidote for Sustainability" and paper presentation will be held at GCC on Feb 26th 2020, It will focus on Economic Sustainability in various sectors of the economy. It will also provide an ideal platform for the academicians, researchers and representatives from the industry.

A Challenging economic environment in India with significant downside risks and slowdown looming in all quarters raises a question on the cyclical or structural nature of the current economic scenario.

For the first time in 7 year the growth engines like private consumption, Investment and export, have slowed down significantly, with an increase in unemployment and inflation. Several core sectors continue to slump contributing to low demand for goods and services. The global trade policy uncertainties and geo-political events are impacting business investment, as capital flow has remained volatile. Foreign institutional investment has been volatile. The factors concerning growth, capital outflows and global trade disputes have had an impact on overall economy and the outlook. To boost the economy, demand and supply, various policy measures have been announced by the government. This includes liberalization of FDI norms, incentive to support several industries, tax structure on foreign portfolio investors and monetary policies seems to be futile.

The conference aims at bringing objective contribution for sustainability and growth across the various sectors of the economy.

EDITORIAL MESSAGE

Sustainability is an imperative for socio-economic well being of mankind. In Indian context Self-sustainability becomes inevitable due to recent instable economic indicators apparent fallout of accelerated global economic integration, coupled with degradation of eco-system. The disturbing disparity between rich and poor is a pointer to absence of self sustaining economy. Statistical data during 2018 showed that 73 percent of the wealth generated last year went to the richest one percent, while 67 crore Indians who comprise the poorest half of the population saw one percent increase in their wealth. The above paradox can be combated with self-sustaining economy.

Has our country slipping back in the club of so-called fragile five, the fragile-five club was coined to refer to excessive dependence of these countries on investment from outside to fund their economic growth. Disinvestment and FDI over the last decade is definite indication of dependence on foreign investments.

There is an ethical dimension to sustainability, the reality of poor and disadvantaged and the exploited always seeming to be the victims of corporate greed, government corruption or history demonstrates that at the core of sustainable development is a moral imperative. National conference on "Economic Instability – Antidote for Sustainability" will bring out antidotes for the self-Sustaining economic growth.

Gen. Secretary's Message

The First National conference on the theme 'Economic Instability – Antidote for Sustainability' by Gopalan College of Commerce in association with Research Culture Society on 26th February 2020 is quite timely and appropriate. The theme of the conference has great relevance in today's scenario. We believe that now is the time to unleash the power of our self-sustenance and demonstrate to the world that Indian economic self-sustaining capabilities are an asset to reckon with. I am indeed happy to note that this conference would provide academicians, students and industry a platform to express their views and make India into a self-sustaining economic power at global level. I am happy to see that Gopalan College of Commerce has taken up economics as a topic of deliberation and the present conference is the First in the series. This is a good initiative and I appreciate this. I am sure the conference will serve as an important milestone for our journey towards a developed nation. I congratulate Dr. Siji.K Principal, Gopalan College of Commerce and her entire energetic team and wish the conference a great success.

Dr. C. Prabhakar
Gen. Secretary
Gopalan Foundation, Bengaluru.

Conference Photos


In Association With

Table of Contents

One day National Conference on
"Economic Instability: Antidote for Sustainability"
26th February, 2020 at Gopalan College of Commerce, Bengaluru, Karnataka, India

Choices of destination by Migrant families and Financial Inclusion: Serving the Bottom of Pyramid evidences in Lakhisarai District in South East Gangatic Plain of Bihar

Sudhendu Kumar
(Ph.D. Scholar, Centre for Economic and Social Studies, Hyderabad)
Email - sudhenduk@gmail.com

Abstract: *India has observed a high level of growth in the previous few decades after the prolonged phase of lower growths till 1980s. But the deferent parts of the country have recorded unbalanced development in different states and also in the rural and urban areas. With the prolonged unequal developments some major parts of the economy have become the focal points of attractions for the people from underdeveloped parts, mostly from the rural areas. Relatively better developed rural areas of certain states like Punjab, Haryana, Andhra Pradesh, Tamil Nadu, Maharashtra, Gujarat etc. have been attracting people from the poorer states like Bihar and Odisha for beer job opportunities during short period. At the same me, the urban centers across the country are also attracting the people for improved livelihood opportunities. The paper attempts to examine issue of choices of selecting destinations by migrant families and Financial Inclusion for Lakhisarai district in Bihar. The paper also tries to find out the ways through which financial inclusion is easing the difficulties faced by migrant families and how FI is proving to be handy tool for livelihood stabilization. As such, it is an interventional study attempting to bridge the gap between the migration and financial inclusion researches. The paper is based on samples collected from migrant households, focus group discussions and idea collected from key informants in the Lakhisarai district and Bihar state. The study revealed that around 80% respondents had awareness of the flagship Financial Inclusion (FI) product i.e. PMJDY or Basic Savings Bank Account which was considered only touch point or gateway of the FI.*

Key Words: *Prolonged, Livelihood, Financial Inclusion, Migrantfamilies.*

1. INTRODUCTION:

The disparities between urban and rural areas and also between regions within specific countries remain a key puzzle for the emerging economies. Among the many dimensions of the disparities, it is the disparity in terms of income and the access to the infrastructure which leads to mass level of migration and the social unrest. Such disparity is not only observed across the countries or the regions, but even within the state huge variations in the different indicators are observed.

India has observed a high level of growth in the previous few decades after the prolonged phase of lower growths till 1980s. But the different parts of the country have recorded unbalanced development in different states and also in the rural and urban areas. With the prolonged unequal developments some major parts of the economy have become the focal points (including rural areas of some states) of attractions for the people from underdeveloped parts, mostly from the rural areas.

Relatively better developed rural areas of certain states like Punjab, Haryana, Western Uttar Pradesh, Rajasthan, Andhra Pradesh, Tamilnadu, Maharashtra, Gujarat etc. have been attracting people from the poorer states like Bihar and Odisha for better job opportunities during short period. At the same time, the urban centers across the country are also attracting the people for improved livelihood opportunities.

Regional variation in per capita income has increased in the post-reform period. The un-ubiquitous development and jobless growth in post reform era have been drivers of escalating migration from less developed areas in India.

2. OBJECTIVE OF STUDY :

The Paper envisages fourbroad objectives i.e. 1) To analyse the causes of the migration of the people from Lakhisarai of Gangatic plain in South East Bihar; 2) To study the choices of destination by migrants and the reason behind selection of destination i.e. education, employment or distressed etc.; 3) To study the level of penetration of formal financial services in migrant families; 4) To find out the mode of delivery and ease of accessing the financial services by the migrant families.

The study tested hypotheses such as: 1) Most of the uneducated migrants have selected the destinations having agriculture related or low skill job opportunities; 2) Less educated migrants have preferred short distance destination 3) Most migrations, except marriage, are economically motivated 4) Migrant families are having low level of penetration by the formal financial institutions and are laggard in leveraging financial inclusion products.

3. LITERATURE REVIEW :

A macro–micro paradox limits our insight into migration dynamics, with macro data highlighting the better off groups, which are over-represented amongst migrants, while under-recording the migration of the most vulnerable groups, thus calling for an inter-disciplinary approach to the study of migration. This is directly relevant for policy and the Inclusive Growth model, as the invisibility and neglect of migrants often combine with a common perception of the need to reduce migration. (Arjan de Haan, 2011). According to Haan, the subject of migration remains contested, for a variety of reasons. Politically, while there is generally a preference for or at least an acceptance of people moving when there is a demand for labour, there are at least equally strong voices (strengthened in times of crises) calling for reducing the number of (im-) migrants. Academically, questions remain regarding the causes and impacts of migration, and how mobility relates to inequality and poverty. Disciplinary differences regarding approaches to understanding migration continue to exist. The links between migration and poverty are deeply context-specific. **Haan**emphasizes that there not one size fit all or simple generalised answer to all the questions such as since when migration is taking place, who migrates more common, whether male or female (gender/age wise) is more mobile and reason and patterns of migration etc.. The answers to these questions are context specific.

Migration in the third world viz India is mostly accounted by 'Rural to Urban Migration', which triggers the phenomenon 'Over Urbanization' resulting in the pressure over the social cost provided for a country's growing population. (Khanna &Chatuvedi,2010; Gugler, 1988). The mainstream literature on migration, essentially, portrays migration as an inevitable and largely beneficial outcome of economic transformation. In the literature on structural transformation, for example, increasing spatial mobility in response to the spatial unevenness in the demands for labour and supply of labour is seen as a key stylized feature of economic development. While migration has been credited with the role of reducing interregional and inter-sectoral gaps in living standards, the 'crucial question is whether, and to what extent, migration, has been able to play this role in the Indian context' (Srivastava, 2012, p. 2). Sharkshall & Soskolne state that in the 2001 Census, Uttar Pradesh and Bihar were "the two States with largest number of net migrants migrating out of the state." Neither the Census nor the National Sample Survey is geared to capture the complexity of India's migrations. Priya Deshingkar and Shaheen Akter (Migration and Human Development in India) point out that the gaps in both the data on migration and the understanding of the role of migration in livelihood strategies and economic growth in India, have led to inaccurate policy prescriptions and a lack of political commitment to improving the living and working conditions of migrants. Balisacan and Ducanes(2005) note that, in recent years, growth has been unequal in India (Balisacan and Ducanes 2005), characterized by industry in developed states such as Gujarat, Maharashtra and Punjab drawing labour from agriculturally backward and poor regions such as eastern Uttar Pradesh, Bihar, southern Madhya Pradesh, western Orissa and southern Rajasthan. High productivity agricultural areas ("green revolution areas") continue to be important destinations, but rural urban migration is the fastest growing type of migration as more migrants choose to work in better paying non-farm occupations in urban areas and industrial zones. Delhi and the states of Gujarat and Maharashtra are top destinations for inter-state migrant labour. Labour mobility has grown and will probably continue to grow once the economy recovers from the current crisis.

Migrant labour makes enormous contributions to the Indian economy through major sectors such as construction, textiles, small industries, brick-making, stone quarries, mines, fish and prawn processing and hospitality services. But migrants remain on the periphery of society, with few citizen rights and no political voice in shaping decisions that impact their lives (**Kabeer** 2005). Mithilesh (2011)in study of 3 districts of north Bihar finds out that labour migration in Saharsa, Madhepura and Supaul has an important caste dimension which is closely associated with the more important category of class. The labour migration is most conspicuous among the Mahadalits as they, in almost all cases, are landless and work as agricultural labourer at both source and destination. The choice of occupation as a migrant labour is also incumbent upon the economic status of the migrant worker. The choice for worker who owns some land is more diverse than those who are landless. The 'semi-feudal mode of production' argument seems to be weak as the labour is not only free but the main source of exploitation is economic and appropriation of surplus value is hardly ever through extra economic coercion. Stark & Bloom (1985) argues that people engage quite regularly in interpersonal income comparisons within their reference group. These comparisons generate psychic costs or benefits, feelings of relative deprivation or relative satisfaction. A person may migrate from one location to another to change his relative position in the same reference group, or to change his reference group. Membership in a low relative deprivation reference group may be well preferred to membership in a high relative deprivation reference group even if in the former a per son's absolute income is lower. They also put forth the argument that households use the migration as risk mitigation and co-insurance strategy and other members of migrant

household enter into voluntary agreement to take care of other needs of household and the migrant(s) would help by way of sending remittances.

3.1 Financial Inclusion –An Idea:

There is no clear definition of financial inclusion. No universally accepted definition of financial inclusion is available. Various attempts have been made to define financial inclusion in previous literature. However, these all have been based on different approaches to reach the goal of inclusion be it social or economic, for one is the approach through financial inclusion.

Financial inclusion means delivery of financial services at affordable costs to sections of disadvantaged and low income segments of the society. Defining financial inclusion is considered crucial for identifying the factors that lead to low level of access to the financial system. As measuring inclusion is perceived to be difficult, financial inclusion is generally defined in terms of exclusion from the financial system. However, financial inclusion is not just about physical access caused by the changing topography of financial services. Therefore, the debate has now broadened to include all types of people who make little or no use of financial services and the processes of financial exclusion (Ford and Rowlingson, 1996; Kampson and whyley, 1998). Dr. C. Rangarajan (2008) (Committee on Financial Inclusion - Chairman: Dr C Rangarajan, RBI, 2008) committee on Financial Inclusion states that "The process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low income groups at an affordable cost".Seven goals of the seventeen United Nations Sustainable Development Goals (SDG) of 2030 view financial inclusion as a key enabler for achieving sustainable development worldwide by improving the quality of lives of poor and marginalized sections of the society. (Home-Sustainable Development Goals, 2018)

4. METHOD:

The study is a mix of qualitative and quantitative research. It is based upon primary and secondary data. The objectives, issues and hypotheses have been analyzed using the information both from primary and the secondary sources. In order to get more detailed information related to the socio-economic issues and the variations, the study looked at the samples from 10 villages of four blocks in Lakhisarai district which is located in the center of Gangatic plains of South East Bihar. The random selections, based on random sampling techniques, of the respondents were made from the families of the migrants.The primary data were collected through schedules concerning economic and social conditions of the people, causes of out- migration, selection of destination, changes in socio economic condition and level of financial inclusion. The data was generated with the help of intensive field work and consulting respondents, key informants such as officers of the administrative set-up, DRDA officials & other institutions like banks, MFI, BRLP BCs etc. Focus Group Method & case studies were also adopted to extract and understand the issues and problems. The study is aimed at finding the stated objectives sans migration caused by marriage as movement of female members after marriage is a universal & unavoidable custom in Indian society. The study has specifically focused on the place of origin only thereby ruling out any fact finding at the place of destination. It tries to find out the ways through which financial inclusion is easing the difficulties faced by migrant families and how FI is handy tool for livelihood stabilization. As such, it is an interventional study which attempts to bridge the gap between the migration and financial inclusion researches.

5. SECONDARY DATA ANALYSIS&DISCUSSION:

The below figure from census data reveals share of various reasons in total migration, streams of migration and spatial patterns of migration. The share of migration due to marriage is almost half of the total migrants in the country

.

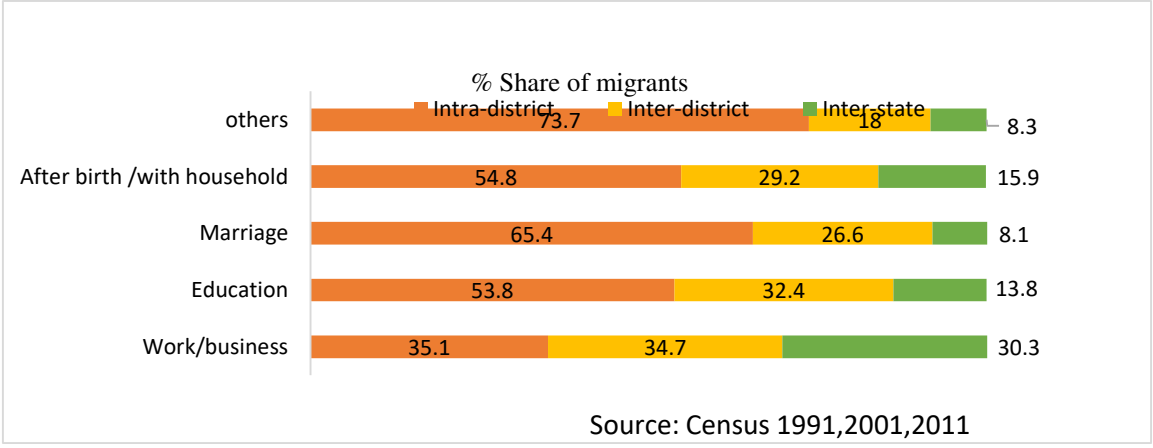


Figure 5.1. Reasons for migration

The above figure depicts that as far as the spatial movement is concerned the good number of people make their move intra-district followed by inter district and then by inter-state. Table 1 shows the percentage of various reasons of migration except migration triggered by marriage in Bihar.

Table 5.1: Reasons for Migration: Bihar State

Place of enumeration Total/Rural/Urban	Last residence Total/Rural/Urban	Total migrants	Work/employment	Business	Education	Marriage	After birth/with household	Others
Total	Total	26,840,354	697,829	82,942	120,721	20,118,569	1,541,851	4,278,442
	Rural	22,008,012	507,799	58,464	88,369	18,352,153	1,008,095	1,993,132
	Urban	2,488,790	161,609	20,032	28,162	1,289,117	465,103	524,767
Rural	Total	22,913,825	283,334	46,993	47,518	18,423,184	692,681	3,420,115
	Rural	19,921,029	231,513	39,339	40,320	17,280,992	569,256	1,759,609
	Urban	1,029,663	32,975	4,474	5,309	709,741	88,916	188,248
Urban	Total	3,926,529	414,495	35,949	73,203	1,695,385	849,170	858,327
	Rural	2,086,983	276,286	19,125	48,049	1,071,161	438,839	233,523
	Urban	1,459,127	128,634	15,558	22,853	579,376	376,187	336,519

Source: Census 2011

The table 5.1 indicates that overwhelmingly 75 % of the total migration in Bihar is caused by marriage followed by other reasons (16%), movement after birth/with household (6%) and employment (2.5%). Around 0.4% persons have migrated for education. Amongst the migrants moved due to marriage, 98.14 % consists female which corroborates the argument that marriage related migration are dominated by female members of the society in India which is driven by the custom in Indian culture.

Table 5.2 Streams, Spatial Patterns and Reasons of migration- Lakhisarai district

Streams of Migration	Last residence Total/Rural/Urban	No. of Migrants	Work/employment	Business	Education	Marriage	Moved after birth/ with Household	Others
Intra District	Total	125,536	3,342	298	621	88,222	8,108	24,945
	Rural	97,165	2,815	226	452	79,236	6,493	7,943
	Urban	7,018	281	33	137	4,605	848	1,114
Inter District	Total	129,327	2,991	321	320	109,483	4,975	11,237
	Rural	104,794	2,112	214	260	92,957	3,698	5,553
	Urban	14,474	673	68	45	11,435	973	1,280
Inter State	Total	8,166	244	28	28	6,287	546	1,033
	Rural	3,259	98	6	4	2,748	186	217
	Urban	4,281	137	21	24	3,353	348	398
International	Total	1326	35	7	5	867	54	358
Total Migrants	Total	264,355	6,612	654	974	204,859	13,683	37,573

Source: Census 2011

Migration caused by marriage is 70 % of migration in Lakhisarai against 98 % in case of Bihar State. Inter district migration contributes highest in total migration of the district.

5.1 Progress and achievements of financial inclusion in geographical area of the study:

The level of credit off take by formal Banking channels and coverage under various financial inclusion schemes provide an understanding about the economic activities and developmental activities of a geographical area. It is, therefore, imperative to know the progress made and the milestones reached in formal banking sector in the area.

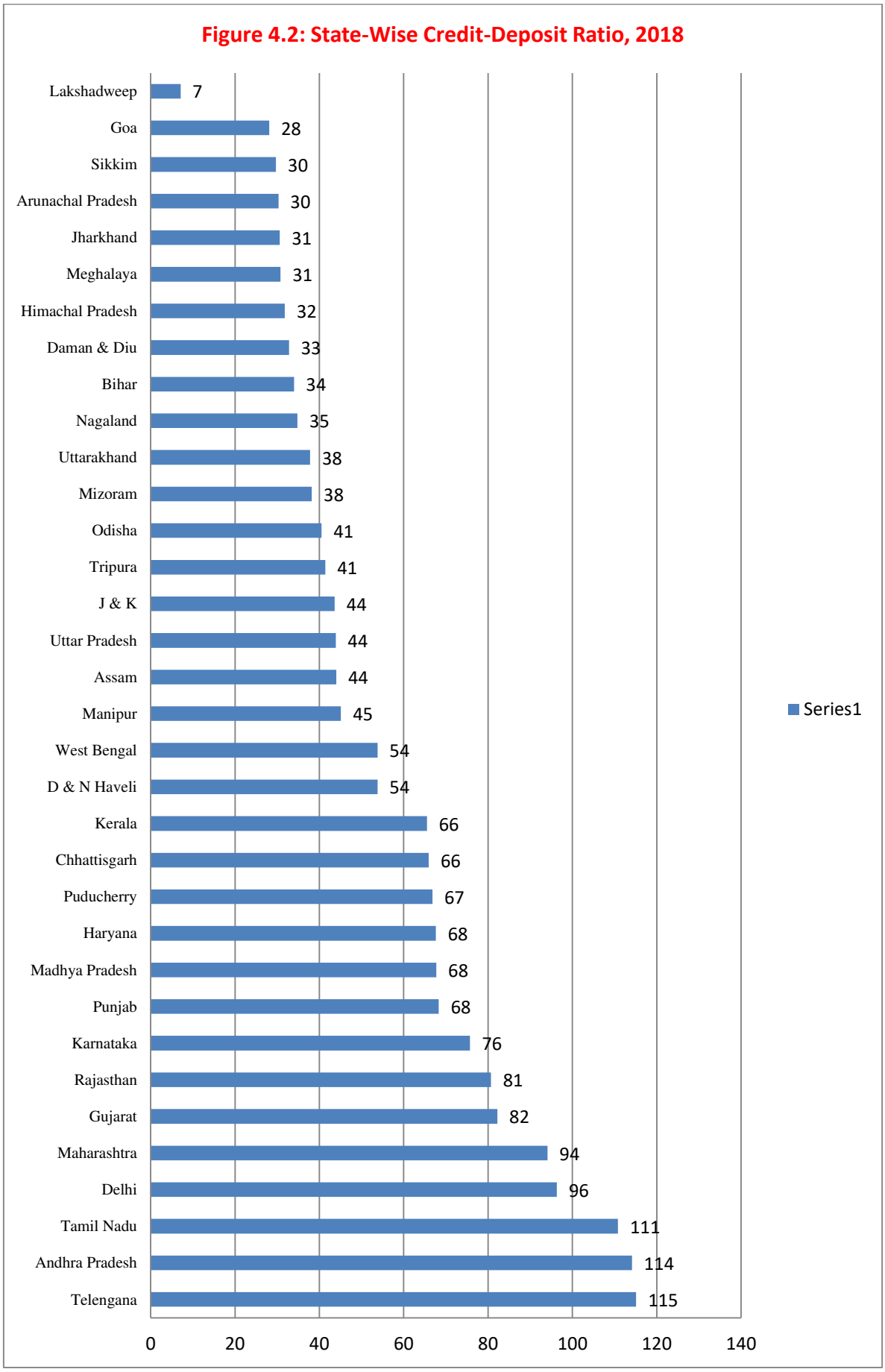
Table 5.2: Trends and progress of priority sector lending and coverage under Financial Inclusion in Lakhisarai for last 3 financial years

Amount in Lakhs

S. No.	Schemes/ Financial Products	**2018-19**	**2017-18**	**2016-17**
1.	Pradhan Mantri Jan DhanYojna (PMJDY) (accounts)	146774	141034	119297
2.	Coverage under Pradhan Mantri Suraksha BimaYojna (PMSBY) (Nos.)	64741	55428	44191
3.	Pradhan MantriJivan Jyoti BimaYojna (PMJJBY) (Nos.)	22402	18723	14824
4.	Coverage Atal Pension Yojna (APY) (Nos)	5604	3720	1768
5.	Prime Minister Employment Generation Programme (PMEGP) (Amount)	300	361	48
6.	PMEGP (No. of accounts)	18	25	3
7.	Dairy Loans-Disbursement (amount)	130	70	128
8.	Dairy Loan- accounts/units	128	66	124
9.	Credit Disbursement - Agriculture	48885	39501	16630
10.	Credit Disbursement- MSME	17425	10272	3761
11.	Credit Disbursement- Other Priority Sector Lending	4435	3795	2216
12.	Credit Disbursement Non-Priority Sector	22341	21205	8261
13.	Kisan Credit Card (KCC) (New & Renewed) Amount outstanding in KCC	26457	34781	NA*
14.	No. of KCC	25894	31882	NA*
15.	Prime Minister Mudra Yojna (PMMY) for Business & Agriculture, Amount-disbursed	721	773	757
16.	PMMY No. of accounts (fresh sanction)	323	717	678

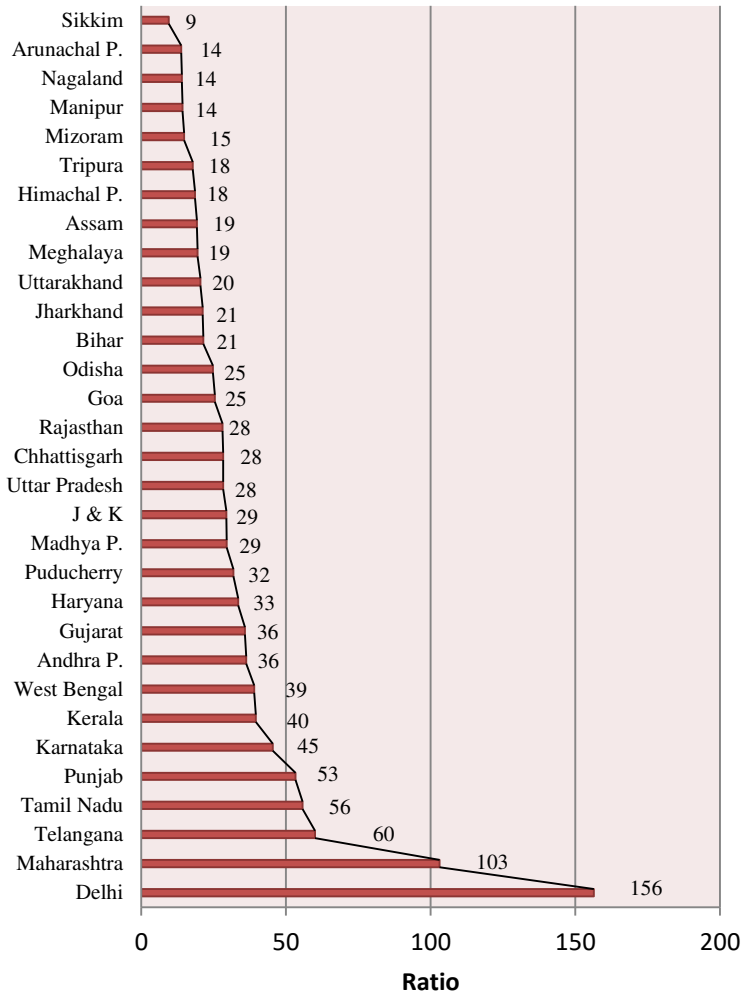
*Not available Source: District Lead Bank (PNB), Lakhisarai, Bihar

The data in the table 5.2 reveals that though some headway has been made with regard to growth in recent years, the percentage of coverage in proportion to population is still low. Number of accounts in PMJDY is around 14% of the population, coverage under PMSBY & PMJJBY (low cost insurance products having annual premium of Rs. 12 & 330 respectively) are very low. Coverage of low cost pension product i.e. APY is abysmally low. However, Year-on-year growth is high in last three years only on account of low base. There is low off take of credit especially development banking products such as PMEGP, Mudra Yojna (PMMY), dairy development etc. This clearly shows lack of efforts and coordination on the part of bankers and district level development official. 5.2 Credit Deposit ratio is one of widely-acknowledged indicators of progress of economic activities in a given area. It has been pointed out in various researches that the more is the credit off take in a region the more is the development of the region/state on various socio-economic parameters. Lakhisarai has CD ratio of only 38 as compared to 40 of the state. The CD ratio of the district is very low vis-à-vis districts/regions in relatively developed states such as Maharashtra, Tamil Nadu, Andhra Pradesh, Haryana, Punjab etc. The all India level macro data shows that Bihar is one of the laggard states in respect of CD ratio. Fig. 4.2 reveals that CD ratio in Bihar is very low vis-à-vis other states of the country. It is also to be noted that Bihar is 3rd most populous and most densely populated state in India which puts huge pressure on the resources of the state and less deployment of credit put the economic activities at disadvantage.



5.3 The Credit and GDP ratio of a state is also considered useful indicative parameters to measure the enhancement in economic activities in the state. The Credit to State GDP ratio is low in case of Bihar as compared to relatively developed states such as Maharashtra, delhi, Gujarat, Tamil Nadu, Punjab, Telangana, Haryana etc.

Figure 5.3: Credit to GDP Ratio of states in India, 2017



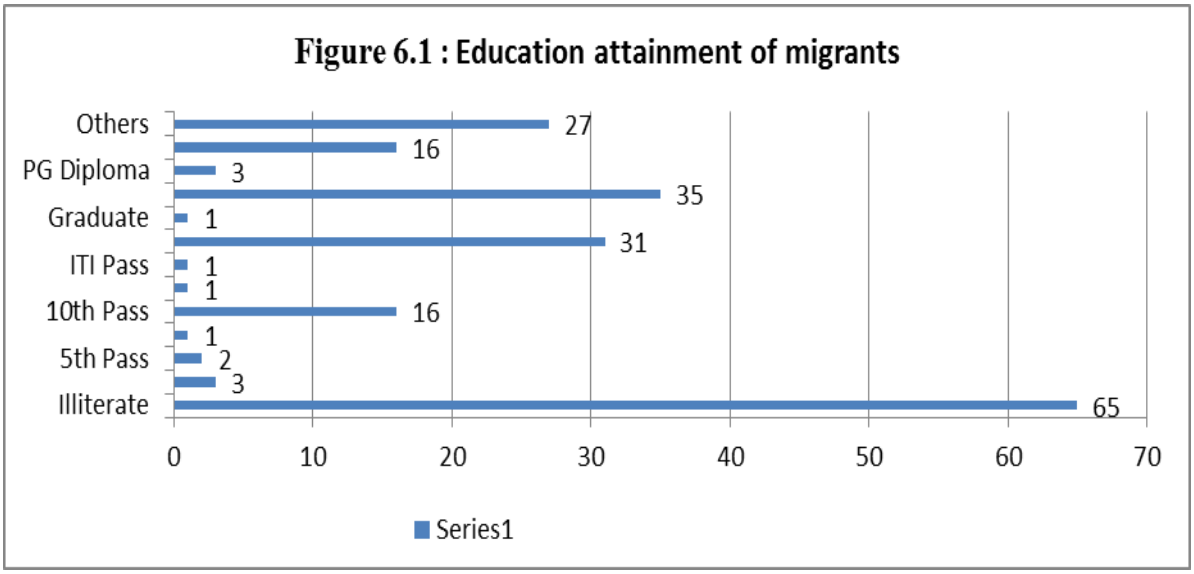
6. FINDINGS &RESULT:

Parts of data were collected on the back ground such as - education attainment, housing pattern, toilets etc. - of the migrant families which were covered through purposive random sampling technique. These backgrounds were considered useful for getting insight on the level of acquisition of the assets which have been focus area of the central government for enhancing social equity such as cleanliness, ODF and housing for all.

6.1 Education attainment:

.

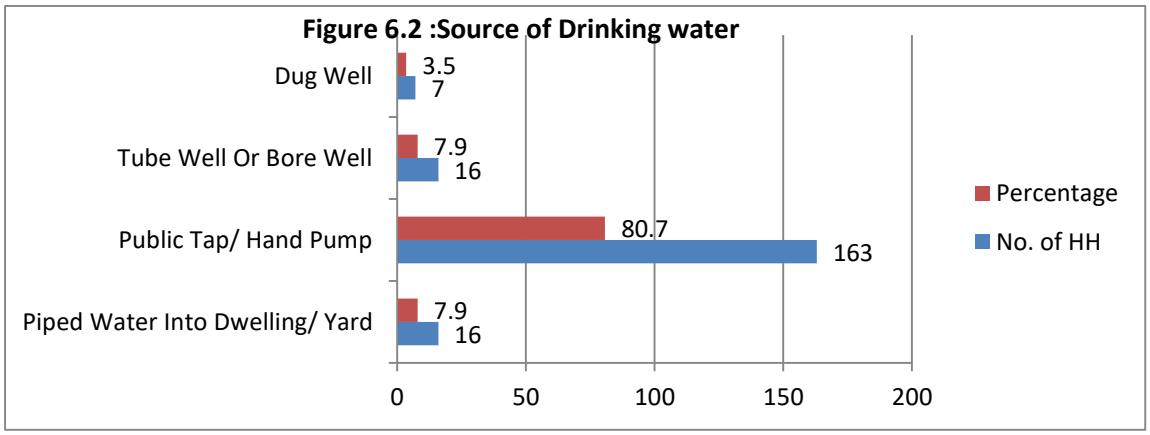
Figure 6.1 : Education attainment of migrants



The above figure shows that around 32% of the sample migrants were illiterate, followed by professional bachelor degree holders (17%), diploma holders (15%), others (13%), post graduates and 10th pass

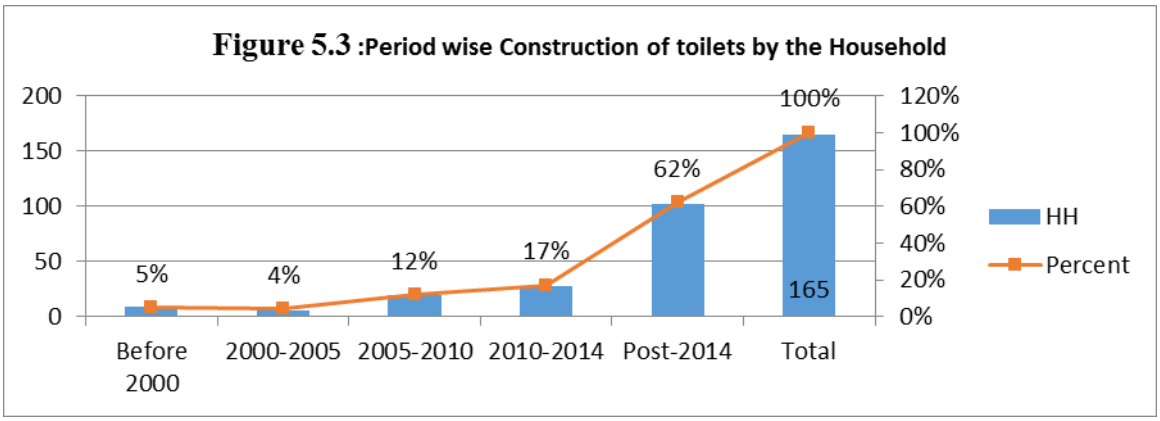
6.2 Housing Pattern:

Around 40 % migrant families were living in semi pucca house followed by Kutcha house (29%) and pucca (28%) houses. Around half of the families were living in one room house followed by two room set house (25%). 11% families were having houses comprising more than 5 rooms which essentially shows joint family structure. Families having 2 or less rooms denote that they are nucleated families.

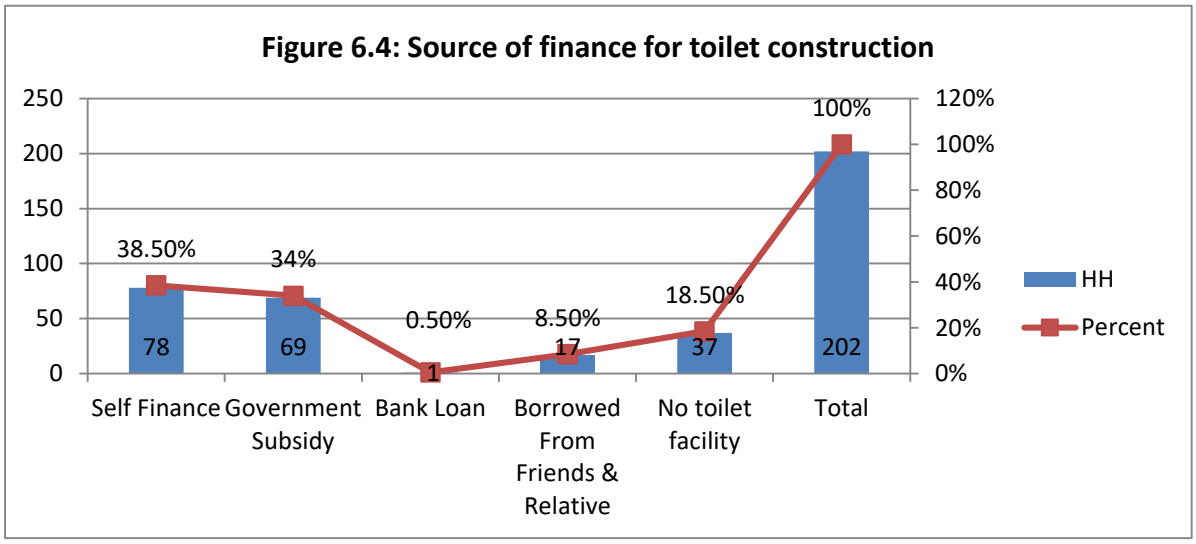


6.3 Source of Drinking water:

Around 81% families were using hand pump or public tap for drinking water. Very small number of families were having piped water supply to their dwellings.



6.4 Toilet Facilities:

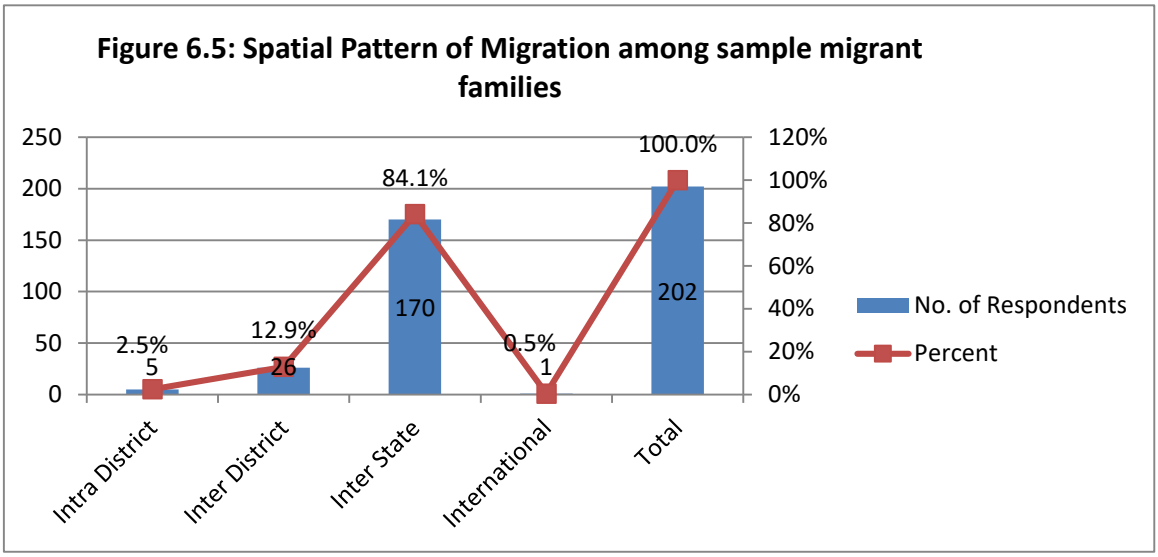


Among the 202 sample migrant households, 165 household were having toilet facilities at their home while 37 HH were either going for open defecation or using other/public toilets. However, we have observed that the households not having toilet facilities are eager to construct the toilet on the availability of resources. There has been

high degree of attitudinal change in the mindset of the household since the start on sanitation campaign launched by the central government in 2014. The below figure shows the rapid growth of construction of toilets post 2014 period which marked by the campaigns launched by the central government.

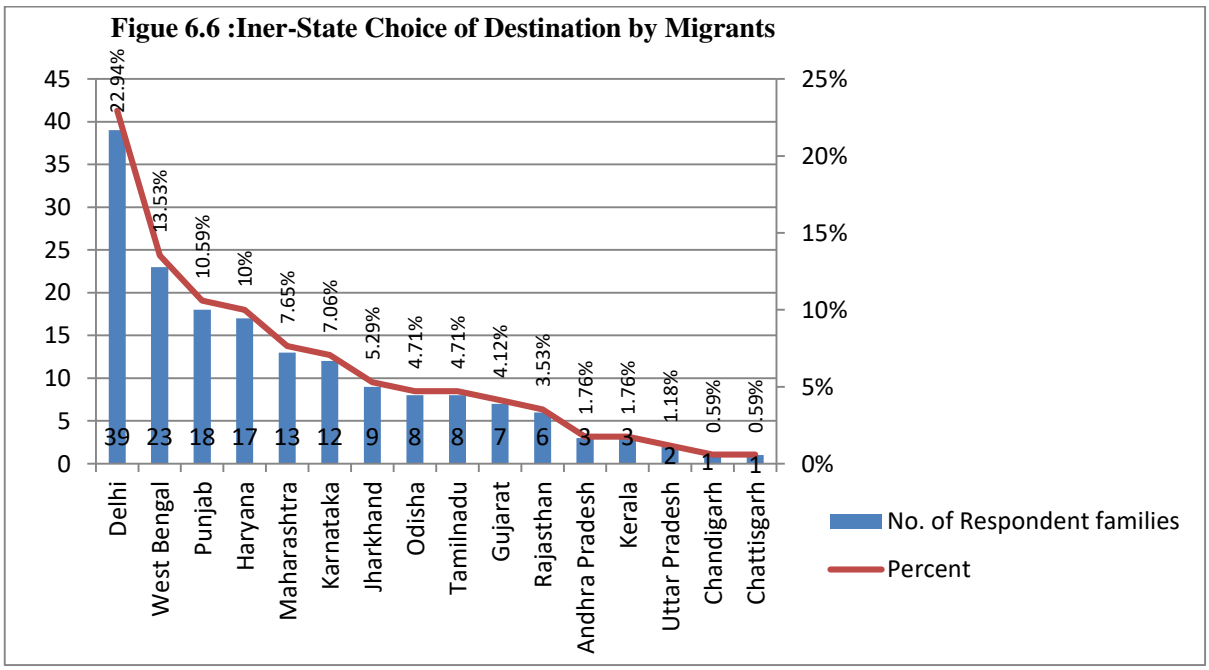
6.5 Source of finance for toilet construction:

The above figure shows around 35 % of the sample migrant families have constructed toilets by government support in the form of subsidy which they have received in their accounts by direct benefit transfer. However, good number of toilets was constructed by self-finance (39%) followed by the government subsidy (35%) and borrowings from friends and relatives (18.5%). Banks/Financial institutions were unable to tape the opportunities to finance these low income households and earn interest as well as fulfill their social responsibility (bestowed upon by the government) and enhance their brand image.



6.6 Choices of Destination by the migrant families

The study envisages finding out migration and destination choices by excluding migration triggered by marriage which is not choice based but custom based. Therefore, the study looked for migrant families which have witnessed migration other than marriage. In this backdrop the paper seeks to find out pattern and triggers of migration and choices of destination and type of work undertaken by the migrant families. The above figure on spatial patterns of migration of on samples group shows that the highest number of migrants have chosen to migrate in other states (84%) distantly followed inter district migration(13%) which is largely driven by quest for higher education in capital city of the state i.e. Patna. Very few respondents (2.5%) said the member of their family had opted for migration within the district or outside the country. The figure also depicts that the patterns of migration have largely been internal i.e. movement within the country.

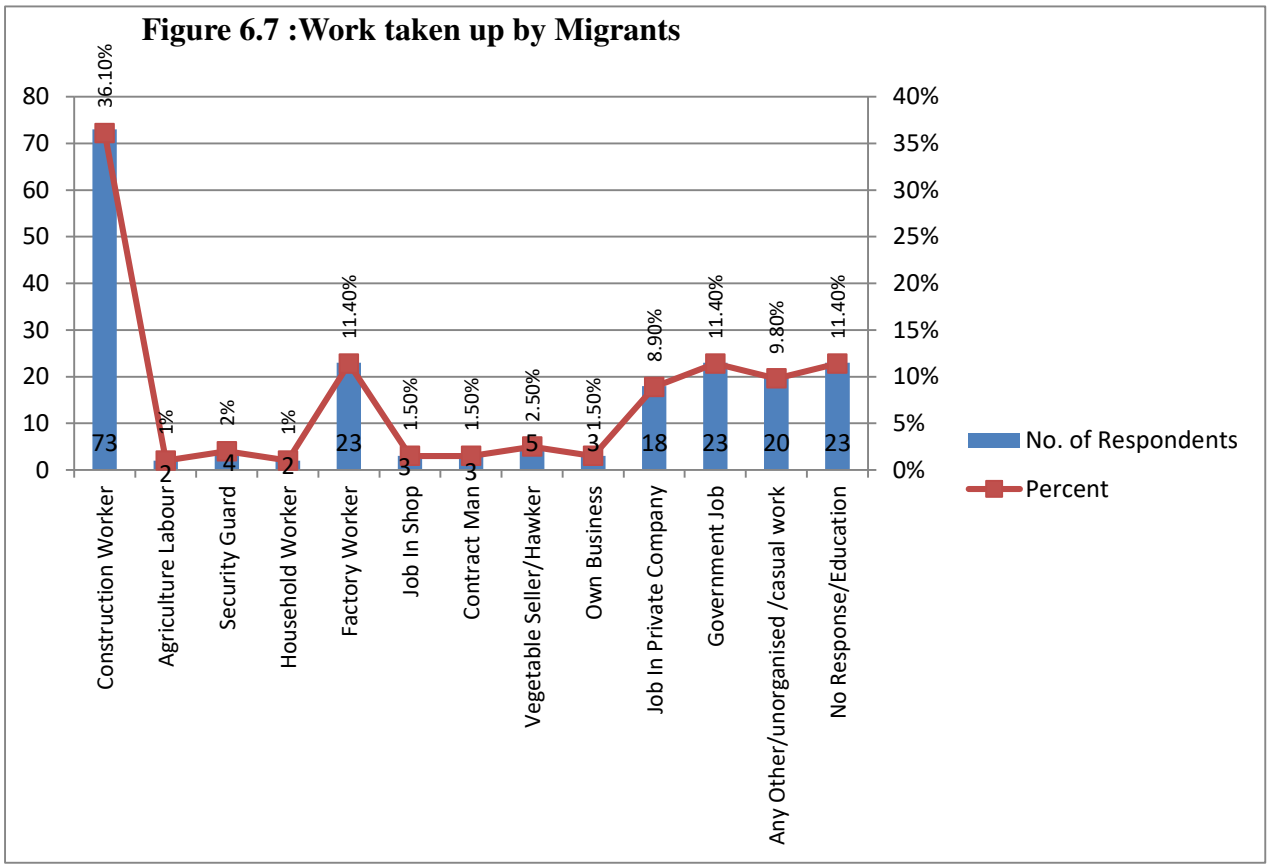


The figure 6.6 reflects that almost quarter of the Inter-state migrating respondents have selected Delhi (23%) as their destination followed by West Bengal (13%, namely Kolkata), Punjab (10%, Ludhiana, Jhalandhar and rural areas for agri activities & Brick Kilns) , Haryana (Panipat& rural areas for agri activities and Brick Kilns), Maharashtra (mostly Mumbai), Karnataka (namely Bengaluru& Mangalore- 7%), Jharkhand (Urban manufacturing & quarrying Centres 5%), Odisha(4%), Tamilnadu (4%) and Gujarat (4%). Delhi is most favoured destinations due to education centres in NCR and availability of low skilled & fast cash accruing work as well as having direct connectivity, nearness and linguistic affinity.

6.7 Financial Inclusion of Migrant Families

The questions asked for determining and finding out the level of penetration of formal financial institution i.e. Financial Inclusion, were based on selection/ticking of multiple answers (2 or more options could have been selected) which the respondents were wielding simultaneously at the same time.

Figure 6.7 :Work taken up by Migrants



The above graph presents different types of work undertaken by the migrants at the destinations. Almost one third (36%) of the migrants have joined construction works which includes brick kilns. Other low skilled jobs that the migrants have taken up are as factory worker (12%), casual worker (10%), Hawking (2.5%) etc. Around 12 % of the migrants were employed in government jobs which considered most prized job in the Bihar. Around 9 % of the migrants are employed in private company jobs.

Chart 6.1 :Purpose of Migration

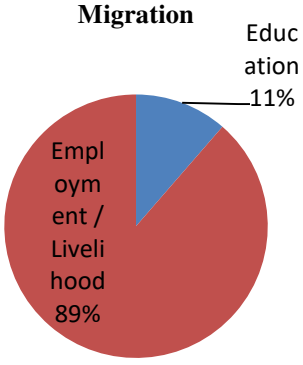


Chart 6.2 :Whether willing to migrate even after getting employement / business at origin

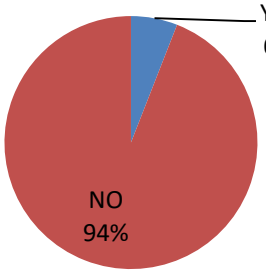
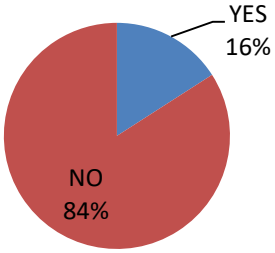
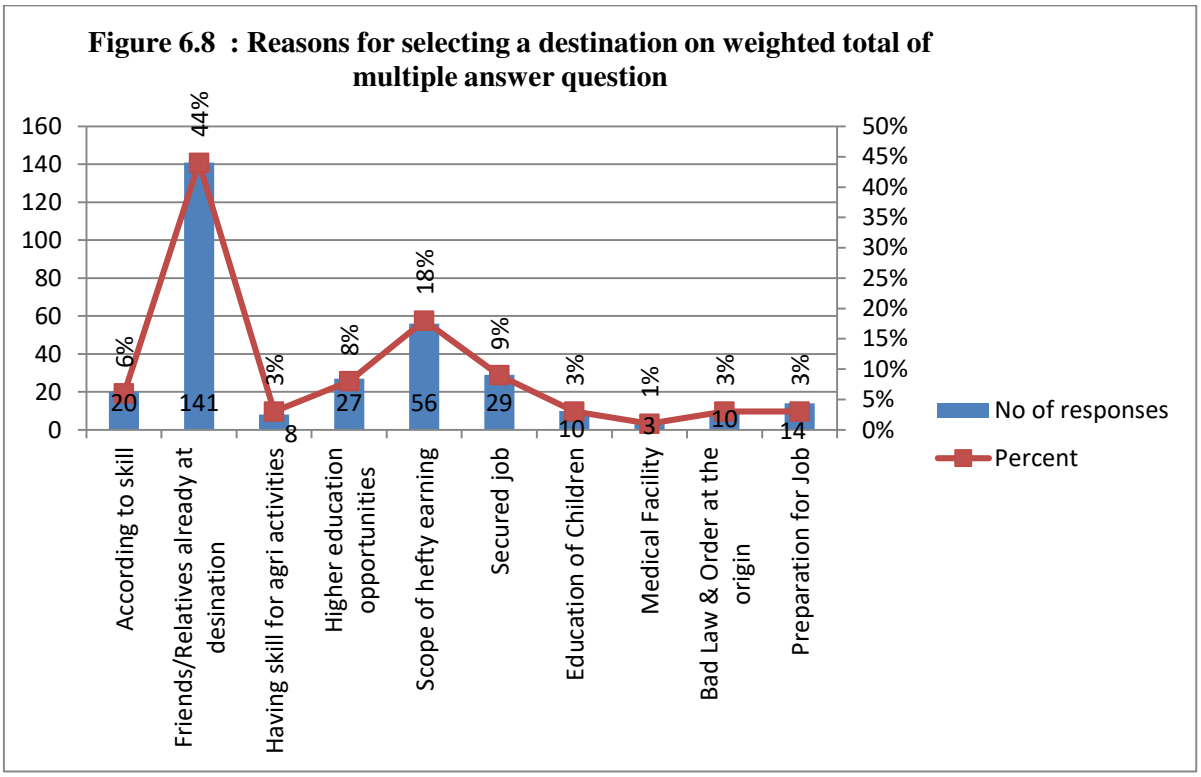


Chart 6.3 :Whether willing to move even after availability of credit for business?

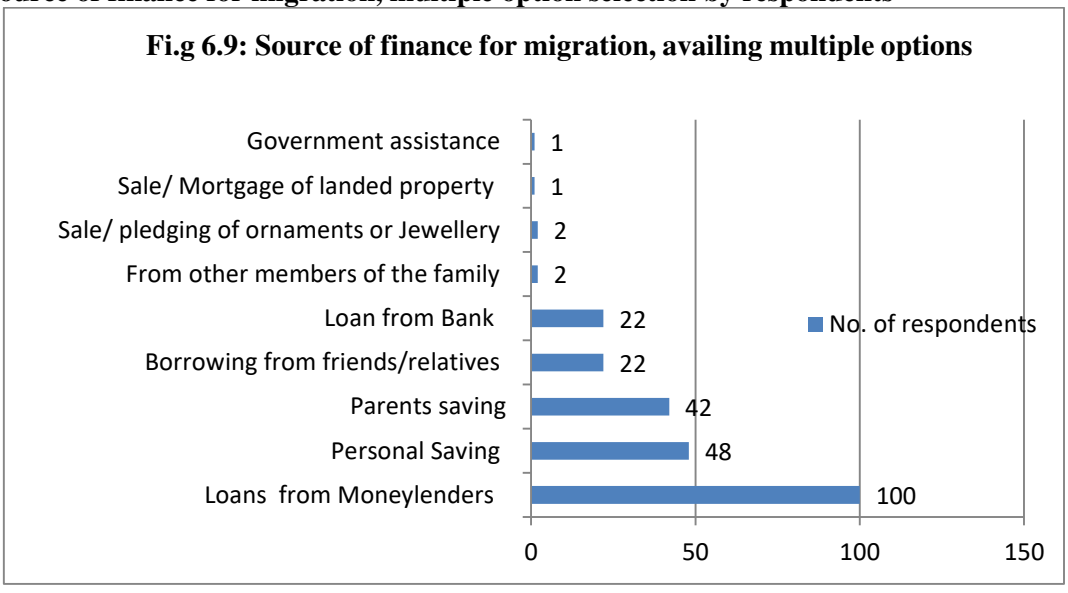


The data of government job, private company job and education are in sync with the long evolving trend of population in Bihar where in a large number of persons especially from rural areas moves to cities for better higher education and preparation for job and various competitive exams. Once they land up in the city either for higher education or for preparation for exams, they end up getting job or get involved in livelihood activities further moving to other cities for greener pastures. The result shown in this chart proves the 1st hypothesis i.e. Most of the uneducated migrants have selected the destinations having agriculture related or low skill job opportunities; of the study as alternate The above charts prove the hypothesis (no. 3) that "Most migrations, except marriage, are economically motivated". 89 % said that they have moved for better livelihood or employment. 94 % of the migrant families mentioned that their family members would not be willing to migrate if they get employment/business opportunities locally. 84 % of the respondents said that their family members would not migrate if credit/loans are made available to them for establishing their business and enhancing their livelihood. Hence, hypothesis 3 is an alternate hypothesis.



The high number of respondents opting friend & relative being at the place of destination as the reason behind selecting particular destinations confirms the network theory of migration. And, also it proves the hypothesis, of the study, that illiterate or low skilled migrants choose short distance destinations. Thus, basis this result, the **hypothesis no 2** is proved to be 'Null' hypothesis. It lends credence to the "Network Theory" of migration which states that people largely migrates to the destinations where they have established links.

Figure 6.9: Source of finance for migration, multiple option selection by respondents



The figure 6.9 reveals that at least 100 migrant families (50% of respondents) had borrowed from moneylenders for financing their migration. Ten per cent of the migrant families had borrowed from friends and relatives to finance migration. The data also suggests that many of migrants had borrowed from either moneylender or friends and relative when their own or parents saving were not sufficient to finance cost of migration.

Code in Figure	Queries
A	Has any Bank staff contacted for opening SB A/C?
B	No. of family having Bank accounts of at least 1 adult member of the family
C	Did you go to Bank for opening Bank account on your own?
D	Have any Bank ever contacted you for Loans?
E	Have your family availed any Credit facility from Bank /FI?
F	Have there been any situation draught/famine/flood / low rainfall in the area?

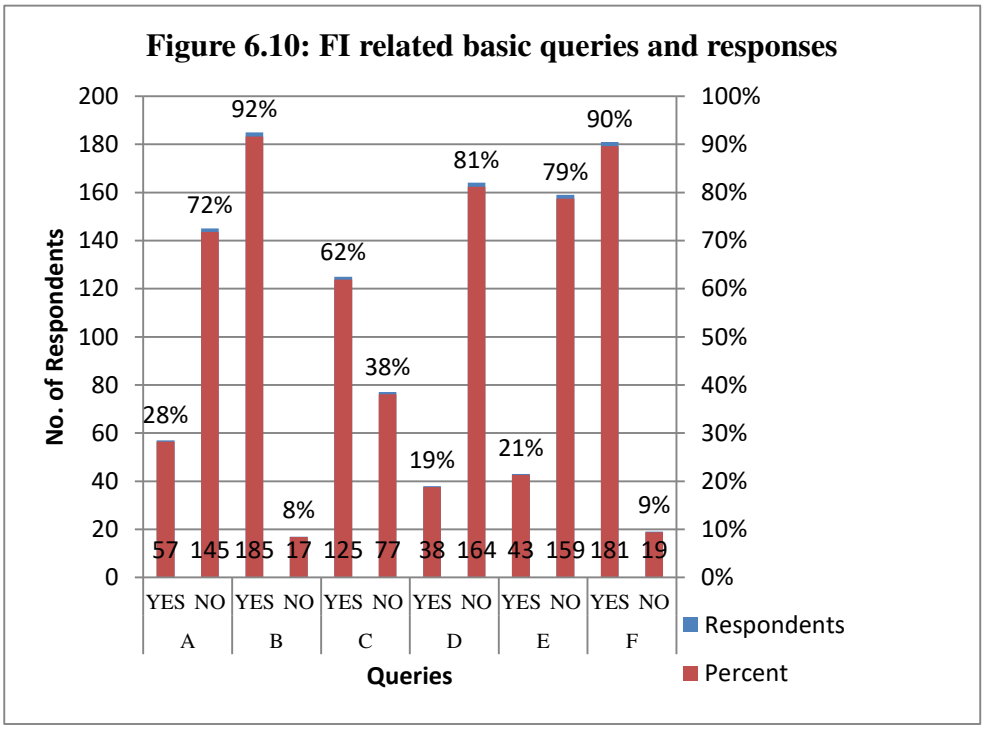
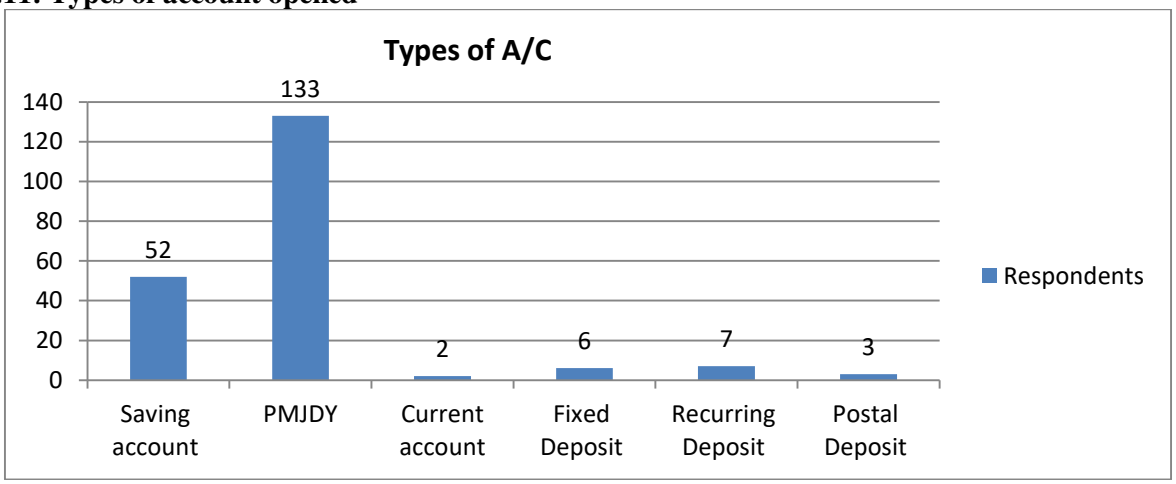


Fig. 6.10 shows answers to multiple questions on financial inclusion asked to the sample migrant families. A) In reply to question A (in table) that whether the household has been contacted by any staff or any Bank or Financial institution for opening savings bank (SB) account?-72 % respondents replied in negative. B) 92% of the respondents said that at least 1 adult member of the family has Bank account, be it PMJDY or other saving account. This shows that 92 % migrant families have touched doorstep of financial Inclusion. C) 62 % of the respondents mentioned that they themselves had visited Bank branches to get their account opened. This speaks of little efforts on the part of bankers to reach out the untapped/ unbanked market for selling bank's products. D) Only 21 % of the respondents said that their families had ever availed credit facilities from Banks/FIs.

This reflects that huge potential lies in this section of the bottom of pyramid especially when their family members are earning outside the place of origin and they have potential for high repayment of their loans. E) 90 % of the sample families has reported that there villages have witnessed situations of draught/ famine/flood/ low rainfall in recent past thereby leading to lower crop production and consequently lowering of economic activities. Almost all the respondents said that they have not been informed about Prime Minister Fasal BimaYojna (PMFBY) which shows lackadaisical approach by the financial institutions namely banks, cooperatives and implementing agencies such as government machineries for dissemination of information which could provide ex-ante measures for loss of crops to the farmers in the area. Though 92 % of the migrant households hold saving accounts, they are yet to be covered for many financial inclusion products such as credit, insurance, pension, investment and digital mode of transactions as well as enhancement of awareness about all the FI products.

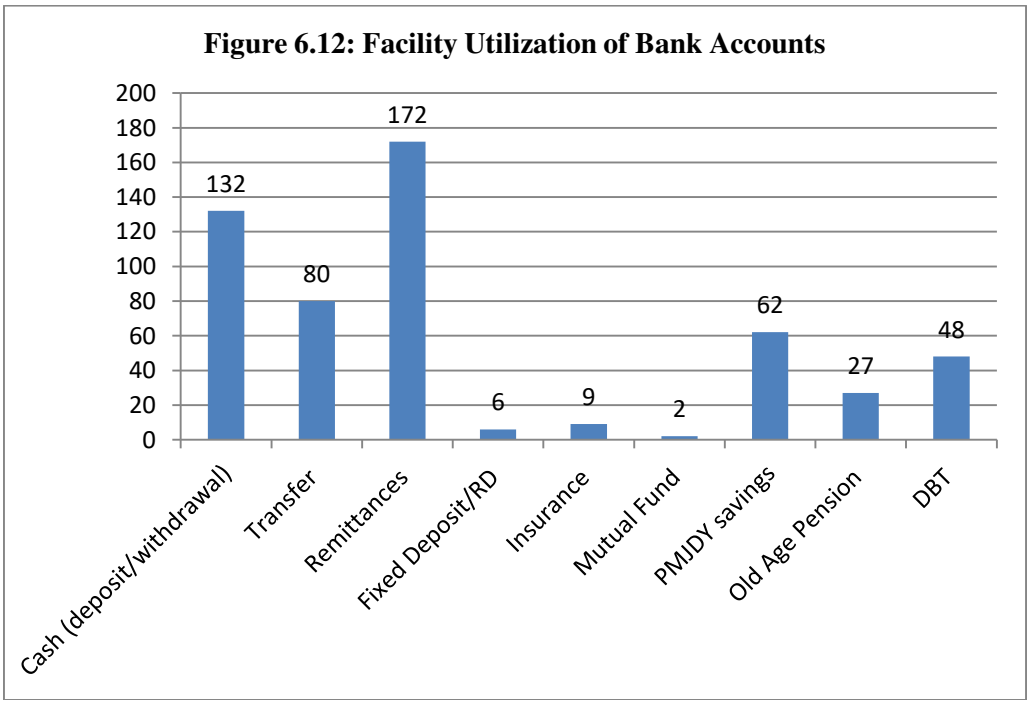
These results conform to the 4th hypothesis of the study i.e. "Migrant families are having low level of penetration by the formal financial institutions and are laggard in leveraging financial inclusion products."

Figure 6.11: Types of account opened



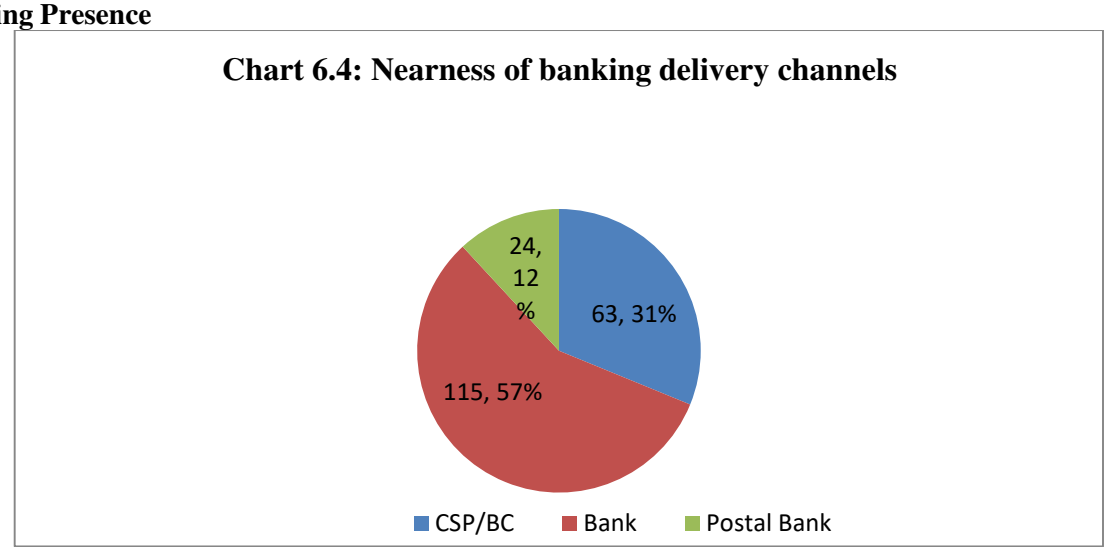
The figure 6.11 shows that majority of migrating households are availing Pradhan Mantri Jan DhanYojna (PMJDY) which is flagship programme of the government of India with the target to open zero balance savings account of every household. The graph reveals that the banks have been able to successfully reach out sizeable number of households for covering them under PMJDY. By covering the household under PMJDY or savings accounts, banks have been able to make these households touch the 1st layer of financial inclusion. More than half of the PMJDY accounts have been opened post 2014 period while others have been converted from old saving bank account. When we look at the data from the previous figure displaying that 62 % of the respondents themselves visited the branches to open the account, it could be inferred that there have been great role of mass media and public announcements by political leadership for popularization of PMJDY as such that people themselves got mobilized for opening the accounts in addition to the efforts by the bankers. Almost 50 % (100 of 202) respondents mentioned that they got savings accounts opened in post migration period.

Figure 6.12: Facility Utilization of Bank Accounts



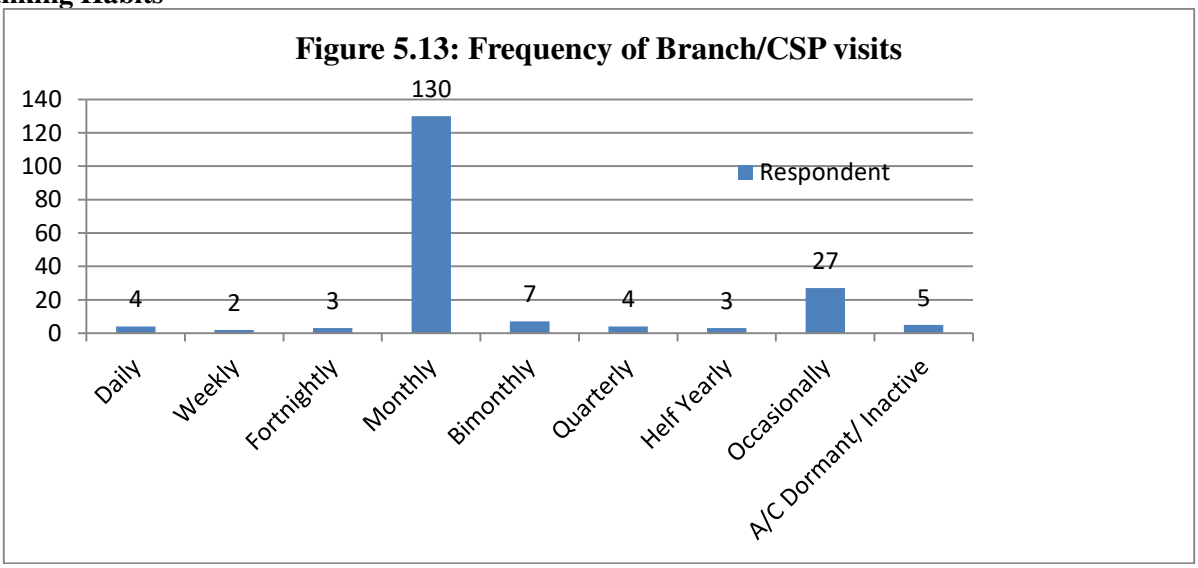
More than 85 % migrant families said that they are using bank accounts for receiving remittances followed by cash deposit & withdrawal (66%), transfer of funds into others' accounts (40%), saving the excess fund in the account (PMJDY savings, 31%), Direct Benefit Transfer (DBT,24%) and receiving old age pension (13%). Very low numbers of migrant families are using savings/PMJDY accounts for insurance (4.5%), earning high interest by making fixed/recurring deposits (3%) and investing in small mutual funds (1%). It is to be noted that small cost insurance products, namely PMSBY (premium of Rs. 12) & PMJJY, are available and the central government is making tremendous efforts for popularizing these schemes.

6.7.1 Banking Presence



On being asked, which of the delivery channels are near to their place of residence, 57 % respondents said that Bank branches are nearer to them, followed by Customer service Points (CSP) or Business Correspondents (BC) (31%) and Postal banks (12%). However, majority of the migrant families were not aware of CSP and conversion of India post into postal Banks. All the sample villages were having post offices in the periphery of 3 KMs which would be making them available all sorts of banking services. Some respondents had shown low level of trust in banking correspondence/CSP as they have received complaints of misdoings of CPPs in some villages.

6.7.2 Banking Habits



The study tried to measure the banking habits of the migrant families by seeking information on frequency of their visits to Bank branches and CSPs. The above figure reveals that 65 % of the respondents visit branches/CSP monthly followed by occasional visits (13%) and bimonthly visits. Still good numbers of respondents (35%) have not inculcated the habits visiting the customer service points/branches to transact their business or know the status of their accounts. It is assumed that the more footfalls is increased in the branch the more business the bank would be able to acquire and the customer (in this case migrant families) would be made aware of various financial inclusion products and they would be able to make informed choices, thereby empowering themselves. Hence, it would be a win-win situation for both banks as well as the migrant families.

6.7.3 Indebtedness in migrant families

155 out of 202 (75%) migrant households reported that they have borrowed from local money lenders at any point of time. The rate of interest, charged by moneylender, lies between 30-48 %. Only 42 (20%) of the migrant households said that they have borrowed from formal financial institutions such as Banks, cooperatives, MFIs and SHGs (Jeevika promoted by BRLPS). 24 households said that they have obtained credit from SHGs nurtured by Jeevika promoted by Bihar Rural Livelihood Promotion Society (BRLPS) while only 8 sample migrant families

obtained credit from Government owned Banks and 5 families obtained the loans from private banks. However, the sample villages of the study have shown remarkable penetration of SHG models nurtured by Jeevika /BRLPS.

7. RECOMMENDATIONS:

A huge chunk of migrant house holdshad been outside the coverage of the formal banking system. Apart from overarching factors such as irregular income, poverty and illiteracy, the major barriers to extending access have been proximity, higher cost of transactions, low level of financial literacy, insensitivity at the local level of governance and time taken in providing those services. Banking products, as earlier, were typically not tailored to the needs of low income families, and previous business models hardly pass the test of scalability, convenience, reliability, flexibility and continuity.

In order to achieve the ultimate objective of ensuring financial access across rural and poor India, financial inclusion has to become a viable business proposition for banks, financial institutions, MFIs / NBFCs and Fintech companies. For, the delivery model must move from a cost-centric model to a revenue generation model. This will help in providing customers with quality banking services at their door steps while also generating business opportunities for the banking and financial sector. The government need to provide high level of consumer protection so as to weed out inhibitions and susceptibility in the minds of vulnerable sections especially the female members of the society who are 'de facto' leading the families in absence of adult and working migrant persons of the family.

8. CONCLUSION:

The study revealed that around 80% respondents had awareness of the flagship Financial Inclusion (FI) product i.e. PMJDY or Basic Savings Bank Account which was considered only touch point or gateway of the FI. However, FI has to traverse much beyond the simple awareness of fore-front savings schemes and only their off take, to leveraging varied base level financial products and quality of after-sale services which would heighten the trust of vulnerable sections of the society toward formal financial institutions especially migrants who have to face various risks from origin to destinations. Around 35% of the respondents who had availed saving bank account facilities have complained about low level of after-sale service which weakens the idea of consumer protection that is considered to be the 3rd pillar of financial inclusion.

Majority of the respondents said that earlier they would utilize bank accounts only for the purpose of receiving remittances but of late they are using it for availing various services such as Direct benefit Transfer(DBT), receiving subsidy, sending money to others, availing SHG facilities, proof of address and insurance etc. By visiting bank branches or Banking services centers (especially by female member of the family who looks after the family) they are also getting awareness of various financial schemes and government programmes. These have provided them the ease of transaction as well as some sort of ease of living since migrants are not dependent on brokers/agents for sending money. Their families are not fully dependent on local money lenders even for small consumer loans due to intervention by SHG nurtured by MFIs/NRLM agencies. These have helped in driving away the apprehensions of being exploited by moneylenders of agents. Meanwhile, opening of PMJDY accounts have increased the visits to the banking outlets and customer service points by the members of the family of the migrants, mostly female members. This offers good opportunities, of untapped market of bottom of pyramid, to the financial market players (especially MFIs) to market their products/schemes by educating them. This in turn will empower the left-out family members to make informed choices and help stabilize their livelihood by making small but smart investments and obtaining insurances to mitigate the unforeseen risks. This is win-win situation for both financial institutions as well as the migrant families. The result from the survey revealed that majority of the migrants were from nucleated families which is at variance with the argument of Bloom and Stark that migration is used as co-insurance strategies by family jointly. However, from the survey result it can be inferred that migration is being resorted to as an escape from poverty as well as livelihood enhancement strategy in nucleated as well as joint family structure in the less developed and backward regions. It may be expounded as livelihood sustaining and development choice enhancement strategy. It can be said that the road to livelihood stabilization will pass through financial inclusion and the livelihood stabilization has the ability to lessen the vulnerability of the migrants if not to alleviate it.

REFERENCES:

1. Mishra, K. Deepak (2016), Introduction: Internal Migration in Contemporary India-An Overview of Issues and Concerns, in Deepak K Mishra (Ed.), *Internal Migration in Contemporary India.* (New Delhi: Sage Publication p 1-25
2. Breman, Jan. (1985), 'Of Peasants, Migrants and Paupers: Rural Labor Circulation and Capitalistic Production in Western India', Oxford University Press, Oxford.
3. Stark Oded, and Bloom David E., The New Economics of Labor Migration, The American Economic Review, Vol. 75, No. 2, Papers and Proceedings of the Ninety-Seventh Annual Meeting of the American Economic Association (May, 1985), pp. 173-178

4. Breman, J. (1996), 'Footloose Labour: Working in the Indian Informal Economy', Cambridge University Press.
5. DeshingkarPriya andAkterShaheen (2009), Migration and Human Development in India, United Nations Development Programme, Human Development Reports, Research Paper, April 2009
6. Balisacan, A.M. and Ducanes, G.M. (2005), Inequality in Asia: A Synthesis of Recent Research on the Levels, Trends, Effects and Determinants of Inequality in its Different Dimensions, The Inter-Regional Inequality Facility, London: Overseas Development Institute
7. Kabeer Naila (2006) Social Exclusion and the MDGs: The Challenge of 'Durable Inequalities ' in the Asian Context Parallel Group 3A: Topic Paper 4
8. Bhagat, RB (2016), Nature of Migration and Its Contribution to India's Urbanization, in Deepak K Mishra (Ed.), *Internal Migration in Contemporary India*. (New Delhi: Sage Publication, p 26-46
9. Banerjee, A. and Raju, S. (2009), 'Gendered mobility: Women migrants and work in urban India'. Economic and Political Weekly, 44(11), 115-23.
10. The United Nations ***Development*** Programme (***UNDP***): Home-Sustainable Development Goals. (2018, August 09). Retrieved from UNDP: http://www. undp.org/content/undp/en/home/sustainable-development-goals.html
11. RBI(2015, December 28). Report of the Committee on Medium Term Path on Financial Inclusion. Retrieved fromhttps://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/FIRA27F4530706A41A0BC394D01CB4892CC.PDF
12. Chakraborty KC(2012), Enabling Financial Inclusion, in Naina Lal Kidwai (Ed.), *Contemporary Banking in India*. (Noida:Businessworld), p 151-172
13. Aggarwal Neeraj (2012), Hard Yards Ahead, Financial Inclusion, in Naina Lal Kidwai (Ed.),*Contemporary Banking in India*. (Noida: Businessworld), p186-195
14. The RaghuramRajan Committee on Financial Sector Reforms accessed through-http://www.planningcommission.gov.in/reports/genrep/report_fr.htm Census 2011: accessed through http://censusindia.gov.in/2011census/population_enumeration.html
15. Handbook on statistics of Indian Economy (RBI Publication): Accessed through-https://www.rbi.org.in/Scripts/AnnualPublications.aspx?head=Handbook%20of%20Statistics%20on%20Indian%20Economy
16. Report on Trend and Progress of Banking in India 2018-19(RBI Publication): accessed through https://www.rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=48957
17. Sanjeev Kumar Gupta (2011), Financial Inclusion - IT as enabler, Reserve Bank of India Occasional Papers Vol. 32, No. 2, Monsoon 2011
18. Mithilesh Kumar (2011), "Logistics of Labour Migration: A Case Study of Bihar", Paper presented in Fourth Critical Studies Conference in Kolkata on"*Development, Logistics, and Governance: Migration and Trafficking: The Logistics of Mobility*".

One day National Conference on
"Economic Instability: Antidote for Sustainability"
26th February, 2020 at Gopalan College of Commerce, Bengaluru, Karnataka, India

Impact of Artificial Intelligence on Various Sectors

Prof. Akhil H. Bhatt
Adhoc Lecturer, Accounting/Commerce
Shah N.H. Commerce College, Valsad, Gujarat, India.
Email - akhil_bhatt04@yahoo.com

Abstract: *Artificial Intelligence (AI) is a scientific art of creating human-like intelligent machines and is proactively being used in different sectors. AI is progressing with huge pace towards the development and enhancement of technologies. Today, many companies are modifying their business models and investing heavily in AI and Big Data with the Believe that these technologies will help them with their digital transformation. By using data analysis and Artificial Intelligence capabilities, such as automatic learning or decision-making based on these data, all the sectors can optimize and automate their processes to increase profitability. AI is a good way for various companies to reduce their cost and making more comforting products for costumers. However it is also responsible for job displacement. With world's population crossing 7.7 billion people, it is creating high unemployment rate. The paper covers the meaning and history of Artificial Intelligence. Additionally the paper studies the impact of ongoing technological revolution and how it is storming various sectors like Banking and Finance, Manufacturing, Health care, Logistics and Transport, Insurance, Education, Tourism, Agriculture etc. We also explore what will be the future scenario of different industries in near future. We will go through some examples of companies like Google, Apple, and Tesla etc. shaping themselves with AI. We explore positive and negative impacts AI will have on labour intensive economies, like India, and public life style. The paper will be concluded with what will be the preconditions of use of AI in different sectors.*

Key Words: *Artificial Intelligence, human like machines, automates decision making, positive and negative impacts, and future scenario.*

INTRODUCTION:

Artificial Intelligence is an approach to make a computer, a robot, or a product to think how smart human think. AI is a study of how human brain think, learn, decide and work, when it tries to solve problems. And finally this study outputs intelligent software systems. The aim of AI is to improve computer functions which are related to human knowledge, for example, reasoning, learning, and problem-solving. The intelligence is intangible. It is composed of Reasoning, Learning, Problem Solving, Perception and Linguistic Intelligence.

AI is a brain that is created by humans. The brain that acts independently. It comprises of Logic, Knowledge, conscious, emotions, Creativity, natural language processing (communication), Learning, Planning, Sensors that connects its brain to physical environment to interact with Humans, etc. Artificial intelligence (AI) is no longer just a field for academic researchers; machine learning and deep learning are becoming mainstream technologies that any organization can harness. This could have dramatic implications for many industries, including manufacturing. The impact of AI on manufacturing is likely to ushering a whole new era of industrial development. The first three industrial revolutions were triggered by the introduction of mechanical, electrical and digital technologies, respectively. Developing AI's cognition is simply a process similar to raising a new born child. But there is a difference as this conscious doesn't have a physical structure. The physical structure could be a Data server lab or simply a robot that have similar brain structure as of humans. There's also no question that artificial intelligence holds the key to future growth and success in different sectors In a recent survey on artificial intelligence, 44% of respondents from the automotive and manufacturing sectors classified AI as ―highly important‖ to the manufacturing function in the next five years, while almost half—49%—said it was ―absolutely critical to success.‖

According to John McCarthy, one of the founding fathers of AI, AI means "the science and engineering of making intelligent machines."AI is the field of computer of computer science that is associated with the concept of machines ―thinking like humans‖ to perform task such as learning, problem solving, planning, reasoning, and identifying patterns.

HISTORY:

During the Second World War, noted British computer scientist Alan Turing worked to crack the ‗Enigma' code which was used by German forces to send messages securely. Alan Turing and his team created the Bombe machine that was used to decipher Enigma's messages. The Enigma and Bombe Machines laid the foundations for Machine Learning. According to Turing, a machine that could converse with humans without the humans knowing that it is a machine would win the ―imitation game‖ and could be said to be ―*intelligent*‖.

In 1956, American computer scientist John McCarthy organized the Dartmouth Conference, at which the term ‗Artificial Intelligence' was first adopted. Research centers popped up across the United States to explore the potential of AI. Researchers Allen Newell and Herbert Simon were instrumental in promoting AI as a field of computer science that could transform the world. From the mid 1970's to the mid-1990s, computer scientists dealt with an acute shortage of funding for AI research. These years became known as the ‗AI Winters'.

In 1997, IBM's Deep Blue defeated became the first computer to beat a reigning world chess champion, Garry Kasparov. Exponential gains in computer processing power and storage ability allowed companies to store vast, and crunch, vast quantities of data for the first time. In the past 15 years, Amazon, Google, Baidu, and others leveraged machine learning to their huge commercial advantage. Other than processing user data to understand consumer behavior, these companies have continued to work on computer vision, natural language processing, and a whole host of other AI applications. Machine learning is now embedded in many of the online services we use.

IMPACT ON VARIOUS SECTORS:

Today, many companies are investing heavily in Artificial Intelligence and Big Data and believe that these technologies will help them with their digital transformation. By using data analysis and Artificial Intelligence capabilities, such as automatic learning or decision-making based on these data, companies in all sectors can optimize and automate their processes to increase profitability. According to a recent study by IDC, Artificial Intelligence represented $12 billion in market investment in 2017. By 2021, that figure is expected to rise to $57.6 billion. The company has predicted that 40% of digital transformation projects will be based on Artificial Intelligence by 2019. In addition, 75% of business tools will use this technology by 2021. A common misnomer is that it takes a long time for AI to create an impact, but the reality is it can take a matter of weeks for an organization to see benefits. There is tremendous opportunity for AI to augment human abilities across industries while capitalizing on unique human capacities for creativity and agility – human characteristics that are difficult for computers to mimic.

- **BANKING AND FINANCE SECTOR:**

According to the IDC study, the banking and finance sector is currently at the forefront of investment in Artificial Intelligence**.** However, it is expected to be replaced by the retail sector throughout the year, which is investing heavily in this technology. Banking and finance companies will spend around $3.3 billion this year on fraud investigation projects, credit risk calculations and threat prevention systems. There are a wide variety of applications for AI in financial services. Following are few main applications of AI in the finance sector:

Building a better customer experience: Banks adopting AI systems will have a clear idea regarding their customer needs and preferences, giving them the ability to improve their services to attract new customers. **Reducing costs:** Banks are reducing cost for low-value-add activities by using robotic process automation (RPA). With the evolving technologies, banks are now using AI to reduce time and resources spent on developing are numbers of processes.

Risk management: Analyzing historical data, conducting risk analysis and eliminating human errors will help in delivering customized products to clients. Banks are adopting AI to identify patterns that often lead to regulatory inquiries.

Fraud prevention and detection: Financial service sectors are highly adopting automated proactive fraud detection solutions across entire banking. Anti-money laundering (AML) are difficult to identify in capital markets. The application of AI, networks and context through data have solved this complexity.

Market research – reporting: Intelligent agents can curate and semantically index the financial-markets research content, and automate the writing of reports, personalized websites, emails, articles and more with natural-language-generation software (e.g., Alpha Sense, Narrative Science).

Credit scoring – underwriting: machine learning can help lenders make more accurate credit-underwriting decisions, or advanced computer vision can be used with geospatial and aerial imagery for insurance/property underwriting (e.g., Zest Finance, Cape Analytics).

Which Indian Banks Are Using AI? :

About 32% of financial service providers are already using. AI technologies like predictive analytics, voice recognition among others, according to joint research conducted by the National Business Research Institute and Narrative Science.

State Bank of India (SBI): SBI is currently using an AI-based solution developed by Chapdex, the winning team from its first national hackathon,- Code for bank‖. On the front desk, it uses SIA chatbot, an AI- powered chat ass

-istant developed by Payjo, a startup based in Silicon Valley and Bengaluru.

Bank of Baroda: BoB has set up of hi-tech digital branch equipped with advanced gadgets like artificial intelligence robot named Baroda Brainy and Digital Lab with free Wi-Fi services.

YES Bank: It has partnered with Gupshup, a bot platform, to launch _YES mPower' – a banking chatbot for its loan product. Another AI product YES ROBOT is equipped to answer consumer's banking related queries anytime, anywhere, without the hassle of waiting for on-call or searching online. Also, YES BANK was the 1st Bank in India to introduce chatbot based banking with the launch of YES TAG in April 2016 which allows customers to perform banking transactions on various social messengers.

HDFC Bank: It has developed an AI-based chatbot, ‑Eva‖, built by Bengaluru-based Senseforth AI Research. Eva can assimilate knowledge from thousands of sources and provide simple answers in less than 0.4 seconds. Going forward, Eva would be able to handle real banking transactions as well. HDFC is also experimenting with in-store robotic applications and launched a prototype robot IRA (‑Intelligent Robotic Assistant‖).

- **ACCOUNTING & AUDITING**:

Artificial intelligence is poised to transform the finance and accounting industries with advancements that eliminate tedious tasks and free up time for financial staff to prioritize higher impact responsibilities. Yet a Majority of businesses (80 percent) still haven't employed AI in their workforce due to uncertainties around the business case or return on investment.

Streamline data entry and analysis: Artificial intelligence helps financial managers stay on top of transactions amid systems that are tedious and time-consuming. Instead of financial data spread out over multiple documents, PDFs and spreadsheets, machine learning — a branch of artificial intelligence — extracts data from receipt images, automatically classifies it based on spend category and populates reports for analysis in one place. These comprehensive reports can provide businesses with smart insights to improve financial planning. Machine learning also draws deeper insights as it processes data over time, meaning businesses can gain a comprehensive view into long-term spending patterns and accounting staff can provide even greater value to organizations by advising clients on optimal budget forecasting.

Reduce fraud: Company spending has become increasingly decentralized. Today, employees spend more money across more spending categories, using more payment methods than ever before. As financial data grows and spreads across additional payment channels, the risk of fraud and noncompliance increases. According to the Association of Certified Fraud Examiners, the average organization loses 5 percent of its annual revenue to internal fraud. Organizations and auditors can typically only audit 10 percent of expense reports manually, leaving the majority of potential fraud to go undetected. AI, on the other hand, can audit up to 100 percent of spend reports. By predicting patterns and detecting a wide range of anomalies in financial data, AI can help auditors catch fraudulent spending before reimbursement occurs. Because it's scalable, AI can also easily handle influxes in financial data with the same level of accuracy. In fact, analyzing *more* data makes it smarter and better at tackling financial fraud.

Enforce corporate policy: Artificial intelligence can be used to drastically reduce the time it takes to identify noncompliance issues in finance data. Purchase orders, employee receipts, travel bookings and credit card transactions are automatically scanned for purchases made outside of policy — enabling auditors to quickly right the error and help enforce corporate policies to employees. For example, AI can automatically detect employee expense violations such as disallowed or personal spend unverifiable receipts, personal credit card usage, disallowed merchants and travel add-ons.

- **MANUFACTURING SECTOR**:

The manufacturing sector trails the retail sector in investment, spending $2 billion on intelligent solutions annually. Companies in the manufacturing sector are increasingly convinced that innovation in Artificial Intelligence and the Internet of Things are the key to being competitive in a hyper connected world. With data analytics and Artificial Intelligence, we can talk about Industry 4.0.

Smart Maintenance: In manufacturing, ongoing maintenance of production line machinery and equipment represents a major expense, having a crucial impact on the bottom line of any asset-reliant production operation. Moreover, studies show that unplanned downtime costs manufacturers an estimated $50 billion annually, and that asset failure is the cause of 42 percent of this unplanned downtime.

The Rise Of Quality4.0: Due to today's very short time-to-market deadlines and a rise in the complexity of products, manufacturing companies are finding it increasingly harder to maintain high levels of quality and to comply with quality regulations and standards .On the other hand, customers have come to expect faultless products, pushing manufacturers to up their quality game while understanding the damage that high defect rates and product recalls can do to a company and its brand .Quality 4.0 involves the use of AI algorithms to notify manufacturing teams of emerging production faults that are likely to cause product quality issues. Faults can include deviations from recipes, subtle abnormalities in machine behavior, change in raw materials, and more.

- **HEALTHCARE SECTOR:**

In the healthcare sector, AI is revolutionizing the industry over with its ability to process data in a speedy way. The adoption of artificial intelligence in the healthcare sector is growing significantly while radically changing the dynamics of its delivery. With the presence of this technology, it is allowing individuals to easily access and secures the patient‘s medical data, understanding and analyzing their illnesses The overall healthcare industry is one of the largest with a massive patient database in India. It is further expected to reach $6.6 billion by 2021 with the on-going developments in artificial intelligence. By providing relevant predictions to prevent diseases and clinical confidence. According to the Interim Budget of 2019-2020, the government has specifically stressed on creating a strong healthcare delivery system in the country with an ambition to enable people of all strata to avail accessible and affordable medical facilities. In order to fulfill this ambition, the government will be setting up National Centre for Artificial Intelligence, along with the development of National AI Portal, to create an ecosystem for the adoption of technologies in order to support the momentum of care. Additionally, Dot era is opening a myriad of opportunities including internet of medical things for the healthcare industry. In simple words, machine-to- machine communication using sensors that captures an event and translates that for the receiver to take an action. In this process of communication, AI has been continuously bridging the gap between healthcare service delivery and patient recovery. Healthcare has just begun its AI journey. Where computer vision promises to pinpoint the diseases over X- rays; natural language processing (NLP) promises in drug safety; ML shows promises to find patterns within a population. Once we reach a point of true information interoperability, supporting the secure exchange of health data, all these promises will join forces to become breakthroughs for the patients. In the IDC ranking, the healthcare sector is fourth in spending. It invested $1.7 billion in Artificial Intelligence 2018.

Mental Health Diagnosis and Treatment*:* With a hectic lifestyle and work schedule, we are witnessing an increase in the mental stress and health issues among the young generation. Half the time they are engrossed in their devices and remaining time they prefer to be alone and separated from the physical world leading to isolation. This can lead to serious mental health issues; with AI it will get easy to identify people with this kind of risk. Once identified, it will be easier to suggest therapies and treatments, to avoid any further problems. Depression can be the death of anyone; one need to find ways to get rid of it and AI will be of great help to identify such people.

- **EDUCATION SECTOR**:

According to a study carried out by Stanford University**,** education will be the sector that will undergo the most change between now and 2030**.** The main factor in this transformation will be the ability to personalize education for each student and adapt teaching to their needs and capabilities. The study underscores that the applications of this technology in the educational field will be mainly in virtual reality, educational robotics, intelligent tutoring systems and learning analytics. There is a lot of change required in the education system & sector and AI will be of great help in doing so. The only things that need to be done are we need to identify the changes and how we intend to get success in making those changes. Controlling AI to design a personalized, productive and practical learning pathway for any topic or subject can determine to be an astounding enabler for such a change.Below are a few ways in which AI could effectively be used in the Indian education system:

Adapting to the Needs of the Student: In a regular school system, with large classrooms, limited time and resources, adapting the teaching style for each student is not possible. This is where AI can make a huge difference; it can understand the strengths and learning gaps of each child and adjust the pace of learning to suit their needs.

Delivering Personalized Content to the Student: AI has the potential to change the present single uniform content delivery mechanism. It can personalize the learning experience of the child to suit his/her learning style.

Automated Grading: Grading tests and exam papers are tedious and time-consuming, an AI- enabled system can auto-grade different types of questions such as essays, long-form and not just the multiple-choice questions

Providing Actionable Feedback to the Teachers: In a regular, pen and paper test, it is not possible for a teacher to analyze the child‘s learning gaps. With AI, teachers can get precise actionable data on student performance and hence can provide students with the help they need to succeed.

Changing the Role of Teachers: One key aspect of education that will not change is the teacher. AI-based tools will never replace the teacher but their role will evolve. The teacher would become a facilitator of learning, assisting students, providing human interaction and more hands-on experience in the classrooms.

- **TOURISM SECTOR:**

Many AI-based solutions are already being used in the tourism sector and others are being developed. The use of Chatbots to provide information and assistance to travelers is the most common AI solution currently in use. In fact, according to a Travelzoo report, 80% of travel assistants will be robots by 2020.

- **EXAMPLES OF COMPANIES USING AI:**

Google:

AI plays a central role in Google's strategy for future growth under CEO Sundar Pichai, who explained in a 2016 conference call: "In the long run, we're evolving in computing from a 'mobile-first' to an 'AI-first' world." AI has long played a core role in Google's existing products, from the algorithms in search to the suggested reply in Gmail.

Google Assistant depends on natural language processing to interpret voice commands and the new Duplex AI can independently make restaurant reservations. In 2018 the firm confirmed plans to invest $25 million (£19.45 million) in AI research to tackle social and economic problems around the world.

Amazon:

Most areas of Amazon's mammoth business incorporate in some form, from its recommendations engine to the robots that man its warehouses. Alexa, the company Amazon's intelligent voice assistant, uses neural networks to power natural language processing that analyses the human voice and returns an appropriate response. Amazon has also opened an AI-powered shop in Seattle called Amazon Go.

Microsoft:

In September 2016, Microsoft created an Artificial Intelligence and Research Group that cuts across the Windows, Office and Azure business units. The company also uses AI to power chatbots in Skype, analyse data in Office 365, build apps in Azure, support interaction with Cortana and to match searches with results in Bing. In 2019, Microsoft revealed plans to invest $1 billion in OpenAI, a San Francisco-based company. It also announced a two-year partnership to develop AI supercomputing technologies on Microsoft Azure.

Apple:

Apple uses AI in a wide range of applications, from identifying fraud in the App Store to optimizing battery usage, but the company has lagged behind some of its competitors in the field. Apple hopes to gain an edge on its rivals through a focus on protecting user data and providing transparency. The company has illustrated how it intends to use AI for "training image recognition algorithms" in an academic paper.

IBM:

IBM's most notable investment in AI is Watson, a cognitive computing platform that can answer questions posed in natural language to extract meaning from photos, videos, text and speech.

Labour Intensive Countries and Artificial Intelligence:

The substitution of human labour by artificial intelligence and robots is a keenly debated topic. Some claim that a substantial share of jobs is at risk, while others argue that computers and robots will lead to product innovations and hence to unimaginable new occupations. This column uses a survey of Japanese firms to examine the impact of AI-related technologies on business and employment. Overall, firms expect a positive impact on business but a negative impact on employment. Firms with a highly skilled workforce, however, have a more optimistic view than firms with lower skilled employees. AI can contribute to development in numerous (of-ten unconventional) ways creates a climate of hope and optimism. However, it would be naive not to anticipate and forestall the potential risks of AI-driven growth. In this section, we raise the main concerns that emerge from India‘s socio-economic context.

DISPLACING WORKERS: India is no exception to the global AI wave, which is beginning to uproot workers from their jobs. A recent study estimates that 6-8 million workers ―currently employed in routine clerical, customer service, and sales jobs could be affected by advancements in machine learning and natural language interfaces.‖ A loss of jobs at this scale can have an impact on economic well-being for a large number of people who may be dependent on these wage-earners, an important consequence for a middle- income country trying to raise a large number of citizens out of poverty. India‘s acclaimed IT industry is already feeling the pinch of automation, suggesting that a crisis triggered by job losses could hit the population over the next few years. Other side effects of AI might take longer to manifest.

REINFORCING SOCIAL DISCRIMINATION: The caste system in India is a social hierarchy with historical roots. Sadly it continues to perpetuate discrimination in subversive and invisible ways, affecting wages, employment, imprisonment, and access to credit from banks. With the advent of AI, it has become a growing concern that data-driven algorithms can pick up biases from the data they are fed. Even if we presume that the decisions, in this case, were made by human evaluators, it is a cause for concern if these decisions are eventually used to train an algorithm for screening application.

EXCLUDING THE DISADVANTAGED THROUGH TARGETING: The high costs of developing AI-based applications may mean that the initial impetus will come from private corporations. It is natural for corporations to seek revenues from areas in which profit pools are large, with no particular obligation to ad-dress socially- relevant issues such as equitable access. Consequently, the needs of the less-profitable may not be considered.

AMPLIFYING GENDER INEQUALITY: The number of Internet users and the number of mobile internet users in India are both expected to grow—to 420 million and 300 million, respectively, Mobile phones are the primary access point to the Internet, particularly in rural India, where 60% of Internet access is through mobile phones. While the penetration of mobile phones seems an overall a boon for AI, it could unwittingly amplify the gender disadvantage. Women in South Asia are 38% less likely to own a mobile phone than men; when overlaid with patriarchal and

misogynistic social norms, this means the real access rate could be even lesser. Consequently the reach of AI may become segmented along gender.

STEPS AND SAFEGUARDS:

In this section, we propose some guiding principles for the construction of a robust AI ecosystem in India.To be effective, AI needs access to relevant data in the digital domain. The government‘s ―Digital India‖ initiative is a welcome step in this direction. In addition to public data from governmental departments, it would also be useful to create locally relevant public open sets pertaining to language, health, crops, market places, and so on. It would neither be effective nor sustainable if the activity of developing AI-based solutions is confined to a small number of people and places. It is essential that a broader section of the population especially women, linguistic minorities, and rural communities—be actively trained to create and maintain AI systems for their own needs. Industry, especially startups, will play a vital role in identifying and realizing the benefits of AI across diverse sectors. India has a thriving tech entrepreneurship ecosystem, with access to talent, capital, and large markets. There are about 300 startups in India with a focus on AI, as of May, 2017, with over USD 100 million invested in them since 2014.This number, however, is low in comparison to countries like the US and China. Startups that are constrained to keep risk low can focus on high-volume, low margin sectors.

CONCLUSION:

The different sectors are a perfect fit for the application of artificial intelligence. Even though the Industry Revolution is still in its early stages, we‘re already witnessing significant benefits from AI. In pace with the growth of AI, we will have to evolve regulatory mechanisms such as safety and quality standards; legal frameworks addressing data security, privacy, and liability; and ethics review committees. As rightly quoted by Stephen Hawking, Computers will overtake humans with AI in next 100 years, we have to make sure the computers have goals aligned with ours.

REFERENCES:

1. S. Kalyanakrishnan, P.A. Rahul, N. Sarayu, R.Sherya, (2018) Opportunities and Challenges for Artificial Intelligence in India, AIES 2018 Submission 52.
2. P. Shreelekha, Impact of AI in Manufacturing Industries, (2018) International Research Journal of Engineering and Technology(IRJET) , Volume:05, Issue:11, e-ISSN: 2395-0056, p-ISSN: 2395- 0072.
3. Fernald, J.G. (2015), ―Productivity and Potential Output before, during, and after the Great Recession,‖ in *NBER Macroeconomics Annual 2014*, edited by J.A. Parker, and M. Woodford. Chicago: University of Chicago Press, 1–51.
4. Frey, C.B., and M.A. Osborne (2013), ―The Future of Employment: How Susceptible Are Jobs to Computerisation?‖ mimeograph, Oxford Martin School.
5. Morikawa, M. (2016), ―The Effects of AI and Robotics on Business and Employment: Evidence from a Survey on Japanese Firms,‖ RIETI Discussion Paper, 16-E-066.
6. Agrawal, Amit. ―How Artificial Intelligence Is Impacting Industries |.‖ *AcadGild*, 3 Oct. 2019, acadgild.com/blog/how-artificial-intelligence-is-impacting-industries.
7. Maguire, James. ―12 Examples of Artificial Intelligence: AI Powers Business.‖ *Datamation*, www.datamation.com/artificial-intelligence/examples-of-artificial-intelligence.html.
8. Solutions, 9series. ―Impact of Artificial Intelligence on Industries in 2019.‖ *Medium*, Medium, 22 May 2019, medium.com/@9series.solution/impact-of-artificial-intelligence-in-2019-18c00c6df875.
9. ―Artificial Intelligence: An Introduction.‖ *GeeksforGeeks*, 18 Sept. 2019, www.geeksforgeeks.org/artificial-intelligence-an-introduction/.
10. Selvamanikkam, Meruja. ―Introduction to Artificial Intelligence.‖ *Medium*, Becoming Human: Artificial Intelligence Magazine, 4 Sept. 2018, becominghuman.ai/introduction-to-artificial- intelligence-5fba0148ec99.
11. Peart, Andy. ―Homage to John McCarthy, the Father of Artificial Intelligence (AI): Conversational AI Platform - Teneo: Artificial Solutions.‖ *Conversational AI Platform - Teneo | Artificial Solutions*,17 Jan. 2020, www.artificial-solutions.com/blog/homage-to-john-mccarthy-the-father-of-artificial- intelligence.
12. Ray, Shaan. ―History of AI.‖ *Medium*, Towards Data Science, 15 Dec. 2019, towardsdatascience.com/history-of-ai-484a86fc16ef.
13. Ravi, Sanjay, et al. ―The Global Impact of AI across Industries.‖ *Transform*, 24 Aug. 2018, news.microsoft.com/transform/the-global-impact-of-ai-across-industries/.
14. Racchu, Rachana. ―Impact of AI in Banking Sector.‖ *YourStory.com*, Yourstory, 17 Aug. 2018, yourstory.com/mystory/cbdccb0285-impact-of-ai-in-bankin.
15. Agarwal, Meha. ―How Will Artificial Intelligence Change The Banking Industry?‖ *Inc42 Media*, 18 Feb. 2020, inc42.com/features/how-will-artificial-intelligence-change-the-banking-industry/.

16. –Artificial Intelligence in the Energy Industry.‖ *Next Kraftwerke .Com*, 11 Dec. 2019, www.next-kraftwerke.com/knowledge/artificial-intelligence.
17. Khera, Sanchit. –Artificial Intelligence in Education, and How It's Impacting Indian Students.‖ *The News Minute*, 21 Jan. 2019, www.thenewsminute.com/article/artificial-intelligence-education-and- how-its-impacting-indian-students-95389.
18. Makkar, Avneet. ―How Can AI Be Effectively Used in the Indian Education System?‖ *Entrepreneur*, 23 July 2019, www.entrepreneur.com/article/337165.
19. Narula, Gautam. –Everyday Examples of Artificial Intelligence and Machine Learning.‖ *Emerj*, Emerj, 13 Feb. 2020, emerj.com/ai-sector-overviews/everyday-examples-of-ai/.
20. –Sophia (Robot).‖ *Wikipedia*, Wikimedia Foundation, 12 Feb. 2020, en.wikipedia.org/wiki/Sophia_(robot).
21. Fernandes, Kasmin. –Artificial Intelligence in Agriculture in India.‖ *The CSR Journal*, 10 Feb. 2020, thecsrjournal.in/artificial-intelligence-in-agriculture-in-india/.
22. –Artificial Intelligence and Employment.‖ *Global Business Outlook*, 8 June 2016, www.globalbusinessoutlook.com/artificial-intelligence-and-employment/.
23. Baruah, Ayushman. –AI in Demand but 2,500 Jobs Remained Vacant in 2019, Says Report.‖ *Livemint*, Livemint, 26 Dec. 2019, www.livemint.com/news/india/ai-in-demand-but-2-500-jobs- remained-vacant-in-2019-says-report-11577358818915.html.
24. Meunier, Sébastien. –The Impacts and Challenges of Artificial Intelligence in Finance.‖ *International Banker*, 9 Apr. 2018, internationalbanker.com/finance/the-impacts-and-challenges-of-artificial-intelligence-in-finance/.
25. Vordenbaeumen, Hendrik. –3 Ways Accountants Can Implement AI Today.‖ *Accounting Today*, Accounting Today, 24 Apr. 2019, www.accountingtoday.com/opinion/3-ways-accountants-can- implement-ai-today.
26. Staff, Techworld. –How Tech Giants Are Investing in Artificial Intelligence.‖ *Techworld*, 8 Nov. 2019, www.techworld.com/picture-gallery/data/tech-giants-investing-in-artificial-intelligence- 3629737/.

One day National Conference on
"Economic Instability: Antidote for Sustainability"
26th February, 2020 at Gopalan College of Commerce, Bengaluru, Karnataka, India

MONETARY POLICY AND ECONOMIC GROWTH LINKAGES IN INDIA: AN EMPIRICAL REFLECTION.

Dr.SIJI K.
Associate Professor, Gopalan College of Commerce
Email - kalathodi.siji@gmail.com,

Abstract: *Monetary policy plays an integral part of economic growth in any economy due to its significant impact on economic sustainability. It is directly responsible for economic and financial stability .Monetary policy tools are used to manage economic growth processes by balancing money supply and demand in domestic markets, increasing the benefits from foreign trade by exchange rate and overall financial flows by monitoring inflation rate trends. However economic growth and inflation used to characterize economic stability or financial stability. The monetary policy of any country strives to achieve a balance between its goals of price stability and higher growth by using various monetary policy tools .This paper analyzed the empirical relationship between monetary policy tools and economic growth, revealed that monetary policy tools influenced positively on economic growth.*

Key Words: *Financial stability, Monetary policy, foreign trade.*

INTRODUCTION:

Monetary policy plays a significant role in the economic system by addressing imbalances that affect aggregate productivity and growth level through a number of channels and is directly responsible for economic and financial stability. Though, the scope of monetary role might be limited by the nature of monetary policy transmission mechanism, the uncertainty surrounding the policy makers and the various economic policies. In every economy, the central bank uses the instruments of monetary policy to influence the liquidity level and the composition of interest rate within the banking institutions in accordance with the prerequisite of monetary and banking stability towards enhancing economic growth (Miftahu Idris 2019). Since sustained increase in price levels is adjudged substantially to be a monetary phenomenon, monetary policy uses its tools to effectively check money supply with a view to maintaining price stability in the medium to long term. In other words, high inflation is damaging to long-run economic performance and welfare. Monetary policy has far reaching impact on financing conditions in the economy, not just the costs, but also the availability of credit, banks' willingness to assume specific risks, etc. It also influences expectations about the future direction of economic activity and inflation, thus affecting the prices of goods, asset prices, exchange rates as well as consumption and investment. A monetary policy decision that cuts interest rate, for example, lowers the cost of borrowing, resulting in higher investment activity and the purchase of consumer durables. The expectation that economic activity will strengthen may prompt banks to ease lending policy, which in turn enables business and households to boost spending. In a low interest-rate regime, stocks become more attractive to buy, raising households' financial assets. This may also contribute to higher consumer spending, and makes companies' investment projects more attractive. Low interest rates also tend to cause currency to depreciate because the demand for domestic goods rises when imported goods become more expensive. The combination of these factors raises output and employment as well as investment and consumer spending. The main objective of monetary policy in India is to ensure price and monetary stability. It is mainly achieved availing savers to invest their surplus funds through appropriate interest rate structure, ensure financial sector soundness, maintenance of efficient payment system, applying deliberate policies to expand the scope of the financial system. Financial inclusion is particularly important; the large is the interest rate sensitivity of production and aggregate demand and the more effective monetary policy.

Monetary policy decisions affect expectations for the future performance of the economy (Banco de Mexico, 2014). Monetary policy tools become the key instruments of regulating the economy in nearly all of the modern economies by giving a less room for fiscal policy tool. Modern economic theory prioritizes the optimally structured monetary policy with appropriate regulatory tools. This theory prioritizes the expansionary monetary system, which is the base to support economic growth and to minimize threats to economic condition. The most widespread monetary policy tool is interest rate floors, ceilings and reserve requirements installed by monetary policy authority to regulate economy through banking system channels which have direct link with money supply and demand. These tools have

been effectively used by both developed and developing economies when they are in the threshold of financial imbalance or large economic reforms. The aim of this paper is to empirically examine the monetary policy and economic growth and presents a glimpse of a large-scale research on the use of monetary policy tools in economic growth.

OBJECTIVE OF STUDY :

- To control inflation and bring financial stability.
- To correct disequilibrium in demand for money and supply of money and ensure price stability.
- To analyse the relationship between financial development and monetary stability.
- To analyse the cause and effect relationship of financial stability with monetary policy and price stability
- To assess the long term macro economic impact on capital on liquidity requirements.

LITERATURE REVIEW :

Ofegbu (2018) in his study indicates that banks profitability is determined by risk and other factor that relates to the internal organization of banking sector. It revealed that market concentration and exchange rate is a significant determinant of banks profitability through return on equity and net-interest margin, but not significant to return on asset (ROA) as a measure of profitability. Mathai (2017) in his study examined the role of monetary policy in stabilizing the economy through money supply by regulating the inflation and output in the economy and supported the ECB and Fed's approach of using monetary policy to regulate inflation and economic growth. Aizenman, Chinnin (2015) in his study analyzed the effect of monetary policy changes on smaller economies and revealed that an economy that pursues greater exchange rate stability and financial openness has a stronger link with the centre economies. Kareen (2013) in his study used OLS method and correlation matrix to analyze the impact of fiscal and monetary policy growth in Nigeria and identify that monetary variable are significant and have positive effect on economic growth. Ogiji(2011) in his study used vector error correction model to examine the impact of monetary policy management and found that exchange rate ,inflation and liquidity ratio are important for monetary policies effectiveness in Nigeria and money supply is not dependable target variable for policy purpose as it is highly volatile. Odhiambo (2008) in his study analyzed the dynamic causal relationship between financial depth and economic growth in Kenya and identified that there is unidirectional causal relationship between economic growths to financial development. The study concluded that any argument in financial development unambiguously leads to economic growth treated with extreme caution.

THEORETICAL FRAMEWORK:

The theoretical framework for this study is the Classical monetary theory, Quantity theory of money, Keynesian theory and monetarist theory. Monetary theory undergone a vast and complex evolution and has drawn the attention of many researchers with different views on the role and dimensions of money in attaining macro-economic objectives.

The Classical Monetary Theory: The classical school of economists like Jean Baptist says, Adam Smith, David Ricardo, Pigou and others who shared the same beliefs. The classical model attempts to explain the determinants of such economic variables as consumption, savings and investments with respect to money.

The Quantity Theory of Money: Quantity theory of money related the level of economic commodity prices to the quantity of money in the economy and the level of its commodity production and is used to explain the level of prices i.e the transactions formulation or the equation of exchange and the cash-balance formulation or the Cambridge equation.

Keynesian and Monetary Policy: The Keynesian model assumes a close economy and a perfect competitive market with fairly price-interest aggregate supply function. In this analysis, money supply is said to be exogenously determined if wealth holders only have one choice between holding bonds. The Keynesian theory is rooted on price rigidity and possibility of an economy setting at a less than full employment level of output, income and employment. The Keynesian macro economy brought into focus the issue of output rather than prices as being responsible for changing economic conditions.

The Monetarist Theory: The monetarist are essentially, quantity theorist who adopted Fishers equation of exchange i.e., as a theory of demand for money and not a theory of output prices and money income by making a functional relationship between the quantity of real balances demanded a limited number of variables (Essia, 2008).

METHOD:

We follow co integration test and selected three monetary policy tools which have a direct impact on monetary policy monetary policy rate, liquidity ratio and volume to GDP. As an effective tool of monetary policy we selected GDP growth. We specified our model as follows:

$LnGGDP=\alpha_0+\alpha_1 LnRI+\alpha_2 LnRR+\alpha_3 LnVT+\mu_t$

Where, GGDP – GDP growth – indicator of the change in state of an economy in a particular period. It reflects the real condition (fall, stagnation, growth) in the economy. Real interest rate – interest rate floor for lending by banks and other non-bank financial institutions fixed by monetary authority RR– mandatory required reserve–reserve requirements as a percentage of deposit fixed by monetary authority VT – volume to GDP – volume of open market operations to regulate money supply and demand as per the monetary authority

ANALYSIS&DISCUSSION:

To analyze time series data, to check the order of integration of the variable apply Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) unit root test are used at level form and first and second difference of each series to analyze order of integration. The unit root test is used to examine stationary, T-statistic, F-statistic and R^2. We

TABLE 1: AUGMENTED DICKEY-FULLER (ADF) AND PHILLIPS-PERRON (PP) UNIT ROOT TEST FOR STATIONARITY

Variable	PP	ADF
LnGGDP	-8.7814	-9.3221
LnRI	-0.5012	-0.0904
LnRR	-0.0629	-0.0094
LnVT	-1.5029	-1.9873

PP and ADF tests show that stationary does not exist in the above data. So we test stationarity in first difference.

TABLE 2: AUGMENTED DICKEY-FULLER (ADF) AND PHILLIPS-PERRON (PP) TEST RESULTS IN THE FIRST DIFFERENCE

Variable	PP	ADF
LnGGDP	-10.3517	-9.4624
LnRI	-2.8607	-4.7607
LnRR	-4.0000	-4.0000
LnVT	-3.6449	-3.6449

Above table 2 reveals that variables are stationary in first difference of order1. After testing stationary, we start testing co integration to examine long-term relationship among selected variables in Johansen and juselius method. The result of the cointegartion condition is presented in table 3

Table 3: Unrestricted co integration rank test trace result

Hypotheses	Eigen value	T.Statistics	0.05 Critical value	probability
None*	0.77898	69.00976	48.56183	0.0001
At most 1	0.41225	27.09756	28.97714	0.1002
At most 2	0.144071	6.59778	15.27149	0.1699
At most 3	0.04752	1.41246	3.79646	0.2280

Source: 5%levelofsignificance

Johansen co integration test results showed that long-term relationship exists between variables. Eigen value statistics indicates 1 co integration equation at the 5 percent level of significance. Since there is need for further subject to the variables, error correction model is used to examine the errors that exist between monetary policy and economic growth in India.

Table 4: Error correction model

Variable	Coefficient	Standard error	t-statistic	probability
C	7.81458	1.6418	3.4722	0.0123
Log(RI)	0.3162	0.2389	1.4431	0.0034
Log(RR)	0.0144	0.0246	0.0345	0.0048
Log(VT)	0.0057	0.0434	1.2208	0.0024
Ut-1	0.5361	0.1935	1.1982	0.0003
R^2	0.6454	**Mean Dependent Variable**		0.09
F-Statistic	5.6714	**Durbin-Watson Statistic**		1.64
Probability(F-statistic)	0.012			

Results reveal monetary policy tools positively influenced on economic growth and were supportive in regulating the national economy. Rate of interest was most effective among all three tools, while volume of GDP is

least and the error correction model is 0.5361.F-statistic showed that there was a long-term relationship between economic growth and monetary policy tools.

FINDINGS:

- The monetary policy tools played a significant role in regulating the economy towards growth
- The external negative effect of monetary policy tools resulted in less efficiency for the growth of the economy.
- Inflation plays a dominant role to bring economic stability and tries to bring stability by correcting disequilibrium in demand for money and supply of money.
- Need suitable interest rate policy and existence of high interest is an obstacle to the growth of public and private investment.

CONCLUSION:

The study concluded that monetary policy has a significant impact on economic growth in India i.e. monetary policy variables are statistically significant in explaining macro-economic variables in the economy. Analyses revealed that monetary policy tools positively influenced economic growth and bring economic stability. Monetary policy instruments are used to induce investments through change in monetary supply and interest rate. In the era of changing global environment, the current economic approach of most countries is transforming their system for economic growth.

REFERENCES:

1. Gul, H., Mughal, K., and Rahim, S. (2012). Linkage between monetary instruments and economic growth. Universal Journal of Management and Social Sciences, Vol. 2, No. 5, pp. 69-76.
2. Loria, E. and Ramirez, J. (2011). Inflation, monetary policy and economic growth in Mexico. An inverse causation, 1970-2009. Modern Economy, 2011-2, pp. 834-845.
3. Ayunku, peterego and Eze Onyekachi Richard(2019).Impact of monetary policy instruments on economic growth in Nigeria,IJRSI,Vol.VI,PP.78-82.
4. Umidjon Duskobilou (2017).Impact of economic regulation through monetary policy: impact analysis of monetary policy tools on economic stability in Uzbekistan, International journal of innovation and economic development,Vol:5,Issue 5,pp.65-69
5. Ogiji, F.O (2011).Impact of monetary Policy Management on economic growth in Nigeria: A thesis presented to the department of banking publication.
6. RBI statistical publication
7. Kaushik Bhattacharya (2012).Monetary policy approaches In India, BIS paper No:31.

One day National Conference on
"Economic Instability: Antidote for Sustainability"
26th February, 2020 at Gopalan College of Commerce, Bengaluru, Karnataka, India

MSME –The Augmentation Engine of Indian Economy

[1]Maqsud Ahamed N, [2]Rachana B. S.,
[1, 2] Assistant professor, Department of Commerce,
[1, 2] Akshara Institute of management studies, Shimoga, Karnataka
Email - [1] maqsudahamed03@gmail.com, [2] rachanabs007@gmail.com

Abstract: *The importance of MSME has been recognized in recent years in both developed and developing countries for its major contribution in satisfying various socio-economic objectives such as higher growth of employment, output, promotion of exports and fostering entrepreneurship. They play a vital role in the industrial development of any country. The MSME sector is an important steam engine of Indian economy as it contributes greatly to growth of Indian economy. This sector even assumes greater importance now as the country moves towards a faster and comprehensive growth agenda. Moreover, it is the MSME sector which can help realize the target of proposed National Manufacturing Policy of raising the share of manufacturing sector in GDP from 16% at present to 25% by the end of 2022. The present paper is an attempt to focus the Find out the contribution of MSMEs in the economic development of India and to review the challenges faced by MSMEs. It is concluded that this sector contributes appreciably to manufacturing output, employment, exports of the country.*

Key Words: *MSMEs, Employments, GDP, Growth.*

INTRODUCTION:

Micro, Small and Medium Enterprise (MSME) sector is universally regarded as an engine of economic growth and for promoting equitable development. The sector also helps the economy by promoting a balanced development of industries across all regions of the nation. The major advantage of the sector is its employment potential at low capital cost. Small and Medium enterprises (SMEs) account for about 90 percent of businesses and more than 50 percent of employment worldwide. They are key engines of job creation and economic growth in developing countries.

Meaning: Across the world, MSMEs are defined in different ways based on various criteria viz., turnover and investment in assets and number of employees. In India, MSMEs are defined based on investment in Plant and Machinery / equipment. In terms of MSMED Act, 2006, MSMEs are classified into Manufacturing and Service Enterprises The MSMED Act, 2006, was enacted to provide enabling policy environment for promotion and development of the sector by way of defining MSMEs, putting in place a framework for developing and enhancing competitiveness of the MSME enterprises, ensuring flow of credit to the sector and paving the way for preference in Government procurement to products and services of the MSEs, address the issue of delayed payments, etc. However, in the changed circumstances, it is imperative that the thrust of this important legislation should be focused more on market facilitation and promoting ease of doing business for MSMEs.

Micro, Small & Medium Enterprises Development (MSMED) Act, 2006: The Government of India has enacted the Micro, Small and Medium Enterprises Development (MSMED) Act, 2006 on June 16, 2006 which was notified on October 2, 2006. With the enactment of MSMED Act 2006, the paradigm shift that has taken place is the inclusion of the services sector in the definition of Micro, Small & Medium enterprises, apart from extending the scope to medium enterprises. The MSMED Act, 2006 has modified the definition of micro, small and medium enterprises engaged in manufacturing or production and providing or rendering of services.

Definition of MSME:

MSME are the engines of augmentation of any country's economy. The Government of India has enacted the Micro, Small and Medium Enterprises Development (MSMED) Act, on June 16, 2006. In accordance with the provision of Micro, Small & Medium Enterprises Development (MSMED) Act, 2006 the Micro, Small and Medium Enterprises (MSME) are classified in two Classes:

- **Manufacturing Enterprises**: the enterprises engaged in the manufacture or production of goods pertaining to any industry specified in the first schedule to the industries (Development and regulation Act, 1951) or employing plant and machinery in the process of value addition to the final product having a distinct name or character or use. The Manufacturing Enterprise is defined in terms of investment in Plant & Machinery.

- **Service Enterprises:** The enterprises engaged in providing or rendering of services and are defined in terms of investment in equipment. The limit for investment in plant and machinery or equipment for manufacturing / service enterprises, as notified is as under

Table 1: Manufacturing Sector

Micro Enterprises	•Up to Rs.25 lakhs
Small Enterprises	•More than Rs.25 lakhs but not exceeding Rs.5 crores
Medium Enterprises	•More than ₹ 5 crores but not more than Rs.10 crores

Table 2: Service Sector

Micro Enterprises	•Up to Rs.10 lakhs
Small Enterprises	•More than Rs.10 lakhs but not exceeding Rs.2 crores
Medium Enterprises	•More than Rs.2crores but not more than Rs.5 crores

OBJECTIVE OF STUDY : The broad aim of the paper is to assess the overall growth and developments in the MSMEs sector in India. However, this papers specific objective includes;

- To study the contribution of MSMEs in the economic development of India.
- To review the challenges faced by MSMEs in India.

LITERATURE REVIEW : In this section the published papers of other researchers related to the MSME stream were studied and few studies were reviewed as follows.

Srinivas (2013), studied the performance of micro, small and medium enterprises, their contribution in India"s economic growth, identified the number of enterprises, employment in MSMEs and concluded that MSMEs play a significant role in inclusive growth of Indian economy. Abdul Naser (2013), critically evaluated the contributions made by the micro, small and medium enterprises in the balanced growth of the Indian economy. The study says that since 55 per cent of the total enterprises operate in the rural areas they promote inclusive growth and regional equity. They play a very important role in employment generation and contribute a commendable portion to the GDP, industrial production and export of the country. The paper also highlights the challenges faced by the sector and its need for structural support. Singh (2012) analyzed the performance of Small scale industry in India and focused on policy changes which have opened new opportunities for this sector. Their study concluded that SSI sector has made good progress in terms of number of SSI units, production & employment levels. The study recommended the emergence of technology development and strengthening of financial infrastructure to boost SSI and to achieve growth target. Venkatesh and Muthiah (2012), found that the role of small & medium enterprises (SMEs) in the industrial sector is growing rapidly and they have become a thrust area for future growth. They emphasized that nurturing SME sector is essential for the economic well-being of the nation. The above literature highlights the various aspects viz. performance, growth & problems of MSMEs in Indian economy and induces for continuous research in this field

MATERIALS:

Growth and Performance:

The MSME sector has emerged as a very imperative sector of the Indian economy, contributing significantly to employment generation, innovation, exports, and inclusive growth of the economy. In recent years the MSME sector has consistently registered higher growth rate compared to the overall industrial sector in India. MSMEs are amongst the strongest drivers of economic development, innovation and employment. The MSME sector also contributes in a significant way to the growth of the Indian economy with a vast network of about 63.38 million enterprises. The sector contributes about 45% to manufacturing output, more than 40% of exports, over 28% of the GDP while creating employment for about 111 million people, which in terms of volume stands next to agricultural sector.The MSME sector in India is exceedingly heterogeneous in terms of size of the enterprises and variety of products and services, and levels of technology employed. However, the sector has the potential to grow at a faster

pace. To provide impetus to the manufacturing sector, the recent National Manufacturing Policy envisaged raising the share of manufacturing sector in GDP from 16% at present to 25% by the end of 2022.

Key Highlights of the MSMEs Sector:

- ✓ MSME contribute about 38% of India's manufacturing output.
- ✓ MSMEs are the backbone of the GDP of India. Their contribution to GDP is around 7.5%.
- ✓ MSMEs manufacture over 6000 products ranging from traditional to high-tech items.
- ✓ The sector provides employment to around 106 million people.
- ✓ MSMEs contribute around 40% of India's total export.

Problems of MSME`S in India:

Presently, the Indian MSME`S are facing different types of problems. Most of the problems are controllable while rests are uncontrollable. Based on data analysis and study of the related literature the MSME`S problems can explain as follows:-

- **Lack of credit from banks:** The MSME`S are presently facing the problems of credit from the banks. The banks are not providing the adequate amount of loan to the MSME`S. The loan providing process of the banks is very long and formalistic. The owners of the MSME`S has to produce different types of documents to prove their worthiness. The banks are providing on an average 50% total capital employed in fixed assets (TABLE-F). The cost of credit is also high.
- **Competition from multinational companies:** In present era of globalization, the MSME`S are facing the great from the international manufacturing companies who are proving quality goods at cheapest price. Therefore, it is very difficult to compete with the multinational companies.
- **Poor infrastructure:** Though, MSME`S are developing so rapidly but their infrastructure is very poor. With poor infrastructure, their production capacity is very low while production cost is very high.
- **Unavailability of raw material and other inputs:** For MSME's required raw material skilled work force and other inputs, which are not available in the market. Due to unavailability of these essentials, it is very difficult to produce the products at affordable prices.
- **Lack of advanced technology:** The owners of MSME`S are not aware of advanced technologies of production. Their methodology of production is outdated. The owners are using older method in the field of fabricated metal and textile.
- **Lack of distribution of marketing channels:** The MSME`S are not adopting the innovative channels of marketing. Their advertisement and sales promotion are comparatively weaker than the multinational companies are. The ineffective advertisement and poor marketing channels leads to a very poor selling.

METHOD: The present study is descriptive in nature. The scope of the present study has been confined to the contributions made by the MSME to the Indian economy and challenges faced by MSMEs in India. The data for the present study have been collected from various Secondary sources through published and unpublished data like; magazines, annual reports, news papers and internet sources. Published data were collected especially from the annual report published by Ministry of Micro, Small and Medium Enterprises and RBI reports.

ANALYSIS&DISCUSSION: MSME'S has definitely helped in growth of Indian Economy by creating opportunities for Entrepreneurs and by creating a number of employment vacancies, as well as it has a very powerful impact on Investments and Gross output also which is explained as below through the statistics.

State-wise Distribution of estimated MSMEs:

State of Uttar Pradesh had the largest number of estimated MSMEs with a share of 14.20 % of MSMEs in the country. West Bengal comes as close second with a share of 14% again. The top 10 States together accounted for a share of 74.05 % of the total estimated number of MSMEs in the country. Figure 2-8 and Table 2.11 show the distribution of estimated enterprises in top ten States.

Table 3: State-wise Distribution of estimated MSMEs

Sl. No.	State/UT	Estimated Number of MSMEs	
		Number (in lakh)	Share (in %)
1	Uttar Pradesh	89.99	14
2	West Bengal	88.67	14
3	Tamil Nadu	49.48	8
4	Maharashtra	47.78	8
5	Karnataka	38.34	6
6	Bihar	34.46	5
7	Andhra Pradesh	33.87	5
8	Gujarat	33.16	5
9	Rajasthan	26.87	4

10	Madhya Pradesh	26.74	4
11	Total of above ten States	469.36	74
12	Other State/UTs	164.52	26
13	All	633.88	100

Source: Ministry of MSME annual report, 2017-2018

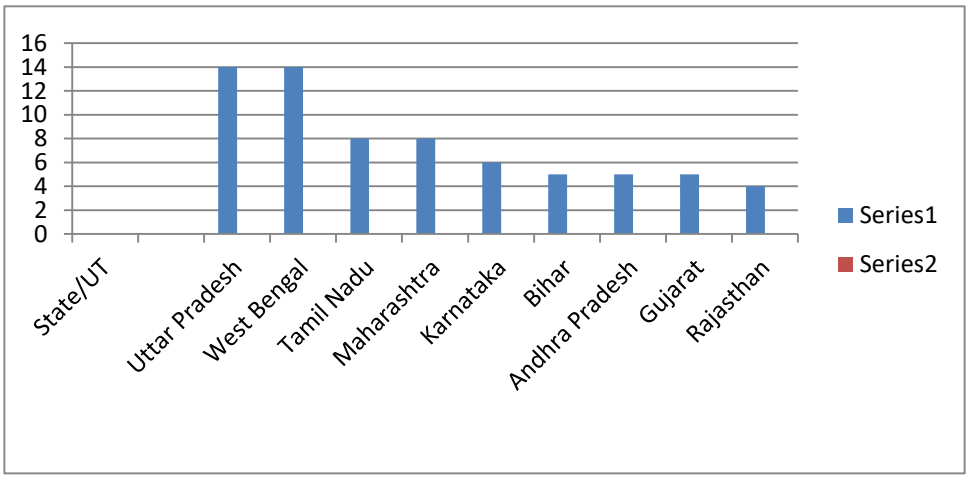


Figure 1. State-wise Distribution of estimated MSMEs

Employment Created by MSMEs:

Table 4 and Fig. 2 below shows activity wise distribution of MSMEs in the country with the trade industry having the elephant share of the sector. The trade industry had 230.35 Lakhs MSMEs representing 36% followed by 206.85lakhs MSMEs engaged in other services, manufacturing following with 196.65lakhs representing 31% of MSMEs and lastly Non-captive electricity generation and transmission with 0.03lakhs. Fig.3 below also illustrates the urban and rural percentage share of MSMEs. The rural areas have the highest concentration of MSMEs representing 51%. The Urban areas in India have 49% share of the MSMEs in the country. This is good news as availability of industries in rural areas create employment thereby preventing rural-urban migration, uplifting standard of living of the rural dwellers, and equal distribution of wealth employment created by the MSMEs whiles the remaining 24% are female.

Table: 4 Employment Created by MSMEs

Activity Category	ESTIMATES IN LAKHS			Share (%)
	Rural	Urban	Total	
Manufacturing	114.14	82.5	196.65	31
Trade	108.71	121.64	230.35	36
Other Services	102	104.85	206.85	33
Electricity	0.03	0.01	0.03	0
TOTAL	324.88	309.00	633.88	100

Source: Ministry of MSME annual report, 2017-2018

Table 5: Employment share by gender

Sector	Female	Male	Total	Share (%)
Rural	137.50	360.15	497.78	45
Urban	127.42	484.54	612.10	55
TOTAL	264.92	844.68	1109.89	100

Source: Ministry of MSME annual report, 2017-2018

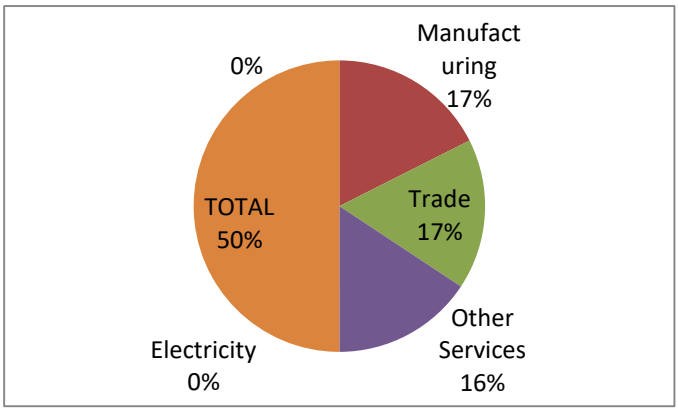


Figure 2. Employment Created by MSMEs

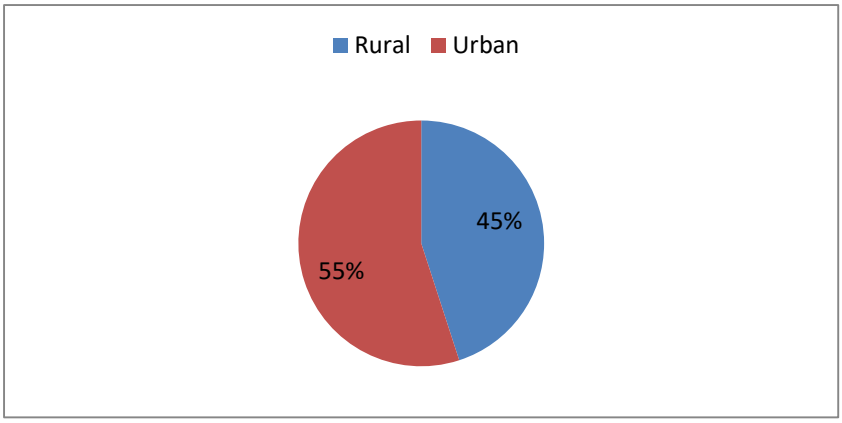


Figure 3. Percentage Urban and Rural Distribution of MSMEs

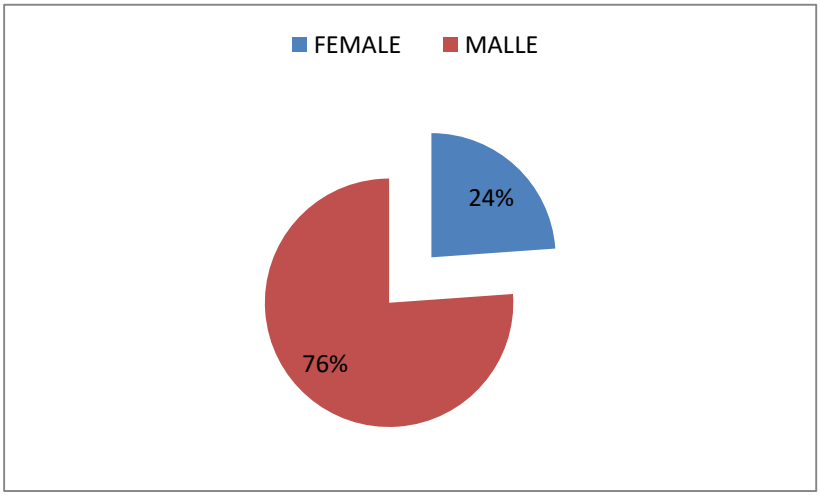


Figure 4. Employment share by gender

Contribution of MSME to Total Export:

Table 6 and Fig.5 shows the percentage contribution of MSMEs to the total exports of India. It can be observed that the percent age share of MSMEs in India's exports has been on ascendancy. There was a 40% contribution from the MSMEs to the exports in 2012-2013, 42.42% in 2013-2014, 44.76% in 2014-2015, and 49.86% in 2015-2016 financial years.

Table 6: MSME share in India's export

Year	Percentage share in export (%)
2012-2013	40
2013-2014	42.42
2014-2015	44.76
2015-2016	49.86

Source: www.smetimes.in

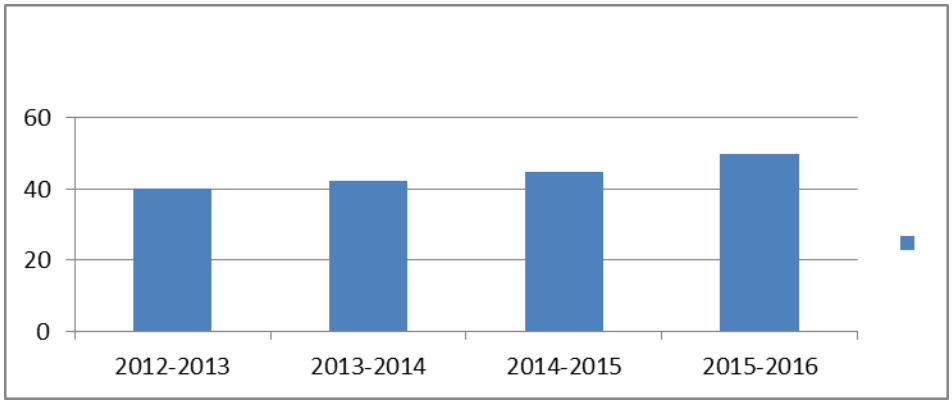


Figure 5. Percentage share from MSMEs in export

Contribution from MSME Sector to GDP and GVA:

Table 7: The Contribution of the MSME sector to GDP and GVA

Year	MSME GVA	Total GVA	Share of MSME in GVA (%)	Total GDP	Share of MSME in GDP (%)
2011/12	2583263	8106946	31.86	8736329	29.57
2012/13	2977623	9202692	32.36	9944013	29.94
2013/14	3343009	10363153	32.26	11233522	29.76
2014/15	3658196	11481794	31.86	12445128	29.39
2014/15	3658196	11481794	31.86	12445128	29.39
2015/16	3936788	12458642	31.60	13682035	28.77

Source: Ministry of MSME annual report, 2017-2018

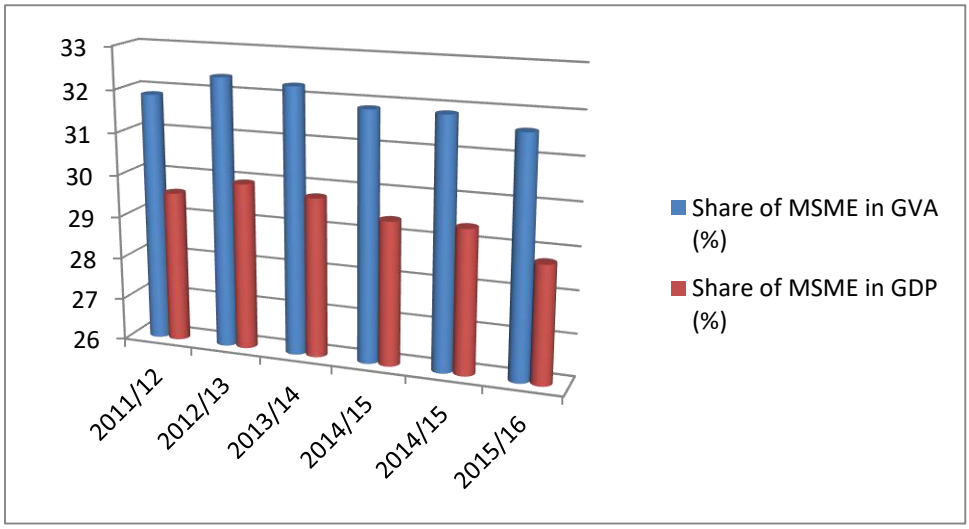


Figure 6. Contribution of MSMEs to GDP and GVA

Contribution from MSME Sector to GDP and GVA Table 6 and Fig.5 illustrates the contribution of MSMEs to Gross Product (GDP) and Gross Value Added (GVA). It could be seen that from 2011-2012 to 2015-2016 financial years, MSMEs contributed averagely 32% to the GVA of India and an average of 30% to the GDP growth of the country within the same financial years.

FINDINGS:

Following are the some of the findings of the study ;

- State of Uttar Pradesh had the largest number of estimated MSMEs with a share of 14.20 % of MSMEs in the country. West Bengal comes as close second with a share of 14% again.

- Trade leads with 35% followed by other services, Manufacturing, and Non-captive Electricity generation and transmission with 33%, 32% and 0% respectively.
- The percent age share of MSMEs in India's exports has been increasing direction
- It could be seen that from 2011-2012 to 2015-2016 financial years, MSMEs contributed averagely 32% to the GVA of India and an average of 30% to the GDP growth of the country within the same financial years.

CONCLUSION:

Micro, Small and Medium Enterprises contributes to economic development of India in various ways such as employment generation in rural and urban areas, providing goods and services at affordable costs. The current Market value of Indian MSMEs is $5 billion. It is estimated that in terms of Market value, the sector accounts for about 45% of the industrial output, 40% of total exports of the country, 45% industrial units, 42 million employment and more than 8000 products in Indian economy. Government of India has taken various initiatives to make this sector more vibrant and significant player in development of the Indian economy. The definition and coverage of the MSME sector was broadened MSME Development Act 2006 which recognized concept of 'enterprise' to include both manufacturing and service sector besides defining medium enterprises setting up a Board for developing policy frameworks and indicating procurement policy.

REFERENCES:

Journal Papers:

1. Srinivas, K. T. (2013): Role of Micro, Small and Medium Enterprises in Inclusive Growth. International Journal of Engineering and Management Research, 3(4).
2. Naser.V Abdul, (2013): A Critical Evaluation of the Contributions made by the Micro, Small and Medium Enterprises in Indian Economy.
3. Venkatesh, S. and Muthiah, K. (2012): "SMEs in India: Importance and Contribution", Asian Journal of Management Research, 2(2).
4. Kwadwo Boateng, NaveenSodem & Y. Nagaraju.(2019): "The Contribution of MSMEs to the Growth of the Indian and Global Economy", 4(3).

One day National Conference on
"Economic Instability: Antidote for Sustainability"
26th February, 2020 at Gopalan College of Commerce, Bengaluru, Karnataka, India

Analysis of Social skill variables contributing to performance of engineering students in group discussion activity of campus placement drive

[1] Madhavi Wairagade, [2]Dr. Preeti Shukla
[1] Research Scholar, [2]Assistant Professor,
[1, 2] Department of Management Studies, Dr.C.V Raman University, Bilaspur, Chhattisgarh, India.
Email - mwairagade@jit.org.in,

Abstract: *The quantitative growth in number of technical institutes has affected the employability of engineering graduates which is a measure concern. This study may be useful in identification of some social kills which may have impact on employability of engineering students which will help to work upon the weak areas to achieve higher employability. This study analyses the effect of students' performance in various social skill parameters on their performance in group discussion round in placement drives and also to identify the activity which has largest influence on performance in group discussion. The statistical analysis of collected data has been done using multiple regression analysis and Chi-square Automatic Interaction Detection (CHAID) method. As per regression analysis it has been found that there is positive relationship between the social skills of the student and their performance in Group Discussion in campus placement drive.*

Key Words: *social skills, group discussion.*

INTRODUCTION:

India is developing rapidly in recent years and there is a significant increase in demand of technocrats due to globalization. The quantitative growth in number of technical institutes has affected the employability of engineering graduates which is a measure concern. This study may be useful in identification of some social kills which may have impact on employability of engineering students which will help to work upon the weak areas to achieve higher employability. Campus placement drives normally comprise of three rounds viz. aptitude assessment test, group discussion and personal interview of students. This study analyses the effect of students' performance in various social skill parameters like co-curricular activities, extracurricular activities, literary activities, other academic inputs, leadership activities, industry institute interaction, artistic activities etc on their performance in group discussion round in placement drives. The sample comprises of engineering students in RTM Nagpur university. The statistical analysis of collected data has been done using multiple regression analysis.

OBJECTIVE OF STUDY : To analyze the relation between parameters of social skills and engineering students' performance in group discussion during campus placement drives.

LITERATURE REVIEW : *Chithra R. et al.,* studied the perception of employers as well as the employees towards employability skills required for entry level engineering graduates in multinational software companies. The study concluded that, the students with work experience have better awareness of the employability skills than the students with no work experience. *Blom Andreas and Saeki Hiroshi* have been educating engineers with skills that are in demand and are important for employability of individual engineers. This employer survey provides important insight on which specific skills are important for employers and where the graduates currently fall short. Employers ask for different Professional Skills depending upon their requirement, the region and size of the organization. Generally, IT companies demand creativity and strong system design skills as compared to the knowledge of mathematics, science, and engineering. On the other hand, the infrastructure firms prioritize graduates with strong ability to use modern tools and the knowledge of mathematics, science, and engineering, but focus less on creativity and system design skills.

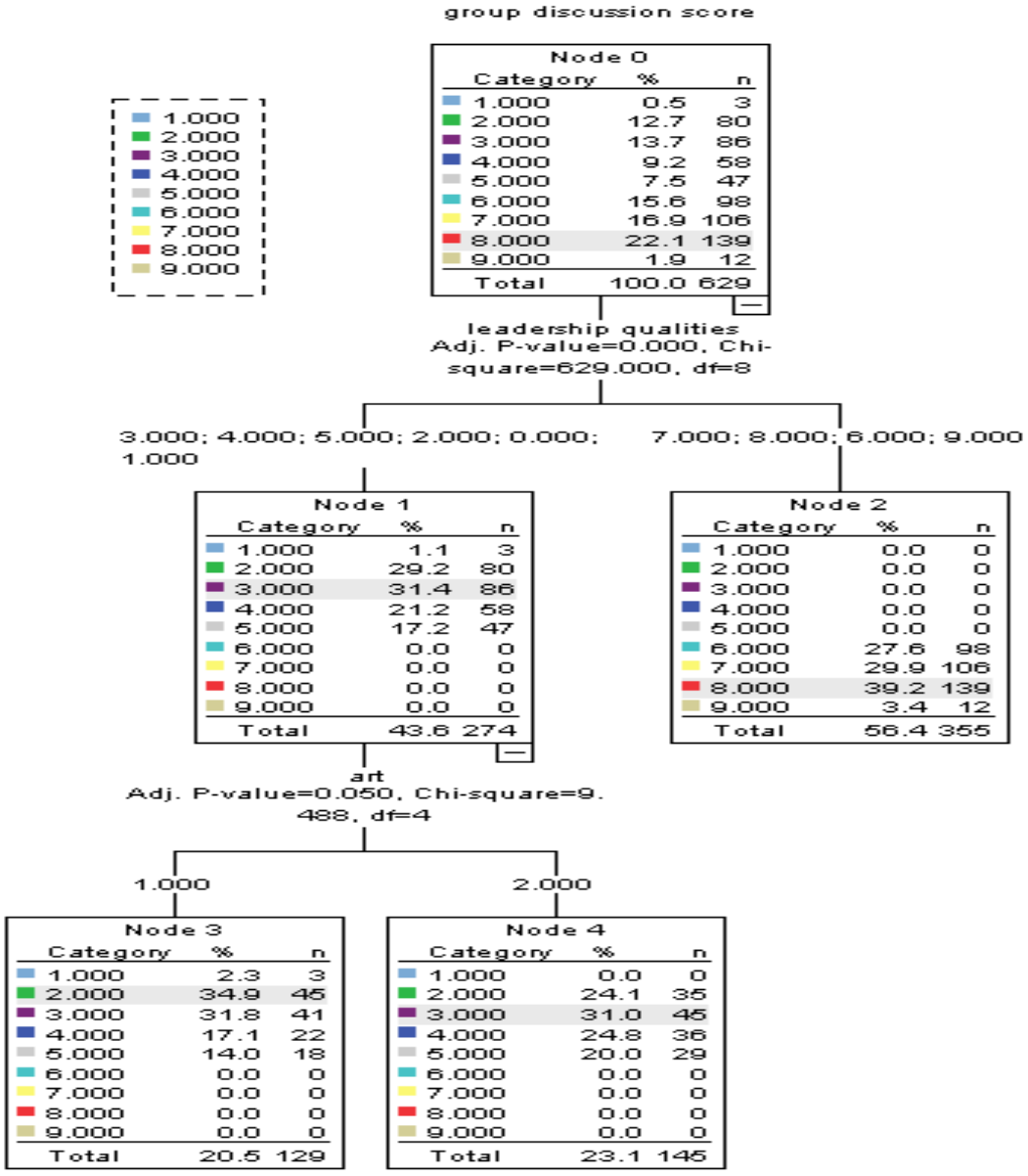
MATERIALS:

Along with professional degree with excellent academic record, competencies or capabilities in generic skill are also desired for getting offers in campus placement. Employers give due importance to evaluate these general skills also in recruitment process. Change in orientation of jobs from manufacturing to service, demands employees with hard as well as soft skills. Lack of necessary skills in the prospective job seekers affects the productivity and in turn profitability of the organization.

METHOD:

This research tries to evaluate the effect of students' performance in different activities during their student life on their performance in group discussion conducted during campus placement drives. These activities have been broadly categorized as co-curricular, extracurricular, literary, leadership and artistic activities, industry institute interaction and other academic inputs. The sample consists of students from engineering colleges affiliated to RTM Nagpur University. For statistical analysis of data, multiple regression analysis is used to find a relation between group discussion score of the students and their participation in activities related to social skills.To study the further details of impact of all these social activity factors on different groups of students, Chi-square Automatic Interaction Detection (CHAID) method has been used to observe the relationship between the split variables and the associated related factors within the tree.

ANALYSIS&DISCUSSION: Figure: Chi-Square Automatic Interaction Detection (CHAID) Analysis



The tree diagram given in figure shows the Chi-Square Automatic Interaction Detection (CHAID) analysis between Group Discussion and Social skill variables using Chi-square test. This has found relationship with preference/participation in leadership activities as per Chi-square test. The Chi-square value is found to be 629.00 at 8 Degrees of freedom. This value is found to be significant at 5% level of significance as p-value is found to be 0.000. This is because two categories of Leadership activities have been formed. The first category of students at node 1, have less Preference/Participation for Leadership activities with the score of 0, 1, 2, 3, 4 and 5. None of the students are able to score more than 6 in this group.80 i.e. 29.2% students have scored only 2 while 58 i.e. 21.2% students have scored 4 out of 10 in group discussion. 47 i.e. 17.2% students have scored 5 while only 3 i.e. 1.1% students have scored only 1 out of 10. The other category of students who had given preference/participation of 6, 7, 8 and 9 have

been categorized as the second group. CHAID analysis shows that 355 i.e. 56.4% students belong to this group. As seen in node 2, out of these 355 students maximum 139 i.e. 39.2% students have scored 8 in group discussion. All the students in this category have scored 6 & above in group discussion.

Further, CHAID has classified 274 students with less than or equal to 5 score of preference in Leadership activities into two nodes viz. node 3 and node 4 which creates relationship students preference/participation in Artistic activities like Painting, Dance, Drama etc. Node 3 represents 129 students out of 274 who don't have preference/participation in Artistic activities and Node 4 represents 145 who have preference/participation in Artistic activities. It is found that out of 129 students who don't have preference/participation in Artistic activities, 45 i.e. 34.9% students are able to score only 2 in GD, 41 i.e. 31.8% students are able to score 3 in GD 22 and 18 students have scored 4 and 5 points respectively in GD. Only 3 students out of 129 have scored 1 point in GD. Out of 145 students who have preference/participation in Artistic activities, maximum 45 i.e. 31% students have scored 3 points in GD. 36 i.e. 24.8% students have scored 4 points in GD while 35 i.e. 24.1% students have scored 2 in GD and 29 i.e. 20.0% students have scored 5 points in GD.

FINDINGS: All the students who had more liking for Leadership activities have scored 6 & above in group discussion. The students at node 1, have shown less Preference/Participation in Leadership activities. None of them were able to score more than 6 in group discussion.

RESULT: As per CHAID, it may be concluded that

- Among social skills, performance in Group Discussion is related to leadership qualities only.
- 100% students, (i.e. 151 out of 151 students), who had scored 8 & 9 in group discussion, had a score of 6 or more score in leadership qualities.
- Though arts does not have any effect on performance of students who have higher scores in leadership qualities but inclination towards arts has slightly negative effect on performance of students having lower scores in leadership qualities low performers.

RECOMMENDATIONS: The employability of engineering students can be improved by their better performance in group discussion in campus placement drives. This in turn can be achieved by enhancing leadership qualities of students by motivating them to actively participate and take the responsibility of monitor, president, secretary etc. in school, college, NCC, NSS, Scout / Guide, any other club or social service group, cultural or social events etc.

CONCLUSION: For better performance in group discussion leadership skills are very important.

REFERENCES:

1. Chithra. R et al., (2013), Employability Skills -A Study on the Perception of the Engineering Students and their Prospective Employers, Global Journal of Management and Business Studies. Volume 3, Issue 5, pp. 145-155, January 2013.
2. Andreas Blom and Hiroshi Saeki (2011), Employability and Skill Set of Newly Graduated Engineers in India, Policy Research Working Paper 5640, the World Bank South Asia Region Education Team.

One day National Conference on
"Economic Instability: Antidote for Sustainability"
26th February, 2020 at Gopalan College of Commerce, Bengaluru, Karnataka, India

A STUDY ON ROLE OF MSME IN INDIA

[1]Nancy M., [2]Sheeba M.
[1]MBA 1st year, New Horizon College of Engineering, Karnataka, India
[2]B.com 2nd year student, Gopalan College of Commerce, Bangalore, Karnataka,
[1] 1997nancym@gmail.com [2] sheeba.m610@gmail.com

Abstract: *A micro enterprise is an enterprise where investment in plant and machinery does not exceed Rs.25 lakh. A small enterprise is an enterprise where investment in plant and machinery is more than Rs.25 lakh and does not exceed Rs.5 crore. A medium enterprise is an enterprise where the investment in plant and machinery and machinery does not exceed Rs.10 crore. Today's business environment is characterized by increasing high levels of uncertainty and changes. We are in the eye of the storm of massive change, where to survive we have to embrace changes. The MSME sector is highly dynamic sector which contributes to the economic and social development of the country. They are motivating Entrepreneurship and generate larger employment opportunities at lesser capital and expenditure. MSME have a greater role in development of rural India and backward class people. In order to achieve sustainable development, the focus must be to create a comparative which meet the present needs of economy*

KEY WORDS *– MSMEs, Employment, Entrepreneurs.*

INTRODUCTION:

The GOI has enacted the micro, small and medium enterprises development (MSMED) Act, 2006 on June 16, 2006 which was notified on October 2, 2006. With the enactment of MSMED Act 2006, the paradigm shift that has taken place in the inclusion of services sector in the definition of micro, small and medium enterprises, apart from extending the scope of medium enterprise. Micro, Small and Medium enterprise plays a vital role in developing the economy status over the period of time. After independence, the first industrial policy was announced by Government of India (GOI) i.e., the Industrial policy resolutions (IPR) in 1948 which identifies the important role in development of village, cottage, small scale and kadhi industries. These industries took birth and trying to contribute to nation growth by employment. The contribution of MSMEs to other sectors has been immensely instrumental. It is the biggest employer after agriculture sector, despite the fact that agriculture's sector contribution to GDP is less than MSME. While it contributes about 45% to manufacturing sector, and perhaps 40% to exports, it forms the highest share of employment sector in India, contributing around 69% to it. In large scale organizations, one of the key challenges is to retain the human resource through an effective human resource management professional manager. But in case of MSME, the requirement of labour is less, and it does not need a highly skilled labourers. Hence, the indirect expense incurred by the owner is also low.

OBJECTIVE OF STUDY :

- To study the present scenario of MSME
- Role of MSME in backward areas
- Impact of MSME in employment
- Analyse the growth of GDP in MSME

LITERATURE REVIEW :

BILAS S KALE (2015) in his study of MSMEs operating in Maharashtra to establish that MSMEs help to fight unemployment, poverty and achieve socio-economic growth in the state. MSMEs lead to inclusive and balanced growth of the economy by creating demand for goods and services. This sector reduces social imbalances and leads to foster sustainable development.

SYAMALA DEVI BHOGHANADAM (2017) analyzes in her study that the existing literature on various challenges faced by the Indian MSME sector and divides them into internal and external factors. The study also provides a literature matrix in which all the challenges are bifurcated into external issues, environmental issues, socio-cultural issues, marketing issues, financial issues, HR development issues, and infrastructure issues.

SONIA MUKHERJEE (2018) analyzes in her study that the Indian coir industry with respect to its export trend of five years. The major reason for its deteriorating export competitiveness found out to be the absence of appropriate

technology. She concludes that higher investment in advance technology and R&D, higher usage of the digital platform, transfer of technology, higher investment in HR, improved access to finance and liberal business regulations can improve its global competitiveness. The study also includes a detailed analysis of the several measures taken by the Indian Government for the technological development of Indian MSMEs.

MATERIALS:

METHOD: The data for the study was collected from secondary sources such as journals, newspapers, internet, etc….

ANALYSIS&DISCUSSION: CONTRIBUTIONS OF MSMEs TO THE ECONOMY OF SOME COUNTRIES:

COUNTRY	ESTABLISHMENTS (%)	OUTPUT (%)	EMPLOYMENT (%)	EXPORTS (%)
India	95	40	80	35
USA	98	NA	53	NA
Japan	99	52	72	13
Taiwan	97	81	79	48
Singapore	97	32	58	16
Korea	90	33	51	40
Malaysia	92	13	17	15

Japan stands in first place in terms of establishments. USA stands in second place. Taiwan and Singapore stands in third place. India stands in fourth place. Malaysia stands in fifth place. Korea stands in sixth place. In terms of output, Taiwan stands first. Japan stands second. India stands third. Korea stands fourth. Singapore stands fifth. Malaysia stands in sixth place. In terms of employment, India stands in first place. Taiwan stands in second place. Taiwan stands in second place. Japan stands in third place. Singapore stands in fourth place. USA stands in fifth place. Korea stands in sixth place. Malaysia stands in seventh place In terms of exports, Taiwan stands in first place. Korea stands in second place. India stands in third place. Singapore stands in fourth place. Malaysia stands in fifth place. Japan stands in sixth place.From the above analysis, it interprets that the number of establishments and employment is generated for the maximum extent; whereas it has to improvise its output and exports.

CONTRIBUTION OF MSMEs IN TERMS OF GDP IN INDIA:

YEAR	GDP (%)
2018-2019	31
2017-2018	37
2016-2017	31.80
2015-2016	30.70
2014-2015	30.60
2013-2012	11.10
2012-2011	37.54

The MSMEs contributed 37.54% in the year 2012-2013. In the year 2013-2014, it contributed 11.10%. In the year 2014-2015, it contributed 30.6%. In the year 2015-2016, it contributed 30.7%. In the year 2016-2017, it contributed 31.8%. In the year 2017-2018, it contributed 37%. In the year 2018-2019, it contributed 31%. Therefore, there are fluctuations in the trends of contribution to GDP from past few years due to the challenging factors of Indian Economy.

RANKING OF CHALLENGES FACED BY MSMEs:

CHALLANGES	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
Absence of finance	4	5	3	2	1
Limited capital	5	3	4	1	2
Non-availability of technology	1	2	5	3	4
Low production capacity	2	1	4	5	3
Ineffective marketing strategy	5	4	3	2	1
Modernization and expansion	1	4	5	3	2
TOTAL	**18**	**19**	**24**	**16**	**13**

From the above table we can conclude that the challenges or problems faced MSMEs are at most neutral. Therefore, it depends upon the industry that the amount of risk it is bearing to face its challenges to overcome towards success.

GOVERNMENT SCHEMES:

- Prime minister's employment generation program (PMEGP)
- National manufacturing competitiveness programme
- Marketing assistance
- Coir udyami yojna
- Coir vikas yojna
- Mahila coir yojna
- Micro and small enterprise cluster development programmes
- Tool rooms
- International co-operation

CONCLUSION:

It is very important to empower the MSME sector to utilize the limited resources (human and economic) they have in an optimum manner. They need to be educated and informed of the latest developments taking place globally and help them to acquire skills necessary to keep in pace with the global developments.

REFERENCES:

JOURNAL PAPERS;

1. Pooja khatri "A study of the challenges of the Indian MSME sector". IOSR journal of business management (IOSR-JBM), vol.21,no 2,2019.
2. Ravulaparthy ramarao "competitiveness of India's MSE through functional competencies role in national development" VIKALPA, volume 37, no 1, January march 2012
3. Htpps://m.economictimes.com/small-biz/sme-sector/vision-is-to-increase-msmes-contribution-to-gdp-to-50-nitin-gadkari/articles show/69978436.cms
4. www.google.com
5. AMC Indian journal of entrepreneurship
6. Prabandhan magazine

One day National Conference on
"Economic Instability: Antidote for Sustainability"
26th February, 2020 at Gopalan College of Commerce, Bengaluru, Karnataka, India

Financial Inclusion of Marginalized Sections of Society

Prof. Shakila I. Shaikh
Adhoc Faculty, Economics Department
Shah N H Commerce College, Valsad, Gujarat.
Email- Shakilasheikh9@gmail.com

Abstract: *Financial inclusion has become the top priority of the Union governments and central Bank around the world with an objective to achieve inclusive growth. Financial inclusion is delivery of banking services at an affordable cost to the vast sections of disadvantaged and low-income groups. Inclusive growth, where all section and regions of the economy get the benefits of growth and contribute to growth process through poverty reduction, equality in distribution of resources sustaining the growth momentum. The task of achieving sound inclusive growth can be met by policies that encourage easier and affordable access to formal banking services or financial inclusion. Despite making significant improvements in all the areas of financial viability, profitability and competitiveness, banks have not been able to bring the vast segment of the underprivileged population into the working of basic banking services which is called as financial exclusion has resulted in the biggest hurdle in achieving inclusive growth and seen as a critical mechanism foe generation of persistent income inequality and slower growth process. So, there is a need to study the nature, extent and impact of financial inclusion in order to have effective programmers and policies to achieve inclusive growth. Financial sector policies are crucial for equitable growth and broader access to financial services to development. This has made the area of financial inclusion a challenging, at macro level of the Indian economy shows that, a large section of Indian economy are financially excluded. They don't have access to the various financial services provided by the institutional set up. The study involves the description of characteristics associated with the access to and availing of formal banking network or financial inclusion in order to measure the nature, extent of financial inclusion and impact of formal banking network on the socio-economic status of rural and urban households belonging to the vulnerable sections of the society.*

Key words *– Financial inclusion, financial sectors, inclusive growth, financial services and Vulnerable society.*

INTRODUCTION:

Financial inclusion is the process of ensuring access to appropriate financial products and services needed by vulnerable groups such as weaker sections and low-income groups an affordable cost in a fair and transparent manner by mainstream institutional players. Financial inclusion intends to help people secure financial services and products at economical prices such as deposits, fund transfer services, loans, insurance, payment services, etc. It aims to establish proper financial institutions to cater to the needs of the poor people. The foremost condition for overall development of any country is to make financial services available to all citizens of a country. Financial exclusion is the situation where people do not have access to formal financial system. If finance is available then people can use it for improvement of their life. There are many reasons for financial exclusion like non-availability of banks, distance, self-exclusion, price exclusion, marketing exclusion etc. The principal reason of exclusion is non-availability of banks. India is a country formed of villages and towns. Still in the era of technology, there are many areas which are excluded from formal financial services, especially rural areas. Finance availability will help people to save, invest and secure their life uncertainties. Availability of finance will help people to do occupation, get education and earn money. So, ultimately inclusive financial inclusion is making formal financial system available to people of the country. The paper analyses bank availability variable of financial inclusion. Number of bank offices has been taken check bank availability in Rural, Semi-urban, Urban, Metropolitan and All India. The time series data of bank offices from year 20014 to1019 help to understand the yearly growth in number of offices. Further this data of bank offices is also classified population group wise to know the growth of bank of bank offices in rural, Semi-urban, Urban and Metropolitan and do Comparison among population group. Financial exclusion is seen in rural and semi-urban areas as there are the less developed areas compared to urban and metropolitan cities. Thus, an attempt has been made to analyze growth in number of offices in all population groups and conclude which area is showing higher growth over a period of time. The analysis will facilitate to know the RBI efforts and implementation of financial inclusion policies by all schedule commercial banks in terms of banking offices.

OBJECTIVE OF STUDY:

The main objective of the study is to analyse bank availability variable of financial inclusion namely, Pradhan Mantri Jan Dhan Yojana (PMJDY). The paper focuses on post, introduction of Financial Inclusion Policy, growth in number of offices in rural, semi-urban, urban and metropolitan. The study is based on secondary data collected from 2014 t0 2019. The progress of bank availability under the study for financial inclusion for Scheduled Commercial Banks.

LITERATURE REVIEW:

Nitin Kumar (2013) examined status of financial inclusion in India and studied its determinants. They study found that branch network has unambiguous beneficial impact on financial inclusion. Rum & Heriyaldi studied the relationship of Index of Financial Inclusion and HDI. They used access to bank accounts as one of the dimensions to compute financial inclusion index. They found that there are supply side and demand side variables which play important role in financial inclusion. Supply side variables includes type of financial network; number of branches; number of accounts; geographic distribution of banks; population per bank branch; number, type of various financial products; product features; summary and history of loan accounts. Kainth (2013) emphasized on convenient accessibility as one of the variables of financial inclusion which includes number of access points, such as bank branches/outlets, ATM or banking agents (BAs) in a given area. Vighneshwara Swamy P M (2009) evaluated the extent of financial inclusion in India in terms of spatial distribution of banking services; number of deposit and credit accounts in scheduled commercial banks; population coverage per office region-wise; ratio of direct agricultural credit to agricultural GDP, total GDP and total credit; coverage of farmer households as per social groups; and non-indebted farmer households as per different land holdings. Suresh Chandra Bihari (2011) calculated Index of Financial Inclusion by considering three dimensions: banking penetration (BP), availability of the banking services (BS) and usage of the banking system (BU). He considered number of bank accounts as proportion of the total population as an indicator of banking penetration to measure financial inclusion. Yorulmaz R. (2012) measured financial inclusion by taking three dimensions i.e. banking penetration, availability of the banking services and usage of the banking system.

Chakraborty et. el. (2013) emphasized on availability of financial service without social discrimination. Bihari (2011) defined financial inclusion as, "the process of making the basic financial services available to the vast sections of the disadvantaged and the low-income groups at an affordable cost. It has been found from the literature review that bank availability is one of the important determinants of financial inclusion. It is not exhaustive measure of financial inclusion, though serves the basic condition of achieving financial inclusion goal. Thus, paper tries to focus on bank availability variable to measure the reach of banking sector among the various population group i.e. rural, urban, semi-urban and metropolitan.

METHODS AND MATERIALS

The present study is based on the financial inclusion of marginalized sections of society. For the usage in the appropriate places, secondary data are collected from journals, books, reports and various documents and related publications. The progress of bank availability under the study for financial inclusion classified for all Commercial Banks in India. All commercial Banks includes State Bank of India and its Associates, Nationalized Banks (including IDBI Bank Ltd.) foreign banks, Regional, rural banks and private Sector banks. The bank availability variable has been analyzed with the help of population group and numbers of bank offices. The data related to banking parameters have been collected from „Basic Statistical Returns of Scheduled Commercial Banks in India." The study has been defined under four clusters i.e. Rural, Semi-urban, Urban and Metropolitans. Reserve Bank of India has defined population group as below:

- ✓ Rural group includes all centres with population of less than 10,000.
- ✓ Semi-urban" group includes centres with population of 10,000 and above but less than 0.1 million.
- ✓ Urban group includes centres with population of 10,000 and above but less than 1 million.
- ✓ Metropolitan group includes centres with population of 1 million and more. Thus, the results may derive useful conclusions.

ANALYSIS & DISCUSSION:

The financial inclusion directly affects any of the economy. In case of India a guideline has produced by RBI time to time. The study has aimed to evaluate bank availability variable of financial inclusion with the help of number of banks of all schedule commercial banks classified in the financial year 2014 to 2019.Thus, the results may derive useful conclusions. The paper analyses bank availability variable using number of bank offices according to population group.

- ✓ **FINANCIAL INCLUSION INSTRUMENT:**

The most significant addition to bank accounts (as a saving instrument in India in last few years has been through the push of the Pradhan Mantri Jan-Dhan Yojana (PMJDY). The PMJDY is the government's flagship effort to

expand formal financial services to the poorest sections of Indian society. The scheme directed all public sector banks to open accounts for all individuals with no mandatory balance requirements. In order to encourage scheme uptake individual incentive to open PMJDY accounts such as allowable overdraft amount of Rs.5000 and various zero-premium insurance policies. Based on the hypothesis that having formal bank account providers a reliable, relatable and safe place to save, the PMJDY has helped increase bank account ownership in India by providing an alternate to informal savings. A vast majority of literature has highlighted the positive consequences of having access to formal saving instruments; on saving increase on productive investment on consumption and female empowerment. PMJDY help foster and enhance the level of financial inclusion in a country. Especially for unbanked or under-served populations. The Government initiated the National Mission for Financial Inclusion (NMFI), namely, Pradhan Mantri Jan Dhan Yojana (PMJDY) in August, 2014 to provide universal banking services for every unbaked household, based on the guiding principles of banking the unbanked, securing the unsecured, funding the unfunded and serving unserved and underserved areas.

Access to banking:

Banking Service Points: PMJDY aimed at providing banking service points throughout rural India by mapping over 6 lakh villages into 1.6 lakh Sub Service Areas (SSAs). Each SSA typically comprised of 1,000- 1,500 households. Out of 1.6 lakh SSAs, 1.3 lakh SSAs are covered through interoperable, online BCs and remaining 30,000 are covered through bank branches. BCs deployed in rural areas also provides interoperable Aadhar Enabled Payment System (AePS) banking services. The strength of bank branches and ATMs has been augmented over the years. Following tables show the number of bank branches, ATMs:

FINDINGS:

Rapid financial inclusion of women: Out of total savings accounts, there were overall 27% female accounts in March 2014. However, under PMJDY, women accounts constitute 53% of the total Jan Dhan accounts as on 30.3.2019.

Rapid growth in deposits in the PMJDY accounts: As against an average balance of Rs. 1,065 in accounts opened under PMJDY in March 2015, the average balance has grown to Rs. 2,725 as on 30.3.2019 with an overall balance in PMJDY accounts of Rs 96,107 crore.

RuPay Debit cards: A total of 27.91 crore RuPay debit cards have been issued till 30.03.2019 to PMJDY account-holders. Apart from banking convenience, these cards come with an inbuilt accident insurance cover of Rs 2 lakh. As on 30.03.2019, a total 4,657 accidental claims under this RuPay card linked insurance coverage have been paid.

Overdraft facility for PMJDY account holders: An overdraft facility of up to Rs 5,000 (since enhanced to INR 10,000) after satisfactory operation in the account for six months is available to provide hassle free credit to the beneficiaries under PMJDY.

Life Insurance cover under Pradhan Mantri Jan Dhan Yojana (PMJDY):

Pradhan Mantri Jan Dhan Yojana was launched on 28.08.2014 to open bank accounts of people not covered by banking services. One of the benefits under the scheme is providing life insurance cover of Rs 30,000/- on death of the life assured due to any reason to the deceased's family who have opened bank account between 15.08.2014 to 31.01.2015 (subject to Govt. guidelines and eligibility criteria provided). For availing life insurance cover of Rs.30,000/- under this scheme, a person should be between 18 to 59 years of age and he/she should have been enrolled under PMJDY between the above specified periods. The scheme is being implemented through Life Insurance Corporation of India (LIC). During the financial year 2017-2018, an amount of Rs. 311.10 lakhs has been paid towards total number of 1037 claims.

Enablement of interoperable, speedy and accurate transactions, through linking of accounts with Aadhar number: With 84.5% operative accounts opened under PMJDY seeded with Aadhar number on user consent basis, customers have been enabled for interoperable and immediate Aadhar- enabled transactions, including those for direct benefit transfer.

With a view to further deepening the financial inclusion interventions in the country, PMJDY has been extended beyond 14.8.2018 with the focus on opening of accounts shifting from "every household" to "every unbanked adult" and making the scheme more attractive with following modifications:

i. Existing Over Draft (OD) limit of Rs. 5,000 revised to Rs. 10,000; ii. There will not be any conditions attached for OD upto Rs. 2,000; iii. Age limit for availing OD facility revised from 18-60 years to 18-65 years; and iv. The accidental insurance cover for new RuPay card holders raised from existing Rs.1 lakh to Rs. 2lakhs to new PMJDY accounts opened after 28.8.2018.

A digital pipeline has been laid for the implementation of PMJDY through linking of Jan-Dhan account with mobile and Aadhar [Jan Dhan-Aadhaar-Mobile (JAM)].This infrastructure pipeline is providing the necessary backbone for DBT flows, adoption of social security/pension schemes, facilitating credit flows and promoting digital payments through use of Rupay Cards and thereby accelerating the pace of attaining the goal of a secured, insured, digitalized and a financially empowered society. Around 8 core PMJDY accounts are receiving Direct Benefit Transfers (DBTs) credits under various schemes of the Government.

Promotion of Aadhar-based biometric authentication and digital payment solutions: A digital revolution is in making with more than 100 crore Indians are having digital identity through Aadhar & mobile seeding, enabling them to authenticate and carry out financial transactions. Using biometric ID, highly cost-effective payments solutions have been created both for banking services and for retail payments. There has been significant growth in Digital transactions- UPI, AePS, RuPay Card. In the financial year 2018-19, there were 535 crore transactions amounting to Rs 8710 crore through UPI, 112 crore transactions amounting to Rs 1172 crore through RuPay Debit card at POS and E-Commerce and 169 crore transactions amounting to Rs 680 crore through AePS at Banking Correspondent points.

Jan DhanDarshak, a geographic information system(GIS) mobile application, has also been launched to provide a citizen centric platform for locating financial service touch points across all providers such as banks, post office, ATMs, CSC, etc. These services could be availed as per the needs and convenience of the common people. The web version of this application is Find my bank (findmybank.gov.in). This application can be used for various administrative purposes like business strategies for banks. Over 6 lakh FI touch points have been mapped on GIS which includes 1.5 lakh bank branches, 2 lakh ATMs, 1.5 lakh Post Offices and 1.3 lakh BCs.

RESULT:

POPULATION GROUP AND NUMBERS OF BANK OFFICES:

- The study has been defined for number of offices under four clusters i.e. Rural, Semi-Urban, Urban and Metropolitans. The table 1. Below is showing population group-wise number of bank offices from 2014 to 2019.
- Table 1: Table showing the number of bank branches of Scheduled Commercial Banks:

AS ON	RURAL	SEMI-URBAN	URBAN	METROPOLITAN	TOTAL
31.03.2014	41,862	32,590	20,828	22,544	117,824
31.03.2015	45,118	34,963	22,354	24,058	126,493
31.03.2016	48,244	37,647	23,944	25,610	135,445
31.03.2018	50,735	39,694	25,377	26,887	142,693
31.03.2019	51,030	40,166	25,655	27,148	143,999

- Source: RBI
- Table 2: Table showing number of ATMs of Scheduled Commercial Banks (SCBs), Small finance Banks (SFBs), Payment Banks (PBs) and White Label ATM Operators:

As on	Off-site ATMs	On-site ATMs	Total ATMs
31.03.2014	76676	83379	160055
31.03.2015	92337	89061	181398
31.03.2016	97149	1011950	199099
31.03.2017#	112666#	109809	222475#
31.03.2018#	115471#	106776	222247
31.12.2018#	113639#	106412	220051#

- Source: RBI # Includes ATMs deployed by White Label ATM Operator.
- The number of card acceptance devices of Point of Sale (POS) has increased from 10.7 lakh in March 2014 to 37.22 lakh in March 2019.

PERFORMANCE OF PMJDY:

- The performance of PMJDY in terms of accounts opened, deposit balance and average deposit balance over the time is tabulated as under

Sr.No.	Item	Mar-15	Mar-16	Mar-17	Mar-18	Mar-19
1.	No. of PMJDY accounts (in crore)	14.72	21.43	28.17	31.44	35.27

2.	Deposit in PMJDY Accounts (in Rs.)	15,670	35,672	62,972	78,494	96,107
3.	Average Deposit per PMJDYaccount (in Rs.)	1,065	1,665	2,235	2497	2,725
4	Number of RuPay debit cards issued toPMJDY account- holders (in Crore)	13.14	17.75	21.99	23.65	27.91

It may be observed from the above table that on major parameters, consistent progress has been observed under PMJDY over the years. Since its inception, over 35 crore new accounts have been opened and over Rs. 96,000 crores have been deposited by the newly banked people in the formal banking system. The number of operative PMJDY accounts has increased from 17.01 crore March'17 to 27.54 crore on March'19. There are 53% women Jan-Dhan account holders and 59% Jan- Dhan accounts are in rural and semi-urban areas.

RECOMMENDATIONS: The government's Pradhan Mantri Jan Dhan Yojana launched in August 2014 has made remarkable progress with over 30 crore deposit accounts opened since the launch. While the first phase of Jan-Dhan Yojana targets the provision of universal access to bank facilities in all areas, except areas with connectivity constraints, and increase in the level of financial literacy, the second phase provides access to credit, insurance and pension services. Policymakers in India are acutely aware of the ramifications of leaving a huge section of the population out of the development process, and hence are designing appropriate policies for financial inclusion. There are several uses of such policies, By government and policy makers like

- Objectively measuring the level of financial inclusion.
- Designing special provisions or dispensations specifically for providers of financial services in areas with low levels of financial inclusion.
- Prioritizing financial education in districts with low levels of financial inclusion.

CONCLUSION:

Financial Inclusion is all about inclusion of those who have been excluded from formal finance under formal financial system There are many reasons for exclusion but one of the major reasons is non-availability of banking offices in particular area. Thus, paper studies the bank offices availability from 2014 to 2019 in rural, semi-urban, urban and metropolitan has been increasing at higher rate than rural area. The RBI is taking many steps for making financial services available to people. Thus, to check the impact of RBI policy, the higher growth rate is found in number of offices after introduction of financial inclusion policy of RBI. There is a significant difference in number of offices among population group through progressive years. Thus, it can be concluded that there has been increase in bank availability in all population group

REFERENCES

Journal papers

1. Bihari, S.C. (2011, July-Sept). Growth through Financial Inclusion In India. Journal of International Business Ethics,4(1), 28-41.
2. Chakraborty, A.,& Barman, S. R. (2013). Financial Inclusion in Tripura: Challenges and opportunities. Journal of Commerce and Management Thought, IV, 870-879.
3. Kainth, D. G. (2013, April-may). Developing an Index of Financial Inclusion. Anvesha The Journal of Management, 6(2), 1-10.
4. Kumar, N. (2012). An Empirical Analysis of Financial Inclusion Across Population Groups in India. IUP journal of Bank Management, 5 (1), 97-111.
5. P M, V.S. (2011, June). Financial Inclusion in India: An Evaluation of the coverage ,Progress and Trends. The IUP Journal of Financial Economics, 9(2), 7-26.

THESIS:

6. Yorulmaz, Recep, „ Financial Inclusion & Economic Development: A case Study of Turkey and A Crosscountry Analysis of European Union" (2012). All Theses. Paper 1352.

WEBSITE:

7. Serrao, M.V., Sequeira, D.A., & Hans, D. V. (2011). Designing a Methodology to Investigate Accessibility and Impact of Financial Inclusion. IX (2), 27-40. Retrieved from http://ssrn.com/abstract=2025521 www.rbiorg 3.www.cmie.com

One day National Conference on
"Economic Instability: Antidote for Sustainability"
26th February, 2020 at Gopalan College of Commerce, Bengaluru, Karnataka, India

ADVANCEMENT IN EDUCATIONAL SECTOR WITH THE RISE OF DIGITILIZATION AND ITS CONTRIBUTION TO THE GROWTH OF THE NATION

[1]S. Sandhya, [2]Dr. Sonu Nagori
[1]Assistant Professor, MBA, [2]Professor, MBA
[1, 2] SEACET, Ayyappa Nagara, Banglore, India
Email - [1]sanjuhemu2011@gmail.com, [2]sonu.seacet@gmail.com,

Abstract: Technology can become the 'wings' that will allow the educational world to fly farther and faster than ever before; if we will allow it." - *Jenny Arledge Education, innovation and technology have been predominant in every sector in India with each undergoing vast change in the past few years. We are running into the 21st century where technology knows no bounds. This is the phase of radical development where technology is taking over every niche and corner. Digitization is ushering in a new era of transparency, efficiency and accountability, its proliferation in the field of education has brought about disruptive changes with a potential to radically alter the conventional landscape. Education plays an important role in the overall development of individuals thereby contributing immensely to the overall development of a nation. Education globally is one of the important sectors to witness revolutionary changes in recent times. Education is a basic need for every human being and digital education is the current trend and necessity for every students or learners to be more focused in their learning. However, the digital media and the internet have ushered in a democracy of knowledge where education has become a collaborative, self-driven enterprise. Today there are tools available to transform learning from an academic exercise to an engaging experience in imaginative and experiential learning. Another charismatic change that transformed human life is social networking. In terms of digital education social networks also contribute a good portion of education enhancement. Also, through digitalization apart from educators, parents can also use interactive activities to encourage their child's interest in learning since gamification makes the process much more enjoyable and interesting. Thus, digital learning is far more interactive and memorable than voluminous textbooks or one-sided lectures; they provide better context, a greater sense of perspective, and more engaging activities than traditional education methods.*

Key Words: - *Digitalization, Education, Machine learning, Social networking*.

INTRODUCTION:

"Knowledge is power. Information is liberating. Education is the premise of progress, in every society, in every family." **-Kofi Annan**

Next to the United States and China, India's higher education system is the world's third highest. India will be one of the most important educational hubs in the future. The' Right to Education Act,' which stipulates compulsory and free education for all children within the 6-14-year age groups, has brought about a change in the country's education system with statistics showing a dramatic enrolment in schools over the past few years. It is a dynamic environment that rather promotes and embraces a continuous shift in all fields of life that does not embrace static character. Education, which is the fundamental basis for the creation of information tool and the basis of a better lifestyle and promoter of happiness, has also undergone exemplary changes with the growth of economy and society, depending on the different needs to adapt to the given environment. In India, if we go back to the Vedic period, education was imparted through a gurukul method where guru teaches the disciple under the tree in a natural environment where students were under strict guru supervision, guidance and monitoring and strict bhramhacharyajeeven is to be observed. Then came the epoch of classroom teaching and learning where education was provided in instructive mode based on interpretation of the black board and textbooks for further reading. With the opening of the Indian economy in 1991 and the advent of a revolution in information technology, the way of teaching and learning has changed enormously, where black boards have been replaced by smart boards, connected to LCD projectors and computers, explaining the concepts to students not through the traditional medium of chalk and speak, but replacing them with Power Point presentations and talk. We are digitizing our education system and increasingly heading towards paperless society. There's no doubt that over the last few years, the Internet has

dramatically changed the state of education. Digitization has changed the educational field and new classrooms have taken over blackboards, chalks and dusters with smart boards, interactive classrooms and e-text books. The Digital Age has rightly been called the 21st century. The Internet is bringing about a substantial change in our lives, as we rely on the use of technology even to complete simple tasks. Many of us do not even remember the world that existed before the advent of digital technology.

According to an Internet and Mobile Association of India (IAMAI) survey, with 451 million monthly active internet users at the end of financial year 2019, when it comes to internet access India is 2nd to china at present period. The report stated that urban India with 192 million users had nearly the same number of users as rural India, in terms of absolute numbers. The study said 2/3 of India's Internet users are in the 12-29 year age group. Ironically, in rural India a greater proportion of this age group is seen. This is indicative of the fact that this segment has potential for growth.

OBJECTIVE OF STUDY :

- To have an insight regarding basic components required for promotion of digital education.
- To understand the factors that have enabled the growth of digital education in India
- To review the impact of digitization of education on the students' acceptance level in different geographical locations with special reference to India.

LITERATURE REVIEW :

The projects reviewed here attempted to lessen the digital divide, that is, they provided students of low socio-economic status (and in some cases families and communities), and those in isolated areas, with increased access to technology. In particular, evaluations of ICT initiatives that included empirical evidence about the effects of the processes and outcomes of these initiatives are examined. The review concerns evaluations of projects that are considered relevant, but not necessarily limited to, the ICT delivery methods that are being implemented. A secondary aim of this review is to inform policy developments in the area of ICT use in schools. For this reason this review includes an overview of other international initiatives that are designed to introduce effective ICT strategies in low decile schools and the schools' communities. Xinyu, Yu (2012) explores children's interaction with picture books which shows relationship with visual perception. The author says this has an impact on children's categorization and narratives and illustrations of picture books are works of art that can provide sources for children to appreciate art and enhance their visual perception. Prof.Abu El- Ala, cloud computing for solving e-learning problems. He proposed environment focuses on designing and monitoring educational environment based on reusing the existing web tools, techniques and services to provide browser- based application. Deepanshu, Institute of technology India, focused on e-learning application model based on cloud computing will not stop its pace to proceed. As the cloud computing technologies become more sophisticated and the applications of cloud computing becomes increasingly widespread, e-learning will certainly usher in a new era of cloud computing.

DIGITAL INDIA PROGRAM:

The Digital India" initiative is a revolutionary program aimed at shaping India into a society and a professional economy that is digitally strong and invigorated. The programs has majorly concentrated on 3 key areas like digital empowerment of citizens, Digital Infrastructure as an advantage to every citizen of India and Governance and Services on Demand.

- ✓ The government aims to achieve digital literacy among all the citizens of the country to empower themselves through the Digital India initiative. Digital literacy will also allow them to obtain better jobs and thereby to achieve economic growth. Many Common Service Centres (CSCs) have also been established by the Government to achieve digital literacy empowerment will help citizens realize in their daily lives the infinite opportunities of using ICT.
- ✓ India's government contemplates seeing the most remote, inaccessible village to be connected by high-speed internet and broadband facilities. That will help eliminate the digital void between rural and urban areas. This will help the rural areas to achieve social inclusion and financial integration. This also makes sure that the services provided to urban and rural areas are uniform.
- ✓ It aims at making all financial transactions electronic and cashless, accessing all public services through online platforms, facilitating the portability of the entitlements of the individual and making them available in the cloud platform, in order to achieve a full digital economy.

FACTORS TRANSFORMING THE EDUCATION INTODIGITALIZATION:

Digital education removes the various barriers that prevent students in rural India from receiving quality education in physically bound classrooms:' Direct to Mobile ' technology can enable these students to receive quality education, whenever and wherever it helps them to save time by having more freedom to move at their own speed and helping them save money by avoiding "hidden costs" of education, such as transportation fees (gas, parking fees) By

not having to be in a certain class at a certain time, it will help working students not to restrict their schedule of study, allowing them not to lose the salaries they may receive. With the versatility of online courses, students can save more hours and more resources so that they can learn with a purpose and instill in them a sense of self-belief

- Personalized and adaptive learning
- Two-way conversations in E-Learning
- Mobile-based learning
- Video-based learning
- Open educational resources
- Usage of Virtual Reality (VR) and Augmented Reality (AR) for learning

COMPONENTS FOR PROMIOTION OF DIGITAL EDUCATION:

To adopt the digitalization into the educational sector the following are the key components required to implement. They are:

- Personalized computers or laptops
- Projector
- Smart board for easy access
- Net connectivity or Wi-fi
- E –Library

GOVERNMENT SCHEMES:

An integrated scheme in educational sector has been launched by the central government. This scheme involves the three quondam centrally sponsored schemes like Rashtriya Madhyamik Shiksha Abhiyan (RMSA), Teacher Education and Sarva Shiksha Abhiyan (SSA), from the year 2018-19. Under the Samagra Shiksha Centrally Sponsored Scheme, Information & Communication Technology (ICT) module provides for all Government and Aided Schools from upper primary to PU, subject to availability of budgetary funding, progress of accepted measures and acceptance of proposals from the State / UT. To date, approximately 1,79,498 institutions of upper primary, PU schools have been approved for coverage under the respective schemes ' ICT module. In addition, the Government has implemented a multitude of initiatives to provide education through digital means such as:

Curriculum/module of education in schools by ICT:

NCERT (National Council for Educational Research and Training) has developed ICT Curriculum in School System Education especially keeping in minds of teachers and students. The program of the students was piloted for one year in 588 Navodaya Vidyalayas. 805 of Thirty-states' MRPs / KRPs based on roll-outs ICT curricula for students and teachers in the respective states.

e-pathshala:

NCERT (National Council for Educational Research and Training) has developed e-pathshala for the exhibition and dissemination of all educational e-resources including textbooks, audio, video, newspapers and a variety of other supporting hard and soft copy materials. To date, the portal and mobile app have made 3444 audios and videos, 698 e-books and 504 flip books available. National Repository of Open Educational Resources (NROER) - National Open Educational Resources Repository (NROER) — The National Open Educational Resources Repository (NROER) is an effort to put together all available and digitizable resources across all phases of education and teacher education. To date the site have made available 13635 files including 401 sets, 2722 documents, 565 interactive, 1664 audios, 2581 images and 6105 videos. States / UTs are encouraged to provide NROER services and build OERs for their own state / UT. As per the world economy forum the appetite for technology and critical thinking skills will rise by around a fifth by 2025 according to the world economic forum. These technologies will create 2.1 million employment opportunities by 2020, which will require prior knowledge in computation.

E-Education:

Digital India aims to connect all schools through Wi-Fi and broadband services. This further means that all the students, whether the students from urban or rural, are able to retrieve state-of - the-art facilities and familiarize themselves with the latest technologies.

Shaala Siddhi:

National Institute of Planning and Administration in Education is imitated this program. This seeks to assess the schools for achieving the goal of sustainable advancement. They can also make rational decisions to achieve their goals by matching their outcomes with the parameters set out in the education standards and review framework

National Digital Library

Another government initiative is to build a virtual library system with a single-window browsing facility for online courses. To date, about 1.5 crore e-books and publications are available on the NDL, submitted by 160 content contributors, and more than 30 lakh users have been registered on the NDL from 9 thousand education institutions.

MHRD INITIATIVES:

KVS initiatives:

ICT Skills are conferred to students of classes from III to XII across the whole Kendriya Vidyalayas. 12011 E-Classrooms (2300 still in progress and the remaining 9711 e-Classrooms established) were established in Kendriya Vidyalayas across the country to facilitate effective digital learning. In addition, 1137 Computer Labs and 276 Digital Language Labs have been built across the country in 276 KVs. In addition, an e-Prajna pilot project has been initiated to provide pre-loaded tablets with e-content in Maths and Science. 5076 Touch tablets for classroom transactions in math and science were distributed among teachers and students of Class VIII.

FOSSEE:

The Free and Open Source Software for Education (FOSSEE) project, designed by the MHRD, aims to promote the use of open source software in educational institutions to improve the quality of education, reducing reliance on proprietary technology/software.

Virtual Lab:

The Virtual Lab, an initiative taken by the MHRD within the framework of the NME through ICT, aims to provide students at all levels from undergraduate to research with remote access to laboratories in various science and engineering disciplines. This project also plans to develop a comprehensive learning management system where students can use various learning tools, including additional web resources, video lectures, animated demos, and self-assessment.

CBSE initiatives:

SARANSH is an integral self-examination and analysis tool for schools and parents affiliated with CBSE. It allows them to analyze the performance of the students to take remedial action. SARANSH brings colleges, teachers and parents together, helping them to track students ' progress and help them improve their results. It lets schools compare their performance with all CBSE schools at different levels and also helps parents compare the performance of their ward at school-level state, city, and national.

SWAYAM PRABHA:

A satellite communication technology application plan for the transmission of educational e-contents across 32 national channels was unveiled SWAYAM PRABHA DTH-TV. One DTH channel is coordinated by CIET-NCERT which can accessible round the clock which is implemented from July 09 2018 Fresh slot is broadcasted each day for every four hours and repeated six times in 24 hours to give the stakeholders learning opportunities.

SWAYAM:

A Massive Open Online Courses (MOOCs) program, popularly known as SWAYAM (Young Aspiring Minds Research Webs for Active Learning) was launched. The portal offers various online educational courses of both school and higher education. NCERT has begun the development of course modules for Massive Open and Online Course (MOOCs) for school education systems in 12 subject areas (to name a few Biology, Chemistry, Economics, History, Geography, Mathematics, Physics, Psychology etc.) for classes IX-XII.

ANALYSIS & DISCUSSION:

IMPACT OF DIGITALIZATION ON EDUCATION SECTOR:

Digital learning has come to play a crucial role in education. Digital learning is replacing traditional educational methods more and more each day. Class room teaching through digitalization has increased the interaction between students and teachers. There has been increasing dependence on websites and study aids designed for at-home use. Digitalization has also opened up different creativity avenues amongst the young mass.

Even use of social networks and communications platforms to create and manage digital assignments is on the rise.

From the above analysis of various schemes offered by government and different departments it can be clearly foreseen that the Indian Online Education. Market will make a speck rise in the following years to come. The below figure also depicts the same

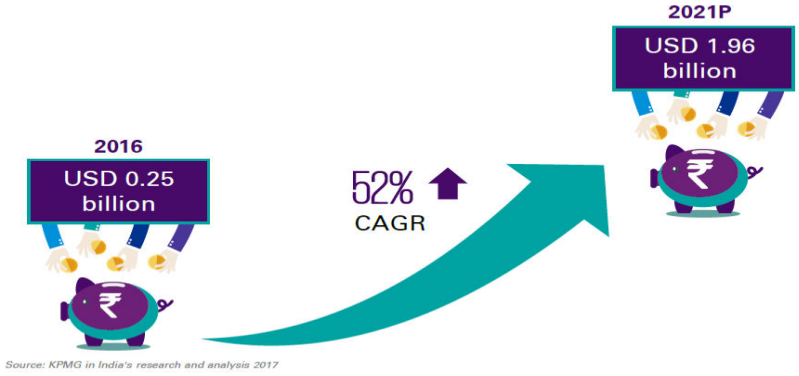


Figure: Future of online education in India 2021

The coming education system will be more confined towards skill development and enhancement. Synchronizing with the online teaching or learning methodologies. Online will witness a considerable growth and continue to enhance the learning spirit of learning community.

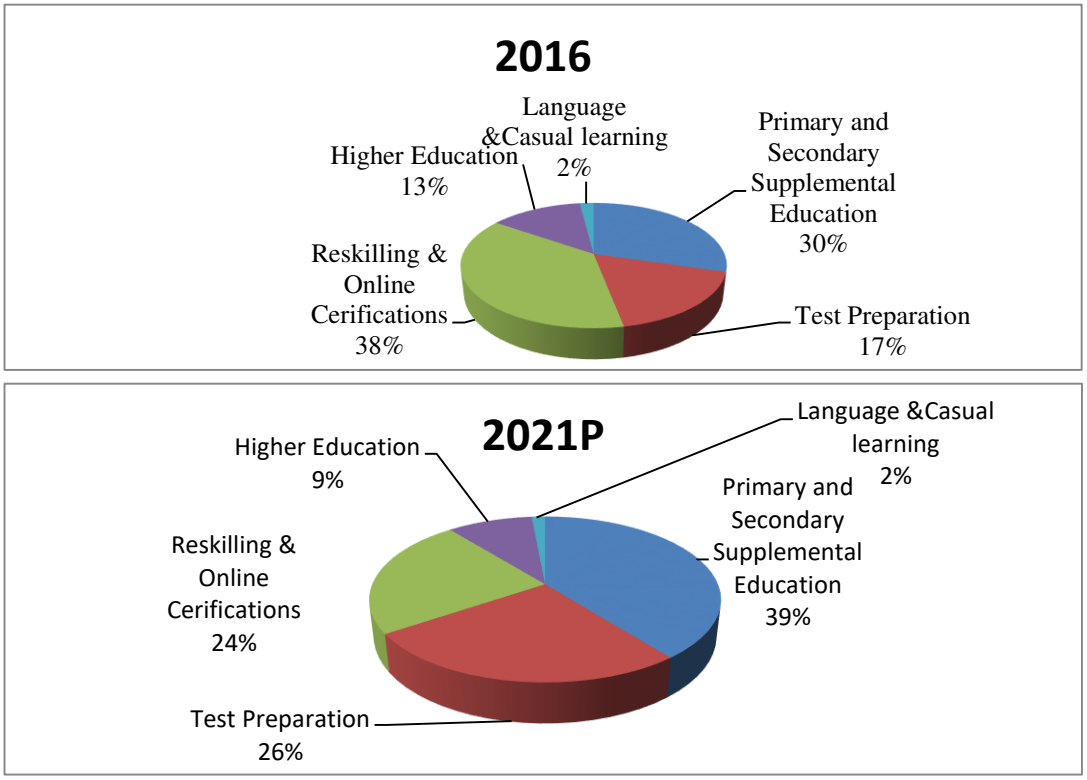


Figure: Rate of student acceptance in Education on different parameters

A survey was conducted to identify and understand the demand, acceptance level of online teaching program in the market. A random survey was conducted by InQognito Insights dividing the entire geography of India into four zones- North, South, East and West. It tried to identify the percentage of different courses selected by people to pursue an online course. It was founded out that rate of acceptance for online programs are higher in metros' and Tier-1 cities because of awareness, employability, and affordability.

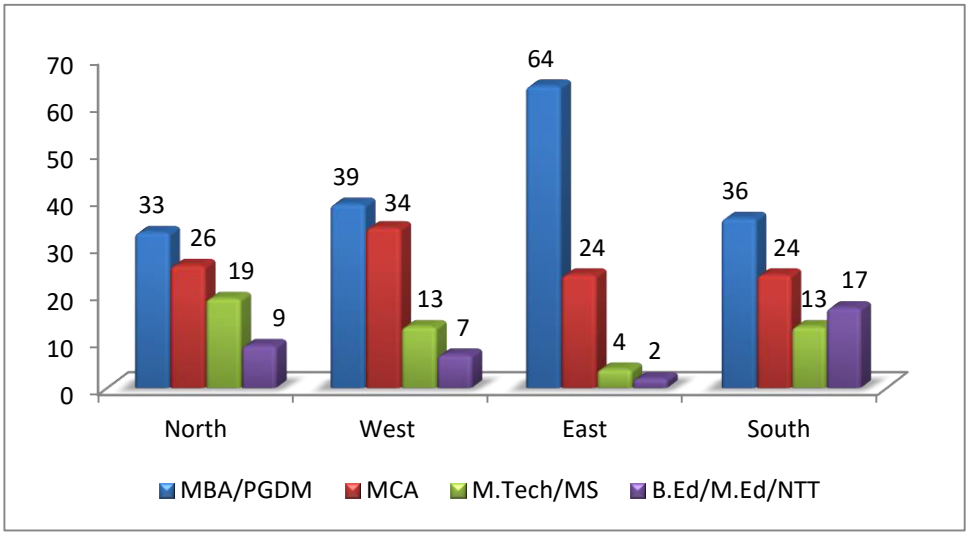


Figure. Number of users based on zone and courses

The core objective of digitalizing education system is to transfer our country into a digitally empowered society.

CONCLUSION:

There's no denying that the Internet has dramatically changed the state of education over the past years. The 21st century has been rightly termed as the digital era. India's digital advances over the past few years have gained momentum as both the public and private sectors have propelled the country into the forefront of the world's

consumers of internet and digital applications. The current generation is the future of the country. Digital India and the National ICT policy have the potential for developing a knowledgeable, Digital literate economy. Digital India is already a reality, but an unfinished one. New efforts, new investment, and new imaginative feats will be needed for the country to move to the next level of digital adoption and secure a dynamic, technology-driven, and prosperous future. The transition from black board to white board will go a long way in the creation of a digitally literate knowledgeable economy.

REFERENCES:

1. Akash Tomer. Reforming Education through Digitisation, Digital Learning Magazine, 2018, Available at: https://digitallearning.eletsonline.com/2018/07/reforming-education-through-digitisation/ (Retrieved on 08-03-2019).
2. Dr. Minu Madlani. Redefining Higher Education in the Digital Era, Digital Learning Magazine. 2018, 22. Available at: https://digitallearning.eletsonline.com/2018/05/redefining-higher-educ
3. E-Kranti scheme gets Rs 500 crore boost. See: http://www.india.com/budget-2014/union-budget-2014-live-e-krantischeme-gets-rs-500-crore-boost-93234/Farmer's Portal. See: http://farmer.gov.in/
4. Digital India, Government of India Press Release, August2014. See:http://pib.nic.in/newsite/PrintRelease.aspx?relid=108926
5. https://pib.gov.in/Pressreleaseshare.aspx?PRID=1562596
6. https://digitalindia.gov.in/di-initiatives
7. https://digitalindia.gov.in/content/national-mission-education-using-ict\
8. S. Srivathsani, MPhil Research Scholar, School of Management Studies, Vels Institute of Science, Technology &Advanced Studies (VISTAS).

Journal Papers:

9. KiranYadav, Role of cloud computing in education,—International journal of innovation research in computer and communication engineering‖.
10. A.S. Sathish Kumar, emerging Technology on smart Class teaching in school education A literature review – IJSR Vol 3,issue8 Aug 2014.
11. International journal on recent and innovation trends in computing and communication volume3, issue2.
12. Nazarlou, Mortaza Mokhtari. (2013): 'Research on Negative Effect on E-Learning,' International Journal of Mobile Network Communications & Telematics, Vol. 3, No. 2, PP. 11 – 1
13. Nigam, Anushree. Srivastava, Jyoti. Lakshmi, Tanushree. Vaish, Anurika. (2015): 'Digitizing Education: A Cost Benefit Analysis,' Asian Journal of Information Science and Technology, Vol. 5, no. 1, PP. 1 – 5.

One day National Conference on
"Economic Instability: Antidote for Sustainability"
26th February, 2020 at Gopalan College of Commerce, Bengaluru, Karnataka, India

Artificial intelligence and its impact on various sectors

[1]Srikrishna G. L., [2]Varun S.
[1, 2] Student of 1st year, B.Com P.A
[1, 2] Kumaraguru Collge of Liberal Arts and Science, Coimbatore ,India
Email - [1]sksrikrishna2002@gmail.com, [2]varun6558@gmail.com ,

Abstract: *In the twenty first century artificial intelligence have experienced a resurgence following concurrent advances in computer power, large amount of data, and theoretical understanding; Artificial intelligence techniques have become an essential part of the technology helping to solve many problems in computer programs, software engineering and operational researches. It reduces the work load. In a developing world artificial intelligence is very much important for humans. But only drawback is it reduces employment in large scale. Artificial intelligence creates large impact on many sectors namely finance industry, cyber security, educational institutions, and also in mining. Artificial intelligence helps to acquire knowledge too. This paper would investigate various aspects relating to artificial intelligence and impact of artificial intelligence in various sectors.*

Key Words: *Artificial Intelligence, Computer programs, technology.*

INTRODUCTION:

Artificial Intelligence (AI) refers to the simulation of human intelligence in machines that are programmed to think like humans and mimic their actions. The term may also be applied to any machine that exhibits traits associated with a human mind such as learning. The ideal characteristic of artificial intelligence is its ability to rationalize and take actions. After knowing Artificial intelligence lets understand the term artificial intelligence, and its impact on various sectors. Let us also discuss the advantages and disadvantages of its impact on various sectors in our economy.

Understanding Artificial Intelligence:

When most people hear the term artificial intelligence, the first aspect they normally consider is robots.
• That's because big-budget movies and novels weave testimonies approximately human-like machines that wreak havoc on Earth.
• Artificial intelligence is based on the principle that human intelligence can be defined in a way that a system can without difficulty mimic it and executes tasks, from the handiest to those which might be even more complicated.
•The dreams of artificial intelligence encompass learning, reasoning, and plenty of more.
•As generation advances, previous benchmarks that defined artificial intelligence end up outdated.
• For example, machines that calculate basic features or recognize text thru optimal individual popularity are not taken into consideration to embody synthetic intelligence, for the reason that this feature is now taken as a right as an inherent pc characteristic.
• AI is continuously evolving to advantage many one of kind industries. Machines are wired using a cross-disciplinary method primarily based in mathematics, laptop science, linguistics, psychology, and more.
• Algorithms frequently play a very critical part within the structure of synthetic intelligence, where easy algorithms are used in simple applications, whilst more complicated ones assist body strong synthetic intelligence.

Applications of Artificial Intelligence:

• The applications for synthetic intelligence are endless. The technology can be carried out to many different sectors and industries.
• AI is being examined and used in the healthcare industry for dosing drugs and for plenty surgeries.
• Other examples of machines with artificial intelligence include computers that play chess, self-riding cars and many objects.
• Each of these machines should weigh the consequences of any movement they take, as every action will impact the end result. In chess, the end result is triumphing the game.
• For self-riding cars, the computer system must account for all external statistics and compute it to behave in a way that prevents a collision.

• Artificial intelligence additionally has packages insidethe financial industry, where it's far used to locate and flag activity in banking and finance such as unusual debit card usage and huge account deposits—all of which help a bank's fraud department. Applications for AI are also getting used to assist streamline and make trading simpler. This is completed through making supply, demand, and pricing of securities easier to estimate.

Key points:

- Artificial intelligence refers to the simulation of human intelligence in machines.
- The goals of artificial intelligence include learning, reasoning, and perception.
- AI is being used across different industries including finance and healthcare.
- AI tends to be simple and single-task oriented, while strong AI carries on tasks that are more complex and human-like.

Categorization:

Artificial intelligence can be divided into two different categories:

1) Weak
2) Strong.

- Weak Artificial Intelligence embodies a system designed to carry out one particular job.
- Weak AI systems include video games such as the chess example from above and personal assistants such as Alexa and Apple's Siri. You ask the assistant a question, it answers it for you. It also includes google assistant.
- Strong Artificial Intelligence systems are systems that carry on the tasks considered to be human-like.
- These tend to be more complex and complicated systems. They are programmed to handle situations in which they may be required to problem solve without having a person intervene and found in self- driving cars.

Special Considerations:

Since its beginning, synthetic intelligence has come beneath scrutiny from scientists and the public alike. One commonplace theme is the idea that machines will becomes so exceptionally advanced that humans will no longer have the ability to maintain up and they may take off on their own, remodeling themselves at an exponential rate. Another is that machines can hack into people's privacy and even be weaponised. Other arguments debate the ethics of synthetic intelligence and whether smart systems including robots must be handled with the equal rights as people. Self-driving cars have been pretty arguable as their machines have a tendency to be designed for the lowest possible chance and the least casualties. If presented with a state of affairs of colliding with one character or another at the same time, these vehicles would calculate the option that would purpose the least amount of damage. Another contentious issue many humans have with artificial intelligence is how it may have an effect on human employment. With many industries trying to automate certain jobs through the use of wise machinery, there is a concern that humans would be pushed out of the workforce. Self-driving motors may additionally do away with the want for taxis and car proportion programs, even as manufacturers may easily update human labour with machines, making people's talents more obsolete.

ADVANTAGES:

• In the close to term, the intention of keeping AI's effect on society beneficial motivates research and economics in many areas, from economics and regulation to technical topics inclusive of verification, validity, protection and control.
• Whereas it may be little extra than a minor nuisance if your laptop crashes or gets hacked.
• It becomes all the more critical that an AI system does what you need it to do if it controls your car, your airplane, your pacemaker, your automatic trading gadget or your power grid.
• In the long term, an important query is what's going to manifest if the quest for sturdy AI succeeds and an AI machine turns into higher than humans in any respect cognitive tasks.
• As talked about by I.J.Good in 1965, designing smarter AI systems is itself a cognitive task.
• Such a device could probably go through recursive self-improvement, triggering an intelligence explosion leaving human intellect a ways behind.
• By inventing modern new technologies, such a super intelligence might assist us eradicate war, disease, and poverty, and so the introduction of sturdy AI might be the biggest occasion in human history.
• Some experts have expressed concern, though, that it might additionally be the last, until we learn how to align the goals of the AI with ours earlier than it becomes extraordinary sensible.
• There are a few who question whether sturdy AI will ever be achieved and others who insist that the advent of first rate intelligent AI are assured to be beneficial.
• At FLI we recognize both of these possibilities, however additionally understand the ability for a synthetic intelligence device to deliberately or accidentally cause excellent harm.
• We believe research nowadays will help us better prepare for and prevent such potentially poor consequences in the future, for that reason enjoying the blessings of AI even as warding off pitfalls.

DISADVANTAGES:

Most researchers agree that a super intelligent AI is unlikely to exhibit human emotions like love or hate, and that there is no reason to expect AI to become intentionally benevolent or malevolent. Instead, when considering how AI might become a risk, experts think two scenarios most likely:

- ✓ **The AI is programmed to do something devastating:** Autonomous weapons are artificial intelligence systems that are programmed to kill. In the hands of the wrong person, these weapons could easily cause mass casualties. Moreover, an AI arms race could inadvertently lead to an AI war that also results in mass casualties. To avoid being thwarted by the enemy, these weapons would be designed to be extremely difficult to simply "turn off," so humans could plausibly lose control of such a situation. This risk is one that's present even with narrow AI, but grows as levels of AI intelligence and autonomy increase.
- ✓ **The AI is programmed to do something beneficial, but it develops a destructive method for achieving its goal:** This can happen every time we fail to fully align the AI's dreams with ours, that is strikingly difficult. If you ask an obedient wise car to take you to the airport as fast as possible, it might get you there chased by means of helicopters and included in vomit, doing no longer what you wanted but literally what you asked for. If a top notch shrewd device is tasked with a formidable geo engineering task, it would wreak havoc with our ecosystem as a facet effect, and consider human attempts to forestall it as a hazard to be met. As these examples illustrate, the priority about advanced AI isn't malevolence but competence. An extraordinary-sensible AI will be excellent at conducting its desires, and if those goals aren't aligned with ours, we've got a problem. You're probably no longer an evil ant-hater who steps on ants out of malice, however if you're in price of a hydroelectric green power venture and there's an anthill within the region to be flooded, too awful for the ants. A key purpose of AI safety research is to by no means vicinity humanity in the position of these ants.

Impact of Artificial Intelligence on various sector:

Automotive industry

- No accidents, no traffic congestion and... no driver.
- Let's face it. Riding for pleasure is incredible. But driving in traffic is tiresome.
- People are already preferring pooling and shared rides over car ownerships. It is only a matter of time before self-driving cars go main stream.
- AI-assisted self-driving cars make use of the sensors and cognitive equipment to drive safely, avoiding traffic and accidents. It can make decisions in a split second and not freeze under shock like we humans do.
- It also paves the way for a connected automotive system where all the cars are connected and can share information. This enables the vehicles to report breakdown of other vehicles and can reroute and navigate efficiently reducing the travelling time.
- It can also work in manually-operated cars to assist the driver by monitoring sleep and traffic, automatic brake if the car closes a certain distance, dialing help in case of an emergency and much more.
- The Automotive industry is probably the biggest benefactor of Artificial Intelligence. Tesla and Google have already released self-driving cars and they were well received by their customers.

Empower finance industry:

- AI enhances the efficiency of the financial sector. Analysing the historical data, AI-enabled software is ideal in determining if the investment is worth the risk.
- It can also predict how the trading markets will react and fluctuate based on the trends, news, and leadership decisions among others. This can potentially open the institutions a gateway to increase their profits.
- The introduction of Artificial Intelligence could identify legitimate and fraudulent transactions accurately than any human team ever could. It doesn't just reduce the losses but also increases the reputation of financial institutions.
- Similarly, Artificial Intelligence algorithms come in handy to identify risk accurately during credit lending. The early adoption of AI can push businesses to do better in the industry.

Build conscious robots:

- This is obvious. Without Artificial Intelligence, robots are programmed entities used only for repetitive functions.
- But robots that can think can make far greater contributions. They can respond to human queries, help in households, become healthcare assistants, and even explore the space and the deepest regions of the ocean.
- Conscious robots can easily blend in and become an everyday part of life, improving experiences through every aspect. From assisting the elderly to alerting the authorities in times of need, they can do pretty much everything we can do.

A Highly Efficient Manufacturing Sector with AI:

- When AI works as the brain of a manufacturing unit, two things are assured: quality and speed.
- The Artificial Intelligence algorithm can ensure that the products that come out of the manufacturing unit are of top quality. And it does that extremely fast paving way for greater productivity and thus for greater profits.
- The AI can also be mindful of the machines' wear and tear and book repairs when required. The data gathered on the machines' throughput and the outcome can come in handy when strategies are laid out.
- With AI overseeing the work, manufacturing is made much safer for the personnel working in the company.

An Improvised Technical Support with AI:

- AI voice bots have no constraint like one resource can handle only one call at a time. They can handle multiple calls and requests without any lag or delay in time.
- This greatly reduces the waiting time for the customers. It doesn't stop there, either. Every query can be presented with precise solutions and answers that the callers are left with nothing but gratification.
- Plus, Natural Language Processing allows businesses to understand their customers better so that their needs can be addressed effectively.
- AI voice bots do not need to search for the records every time a caller asks for the information.
- With the data gained over time, customers can be engaged strategically to provide the best experience.

Better Cyber Security with AI:

- Despite the efforts, there are always bugs that manage to escape the testing iterations.
- Incorporating AI can analyze the software systems and rectify the loopholes preventing unauthorized users from accessing it.
- The AI can also map the relation between the IPs, malicious files, and threats to screen them from getting into the software system.
- The development of cognitive AI can alert the authorities as violations happen in real-time. It can empower authorities by strengthening their cyber wing and by reducing crime.

AI Can Guarantee Quality Education:

- Adopting Artificial Intelligence and Machine Learning will nurture the students to become better individuals.
- Every student is unique. So, the same teaching method might not bring out the best of everyone.
- AI, on the other hand, can help to identify the strengths and weaknesses of every student to devise personalized teaching methods. The students can learn at their own pace too. Their natural talent can be easily identified and trained to support their future.
- It can be used to teach a good number of skills and courses in engineering, medicine, arts, etc.

Efficient Logistics:

- Logistics companies always have to be mindful of the travel route, time, fuel, and the load for a delivery to be successful.
- Artificial Intelligence lifts the managing burden off the companies and reduces the total cost. AI can rightly sort the products and determine the total volume for effective storage and warehouse management.
- The AI highly optimizes the route to reach the destination in a short time while saving fuel and thereby its expense. It can also determine the load a vehicle can carry to pack it with the exact amount: not less, not more. It greatly increases efficiency and it does all that while forecasting the traffic to reroute accordingly.
- AI can also take care of the Last-Mile Delivery to create a personalized experience for the customer to ensure their satisfaction.

Precise Mining:

- AI-powered machinery can easily detect regions with resources. It can analyse and even calculate the number of mineable resources present in the region.
- And renewable energy, wind and solar, rely heavily on the climate and weather and thus have been ambiguous in terms of productivity. Analyzing the historical data, power plant's efficiency, and the present conditions, the AI can arrive at the obtainable energy for a period.
- AI-enabled housing is also better at conserving energy keeping a check on the heavy power-consuming machines. AI is probably the biggest boon energy and mining companies can ask for.

Boosted Agricultural Yield:

- Insights on the expected rainfall and the suitable crops to plant for the season. Lately, a lot of people are moving from rural to urban areas in search of work or entrepreneurs. Either way, this resulted in the agriculture industry encountering a shortage of hands to work in the fields.
- AI-powered machinery can very well lift the burden off the farmers and tackle the shortage of labourers.

- Crops can be monitored with cognitive Artificial Intelligence technology to keep track of their health. Weeds and pests spoiling the crops can be identified at the nascent stages. And measures can be suggested to curb the effects before they become adverse.
- AI's study on weather and climate changes can provide.
- The right harvesting period can be suggested along with the steps to boost the yield.
- Artificial Intelligence can boost the revenue of the agro-industry.

Superior Healthcare and Analysis:

- Everyone in the healthcare industry knows that by the time symptoms appear, cancer had already begun spreading and is hard to cure.
- Incorporating Artificial Intelligence in healthcare is probably the best of all the advantages AI can provide. Even the slightest of the decline in health can be identified immediately and healthy habits can be recommended.
- Early detection can help to cure diseases when they are still developing and add years to human longevity.
- AI also maintains records of diseases affected and the treatments provided, assisting the doctors to determine the right treatment for a patient.
- Further, doctors can be trained to handle all of the scenarios. Simulations can be run and the doctors' responses can be evaluated to improve the quality and the rightness of the treatment.

Powerful Retail Management:

- Artificial Intelligence identifies the key aspects that drive sales to provide companies with insights to strategize accordingly.
- Behavioral Analytics coupled with AI surveillance could also help to identify, alert and prevent theft and other malicious practices inside the store. Billing can also be automated to reduce the time of customers at the counter and increase efficiency.
- In-store chat bots can offer the customers instant query clarification to provide the customers with a better shopping experience.
- The clothing section can make use of the virtual trial rooms where customers can see how the clothes look on them without changing them. Even apparels can be tested before buying to make it extremely customer-friendly and drive sales.

OBJECTIVE OF STUDY :

- To understand the state of AI adoption in India.
- To determine the opportunities and risks that artificial intelligence poses for Indian industry and society.
- To provide the Indian government and tech community leaders with strategic recommendations for using AI to promote prosperity in India.

CONCLUSION:

Artificial intelligence is used in various sectors of the economy. It is also used as a substitute for humans. Artificial intelligence simplifies human's work and it helps to complete a particular task faster than manual work. Since the given work is done within the estimated time, many targets can be achieved quicker than their competitors. These are some beneficial impacts on respective sectors where artificial intelligence can be utilized thoroughly. There also some drawbacks with use of artificial intelligence to the economic sector, because if most of the manually performing activities are performed by artificial intelligence, there is a chance of higher unemployment in the nation. We have analyzed about the impacts of artificial intelligence in various sectors, which give various benefits in growth of our country. Even though it has demerits which may affect us economically and due to misuse of technology, we need to focus on positive perspective to utilize it up to the maximum extent.

REFERENCES:

Websites:

- https://www.accenture.com/in-en/insight-ai-economic-growth-india
- https://moderndiplomacy.eu/2020/03/10/eu-security-sector-reforms-intelligence-cooperation-foreign-espionage-and-domestic-security-challenges/

Books:

- The Economics of Artificial intelligence: An Agenda by Ajay Agarwal , Joshua Gans, Avi Goldfarb.
- India Automated: How the Fourth Industrial Revolution is Transforming India by Pranjal Sharma .

One day National Conference on
"Economic Instability: Antidote for Sustainability"
26th February, 2020 at Gopalan College of Commerce, Bengaluru, Karnataka, India

Economic Instability in India: Antidote for Revival and Sustainability

Dr. S. R. Keshava
Associate Professor, Dept. of Economics, Bangaluru University, Karnataka, India
Email - srkeshava@gmail.com

Abstract: *Economic instability refers to the excessive fluctuations in the growth, output and other macroeconomic indicators of the economy. If economic instability is utilized as an opportunity with correct antidote measures, an economy will not only higher growth and stability but also higher inclusive and sustainable stability. The key is to revive demand, increase consumer spending and to increase the private investment. Unless demand is increased, the private investment will not increase; unless the purchasing power is increased the demand cannot be revived; increase the purchasing power by a reduction in taxes, increase in job opportunities and better wages. The Government should take the lead for an antidote for revival and sustainability, all stakeholders including common man should join hands in making it a reality for their own and common good.*

Key Words: *Sustainability, Private investment, Stakeholders.*

INTRODUCTION:

Economic instability refers to the excessive fluctuations in the growth, output and other macroeconomic indicators of the economy. Economic instability can take different forms such as the decline in aggregate demand, an increase in unemployment, an increase in inflation, bond crisis, the balance of payments crisis, recession, etc. If economic instability is utilized as an opportunity with correct antidote measures, an economy will not only higher growth and stability but also higher inclusive and sustainable stability.

Indian economy till the last three years was the fastest-growing economy of the world, but though the Indian economy is slowing down, it is still growing above the world average, but some industrialists, economists call the present economic instability as the worse than India faced in 1991, slowbalisation etc. To mention a few, Arvind Subramanian (2019), the former chief Economic Advisor in his draft working paper of the Harvard University's Centre for International Development said "Clearly, this is not an ordinary slowdown. It is India's Great Slowdown, where the economy seems headed for the intensive care unit," The noble laureate in Economics, Abhijit Vinayak Banerjee (2019) opined that Indian economy is in a tailspin, doing very badly and such a thing has happened after many years. One need not have to agree nor disagree with the opinions, but have to carefully examine the facts with the help of data and examine the magnitude of slowdown and try to evolve the antidote for revival and its sustainability. The important issues in Indian economic instability are whether it is cyclical or structural; homemade or global slowdown impact; or a mixture of all of these. Trends and Magnitude of Economic Instability in India there is general consensus among the economists that 'economic Instability anywhere Impacts stability everywhere'. The World economic outlook global output growth estimates that global output is estimated to be 2.9 percent in 2019 from 3.6 percent in 2018 and 3.8 percent in 2018. The global output in the advanced economies fell from 2.2 percent in 2018 to an estimated 1.9 percent in 2019, in the case of the USA it fell from 2.9 percent in 2018 to an estimated 2.3 percent in 2019 Growth of Global Output (in Per cent)

	2017	2018	2019	2020*
World	3.8	3.6	2.9	3.3
Advanced Economies	2.4	2.2	1.9	1.7
USA	2.2	2.9	2.3	2.0
Euro Area	2.4	1.9	1.2	1.3
Emerging Market and Developing Economies	4.8	4.5	4.1	4.4
Emerging and Developing Asia	6.6	6.4	5.6	5.8
China	6.8	6.6	6.1	6.0
India	7.2	6.8	4.8	5.8
ASEAN-5	5.3	5.2	4.7	4.7

Source: World Economic Outlook 2019 and World Economic Outlook, January 2020, IMF.

In Euro Area the growth of global output fell from 1.9 percent in 2018 to estimated 1.2 percent in 2019; in emerging market and developing economies it fell from 4.5 percent in 2018 to estimated 4.1 percent in 2019; in emerging market and developing Asia it fell from 6.4 percent in 2018 to 5.6 percent estimated in 2019; in China, it fell from 6.6 percent in 2018 to estimated 6.1 percent in 2019; *India's* growth fell from 6.8 percent in 2018 to estimated 4.8 percent in 2019, projected to improve to 5.8 percent in 2020 and 6.5 percent in 2021; in ASEAN-5 it fell from 5.2 percent in 2018 to 4.7 percent in 2019. Gita Gopinath (2020), the IMF's chief economist, said in a written statement that "The projected recovery for global growth remains uncertain. It continues to rely on recoveries in stressed and underperforming emerging market economies, as growth in advanced economies stabilizes at close to current levels,"

Projected Growth Trends and positives and Negative Side of the revival of World Economy as per the World Economic Outlook January 2020

Global Growth trends	Positive Side	Negative Side
Global growth is projected to rise from an estimated 2.9 percent in 2019 to 3.3 percent in 2020 and 3.4 percent for 2021	Market sentiment is boosted by tentative signs of recovery in the manufacturing activity and global trade	Rising geopolitical tensions, notably between the United States and Iran,
The downward revision primarily reflects negative surprises to economic activity in a few emerging market economies,	Shift towards accommodative monetary policy	Worsening of relations between the United States and its trading partners
The decrease in the growth rate of emerging economies notably India, led to a reassessment of growth prospects over the next two years.	Diminished fears of a no-deal Brexit	deepening economic frictions between other countries
	intermittent favorable news on US-China trade negotiations	Intensifying social unrest

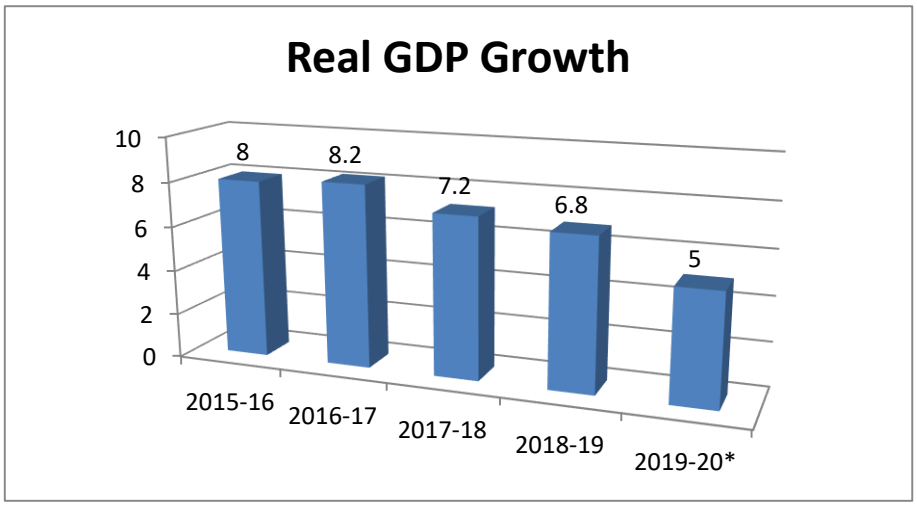
Source: Compiled by the author based on the information in the World Economic Outlook January 2020

It can be observed that India is both influencing as well as influenced by global slowdown. The World Economic Outlook, January 2020, IMF projected that India will improve to 5.8 percent in 2020 and 6.5 percent in 2021.

Trends in India's GDP Growth:

The GDP growth which was 5.1 percent in 2012-13 increased to 6.3 percent in 2013-14, further increased to 7.5 percent in 2014-15, 8 percent in 2015-16 and 8.2 percent in 2015-16. But after this it started declining due to the implementation of two major polices/reforms namely demonetization and implementation of GST. The GDP growth declined to 5.0 percent in 2019-20 from 6.8 percent in 2018-19 and 7.2 percent in 2017-18

Annual Growth of GDP:



Source: Derived from data obtained from Economic Survey 2019-20, Volume2

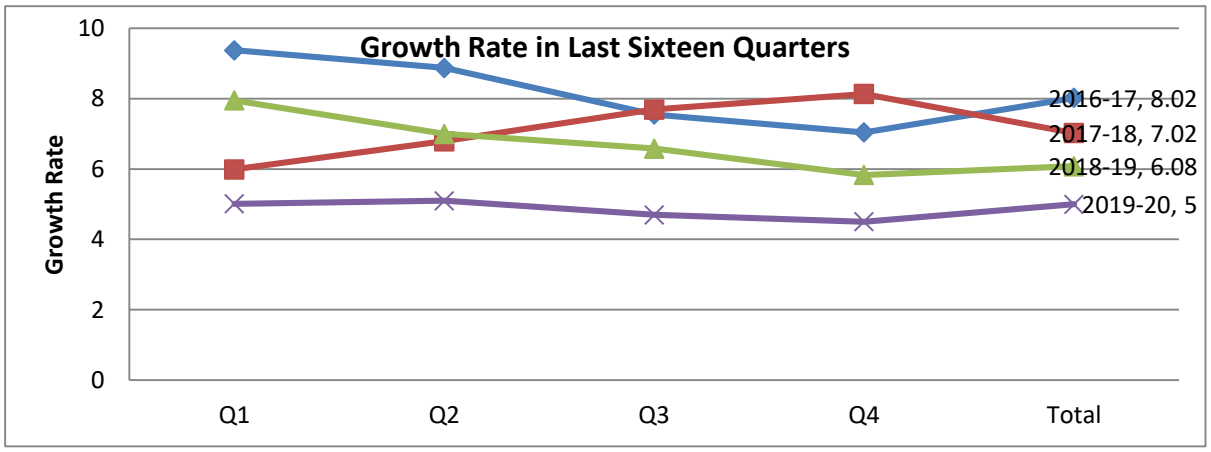
The issues of is Indian economy is in recession is widely debated as there was sliding of GDP. The Generally accepted definition of recession is contraction and general slowdown in economic activity due to lack of spending. Economics statistician Julius Shiskin suggested decline of GDP in two consecutive quarters whereas the National Bureau of Economics Research define it as "a significant decline in economic activity".
Hence GDP growth quarterly data was looked into to ascertain the facts.

	Q1	Q2	Q3	Q4	Total
2016-17	9.37	8.87	7.55	7.04	8.02
2017-18	5.99	6.79	7.69	8.13	7.02
2018-19	7.95	7	6.58	5.83	6.8
2019-20	5.01	5.1	4.7	NA	5

Source: Central Statistics Office (CSO), various issues

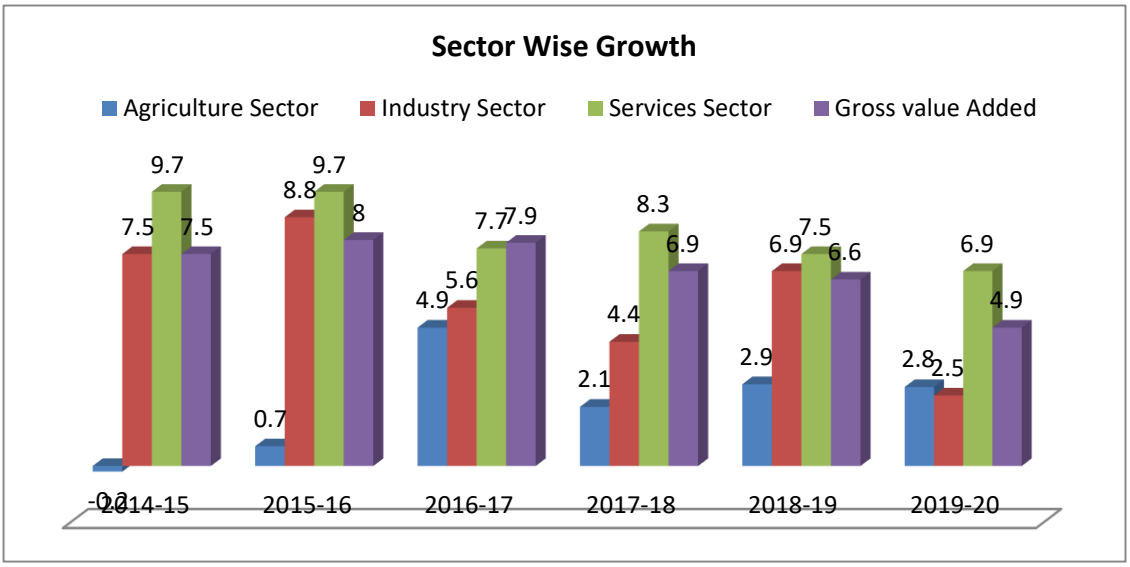
The GDP growth in all the quarters of 2018-19 showed the economy slowing down but the economy still grew at 6.8 percent, but in case of 2019-20 though the economy further slowed down, it is oscillating around 5 percent. Hence one cannot conclude that Indian economy is in recession, though the tendencies are visible and demanding for the corrective measures.

Quarterly Growth Rate for the Last Sixteen Quarters:



Source: Central Statistics Office (CSO), various issues Annual Growth Rate sector wise at GVA at Constant Prices

The annual growth rate sector-wise at GVA in constant prices is revealing that agriculture which had a negative growth rate in 2014-15 became positive with less than one percent growth in 2015-16, but grew well with 4.9 percent in 2016-17. But thereafter it fell to 2.1 percent in 2017-18, but improved to 2.9 percent in 2018-19 and again fell marginally to 2.8 percent in 2019-20. The frequent drought and floods in most parts of the country are the major reason for the agriculture sector not doing to its potential. Despite the agrarian crisis the agriculture output has not fallen which shows that if the farm sector is strengthened the agriculture sector growth will increase beyond four percent consistently. Annual Growth Rate sector wise at GVA at Constant Prices (Per cent)



Source: derived the chart based on the data obtained from Economic Survey 2019-20, Government of India

The industrial sector growth is highly volatile; it was 8.8 percent in 2015-16 which has declined to 2.5 percent in 2019-20. The manufacturing sector, MSME if rejuvenated will be back to its potential. MSME and construction were affected by demonetization in the short-run and the teething problems of GST aggravated the issue. The issues with respect to GST from the software to claiming the input credits, refunds have to be sorted out at the earliest. The service sector growth is holding up India's growth consistently. The growth rate of GVA of the service sector varied between 6.9 percent (slowest in 2019-20) to 9.7 percent (highest in 2014-15 and 2015-16) from 2014-15 to 2019-20.

Causes for Economic Instability in India:

After 2016, every economic indicator doing well or otherwise is attributed to demonetization or GST, sometimes both. Raghuram Rajan (2019) opines that India was growing at a faster pace before it was hit by two major headwinds successively one after the other, they are demonetization and the GST.

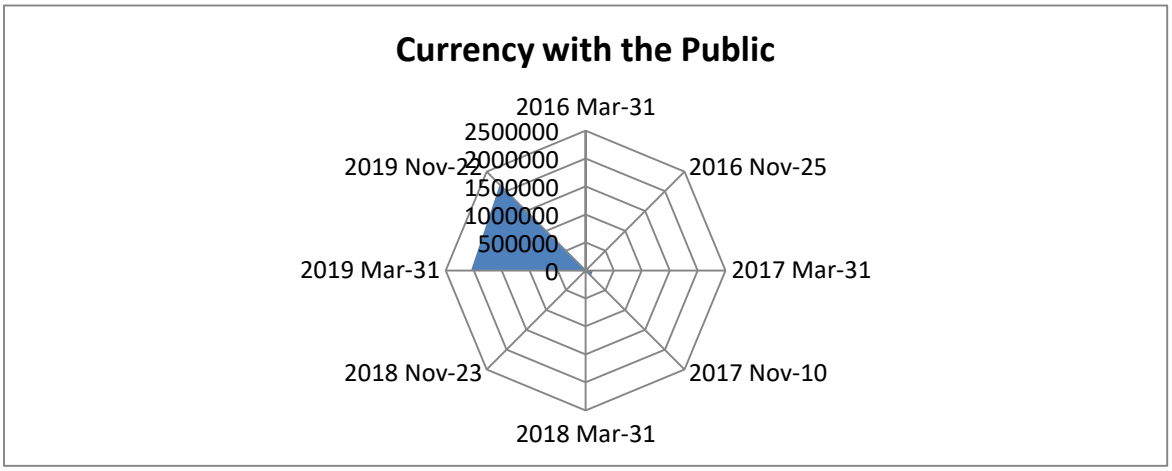
Demonetization:

Years to come, one policy in the economic arena which will have endless discussions is demonetization of the currency notes of Rs. 500 and Rs, 1,000. It was announced by the Prime Minister Narendra Modi on 8th November 2016. The following table gives the birds-eye view of its objectives and impact.

Objectives	• Eradicating Black Money • Curbing the terrorist financing • Remove fake currency • Towards Inclusion of informal economy to formal one • To boost Rural economy and small scale sector to move to e-payments
Theoretical Background	• Credit creation theory, • Keynes Multiplier effect, • Rosenstein Rodan's Big Push Theory
History	• Soviet Union, Weimar republic, Singapore, European countries , India 1948, 1978
Impact ; Short Run	• Common Man, Retail , MSME Suffered • Job loss and slowing down of the economy • Increased banking penetration and financial inclusion • Strengthened the Banking Structure • Boost to on-line payments
Impact : Present	• Cancelling the registration of two lakh fake shell companies, • Greater tracking of currency, 17,526 crore undisclosed income seized, • More individuals have added to tax bracket, • Digital transactions have got a major boost.

Source; Author has constructed the table using the secondary sources

The Indian economy when demonetized on 8th November 2016 had Rs 17.74 lakh crore currencies in circulation which by 22 November 2019 was Rs.21.72 lakh crore. The economy is remonetized and more importantly, the currency is the king even now in the transaction. But despite this, if consumption expenditure is down, it requires more micro-level studies. The people may have restored back to savings in cash at houses for the precaution motive, education, children's marriage, health, etc afresh. The following Radar chart gives insights into the currency with the public.



Source: Chart drawn based on the data obtained from RBI

GST: GST is an Indirect Tax that came into effect from 1st July 2017; Goods & Services Tax Law in India is a comprehensive, multi-stage, destination-based tax that is levied on every value addition. GST has replaced many Indirect Taxes like Central Excise Duty, Duties of Excise, Additional Duties of Excise, Additional Duties of Customs, Special Additional Duty of Customs, Cess, State VAT, Central Sales Tax, Purchase Tax, Luxury Tax, Entertainment Tax, Entry Tax, and Taxes on advertisements, Taxes on lotteries, betting, and gambling in India. At present the goods outside the preview of the GST Act are Alcohol for human consumption, Petroleum Products viz. petroleum crude, motor spirit (petrol), high-speed diesel, natural gas and aviation turbine fuel and Electricity. The major issues apart from teething issues are related to software, delay in refunds, and difficulty in claiming input credit. The government recently extended the deadline for filing GST returns after Infosys' executives were unable to resolve the issues relating to login errors, auto logouts, and delays in receiving on-time passwords (OTPs). The Government has asked Infosys to explain the software major's failure to fix glitches and set it correct at the earlies

TBS-1 and TBS-2: Subramanian way back in 2014 had highlighted the twin balance sheet (TBS) problem namely debt accumulated by private corporate becoming non-performing assets (NPA) of banks. In his other co-authored paper with Josh Felman he attributes the adverse interest growth dynamic to the "Four Balance Sheet" challenge which comprised 1) banks, 2) infrastructure 3) NBFCs and 4) real estate companies. He also makes a distinction between the original TBS (TBS-1) and "TBS-2".TBS-1 was about bank loans made to steel, power, and infrastructure sector companies during the investment boom of 2004-11 which turned bad. TBS-2 is largely a post-demonetization phenomenon, involving non-banking financial companies (NBFCs) and real estate firms. Arvind Subramaniam attributes the economic instability to "Since the Global Financial Crisis, India's long-term growth has slowed as the two engines propelling rapid growth 1) investment and 2) exports sputtered. Today, the other engine consumption has also stalled. As a result, growth has plummeted precipitously over the past few quarters,"

Crisis in the financial sector:

Indian bank is struggling with huge NPAs. The mismanagement of a few private banks has also added to the woes. The projected NPA of 9.5 lakh crore may increase substantially more after the moratorium will be over on 31 march 2020 which allows declaring the stressed assets of small & mid-size businesses as nonperforming assets. The ambitious MUDRA loans are also contributing to NPA. Within the first four and a half years Rs 17,000 crore has become NPA under MUDRA. United Nations 'The World Economic Situation and Prospects 2020' raises concerns about increasing corporate debt in India which has increased to 40% of the GDP. The report also highlights that a significant portion of the corporate debt is not spent on productive investment which increases the financial vulnerability. NBFCs are in crisis as they are facing a liquidity crunch and huge NPAs on their shoulders. They are forced to reduce lending which is aggravating the slowdown of the economy. The NBFCs crisis affects the commercial banks as they have financed the NBFCs. The risk the NBFCs faces will be transferred to the financed banks once these NBFCs fall. The bankruptcy of IL & FS (Information leasing & Finance Service) corporation has brought these issues to the forefront. The NBFC-IL & FS have the institutional shareholding to the extent of 25.34% in LIC, 23.54 percent in ORIX Corp Japan, 12.56 in ADIA, 9.02 percent in HDFC, 6.42 in SBI and other institutions. The major reason for the fall of IL & FS was they had provided debt of Rs. 91.000 crore loans which hardly returned. Of it Rs.60, 000 crore of debt was struck at project level including road, power, & Water projects as there were complications in land acquisition due to which cost escalated.

Decline in GFCF:

Gross Fixed Capital Formation as a percentage of GDP is declining. The gross fixed capital formation as a percentage of GDP fell from 39 percent in 2011-12 to 32.3 percent in 2017-18. Private investment is not increasing which fell from 27 percent of GDP in 2011-12 to 21.5 % in 2017-18. Despite the incentives of the Government to revive the private sector investment, it was around 21 percent.

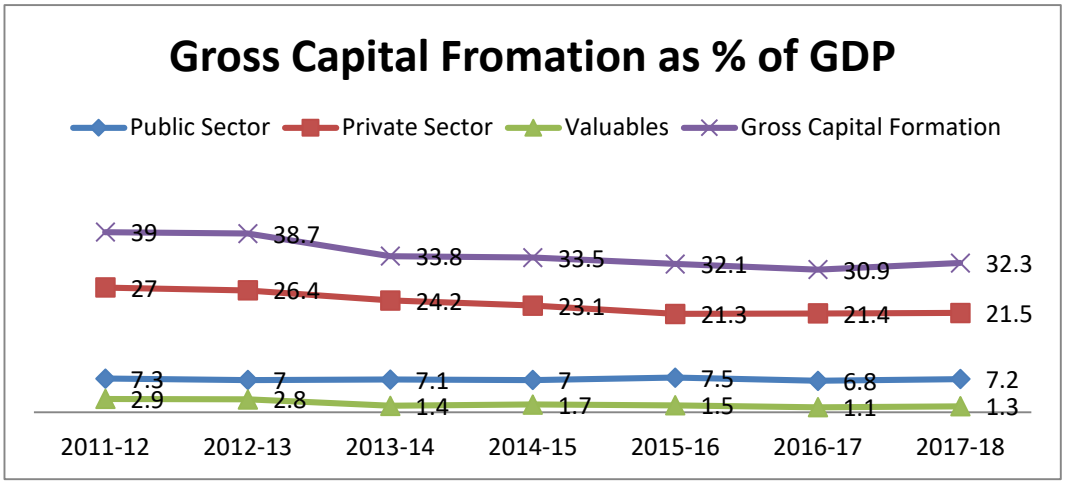
Investment Rate (Gross Fixed Capital Formation as % of GDP)

Year	Public Sector	Private Sector	Valuables	Gross Capital Formation
2011-12	7.3	27	2.9	39
2012-13	7	26.4	2.8	38.7
2013-14	7.1	24.2	1.4	33.8
2014-15	7	23.1	1.7	33.5
2015-16	7.5	21.3	1.5	32.1
2016-17	6.8	21.4	1.1	30.9
2017-18	7.2	21.5	1.3	32.3

Source: Economic Survey 2019-20, Government of India and previous issues

The public investment which reached the height of 7.5 percent in 2015-16 is at 7.2 percent in 2017-18. The public investment is around 7 percent. Reviving the private investment is crucial for greasing the wheels of the

economic growth. The increase in investment rate will increase the employment, income, savings and demand for the goods and services in the market.



Source: Source: Economic Survey 2019-20, Government of India and previous issues

Decline in Savings:

Gross Domestic Savings as a percent of GDP is also declining; it was 34.6 percent in 2011-12 which declined to 30.5 percent. The savings help investment if saved in the financial institutions or invested by them. The household's savings which contributed majority to total savings has declined by 6.4 percentage points from 23.6 percent in 2011-12 to 17.2 in 2017-18. The private corporate sector has increased the savings from 9.5 percent in 2011-12 to 11.6 percent in 2017-18. The public sector savings which fell to 1 percent in 2014-15 from 1.5 percent in 2011-12 has increased to 1.7 percent in 2017-18

Gross Domestic Savings as Per cent of GDP

Year	Households	Pvt. Corporate Sector	Public Sector	Total Savings
2011-12	23.6	9.5	1.5	34.6
2012-13	22.5	10	1.4	33.9
2013-14	20.3	10.7	1	32.1
2014-15	19.6	11.7	1	32.2
2016-17	18	11.9	1.2	31.1
2016-17	17.1	11.5	1.7	30.3
2017-18	17.2	11.6	1.7	30.5

Source: Source: Economic Survey 2019-20, Government of India and previous issues

Gross Domestic Savings as Per cent of GDP is also declining; the paradox is the consumption expenditure is also not increasing. It may be due to lack of adequate income to save and spend or the individual households are saving money in form of cash at the houses for their future needs and plans.

Increase in Unemployment:

Despite the surveyed agency, there is decline in unemployment in India. The sluggish growth in investment is responsible for increase in unemployment. Unemployment rates (in percent) according to usual status (ps+ss) and current weekly status (CWS) from 1972-73 to 2017-18 (PLFS)

NNSO Rounds (Year)	Rural				Urban			
	Male		Female		Male		Female	
	Usual Status	Current Weekly Status	Usual Status	Current Weekly Status	Usual Status	Current Weekly Status	Usual Status	Current Weekly Status
50th (1993-94)	1.4	3.1	0.9	2.9	4.1	5.2	6.1	7.9
55th (1999-00)	1.7	3.9	1.0	3.7	4.5	5.6	5.7	7.3
61st (2004-05)	1.6	3.8	1.8	4.2	3.8	5.2	6.9	9.0
66th (2009-10)	1.6	3.2	1.6	3.7	2.8	3.6	5.7	7.2
68th (2011-12)	1.7	3.3	1.7	3.5	3.0	3.8	5.2	6.7
PLFS (2017-18)	5.8	8.8	3.8	7.7	7.1	8.8	10.8	12.8

Source: Annual Report (2019), Periodic Labour Force Survey (PLFS), 2017-18, Govt. of India.

The periodic labour force survey 2017-18 came out with the unemployment level in the country at 6.1% for rural-urban combined. India is also enjoying the demographic dividend and it is the time for India to utilize its younger population productivity in the right direction which leads to the inclusive and sustainable development

Reduction in Consumption Expenditure:

NSSO report on consumption expenditure states that the average monthly spending by individuals fell to Rs 1446 in 2017-18 from Rs 1501 in 2011. In rural India where the majority of Indians live, the growth rate of rural wages which was growing at 28 percent in 2013-14- 28%, grew at 3.7 percent in 2018-19. If inflation is deducted from real wage growth then the real wages are declining in rural India. Hence consumption spending in Rural India went down by 8.8% whereas in Urban India it fell by 2 percent from July 2017 to June 2018. The consumption expenditure on food also declined from Rs 643 in 2011-12 to Rs 580 in 2017-18 during the same period the urban monthly spending on the food increased marginally from Rs 943in 2011-12 to Rs 946 in 2017-18. Demand and sales of tractors and motorcycles in rural India has also contracted. Rural India contributes to the 50 percent of the motorcycle demand in the country.The reasons for the decline in consumption expenditure may be a decline in the growth of rural wages, unemployment, agrarian crisis, lack of growth in MSMEs and others

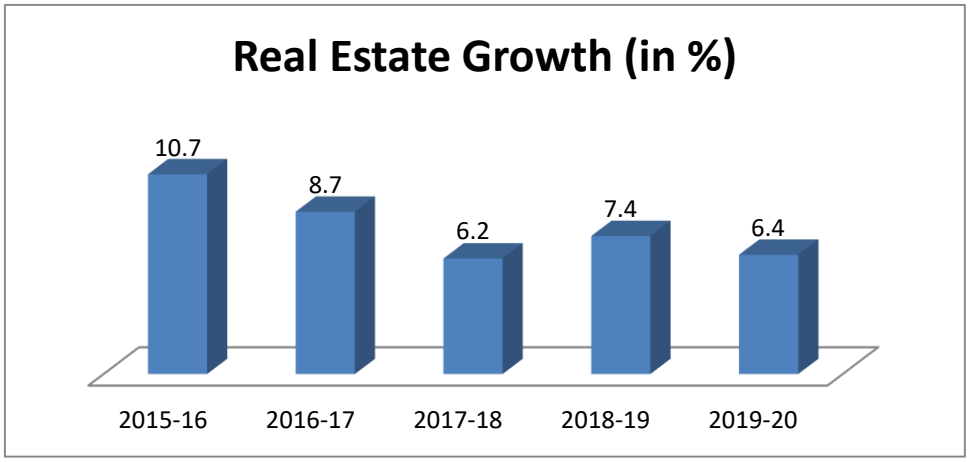
Auto Sector:

The auto sector employs 3.5 million people and contributes to an average of 7percent to GDP, but unfortunately due to lack of demand, many have lost jobs. The auto manufacturers are also suspending production units ranging from days to months. For example, Ashok Leyland suspended production at several units from 5 days to 18 days in September 2019, Maruthi, Tata Motors, Mahindra & Mahindra have announced production Cuts.

Real estate sector:

The real estate employs 52 million people and is projected to provide employment to 67 million by 2022. It also contributes around 7 percent to GDP. Due to slow down the demand in real estate also has shrunk. A number of developers have shrunk by 50 percent states a report. Due to slow down in the real estate sector many other sectors demand is also affected. For example; there is shrinkage in the output of cement and steel

Real-estate Growth rate at per cent at constant prices.



Source: Economic Survey 2019-20, Government of India

The Growth of real estate which was 10.7 percent in 2015-16 has fallen to 6.2 percent in 2019-20. The positive news is that real estate sector growth is projected to increase further in the coming financial year. The antidote for revival and sustainability The key is to revive demand, increase consumer spending and to increase the private investment. Unless demand is increased, the private investment will not increase; unless the purchasing power is increased the demand cannot be revived; increase the purchasing power by a reduction in taxes, increase in job opportunities and better wages. Policy measures in the Short-run

- Increase the wages under the minimum wages act
- Allocate more funds under MGNREGP and make it outcome-based using the labour in building the infrastructure projects of the rural areas.
- Adopt cheap money policy and reduce the interest rates for employment generating and self-employment activities
- Reduce the GST rates and solve the problems beginning from registration to taking the refunds. Make the procedures more simple and user-friendly.
- Stimulus package to boost MSMEs
- Confidence building measures to bring back the trust and confidence in investors and consumers.
- Stringent action against rumour mongers against economic health like rumours on demonetizing the higher denomination currency.

- Focus on rural and social security schemes that provide houses, piped water to every household at the affordable or subsidized prices.

Policy measures in the Long run:

Invest a minimum of 6 percent of GDP on quality education. education should be outcome-based making 'hands-on training and internship compulsory integral part of the curriculum to enhance the skills and employability of the student

- Invest a minimum of 5 percent on Health and provide quality health to all
- NITI boards in states instead of planning board which act as think tank
- Encourage cluster grouping of villages or districts and identify the crop and encourage the cultivation of that particular crop
- Similarly, identify the product for each district and encourage the setting up of that product MSME in the district
- Encourage the farmer producers associations and SHGs to establish the Agro-based industries at every hobli level depending on the crop identified such as tomato, carrot, onion chilly ketchup (sauce), pickles and other products which protect farmers against fall in the prices and also get good income. Restrict the entry of MNCs and other private corporations in the agro-based industries.
- Consumer demand should become a part of a sustainable growth strategy
- Support MSME through cheaper credit
- Efforts to improve the ease of living by concentrating on providing basic necessities to all households like subsidized affordable housing piped water to every householder.
- Promoting start-ups
- Train the younger generation in the new arenas and utilise the Big data, Artificial intelligence, robotics, internet of things , cloud computing initiatives for the development of the nation
- Reduce the GST rates and have only two tax slabs of 6 percent and 12 percent, reduction in taxes lead to higher compliance and generate higher taxes.
- Reduce the income tax rates also to boost consumption and to increase the compliance and higher revenue collection
- Increasing the allocation for R and D which at present is less than Amazon, Apple and Alphabet

CONCLUSION:

The government role is crucial in reviving the demand and bringing back the economy on the rails of inclusive sustainable higher growth rates. The other stake holders should respond positively by doing their best, to acquire the latest skills, to involve themselves productively and to pay the taxes honestly. Even if the best of the programs like skill India are not properly utilized and Schemes like MUDRA are marred with NPAs it becomes difficult for the Government to go ahead with path-breaking holistic programs. The Government should take the lead for an antidote for revival and sustainability, all stakeholders including common man should join hands in making it a reality for their own and common good.

REFERENCES:

1. Abhijit Banerjee (2019) Economy in tailspin…doing very badly, says Nobel laureate, retrieved from https://economictimes.indiatimes.com/news/economy/finance/economy-in-tailspindoing-very-badly-says nobel-laureate-abhijit banerjee/articleshow/71606715.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst
2. Arvind Subramanyam (2019) Indian economy is facing a Great Slowdown retrieved from www.thehindubusinessline.com/economy/indian-economy-is-facing-a-great-slowdown/article30340782.ece
3. Economic Surveys of various issues, Ministry of Finance, Government of India, New Delhi
4. Gita Gopinath (2020) IMF says the outlook for the global economy 'remains sluggish' as it cuts growth forecasts retrived from https://www.cnbc.com/2020/01/20/davos-imf-world-economic-outlook-january-2020.html
5. Keshava.S.R. (2017), "Demonetization in India: Rationale, Efficacy and Impact", Recent Macro Economic Developments in India, edit., Roy Scaria, Prakash Publications, Changanacherry, Kerela, ISBN: 978-93-81888-04-09, pp: 56-77.
6. The Causes of Economic Instability Essays, UK (November 2018) retrieved from https://www.ukessays.com/essays/economics/the-causes-of-economic-instability-economics-essay.php?vref=1
7. The World Economic Situation and Prospects 2020, United Nations, New York
8. World Economic Outlook, IMF, January 2020.

One day National Conference on
"Economic Instability: Antidote for Sustainability"
26th February, 2020 at Gopalan College of Commerce, Bengaluru, Karnataka, India

IMPACT OF FOREIGN DIRECT INVESTMENT (FDI) AND FOREIGN INSTITUTIONAL INVESTMENT (FII) INFLOW ON INDIAN ECONOMY

[1]Medline Rozario, [2]Bindu.N,
[1, 2]Asst.Professor, PG Dept of Commerce
St. Annes Degree College for Women, Bangalore, India
Email - [1]medlinrozario@yahoo.com, [2]bindu.nagappa@gmail.com,

Abstract: *After independence in the critical phase of Indian economy, the government of India introduced various macroeconomic reform programs. India opened its doors to foreign investment inflows and adopted a more liberal foreign policy in order to restore the confidence of foreign investors. . Foreign direct investment is very useful in growth of a country particularly in the capital scarce country by way of improving their infrastructure, technical skills, entrepreneur abilities and financial resources in terms of government revenue and foreign exchange. Foreign direct investment has played a very important role in the economic development of India also. In the recent years, Government has brought major FDI policy reforms in a number of sectors viz. Defence, Construction Development, Insurance and Pension Sector etc. An attempt has been made in this paper to identify the strategies, recent trends, and the impact of FDI in the Indian economy.*

Key Words: *Foreign Direct Investment, Foreign Institutional Investors, Liberalisation, Economy, Policies, Investment.*

INTRODUCTION:

Theory (11)India gained independence in 1947, along with the various political and social problems, even though India managed to be recognised as a strong developing country with immense potential for growth, however, India also suffered from the scarcity of financial resources and low level of capital formation, which was a huge hurdle to the development programmes. The role of investment in promoting economic growth has received considerable attention since India's independence. During the critical phase of Indian economy in 1991, with the help of the World Bank and IMF the Indian government introduced Structural Adjustment Program (SAP) and macro - economic stabilization to restore the economy . India adopted a liberal foreign policy and opened its doors to FDI inflows. With the huge apparent benefits of foreign investment like aiding in the creation of additional economic activity, creating employment opportunities, facilitating technology transfer, among others, India is slowly consolidating its position globally as a favourable destination for foreign investment and inviting more investment. The foreign capital is one of the important means of the economic development of the country. FDI and FII form an important segment of the foreign investment received by India. Hence, there is a surge in the debate over the role of Foreign direct Investment (FDI) and Foreign Institutional Investment (FII) in the economic development of India.

OBJECTIVE OF STUDY :

- To understand the strategies for foreign investment in India
- To identify the factors which influence the flow of foreign investment in India.
- To find the recent trends of FDI in India
- To evaluate the impact of FDI in Indian economy

LITERATURE REVIEW : Sood N, (2015), analyzed the contribution of FDI for GDP growth. The study concluded that that the association and dependence of GDP on FDI in India is found to be statistically significant.**Nagraj (2013)** has discussed about the trends of FDI inflow in India and has raised some doubts on the effectiveness of FDI on the development of an economy. **Babar and Khandare, (2012)**, have done the sectoral analysis of FDI participation and the main focus of the study was on the changing structure and direction of India's FDI during globalization period. The study is done through analysis of benefits of FDI for economic growth. **Dr. Jasbir Singh, Ms. Sumita Chadha and Dr. Anupama Sharma (2012)** focused on the role of the foreign direct investment in India: An Analytical Study. The Study showed that foreign investment is increasing in terms of FDI and FII and FDI has better performance which attracts maximum amount of foreign capital. **Kumar G.L; Karthika S. (2010)** "Sectoral Performance through

inflows of Foreign Direct Investment"; the study revealed that FDI has a major role to play in the economic development of the host country. Most of the countries have been making use of foreign investment and foreign technology to accelerate the pace of their economic growth. **Mukherjee, Bose and Coondoo (2002)** studied in their paper ―the cause-and-effect relationship between FII flows and returns on the Indian equity market‖. They found that FII flows to and from the Indian market tend to be caused by returns in the domestic equity market and not the other way round. **Roy (2007)** explored in his paper ―the basic motives behind foreign portfolio capital flows into India‖. He found that they are primarily driven by capital gains, and in the Indian case, by the change in stock prices. The study further revealed that stock prices are causing net foreign portfolio inflows and not vice-versa. Further, he found bidirectional causality between the exchange rate and net foreign portfolio inflows.

SCOPE OF THE STUDY: The main scope of this study is confined to **"IMPACT OF FLOW OF FOREIGN DIRECT INVESTMENT (FDI) AND FOREIGN INSTITUTIONAL INVESTMENT (FII) ON INDIAN ECONOMY"**

METHOD: The data used for this study is secondary data comprising of various websites, articles and magazines. Since the data used is secondary it is more efficient and reliable.

ANALYSIS&DISCUSSION:

TYPES OF FOREIGN DIRECT INVESTMENT:

They are commonly categorized as being Horizontal, Vertical or Conglomerate.

A Horizontal Direct Investment refers to the investor establishing the same type of business operation in a foreign country as it operates in its home country

A Vertical Investment is one in which different but related business activities from the investor's main business are established or acquired in a foreign country.

A Conglomerate type of foreign direct investment is one where a company or individual makes a foreign investment in a business that is unrelated to its existing business in its home country.

MERITS OF FOREIGN CAPITAL:

- Helps to increase the investment level and thereby the income and employment in the host country.
- FDI Facilitates transfer of technology to the recipient country.
- Helps the country to increase its exports and reduce import requirement
- Foreign investment also helps to increase competition and break domestic monopolies
- FII's will enhance the flow of capital into the country
- FII help with the financial innovation of capital markets
- FIIs constitute professional bodies of asset managers and financial analysts, who contribute to a better understanding of firms' operations which in turn improves corporate governance.

DEMERITS OF FOREIGN CAPITAL:

- Private foreign capital tends to flow to the high profit areas rather than to the priority sectors.
- The technology brought in by the foreign investor may not be adapted in the domestic market
- Multinationals can evade or undermine economic autonomy and control with their power and flexibility.
- Foreign capital sometimes interferes in the national politics
- FDI can also potentially displace domestic producers by pre-empting their investment opportunities
- The demand for the local currency (rupee) increases. This can cause severe inflation in the economy.
- Sometimes these FII's seek only short-term returns. When they pull their investments banks can face a shortage of funds

FOREIGN INVESTMENT IN INDIA:

Foreign Investment in India has been the direct outcome of the liberal trade policies undertaken and implemented by successive governments. The liberalization program of the government aimed at rapid and substantial growth of the country's economy along with a harmonious integration with global economy. Post the economic reforms of 1991, the FDI route to India became easier. In India FDI has been widely observed as one of the most positive forces in recent economic globalization, with the potential to transform the work by bringing more capital to capital scarce economies and causing great changes in the productive structure of developing economics. FDI has been regarded as an outcome of favorable perceptions and as an outcome of unshakable confidence to the country. FDI has steadily increased in the country. India, today is a part of top 100-club on Ease of Doing Business (EODB)

FACTORS EFFECTING FOREIGN INVESTMENT INFLOW IN INDIA:

Rate of interest: Important stimuli to international capital movements is the difference in the rate of interest prevailing at different places. Capital has a tendency to move from a country with a low rate of interest to a country where it is high. India currently offers a higher rate of interest on foreign capital hence there is surge in the foreign capital inflow.

Skilled Labour Force: Multinationals would prefer to invest in those countries with high numbers of skilled and educated personnel with high labor productivity that is readily available will. India has attracted much investment in call centers, because a high percentage of the population speaks English, but wages are low. This makes outsourcing attractive and therefore attracts investment.

Relaxation in Tax Rates: Big multinationals, invest in those countries which have lower corporation tax rates and less tax regulations. India introduced the special economic zones in 2006 which provided a more favorable atmosphere for carrying out foreign investment. Government of India in order to attract the FDI has extended incentives in the form of tax holiday, investment tax allowances etc.

Economic condition and growth: Economic conditions, particularly the market potential and infrastructural facilities, influence private foreign investment. The size of the population and the income level of the country have an important bearing on the market opportunities Foreign direct investment is often targeted to selling goods directly to the country involved in attracting the investment. Therefore, the size of the population and scope for economic growth will be important for attracting investment. The Indian economy has grown by more than 7 % for a number of years in the last decade.

Government Policies and Reforms: Government policies particularly towards foreign investment, foreign collaboration, remittances, foreign exchange control, tariffs, and monetary, fiscal and other incentives are important factors that influence foreign investments. The government of India has amended FDI policy to increase FDI inflows. The government of India took several initiatives such as "Make in India" and "Digital India" to promote foreign investment. FDI norms were liberalized for 25 sectors in September 2014 under the "Make in India" initiative (retail, insurance, service). Currently, India is making various reforms but this time with an aim of enhancing faster integration of its economy with the global economy. This has resulted in the creation of policies that make India more liberal.

Economic and Political Stability: Economic and political stability affect foreign investment in India. Political stability of India has made it one of the most preferred investment destinations for foreign companies. This is because investors want to invest in business climates that are easy to predict. The economic stability of India is enhanced by policies and regulations that are friendly to foreign investments.

Strong Financial Sector: The vigorous financial sector also influences the decisions of foreign investors to venture into specific foreign markets. India has a vigorous, well regulated financial system which has allowed it to weather the global financial crisis without any major difficulties and present an image of quality, resilience and transparency. India's banking sector is very strong, with top quality balance sheets, high levels of competition and strong corporate governance. India has large number of financial institutions and banks.

STRATEGIES FOR FOREIGN INVESTMENT IN INDIA:

With the liberalization of FDI policy, most restrictions on foreign investment have been removed and procedures have been simplified. Investment ceilings, which are applicable in certain cases of industry are gradually removed or phased out. Entry Strategies for Foreign Investors in India are of various kinds such as in joint collaboration with an Indian firm, as an Indian company, and as a foreign company. The Indian government in order to increase the flow of foreign direct investment in the country formulated various Entry Strategies for Foreign Investors in India.

VARIOUS ENTRY STRATEGIES FOR FOREIGN INVESTORS IN INDIA:

According to the Indian government's FDI policy up to 100% is allowed through the automatic route (No prior approval is required for FDI)in almost all the sectors of the country's economy.

AS AN INDIAN COMPANY:

A foreign company can commence operations in India by incorporating a company under the Companies Act,1956 through

Joint Ventures: Foreign companies can set up their operations in India by entering into strategic partnership with Indian entities and forming a Joint Venture

Wholly Owned Subsidiaries: Foreign companies can also set up their operations in India by forming a Wholly Owned Subsidiary in sectors, where 100% foreign direct investment is permitted under the FDI policy.

AS A FOREIGN COMPANY:

Foreign companies can set up their operations in India through Liaison Office, Project Office or a Branch Office.

Liaison Office: Foreign companies are allowed to open liaison offices in India, they act as a channel of communication between the principal place of business or head office and entities in India.

Scope of Activities

- Represent the parent/group companies in India;
- Promote exports and imports from/to India;
- Act as a communication channel between parent/group companies and companies in India.
- Promote technical /financial collaborations between parent/group companies and Indian companies.

Liaison office is not permitted to earn any income, undertake any industrial, trading or commercial activity.

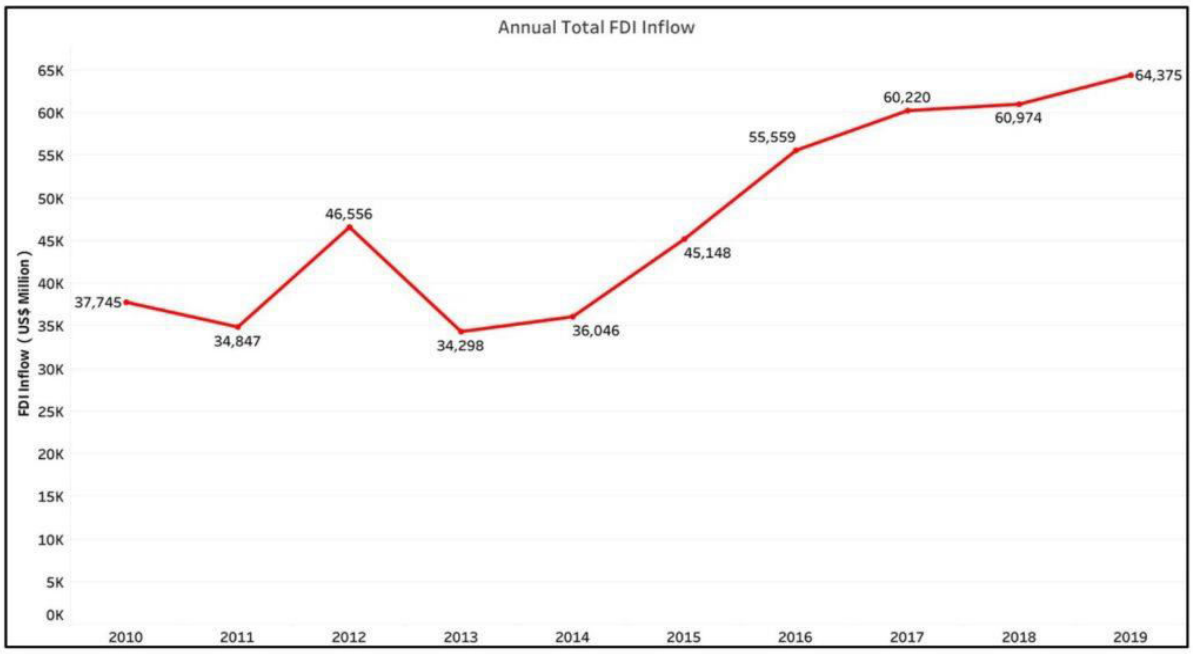
Project Office: Foreign Companies planning to execute specific projects in India can set up temporary project/site offices in India subject to specified conditions. Such offices cannot undertake or carry on any activity other than the activity relating and incidental to execution of the project.

Branch Office: Foreign companies engaged in manufacturing and trading activities abroad are allowed to set up Branch Office in India to undertake the export and import of goods; render professional or consultancy services; carry out research work in which the parent company is engaged; promote technical and financial collaborations; render services in information technology and development of software in India; render technical support to the products supplied by the parent/group companies; operate as a foreign airline/shipping company.

RECENT TRENDS OF FDI IN INDIA:

The Investment climate in India has changed and improved considerably since the opening up of the economy in 1991 and more progress was achieved under it from 2014 onwards. Easing of FDI norms played a pivotal role in raising the FDI in different sectors of the economy. The Indian economy is currently part of the 100 club on Ease of Doing Business (EoDB) and globally ranks first in the Greenfield FDI ranking. India received the record FDI of $ 60.1 bn in 2016-17.1 India could attract massive amount of foreign direct investment during the last five years, as much as USD 239 billion worth received as FDI. This period also witnessed a rapid liberalisation of the FDI policy allowing most FDI to come through the automatic route.The government has also relaxed foreign investments norms in several sectors, including single-brand retail, defence, airlines and food processing. The top sources of FDI include Mauritius, Singapore, Netherlands, the US and Japan.

GRAPH 1. TOTAL ANNUAL FDI INFLOW

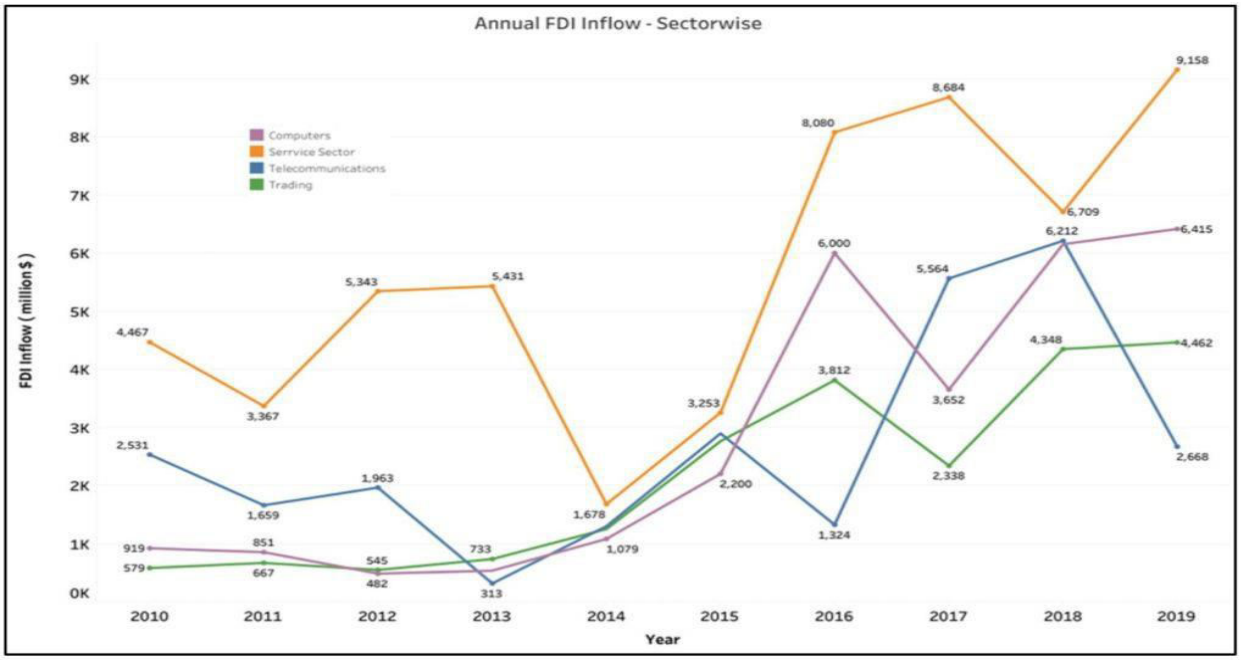


The above graph shows the FDI inflows for financial year (FY) 2009-10 was $37,745 million and over the ensuing decade, the FDI inflows have recorded a steady growth every year. For FY 2018-2019, the inflows were $64,375 million i.e. 70.55% higher than the annual inflows in 2009-10.The FDI inflows decreased compared to the previous year only on two occasions, FY 2010-11 and FY 2012-13 where they fell by 8% and a sharp 26% respectively. It can be noted that the highest annual increase over the decade was recorded in the year between these two i.e. FY 2011-12, where the FDI inflows showed an annual increment of 34%. After a meteoric annual growth during 2014-15 and 2015-16, the FDI inflows only increased by single digit percentage points annually over the last three years (8%, 1% and 6% respectively between 2016-17 and 2018-19).

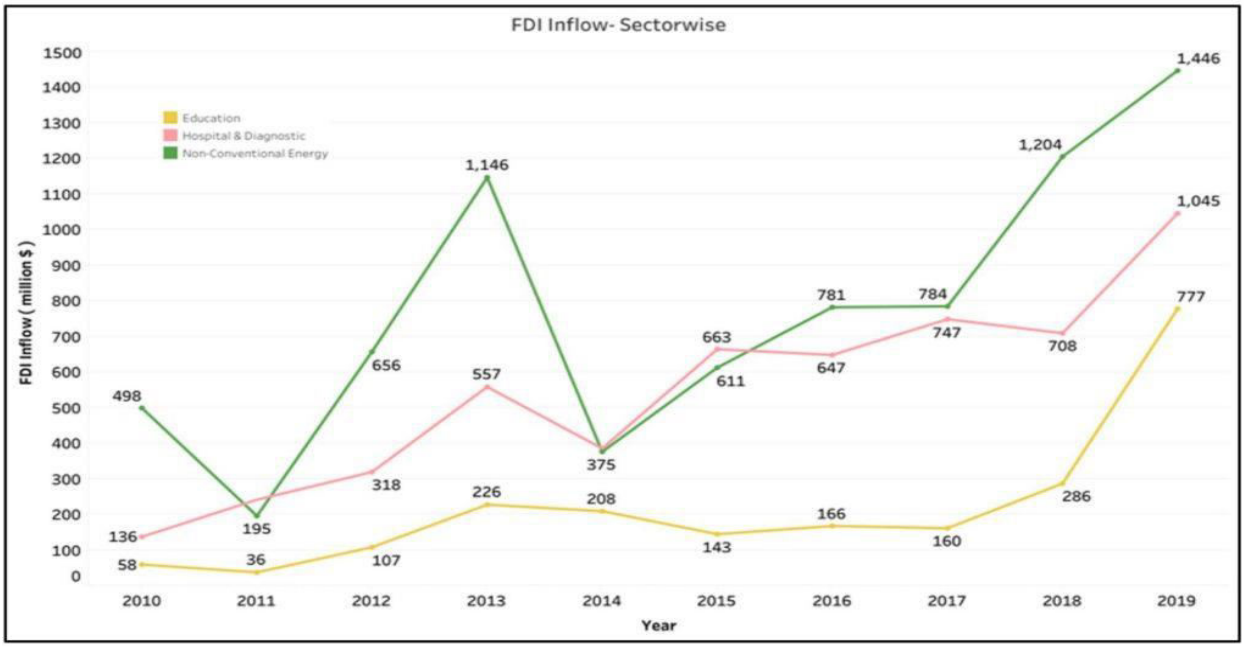
GRAPH 2 ANNUAL FDI INFLOWS – SECTOR WISE

The below graph depicts the sector wise annual FDI inflow. Service Sector, Hardware & Software, Trading and Automobile are the consistent high performing sectors. Service sector has been always had a major share of the FDI inflows every year. Apart from two lean years in 2013-14 & 2014-15, this sector has always recorded a share of minimum 10% of the total FDI received annually. The FDI in service sector has grown by 181% during these four years. i.e., From $3252.97 million in 2014-15 to $9157.54 million in 2018-19. FDI into Computer (Hardware &

Software) sector has increased from $918.66 million in 2009-10 to $6415.21 million in 2018-19. The annual inflow has grown by more than 500% in just 5 years between 2014-15 and 2018-19.



GRAPH 3. FDI INFLOW OTHER SECTORS



The above graph shows the FDI inflow in other important sectors. In recent years, FDI inflows have increased in Education, Non-Conventional Energy, Hospital & Diagnostic sectors. FDI into Hospitals & Diagnostic centers has shown a gradual and consistent increase all through the decade. In 2009-2010, the inflow was $135.91 million and has shown an incremental increase in the annual inflow every year. Last year, there was the greatest increase in an annual year with 47% higher FDI inflows compared to 2017-18.

RECENT SIGNIFICANT FDI ANNOUNCEMENTS

- In January 2020, Amazon India announced investment of US$ 1 billion for digitizing small and medium businesses and creating one million jobs by 2025.
- In January 2020, MasterCard announced its plans to invest up to US$ 1 billion in India over next five years to double-up its research and development efforts for the Indian market.
- In October 2019, French oil and gas giant Total S.A. have acquired a 37.4 per cent stake in Adani Gas Ltd for Rs 5,662 crore (US$ 810 million) making it the largest Foreign Direct Investment (FDI) in India's city gas distribution (CGD) sector.

- In August 2019, Reliance Industries (RIL) announced one of India's biggest FDI deals, as Saudi Aramco will buy a 20 per cent stake in Reliance's oil-to-chemicals (OTC) business at an enterprise value of US$ 75 billion.
- In October 2018, VMware, a leading software innovating enterprise of US has announced investment of US$ 2 billion in India between by 2023.
- In August 2018, Bharti Airtel received approval of the Government of India for sale of 20 per cent stake in its DTH arm to an America based private equity firm, Warburg Pincus, for around $350 million.
- In June 2018, Idea's appeal for 100 per cent FDI was approved by Department of Telecommunication (DoT) followed by its Indian merger with Vodafone making Vodafone Idea the largest telecom operator in India
- In May 2018, Walmart acquired a 77 per cent stake in Flipkart for a consideration of US$ 16 billion.
- In February 2018, Ikea announced its plans to invest up to Rs 4,000 crore (US$ 612 million) in the state of Maharashtra to set up multi-format stores and experience centres.

IMPACT OF FDI ON INDIAN ECONOMY:

India opened up its economy to foreign direct investment (FDI) with the implementation of economic liberalization policies in the early 1990s, and has recorded one of the most rapid growth economies in the world. Between 1992 and 2010, India has grown on average by approximately seven percent annually. During the same period, the influx of foreign direct investment (FDI) to India has increased rapidly. Between 2001 and 2010, the average annual inflows of FDI into India have reached $18.5 billion, more than six times the amount for the 1995–2000 period, thereby becoming one of the fastest growing FDI recipients (in terms of annual FDI inflows) among developing countries during the 2001–2010 period. The sectoral level of the Indian economy, FDI has helped to raise the output, productivity and employment in some sectors especially in service sector. Indian service sector is generating the proper employment options for skilled worker with high perks. On the other side banking and insurance sector help in providing the strength to the Indian economic condition and develop the foreign exchange system in country. FDI is considered to be a vehicle for the transmission of ideas, technological knowledge, organizational knowledge, and business knowledge to India and has had a great deal of impact in the country's economy. The main sectors that receive the maximum foreign inflows include services, computer software and hardware, telecommunications, trading, construction, automobile, and power. The government's liberalized e-commerce policy encourages FDI in the market place model of e-commerce, which in turn has created a great impact on the level of participants and on Indian economy. India is an emerging country and in recent years has attracted a significant share of foreign investment. Enhancement in foreign investment in the last three decades has been accompanied with continuous growth of gross domestic product (GDP) in India. FDI stocks and output are mutually reinforcing in the manufacturing sector, whereas any causal relationship is absent in the primary sector. Most strikingly, we find only transitory effects of FDI on output in the services sector. However, FDI in the services sector appears to have promoted growth in the manufacturing sector through cross-sector spillovers. In nutshell FDI has helped to create employment in the country, supported the small scale industries and helped the country to put an impression on the world wide level through liberalization and globalization.

SUGGESTIONS:

FDI plays a crucial role in enhancing the economic growth and development of the country. Benefits from FDI could be maximized if efforts are concentrated on attracting long term productive FDI. To attract quality FDI, a developing country must ensure a sound macroeconomic environment which requires adequate infrastructural facilities, stability of exchange rate, political stability, strong administrative will, market perfection and control over inflation. Although both types of foreign investments provide an impetus for economic and industrial expansion, however India should focus more on attracting FDI as it stays for longer period, for its exist policy is not as easy as for FIIs, which is at times considered as hot money. India, should adopt a more active and open policy to attract FDI inflows in those sectors where the inflows are considerably less. Companies with FDI can implement better corporate governance regulations which is of outmost importance in overcoming the problems between management and investors. MNCs should be allowed to set up in such a manner that they help increase the standard of living of our country instead of sole profit making.

CONCLUSION:

Indian economy is one of the most promising destinations for most of the developed and developing nations. FDI has solved the several problems of India i.e. lack of capital, modern technology and capital goods etc. Though both FDI and FII are welcomed for economic growth, however, FDI plays a more important role than FII in the advancement of any developing country especially like India. FDI enriches the country not only with the inflow of foreign funds and investments but also results in the transfer of advanced technology and skills, thus creating job opportunities. The FDI trend in Indian Economy is moving in upward direction that too with the good speed. It is a significant factor which impacts the level of economic growth by enhancing the financial position and by contributing to the GDP and foreign exchange reserves. Today the Indian industry is being viewed as competitive in the

international market. But despite all this, deep down, the Indian economists and government know that India has still not done enough to open up its market. Even today the foreign investment policy lacks a clear focus. Though now the government seems to be rushing ahead with quick and often ad-hoc policies, the real focus should not only be to grab maximum investment, but investment in the right and appropriate sectors. In short, now, we just don't need to work hard to attract foreign investment, but also need to work smart to gain the maximum out of it.

REFERENCES:

Books/Journals:

1. Business Environment Author: Francis Cherunilam Himalaya Publication
2. Indian Economy Authors: Misra and PuriHimalaya Publication
3. Internaitional Financial Management Author: MadhuVijHimalaya Publication
4. Southern Economists Volume 57
5. shodhgangotri.inflibnet.ac.in/bitstream/123456789/5872/1/synopsis.pdf

Journals paper

6. M Ozaki, Y. Adachi, Y. Iwahori, and N. Ishii (1998), Application of fuzzy theory to writer recognition of Chinese characters, International Journal of Modelling and Simulation, 18(2), 112-116. Note that the journal title, volume number and issue number are set in last.

Book:

7. R. E. Moore (1966), Interval analysis (Englewood Cliffs, NJ: Prentice-Hall, Note that the title of the book is in lower case letters and italicized. There is no comma following the title. Place of publication and publisher are given.

Chapters in Book:

8. P.O. Bishop (1970), Neurophysiology of binocular vision, in J.Houseman (Ed.), Handbook of physiology, 4 (New York: Springer-Verlag, 342-366. Note that the place of publication, publisher, and year of publication are enclosed in brackets. Editor of book is listed before book title.

Thesis:

9. D.S. Chan (1978),Theory and implementation of multidimensional discrete systems for signal processing, doctoral diss., Massachusetts Institute of Technology, Cambridge, MA, Note that thesis title is set in italics and the university that granted the degree is listed along with location information

Proceedings Paper:

10. W.J. Rose (1990), Modelling design and control of flexible manipulator arms: A tutorial review, Proc. 29th IEEE Conf. on Decision and Control, San Francisco, CA, 500-506.

Websites:

- https://shodhgangotri.inflibnet.ac.in/bitstream/123456789/5872/1/synopsis.pdf
- https://www.investopedia.com/terms/f/fdi.asp
- https://www.business-standard.com/about/what-is-fdi
- https://www.investindia.gov.in/foreign-direct-investment
- https://www.toppr.com/guides/commercial-knowledge/government-policies-for-business-growth/fdi-in-india/
- https://www.toppr.com/guides/commercial-knowledge/government-policies-for-business-growth/foreign-institutional-investors-fii/
- bef.org/economy/foreign-direct-investment.aspx
- https://economictimes.indiatimes.com/definition/FIIs
- https://economictimes.indiatimes.com/money-you/who-are-foreign-institutional-investors-fiis/articleshow/3641747.cms?from=mdr
- https://www.businesstoday.in/current/economy-politics/foreign-direct-investment-fdi-falls-further-decoding-slowdown-more-capital-outflows-indian-economy/story/377419.html
- https://business.mapsofindia.com/finance-ministry/foreign-investment.html
- https://www.economicshelp.org/blog/15736/economics/factors-that-affect-foreign-direct-investment-fdi/
- https://business.mapsofindia.com/fipb/entry-strategies-foreign-investors.html
- https://entryindia.com/articles/india-entry-strategies-foreign-investors
- https://dipp.gov.in/investors/Investor%20Guidance/entry-strategies-foreign-investors
- http://www.icommercecentral.com/open-access/foreign-direct-investment-in-india.php?aid=86435

One day National Conference on
"Economic Instability: Antidote for Sustainability"
26th February, 2020 at Gopalan College of Commerce, Bengaluru, Karnataka, India

The Global Economic Impacts of Artificial Intelligence

Dr. Sumitha K.
HOD & Associate Professor, Department of Management,
Email - Sumipraba05@gmail.com

Abstract: *Artificial intelligence plays an increasingly significant role in our subsists and economy and is already having an impact on our world in many different ways. Worldwide competition to reap its benefits is fierce, and global leaders – the US and Asia – have emerged on the scene. AI is seen by many as an engine of productivity and economic process. It can increase the efficiency with which things are done and vastly improve the decision-making process by analyzing large amounts of knowledge. It also can spawn the creation of latest products and services, markets and industries, thereby boosting consumer demand and generating new revenue streams. However, AI can also have a highly disruptive effect on the economy and society. Some warn that it could lead on to the creation of super firms – hubs of wealth and knowledge – that would have detrimental effects on the broader economy. It may also widen the gap between developed and developing countries, and boost the necessity for workers with certain skills while rendering others redundant; this latter trend could have far-reaching consequences for the labour market. Experts also warn of its potential to extend inequality, down wages and shrink the assets. While these concerns remain valid, there's no consensus on whether and to what extent the related risks will materialize. They are not a given, and punctiliously designed policy would be ready to foster the event of AI while keeping the negative effects in restraint. The EU features a potential to enhance its standing in global competition and direct AI onto a path that benefits its economy and citizens. In order to realize this, it first must agree a standard strategy that might utilize its strengths and enable the pooling of Member States' resources within the most effective way.*

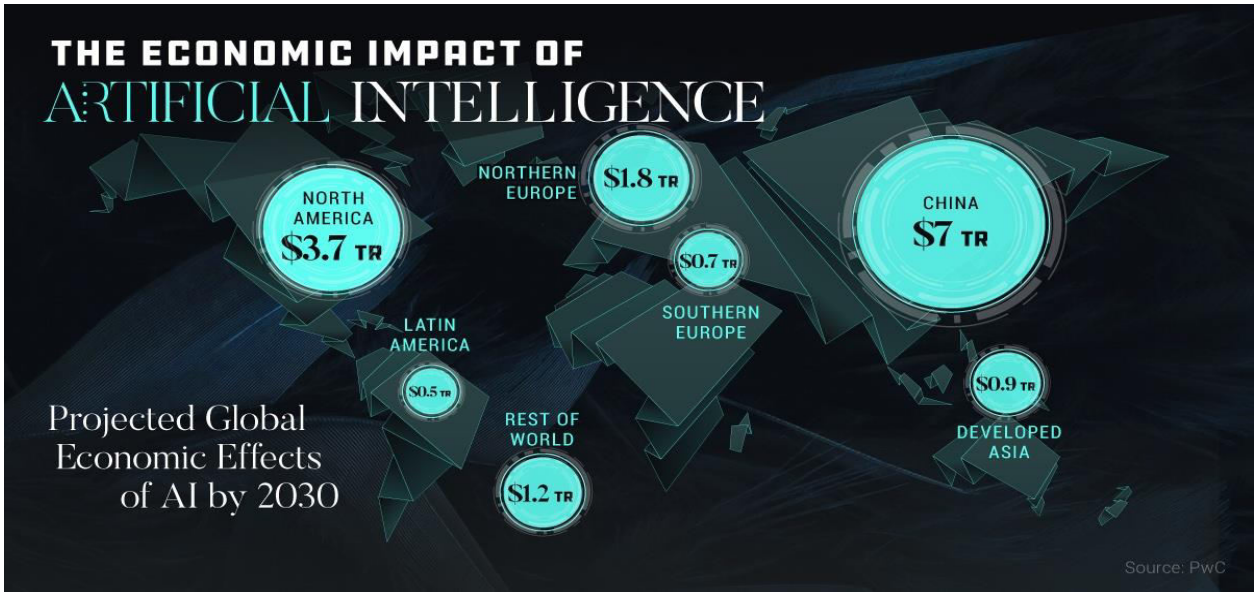
Key Words: *Artificial intelligence, Economic, Globally.*

INTRODUCTION:

Artificial intelligence plays an increasingly important role in our lives and economy and is already having an impression on our world in many various ways. Worldwide competition to reap its benefits is fierce, and global leaders – the US and Asia – have emerged on the scene. AI is seen by many as an engine of productivity and economic process. It can increase the efficiency with which things are done and vastly improve the decision-making process by analyzing large amounts of knowledge. It also can spawn the creation of latest products and services, markets and industries, thereby boosting consumer demand and generating new revenue streams. However, AI can also have a highly disruptive effect on the economy and society. Some warn that it could lead on to the creation of super firms – hubs of wealth and knowledge – that would have detrimental effects on the broader economy. It may also widen the gap between developed and developing countries, and boost the necessity for workers with certain skills while rendering others redundant; this latter trend could have far-reaching consequences for the labour market. Experts also warn of its potential to extend inequality, down wages and shrink the assets. While these concerns remain valid, there's no consensus on whether and to what extent the related risks will materialize. They are not a given, and punctiliously designed policy would be ready to foster the event of AI while keeping the negative effects in restraint. The EU features a potential to enhance its standing in global competition and direct AI onto a path that benefits its economy and citizens. In order to realize this, it first must agree a standard strategy that might utilize its strengths and enable the pooling of Member States' resources within the most effective way.

Economic potential of AI:

Economic potential of AI the bulk of studies emphasize that AI will have a big economic impact. Research launched by consulting firm Accenture covering 12 developed economies, which together generate quite 0.5 after the world's economic output, forecasts that by 2035, AI could double annual global economic growth rates. AI will drive this growth in three important ways. First, it'll cause a robust increase in labour productivity (by up to 40 %) thanks to innovative technologies enabling more efficient workforce-related time management. Secondly, AI will create a replacement virtual workforce – described as 'intelligent automation' within the report – capable of solving problems and self-learning. Third, the economy also will enjoy the diffusion of innovation, which can affect different sectors and make new revenue streams. A study by PricewaterhouseCoopers (PwC) estimates that global GDP may increase by up to Bastille Day (the equivalent of US$15.7 trillion) by 2030 as a results of the accelerating development and take-up of AI. The report anticipates subsequent wave of digital revolution to be unleashed with the assistance of the info generated from the web of Things (IoT), which is probably going to be many times greater than the data generated by the current 'Internet of People'. It will boost standardization and consequently automation, as well as enhancing the personalization of products and services. PwC sees two main channels through which AI will impact on the worldwide economy. The first involves AI resulting in productivity gains within the near term, supported automation of routine tasks, which is probably going to affect capital-intensive sectors like manufacturing and transport. This will include extended use of technologies like robots and autonomous vehicles. Productivity also will improve thanks to businesses complementing and assisting their existing workforce with AI technologies. It will require investing in software, systems and machines supported assisted, autonomous and augmented intelligence; this is able to not only enable the workforce to perform its tasks better and more efficiently but would also release time allowing it to specialize in more stimulating and better value-added activities. Automation would partially remove the necessity for labour input, resulting in productivity gains overall. Eventually, the second channel – the supply of personalized and higher-quality AI-enhanced products and services – will become even more important, as this availability is probably going to spice up consumer demand that would, in turn, generate more data. Or, as PwC puts it: 'in turn, increased consumption creates a virtuous cycle of more data touch points and hence more data, better insights, better products and hence more consumption'. Although the advantages are going to be felt globally,



North America and China are expected to realize the foremost from AI technology. The former will likely introduce many productive technologies relatively soon, and therefore the gains are going to be accelerated by advanced readiness for AI (of both businesses and consumers), rapid accumulation of data and increased customer insight. It is likely to take more time for China to feel the full effect of AI, but this effect will eventually occur in the country's huge manufacturing sector and then move up the worth chain into more sophisticated and high-tech-driven manufacturing and commerce. Europe also will experience significant economic gains from AI, while developing countries are likely to record smaller increases thanks to lower rates of adoption of AI technologies. The McKinsey Global Institute expects that around 70 you look after companies would adopt a minimum of one sort of AI technology by 2030, while but half large companies would deploy the full range. McKinsey estimates that AI may deliver an additional economic output of around US$13 trillion by 2030, increasing global GDP by about 1.2 % annually. This will mainly come from substitution of labour by automation and increased innovation in products and services. On the opposite hand, AI is probably going to make a shock in labour markets and associated costs needed to manage labour-market transitions; this shock would be incurred as an effect of negative externalities like loss of domestic consumption thanks to unemployment. A 2016 study by Analysis Group (funded by Facebook), considers that AI will have both direct and indirect positive effects on jobs, productivity and GDP. Direct effects are going to be

generated by increased revenues and employment in firms and sectors that develop or manufacture AI technologies, which can also create entirely new economic activities. Indirect ones will come from a broader increase of productivity in sectors using AI to optimize business processes and decision-making, also as increase their knowledge and access to information. Altogether they envisage far more modest gains (US$1.49-2.95 trillion) over subsequent decade. Other sources argue that AI will have limited impact on growth, as exemplified by sectors enjoying the highest productivity growth rates, yet witnessing a decline in their overall share in the economy. Despite progress brought by AI, some areas of the economy would remain essential yet hard to enhance, retaining human labour that might be remunerated. Ultimately, this is able to constrain new technologies from having an impression on the general economy. AI may even partly discourage future innovation by accelerating imitation, which might limit the return on innovation. Selected policy implications AI has significant potential to spice up economic process and productivity, but at an equivalent time it creates equally serious risks of job market polarization, rising inequality, structural unemployment and emergence of new undesirable industrial structures. EU policy must create the conditions necessary for nurturing the potential of AI, while considering carefully the way to address the risks it involves. A recent economic paper shows that if labour income doesn't enjoy the economic gains generated by AI, consumption may stagnate and restrict growth, thereby having an adverse effect on the economy. Questions about distributing the gains from AI are therefore fundamental in managing its outcomes. Tax policies could help to rebalance the shift from labour to capital, and shelter vulnerable groups from socioeconomic exclusion.

The European Political Strategy Centre describes the interior and external challenges the EU is facing. The former include low investment and a slow uptake of AI technologies by companies and the public sector, and the necessity to establish a regulatory framework that does not stifle technological progress, while at an equivalent time adhering to key fundamental EU principles. The latter include fierce global competition, with other jurisdictions benefitting from structural advantages. The center suggests that the EU should address these by developing an investment-conducive framework and becoming a leader in setting global AI quality standards. A precondition to successfully harness the potential of AI is to develop relevant skills in education and work also as funding research and pooling resources to deliver true EU added value. Importantly, the EU has the required tools, like a strong competition policy, to deal with market distortions and power asymmetries. Issues, such as responsibility and liability, security and safety of AI-driven decision making, raise many questions that need to be addressed in the near future. While public authorities are starting to focus on AI and national AI strategies are being developed, the need for a common EU-level path becomes more urgent than ever. Several factors will significantly impact such AI-driven economic changes. AI could lead on to a gross GDP growth of around 26 percent or $22 trillion by 2030. The major contributors to the present figure are the automation of labor, which could add up to 11 percent or around $9 trillion to global GDP by 2030, and innovations in products and services, which could increase GDP by about 7 percent or around $6 trillion by 2030. However, additionally to its economic benefits, AI also will cause significant disruptions for workers, companies and economies. There will likely be considerable costs related to managing labor-market transitions, especially for workers being left behind by AI technologies, which could reduce the gross impact of AI by around 10 percentage points, resulting in the aforementioned net GDP increase of 16 percent or $13 trillion by 2030. The economic impact may emerge gradually and be visible only over time. McKinsey's models showed that AI marketplace adoption will likely follow a typical S curve pattern with a slow start within the early stages, followed by a steep acceleration as the technology matures and firms find out how to best deploy it, then truly fizzling out within the technology's late stages. In the case of AI, the contributions to growth are likely to be 3 to five times higher by 2030 and beyond than between now and 2023.

At a November 2017 conference on AI and therefore the way forward for Work, MIT professor Erik Brynjolfsson explained that such S-curve deployment patterns are fairly typical of transformative, general purpose technologies like the steam engine, electricity and computing. Their deployment time-lags are longer because attaining their full benefits requires variety of complementary co-inventions and investments, including additional technologies, applications, processes, business models, and regulatory policies. Over time, AI likely will become such a historical transformative technology. But aside from a comparatively small number of leading-edge firms, still within the early stages of AI's deployment. It's only been within the previous couple of years that complementary innovations like machine learning have taken AI from the lab to early adopters within the marketplace. Considerable innovations and investments are required for its wider deployment in robotics, self-driving cars, truly intelligent personal assistants, and advanced applications like smart health care. AI adoption could widen gaps between countries, companies, and workers. Best positioned, in fact are China and therefore the US, the two countries currently liable for the overwhelming majority of AI-related activities. Developed economies, like those in Germany Japan and Canada, and smaller globally economies like Sweden, Singapore and Finland are well positioned to capture the advantages of AI, as well as highly motivated toslow productivity growth. Economies with moderate foundations -- think India, Italy, and Malaysia--may lag the leaders, but they need strengths in specific areas around which they'll be ready to build their AI capabilities. But developing economies, which have relatively underdeveloped foundations in investment capacity, digital infrastructure and talent risk falling further behind.

Adoption rates among firms generally fall under three main categories:

Front-runners. Early adopters, comprising about 10 percent of companies, will benefit disproportionately by embracing a broad set of AI technologies and applications over subsequent 5 to 7 years. As a result, a group of winner-take-all firms could capture the majority of the profit pool in their respective industries. Followers. This group, comprising 20 to 30 percent of firms, are slowly, cautiously embracing AI, having seen the benefits enjoyed by front-runners also because the competitive threats of falling behind. Laggards. This final group, comprising 60 to 70 percent of firms, aren't seriously investing in AI, if at all. Capability issues may prevent such companies from embracing AI, forcing them to reply by reducing costs and cutting investments. In addition, AI will cause large shifts within the demand for skills, potentially widening the gaps between workers. The report estimates that "up to 375 million workers, or 14 percent of the worldwide workforce, may need to vary occupations - and virtually all workers may need to adapt to figure alongside machines in new ways." While some workers are in danger of being replaced by machines, there might be a shortage of workers whose value is greatly amplified by working alongside machines. "Overall, the image that emerges is one among rising wage and employment opportunity inequality… groups with ability sets may capture a disproportionate share of gains."

"The economic impact of AI is probably going to be large, comparing well with other general-purpose technologies in history," notes the report last. "At an equivalent time, there's a risk that a widening AI divide could open up between those that move quickly to embrace these technologies and people who do not adopt them, and between workers who have the talents that match demand within the AI era and people who don't. The benefits of AI are likely to be distributed unequally, and if the event and deployment of these technologies aren't handled effectively, inequality could deepen, fueling conflict within societies." Artificial intelligence (AI) and machine learning (ML) are being embraced by greater numbers of individuals, businesses, and governments as rising efficiency and productivity are permitting exponential growth in certain sectors of the global economy. However, the gap in efficiency and productivity between those sectors and businesses benefitting from AI and ML versus people who haven't is additionally growing exponentially. This risks leaving those at rock bottom further and further behind with less and fewer chance of catching up with the leaders. Most countries have barely begun to think seriously about their own AI future, with the majority of the world's larger economies having only announced their own AI initiatives in 2017 and 2018. The others must contemplate a future during which technological, economic, and military supremacy becomes the domain of those few countries with the deepest pockets, the only AI-oriented talent, and a magnitude of state resources which will be directed toward achieving AI supremacy. The implications of getting a little few countries controlling leading edge AI within the future are profound.

On one hand, these technologically advanced countries could become the de facto guardians of AI, ensuring that significant resources are dedicated to its development on a long-term basis. It is also certain that leading companies within these countries will achieve and maintain a good more noteworthy lead in the global economic arena, granting them a considerable competitive advantage. The militaries of these countries would also almost certainly become primary beneficiaries of the AI technologies of the long run, spurring a worldwide race for superior autonomous weaponry and propelling the planet toward dangerous new means of waging war. The familiar economic model of one dominant economic pole, a primary technology, and variety one system of governance is slowly being replaced by multipolarity. Companies must increasingly address a plethora of paradigms, technologies, and governance rules. Data highways are becoming the new shipping routes. Cloud storage is gradually taking the place of shipping containers and warehouses. Decentralization and digitization are likewise replacing conventional means of communicating and transacting. While it seems clear that the growing ability of AI to autonomously solve complex problems could fundamentally reshape our economies and societies, the impact AI may wear an entire host of issues will remain unknown for several years to return. Even when answers appear to be coming into view, AI is like an amoeba that's during a constant state of metamorphosis, forever changing its shape and adjusting to its surroundings. While the implications of the AI revolution on global order have only begun to be contemplated, it's not hard to imagine a future during which power, resources, and technology become even more concentrated than they already are. The wars of the longer term might not merely involve land, natural resources, and populations, but may determine the longer term course of the humanity. Rather than serving to flatten the degree of worldwide equality, an AI-dominated future could well end in the best concentration of resources and power the planet has ever known. The world cannot afford to easily believe nature to require its course, or for the world's governments and corporations to deal with critical issues related to governance, regulation, and rule of law regarding AI when it is be deemed convenient to them. The multilateral system has a crucial role to play in helping to steer the longer term course of the new global economy. It is therefore incumbent that multilateral institutions address how best to craft, and control, our collective AI future through enhanced dialogue, resource allocation, and action.

REFERENCES:

1. https://www.mckinsey.com/featured-insights/artificial-intelligence/notes-from-the-ai-frontier-modeling-the-impact-of-ai-on-the-world-economy
2. https://blogs.wsj.com/cio/2018/11/16/the-impact-of-artificial-intelligence-on-the-world-economy/
3. https://www.pwc.com/gx/en/issues/data-and-analytics/publications/artificial-intelligence-study.html
4. https://ourworld.unu.edu/en/how-ai-is-changing-the-global-economy.
5. https://www.globalization-partners.com/blog/the-impact-of-ai-on-global-expansion/

One day National Conference on
"Economic Instability: Antidote for Sustainability"
26th February, 2020 at Gopalan College of Commerce, Bengaluru, Karnataka, India

Competitive Advantage through Green Human Resource Management: A Comprehensive Literature Survey

Dr. Elizabeth George
Associate Professor, Department of Management Studies
E-mail: elizabethgeorge04@gmail.com

Abstract: *The past few decades viewed the growing concern for natural environment and environmental issues. Now a days, organizations and corporate are focused on the integration of green management practices and environment, turning the organization green. Though the organizations started different environmental practices, it is hard to turn the organization green, without and integrating HRM and environment management. Green Human Resource Management is very crucial in helping organizations achieve environmental sustainability. This article focuses on the Green HRM practices and how it impact on various aspects. Based on the intense literature survey a conceptual model has been developed which depicts the effect of Green HRM on the society and directly and indirectly on the organization.*

Key Words: *Green Human Resource Management, Sustainability, CSR, Employee Behaviour*

INTRODUCTION:

Nowadays, organizations have a proactive approach towards environmental management and human resource management practices have a major role to play in it. With society becoming more environmentally conscious, and with growing concern over global warming, it has become inevitability for business organizations to incorporate green initiatives into their day-to -day work environment. Human Resource Departments in organizations have begun to integrate green initiatives into their respective HR functions. Green HR initiatives enable the corporate and organizations to retain their employees, improves employee behavior, improve the organizational effectiveness and sustainability.

The Green Movement:

A social movement started in 1960s by social activists and scholars to retort to the corporate manipulation in the realms of environmental irresponsibility and political engagement (Waddock 2004). As a result of these movements, the public became aware of the effects of environmental degradation caused by corporate operations. This became a necessity for the organizations to be proactive towards environment and environment management. Further several climatic issues had taken place. In the past two decades, environmentalism had gained global attention in order to face the climatic change. These movements and subsequent environmental issues compelled the organizations to design policies and practices to protect the environment, employees and the public.

Organizations started to find ways to reduce the direct impacts of their operational activities like waste disposal, environmental pollution. They also implemented best practices to manage and develop the capabilities of human capital, thus improving operational effectiveness of the organization. Further research was conducted in various management areas like human resources and marketing, to examine how managerial practices in these areas can contribute to the environment.

Green Human Resource Management:

According to Jabbour (2013), Green Human Resource Management, GHRM is concerned with the systematic, planned alignment of typical human resource management practices with the organization's environmental goals. He studied the relationship between human factors and environmental sustainability and how environmental training can enhance the conservation and recycling of resources. Green HRM is the human resource management aspects of environmental management (Renwick, et al., 2013). Green Human Resource Management is environmentally friendly initiatives that reduce an employee's carbon footprint. Along with HR managers, top management also have an equal responsibility in inculcating green initiatives in HR Department. Mishra, et al. (2014) defines GHRM as the practices promoting green initiatives by increasing employee awareness and commitment on environmental sustainability. By implementing GHRM practices and policies like waste management recycling and creating green products, employee well-being and health can be promoted improved. Green HR as a holistic approach which aims at attaining

sustainability and considers recruiting candidates who value a commitment to the environment. Many industries have adopted green initiatives for their employees. It includes flexible work options like Telecommute, Flexible Work Hours, Compressed Work Weeks or Goal-oriented Employment. Green HR efforts also focus on increasing efficiency within processes, reducing and eliminating environmental waste, and refurbishing HR products, policies and procedures leading to greater organizational efficiency and reduced costs.

Green HR and Sustainability:

The Society for Human Resource Management (SHRM) defines sustainability as the commitment by organizations to balance financial performance with contributions to the quality of life of their employees, the society at large, and environmentally sensitive initiatives (Society for Human Resource Management, 2013). Green HR practices can contribute to sustainability. By going green, organizations can do away with their dependence on these papers and completely automate the entire activities from applicant tracking to succession planning. Applicants can apply to an online career portal and employees can fill out their new hire paperwork on a web-based on boarding portal, thus eliminating the usage of thousands of sheets of paper. Electronic filing also lessen paper usage Telecommuting, flexible working hours and job sharing are yet another initiative for sustainable development. Telecommuting, enable the employee to work from home for part or all of the week. This also provides work/life balance, saving of travel expense, time for taking care of elderly for the employee and reduction in office space by twenty five per cent for the organization. It means it is beneficial for both the employer and the employee. Avoiding plastics in the premises of the organisation can be implemented thus replacing the thermocol or plastic cups and plates in canteens with disposable paper cups and plates. Soft Drinks can also be avoided. Solar energy can be used wherever possible. Switching off the computers while not in use can also save energy. Video conferencing, online training teleconferencing, webinar, virtual interviews and telephonic interviews can reduce travelling.HR can build cross-functional teams to come up with new innovative environmental-friendly implementable ideas. The employees can segregate waste in their work place and have a tie up with any agency which can recycle the waste. These initiatives lead to sustainable development.

Green HR and Employee Behavior:

Renwick et al.(2013) suggest that green HRM practices, like spreading the information about the organization's green focus and highlighting individual green values in recruitment and selection, and promoting green values through training, are likely to increase employee green cognition They also adds that when promotion, appraisal, and reward system is based on green performance, it can encourage employees to engage in and contribute to green activities. Dumont, Shen, & Deng (2016) in their study tested the influence of green human resource management (green HRM) on employee workplace green behavior. Results revealed that green HRM both directly and indirectly influenced in-role green behavior, but only indirectly influenced extra-role green behavior, through the mediation of psychological green climate. Studies have shown that there is a relationship between green human resources management practices and dimensions of organizational citizenship behavior (Elbardan, 2018). Though OCB will not be directly rewarded, it can indirectly influence the rewards or incentives. These studies show the influence of green HRM on employee behavior.

Green HR and Corporate Social Responsibility:

Organizations do not function in isolation; they are a part of society and environment. So they have some responsibility towards their society, environment and stakeholders. The social responsibility of business encompasses the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time (Carroll 1979). According to Lantos (2001), CSR involves the obligation stemming from the implied social contract between business and society for firms to be responsive to society's long-run needs and wants, optimizing the positive effects and minimizing the negative effects of its actions on society. Human Resources Management plays a major role in promoting and enhancing corporate social responsibility as it contribute to the economic and social goals and performance of the organization (Buciuniene & Kazlauskaite, 2012). Green Human Resource Management functions are powerful tools which reduce the negative environmental impacts of the organization and increase the positive environmental impacts of the organization. Green HRM initiatives and practice enable the organization to improve rate of retention, improve public image, attract better employees, improve productivity and sustainable use of resources, reduce the practices that cause the environmental degradation and save environmental impact, reduce utility cost, enable to get tax benefits and increase business opportunities (Bangwal & Tiwari, 2015). Aggarwal & Sharma (2015) in their study states that Green HRM facilitates growth, enhances the procedures, methods and quality, helps in proper use of resources and develops green learning culture in the organization. Increased desirability as an employer, less stressed budget and employee retention are also some of the benefits of green HR programs in the organization (Kumari, 2012). Rahman, Ahsan, Hossain&Hoq (2013) suggests that organizations should organize symposiums to make the customers aware of Green practice encourage them to use Green Products or services. This can lead the clients to be habituated to the Green organizational activities. Awareness and usage of green products and services can

improve the health and safety of customers, leading to improvement of society at large and environment thus contributing to Corporate Social Responsibility.

Green Human Resource Management Practices:

As a result of the current down turn globally companies have turned to green workforce not just to reduce cost but also to keep their employees motivated. A total change in the mind set of employees and re-engineering of the entire system is inevitable for an organisation to practice green human resource management. All the areas and processes of HR should be revisited. Once areas are identified where the organization can be greener, the new strategies can be implemented.

Green Recruitment and Selection:

Organizations need to share their constant commitment towards the cause of environment with the candidates whom they are trying to hire. Young talents like to work in companies which give more importance to environmental responsibility. So green recruitment can attract the most talented innovative employees. Some of the leading companies like Google, Vodafone and traditional companies like General Electric Co. are practicing green recruitment. According to Renwick et al. (2013) organizations should be specific in their advertised job descriptions, include green criteria in job advertisements, brand the company as a green and socially responsible organization, target and hire employees who are very knowledgeable about environmental sustainability and disclose green strategies, objectives and initiatives during employee interviews and induction. They also added that, the recruitment process become distinctive when the employees selected are, those who clearly understands the values of an organization and its images and reputation associated with the environment.

Green Performance Appraisal and Management:

Green Performance appraisal is critical in encouraging and motivating the employees to participate in organizational green initiatives. Green performance appraisal is a challenging task for HR managers. The HR mangers have to identify various environmental aspects while analyzing the performance of employees, standards like waste management, environmental audit, waste reduction etc. Renwick et al. (2013) suggest that firms need to do the following to incorporate green aspects in performance appraisal. They include:

- Develop a number of performance indicators, which can be measured so that they can be included in the firm's formal performance management and appraisal process.
- Ensure that information pertaining to green initiatives and company environmental objectives is clearly communicated all employees.
- Explain the expectations that the firm has of its managers in regards to green outcomes.
- Clarify KPIs and ensure that these are specified in a manager's performance appraisal.
- ensure that rewards and benefits are given to employees who achieve green objectives

Performance Appraisal can cover such topics as environmental incidents, usage of environmental responsibilities, and the communication of environmental concerns and policy (Wehrmeyer, 1996) and minimal usage of paper. Environmental performance standards can be given to the employees and employees can be rewarded for best green performance so that it is a motivation for the employee and it can lead the organisation to a green culture. It is important that ssenior managers must show interest in green environmental practices and should effectively communicate to their subordinates regarding the performance indicators and correlate competence with innovative green practices (Renwick et al., 2013).

Green Training and Development

Training is a key instrument to incorporate environmental aspect in the employees and develop a new green culture among them. So it important for organization to training and guide them and update them about the Green practices, policies and procedure. To assess the type and areas of training required in environmental management, a Training Needs Analysis (TNA) can be conducted for assessing what environmental knowledge and skills staff need (Anthony, 1993).Special environmental training, can be given for those who are involved in the treatment of hazardous waste and dangerous substances. A waste minimization awareness program can be incorporated into the employee training programme especially for those employees who are dealing with the materials. Daily et al., (2007) in their survey found that the effective green management system was dependent on environmental training. Another benefit of green training programmes are, they can give a better understanding of the importance of environmental protection (Wong, 1998) and encourage the employees to get involved in various environmental initiatives of the organization. The induction program should be designed in such a way that the new employees are given awareness about the green practices and requirement to handle the green issues of the organization.

Green Employee Relations:

Green employee relations in HRM, is the establishing of harmonious relationships between the employer and the employee. Positive employee relations are an intangible and lasting asset and a source of competitive advantage for any organization (Ahmad, 2015). The green employee relations include employee participation and empowerment activities, which can motivate the employees, increase their productivity and performance and enable the employees to make effective utilization of resources at work (Renwick, et al., 2008). It can also reduce the waste and pollution in the workplaces and making a more efficient usage of the resources (May & Flannery, 1995). Top management should welcome all eco-friendly and innovative ideas coming from the employees in an organization A work culture should be developed in such a way that all employees have the freedom to present their ideas on green issues as they are responsible for the implementation of the green initiatives.

Green Employment Involvement:

The employee involvement in green initiatives can create a greater green management as it lines up the employees' capabilities, goals and motivations with green management practices and systems (Ahmad, 2015). An organization can encourage employee involvement by looking for entrepreneurs within the organization who are ecologically and socially aware (Mandip, 2012).Green Employee involvement makes the employees more committed towards the organization Thus it enables the employees to give suggestions and creative ideas on environment related issues. Green Employee involvement initiatives enable employees to make improvement in the environment and health and safety of workers. Fernandez, Junquera and Ordiz(2003) claims that an Employee Involvement approach motivates the worker, permits them to identify and give suggestion to problems in the area where they work.

Green Reward System:

Employees can be given rewards and incentives based on their efforts for green practices. This can encourage the employees to take up more environment friendly practices. Renwick et al.(2013) points out that the total pay for Chief Executive Officers affects the environmental activities of organizations especially towards the protection of the environment. Rahimian (2014) also add to it stating that there is a relationship between the compensation for Chief Executive Officers and the environmental reputation of a firm. Usually more rewards are offered to top level executives. Nevertheless, the competence-based rewards / recognition-based rewards can have a positive impact on employees towards environment initiatives. Negative reinforcements like suspensions, and warnings can also be given to employees to make environmental improvements., e.g. if employees did not handle hazardous waste properly negative punishments like firing or criticism can be done . But this does not help the employee to improve his performance in regard to environmental matters. So, it is always better to give positive rewards to employees like positive feedback or appreciation in front of other employees which may motivate the employee to take up more environmental friendly practices.

Green Grievance handling:

A grievance redressal cell can be formed to take up the matters related to environmental issues. The employees can be encouraged to do internal whistle-blowing regarding environmental breach. Employees especially those employees who deal with risky jobs can also be encouraged to raise grievance related to safety related matters. Trade union members can also be encouraged in taking environmental initiatives

Green Information System:

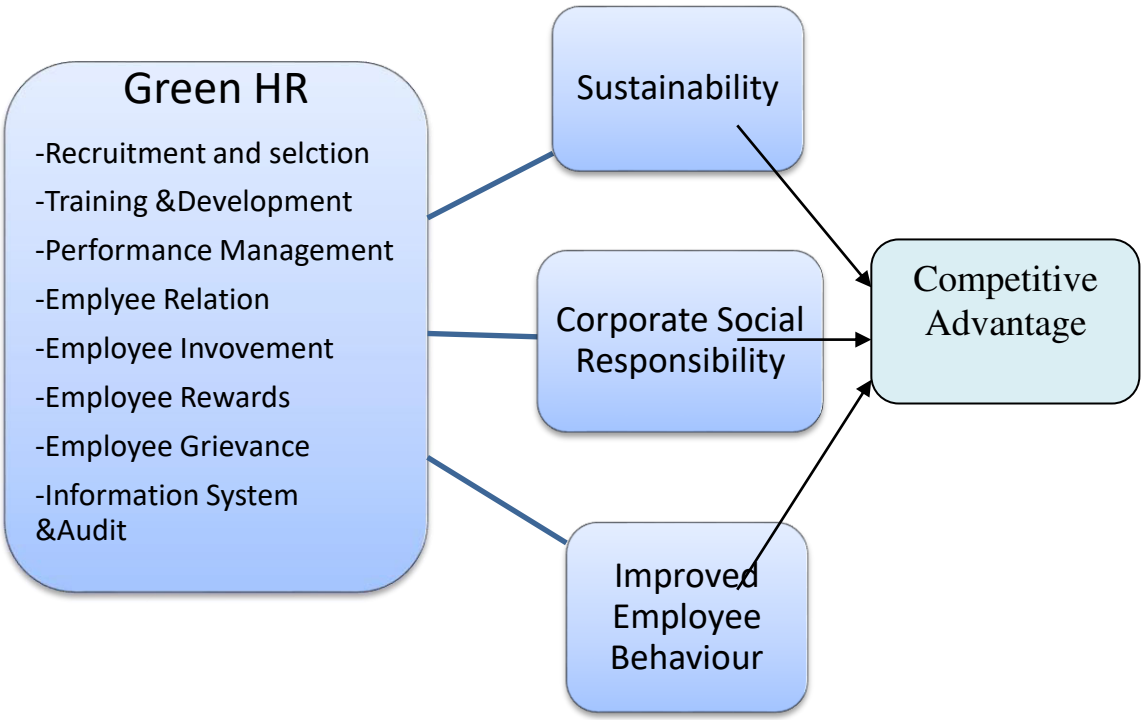
Green information systems can be developed to gain useful data on managerial environmental performance. It refers to the use of information system to achieve environmental objectives. Green Information Technology (IT) refers to the practice of using IT and computer resources in a more environmentally responsible and effective manner (Dedrick, 2010).

Green Audit:

Green audit was initiated to have a check on the work of those organizations which can cause risk to the health of residents and the environment. It is the assessment of a business in terms of its impact on the environment. Green audit can be done to gain information and feedback on past and future environmental performance of their firm.

Conceptual Model of Green HR:

Green HR practices like Green Recruitment and Selection, Green Performance Appraisal and Management, Green Training and Development, Green Employee Relations. Green Employment Involvement, Green Reward System, Green Grievance handling, Green Information System and Green Audit can result in improvement of sustainability, improved employee behavior and promote corporate social responsibility. And this can become the competitive advantage of the organization. This is depicted in the conceptual model of Green HR.



CONCLUSION:

Green human resource management enables the organization to meets the present needs without compromising the ability of future generations to meet their needs. When organizations practices Green HR initiatives they are able to preserve knowledge capital and provide employees with a better work-life balance. Green human resources could very well promote sustainable practices, increases employee awareness and enhance organizational effectiveness. While the environment is benefitted due to these practices the organization will also have more reputation and become more competitive. The morale and satisfaction of the employees will also improve, leading the organization to be more sustainable. By continuing environmentally friendly human resource management practices the corporate and organizations enable themselves to improve employee behavior and sustainability and endorse CSR thus leading to competitive advantage.

REFERENCES:

1. Aggarwal, S., & Sharma, B. (2015). Green HRM: Need of the hour. International Journal of Management and Social Science Research Review, 1(8), 63-70.
2. Ahmad, S., (2015). Green Human Resource Management: Policies and practices. Cogent Business & Management, 2, 1-13.
3. Anthony, S. (1993). Environmental Training Needs Analysis. Training Officer, 29(9), 273.
4. Bangwal, D., & Tiwari, P. (2015). Green HRM – A way to greening the environment. IOSR Journal of Business and Management (IOSR-JBM), 17(12), 45-53.
5. Bučiūnienė, I., & Kazlauskaitė, R. (2012).The linkage between HRM, CSR and performance outcomes. Baltic Journal of Management, 7(1),5-24
6. Carroll, A. B. (1979). A three-dimensional conceptual model of corporate performance. Academy of management review, 4(4), 497–505
7. Daily, B. F., Bishop, J., & Steiner, R. (2007). The mediating role of EMS teamwork as it pertains to HR factors and perceived environmental performance. Journal of Applied Business Research, 23, 95–109.
8. Dedrick, J. (2010). Green IS: Concepts and Issues for Information Systems Research. Communications of the Association for Information Systems, 27(11),173-184
9. Dumont, J., Shen, J., & Deng, X. (2016). Effects of Green HRM Practices on Employee Workplace Green Behaviour: The Role of Psychological Green Climate and Employee Green Values. Human Resource Management, 56(4), 613–627.
10. Elbardan,M.F.(2018).The Role of Green Human Resources Management Practices in Supporting Organizational Citizenship Behaviour for the Environment – An Applied Study
11. Fernandez, E., Junquera, B. and Ordiz, M. (2003). Organizational culture and human resources in the environmental issue. The International Journal of Human Resource Management, 14(4), 634-656.

12. Jabbour C. J (2013). Environmental training in organisations: From a literature review to a framework for future. Resources Conservation and Recycling, 74, 144-155
13. KumariP (2012) Green HRM issues and Challenges, Global Research Analysis, 1(5), 80-83.
14. Lantos, G. P. (2001). The boundaries of strategic corporate social responsibility. Journal of Consumer Marketing, 18(7), 595–632
15. Mandip, G. (2012). Green HRM: People Management Commitment to Environmental Sustainability. Research Journal of Recent Sciences, 1, 244-25
16. May, R. D. & Flannery, L. B.(1995). Cutting waste with employee involvement teams. Business Horizons, 38(5), 28-38.
17. Mishra, R., Sarkar, S. & Kiranmai, J. (2014). Green HRM: innovative approach in Indian public enterprises. World Review of Science, Technology and Sust. Development, 11(1), pp. 26-42
18. Rahimian, M. (2014). Paradoxes in green human resource management: Evidence from the Italian context. Milan: s.n.
19. Rahman, M., Ahsan, A., Hossain, M., & Hoq, M. R. (2013). Green Banking Prospects in Bangladesh. Asian Business Review, 2(4), 59-63
20. Renwick, D. W., Redman, T., & Maguire, S. (2013). Green human resource management: A review and research agenda. International Journal of Management Reviews, 15(1), 1–14
21. Renwick, D., Redman, T. & Maguire, S. (2008). Green HRM: A review, process model, and research agenda. Discussion Paper Series, University of Sheffield Management School, the University of Sheffield.
22. Waddock, S. (2004). Parallel universes: Companies, academics, and the progress of corporate citizenship. Business and Society Review, 109(1), 5-42.
23. Wehrmeyer, W.(1996), Greening People – Human Resources and Environmental Management, Sheffield, England: Greenleaf Publishing
24. Wong, W. Y. (1998). A holistic perspective on quality quests and quality gains: the role of environment. Total Quality Management, 9(4), 241-245

One day National Conference on
"Economic Instability: Antidote for Sustainability"
26th February, 2020 at Gopalan College of Commerce, Bengaluru, Karnataka, India

RURAL ENTREPRENEURSHIP: A STUDY ON GOVERNMENTAL SCHEMES WITH REFERENCE TO WOMEN

[1] Dr. Sonu Nagori., [2] Ms. Navyashree H. N.
[1] Professor, MBA [2]Assistant Professor, MBA
S.E.A.College of Engineering &Technology, Ayyappa Nagar/ Bangalore, India
Email - [1]navyashruchith2013@gmail.com, [2]sonu.seacet@gmail.com,

Abstract: *Mahatma Gandhi has rightly pointed out that "India lives in villages". India is a land of many opportunities, a clear reflection of which lies in the startup boom the country has witnessed in the recent decade. Enterprises in rural environments are operating in an arena of extreme and rapid change. Government agencies play pivotal role in entrepreneurship development. Ministry of Micro, Small & Medium Enterprises, popularly known as the engine of growth in the country and incubators of entrepreneurship has emerged as the torchbearers for women empowerment on a global platform. Women nowadays are writing fresh stories of unprecedented success, with their wit and hard work. More and more women are expanding their entrepreneurial horizons and venturing into an unprecedented range of business areas. Indian Government has aimed at reinstating women empowerment in the long run. The traditional female skills are being turned into a livelihood, by starting a home based business encompassing textiles, catering, embroideries, boutiques, crafts and many more. To put it in nutshell, it can be easily inferred that Indian Government has been incessantly involved in revolutionizing the role of women outside the four walls of their home. Women, nowadays, take risks, trust their vision and settle for nothing less.*

Key Words: *Enterprises, Government Schemes, Women Entrepreneurship.*

INTRODUCTION:

"You can tell the condition of a nation by looking at the status of its women"- ***Jawaharlal Nehru***.

India is slowly changing from male dominated society and started encouraging the women instead of keeping her between four walls for doing household work like washing, cooking food for family, taking care of family and kids and treating her only as Gruhalakshmi. The transformation of social fabric of the Indian society, in terms of increased educational status of women and varied aspirations for better living, necessitated a change in the life style of Indian women. She has competed with man and successfully stood up with him in every walk of life and business is no exception for this. These women leaders are assertive, persuasive and willing to take risks. But now they started coming out of their limitations and started supporting their families and working on their dreams visions. They are also interested in starting their own business in rural areas to overcome poverty, generate family income and improve their standard of living. Women are participating very actively in all business activities without any boundaries. The contribution of women and their role in the family as well as in the economic development and social transformation are pivotal. Women constitute 90 per cent of total marginal workers of the country. They have also shown that entrepreneurship is not only the privilege for men. Women also can do better than them and we have evidenced that from last three decades with their contribution to the society like providing employment and contribute for the economic growth of the country, now the united nation is also celebrating October 15th as international rural women's day. Any woman who is ready to take the challenge and play a vital role and meet her needs and become independent is known as women entrepreneur. And now a day our government is also playing very important role in motivating the women entrepreneur to come forward by providing them with financial support under different schemes , it is also motivating them to use own natural resources and manufacture the products and also to reduce the discrimination and provide them employments . It is very important to study the rural women entrepreneurship as it is the untouched sources of income from the rural. Women can lead organization in very innovative way, take good decisions and solve the problems. For example the women who have made their mark in the entrepreneurship all over the world:

Ela Bhatt: Founded in 1972 by Ela Bhatt, Self-Employed Women's Association (SEWA) is a trade union that promotes the rights of low-income and independent female workers. With over 20 lakh members, it is the largest organization of informal workers in the world. SEWA is framed around the goal of full employment in which a woman secures for her family: income, food, health care, childcare, and shelter. Indian women are thought to be most productive in the household chores and to challenge such mind-set, SEWA highlights the value of such women's craft

and skills and their importance for the Indian economy. Ela Bhatt observed poor women in Ahmadabad and found that they were not just domestic workers, but in fact businesswomen, hawkers, street vendors, and construction laborers. Not all of this was being represented in India's economy. Ela Bhatt has been accorded with Ramon Magsaysay Award in 1977, Right Livelihood Award in 1984 and also the Padma Bhushan in 1986. She is also the member of 'The Elders', Nelson Mandela's group of world leaders formed to contribute their wisdom, independent leadership and integrity to tackle some of the world's toughest problems.

Chetna Sinha: Chetna Sinha is the founder of 'Mann Deshi Mahila Sahkari Bank', a micro-finance bank providing banking services and credit to women in rural areas. Mann Deshi Mahila Sahkari Bank was the first bank in the country for and by rural women to get a cooperative license from RBI. Today over 3,10,000 women gain financial and emotional backing from this bank. The Mann Deshi Foundation also runs financial literacy classes, where women are taught the skills of savings, investing, insurances, and loans through modules that comprise games like Monopoly. She has been working towards empowering women in the drought prone areas by training them in entrepreneurial skills and providing them access to land and other means of production. She also co-chaired the 48th Annual Meeting of World Economic Forum as a part of an exclusive seven-woman team in January 2018. Chetna Sinha is a Schwab Fellow, Yale Fellow, and Ashoka Fellow.

OBJECTIVE OF STUDY :

- To study about the women entrepreneur in rural areas.
- To study about the government schemes for women entrepreneurs in India.
- To study the impact of women entrepreneurs for the economy.
- To study the limitations of women entrepreneurs in India.

LITERATURE REVIEW :

Dr.M.Rajiakodi (2007) 45 in the research paper stated that, the introduction of the New Panchayat Raj is a great watershed in the annals of India's Rural Development Planning. Panchayat Raj System is both a rural decentralized democratic institution as well as a mechanism to implement the development programmes in the villages. With this thrust a study was undertaken to examine the relationship between Panchayat Raj and Rural Employment Generation Programme. Dr. Madhur Bala and Dr.O.P. Monga have (2007)47 associated and opined that the women employment supplements the family income and enhances their economic status and places them in higher income group. Among employed women, their better education, employment and improved family income, all the three raises their socio-economic status and place them in upper or upper – middle class from lower or upper – lower class. Anitha and A.S. Kaxmisha (1999) 63 have stated in their study that entrepreneurs are motivated by both pull and push factors and evidenced that entrepreneurs are no longer born but they can be made. They suggested that in order to make the women entrepreneurship movement to be a success government and non Governmental organizations have to play a vital role. Women entrepreneurs in backward areas need special assistance and timely marketing of goods. They advocated for EDP training. K. Sundar, J. Gopu, Syfil Ali (2001)65 suggested that women have the potential and will to establish and manager enterprise of their own. What they need is encouragement and support from the Family members, Government, Society and Male counterpart.

ANALYSIS & DISCUSSION:

Government schemes for the women entrepreneurs in India:

India being a developing country wants to motivate women entrepreneur in the country by providing financial assistance it also wants women to come forward with their new and innovative ideas for starting their own business, they also provide required materials, training for the women entrepreneur.

✓ **BHARATIYA MAHILA BANK:**

The main focus of this bank is to provide the financial assistance to the unprivileged women who wanted to start their own business. This bank also got merged with SBI on 31st, March, 2017.

- They provide loans up to RS. 20crores for manufacturing enterprise.
- They can avail collateral free loan of up to RS. 1crore under (**CGTMSE**) credit guarantee fund trust for micro and small enterprises.
- The interest rate for this lone is 12.25%.
- The loan amount should be repaid by 7 years.

✓ **MUDRA YOJANA SCHEME FOR WOMEN :**

This scheme provides the loan for the women who wanted to start small venture, tuition centers, and day care, beauty salon etc. the scheme is especially beneficial to a group of women who are interested in opening a business.

- They provide loan from RS. 50000 up to RS. 50lakhs.
- No security or warrantors are required for the amount less then RS. 10laksh.
- There are three stages in which women as to apply for the loan (shishu , kishor and tarun)

SHISHU: This means initial stage, the loan amount of RS. 50000 are sanctioned here.
KISHOR: This means established stage, the loan amount of RS.50000 to 5lakhs is sanctioned.
TARUN: This means expansion stage, the loan amount of RS. 5lakhs to RS. 10lakshs is sanctioned.

- ✓ **CENT KALYANI SCHEME :**

This scheme is offered by the Central bank of India for the women entrepreneur who deals with agricultural work and retail trading. Their main focus is to motivate the women to start up there business with innovative and creative idea.

- They provide loan up to RS. 10crores.
- No security is required.
- Interest rates are according to market rates.

- ✓ **MAHILA UDYAM NIDHI SCHEME:**

This scheme is offered by Punjab national bank, to promote women who are interested in small scale sectors or wants to modernize their existing business.

- They provide loan up to RS. 10lakhs.
- Interest rates are according to market rates.
- The loan amount should be repaid by 10 years.

- ✓ **ANNAPURNA SCHEME:**

This scheme is for the women who wants to run catering business the scheme provides financial assistance.

- They provide up to RS. 50000.
- Security is required with assets guarantor to avail this scheme.
- It is provided by SBI and Bharatiyamahila bank.
- The loan amount should be repaid by 36 months.
- Interest rates are according to market rates.

- ✓ **STREE SHAKTI:**

This scheme is for the women who is a part of Entrepreneurship Development programmes and should have 50% ownership in the small scale business for which they want loan. This loan is offered by SBI.

- They provide loan up to RS. 50lakhs.
- If loan amount is more than RS. 2lakhs, 0.50% of interest is offered.

- ✓ **UDYOGINI SCHEME:**

This scheme is provided by many Banks which works for the motivation of women of 18-45 years of age under less interest rate. The families' income should be RS.45000 or less. The subsidy is also provided.

- They provide loan up to RS.1laksh.
- The subsidy of 30 %(RS.10000 is provided for widowed, SC/ST, disabled women and 20% (RS.7500) for general category whichever is low.

- ✓ **DENA SHAKTI SCHEME:**

This scheme provide the loan for the women who wants to run a business in agricultural , manufacturing, retail or small enterprise Under microcredit loans.

- They provide up to RS 20lakhs under education housing and retail trading.
- The interest rates are 0.25%.

- ✓ **ORIENT MAHILA VIKAS YOJANA SCHEME**:

This scheme provides loans for the women who wanted to start their small business by oriental bank of commerce.

- They provide loan up to RS. 10lakshs.
- No security is required.
- In case of small scale industries RS> 25lakshs is provided.
- The loan should be repaid by 7 years.
- The interest rate is 2%.
- They must have 51% of ownership.

- ✓ **TRADE RELATED ENTREPRENEURSHIP ASSISTANCE AND DEVELOPMENT (TREAD):**

This scheme provide training and counselling for the women according to their interest and there project would be funded by the government 30% and by leading institutions 70%.

Impact of women entrepreneurs for the Indian economy:

As per the graph most of all the state women's are aware about the government schemes and they are utilizing it to uplift their lives and also they are creating the jobs for others. Comparing at the data collected of the past two years it gives a clear sense about the pace at which women entrepreneurs are rising, making a remarkable place in this niche market. But few states like Himachal Pradesh, Uttarakhand are in the nascent stage. States like Jammu & Kashmir, Tamil Nadu witness a steep rise in the number of project grants. Overall by the different awareness program

and training program which helped the women entrepreneurs to a greater extent in improving their lifestyle and also making them financially independent also they are started to contribute to the Indian economy.

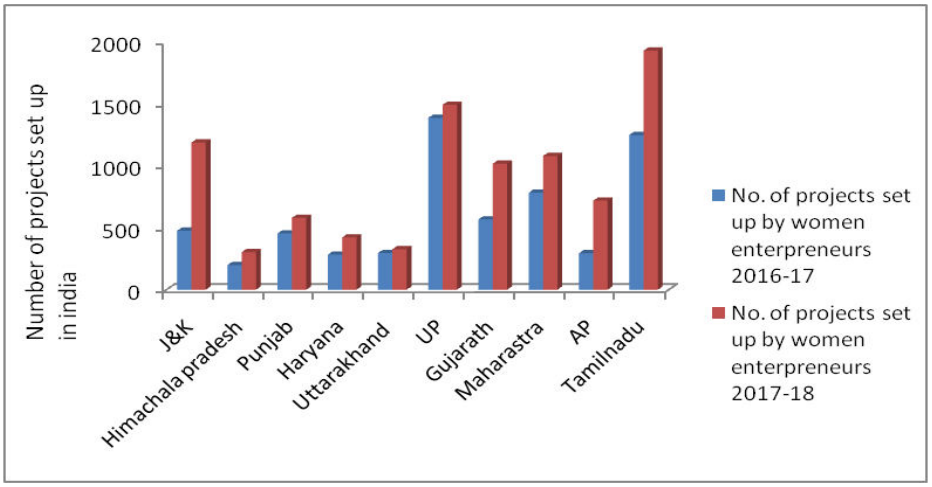


Figure: 1.1 State wise projects set up by women entrepreneurs in 2016-17 & 2017-18

Community Wise Distribution of Women entrepreneur:

A study revealed that out of the total establishments under women entrepreneurs, percentage share of various social and religious groups Hindus: 65.6%, Muslim: 12.84% and Christian: 5.2%. OBC: 40.60%, SC: 12.18%, ST: 6.97% and Others (40.25%).

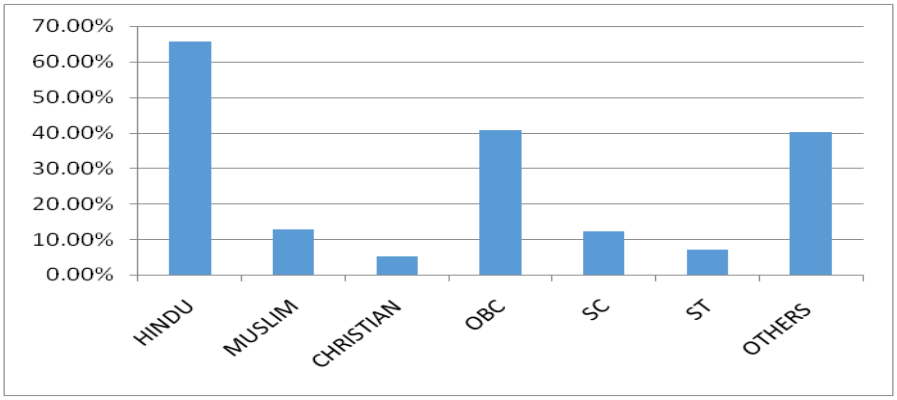


Figure 1.2: Community wise distribution of women entrepreneurs

FINDINGS:

Limitations for women entrepreneur in India:

Limitation of rural women entrepreneurs

- **Lack of education for women in rural area:**

Even in 21st century the women are still backward in Education and many are still illiterate. Due to poverty, marriage, due to son's education, social and cultural norms etc. by these women many stay back in dark without knowing about the new technology, government support for the women entrepreneur and its benefits.

- **Lack of motivation from families and society:**

Women entrepreneurs are not much motivated by the families and society they feel the women cannot handle the market risk by this the women entrepreneur can feel less confident to start up the business.

- **Financial problem:**

Many women stay back only by thinking about the funds for setting up the business because of less security many creditors don't come forward to provide the loans. If there is no proper financial support in the initial stage it becomes too difficult to run the business.

- **Lengthy formalities** :

There are many formalities to start up the enterprise are startup the business due the misuse of the opportunist in the market. There will be many paper works and procedures which they have to follow by these women may fell hard.

- **Less ability to take risk:**

Women are very soft in nature they will be completely dependent especially in country like India. They won't be able to take much risk due to this way of thinking that they many have to take many risk in the business they may stop themselves by starting the business.

- **Lack of entrepreneur skill and training:**

omen lack behind in the managerial skills and training due to lack of education. Women may also fail sometimes even after taking training to take some major decisions.

- **Low performance:**

Women may fail in their low performance in the business. Business is an activity were in they require proper planning, organizing, controlling, directing, coordinating, staffing etc they may not perform properly the above mentioned activities.

- **Lack of leadership qualities**:

Few women may not have good leadership quality. As an entrepreneur the leadership plays very important role to take over the business in a successful manner.

- **Male domination:**

As we know India is one of the Male concentric country. The much importance is given to the male and the male in the families few times does want women to start their own business they don't motivate the women to become entrepreneurs they don't provide the support needed instead they keep demotivating them.

- **Fail to balance family and career:**

Women are very much attached to their family. AS there are doing all the house hold work and taking care of their kids and family it becomes too difficult to manage the career the fail to give much time to the business . Due to which the business may fail. As per our study most of the women from all states are aware about the government schemes and they are utilizing it to uplift their lives and also they are creating the jobs for others. Overall by the different awareness programme and training programme which helped the women entrepreneurs to a greater extent in improving their lifestyle and also making them financially independent also they are started to contribute to the Indian economy.

CONCLUSION:

The new generation women across the world have overcome all negative notions and have proved themselves beyond doubt in all spheres of life including the most intricate and cumbersome world of entrepreneurship. Women entrepreneurs need to be lauded for their increased utilization of modern technology, increased investments, finding a niche in the export market, creating a sizable employment for others and setting the trend for other women entrepreneurs in the organized sector. Women have achieved immense development in their state of mind. With increase in dependency on service sector, many entrepreneurial opportunities especially for women have been created where they can excel their skills with maintaining balance in their life. Accordingly, during the last two decades, increasing numbers of Indian women have entered the field of entrepreneurship and also they are gradually changing the face of business of today. For women, entrepreneurship is essentially a journey out of poverty and towards equality and equity. Pandit Jawaharlal Nehru, India's first Prime Minister, realizing the pathetic situation of women, stated, —in order to awaken people, it is the woman who has to be awakened. Once she is on the move, the household moves, the village moves, the country moves, and thus, we build the India of tomorrow. The Government has emerged as a major catalyst by way of providing training incentives and other facilities to succeed particularly in rural areas.
"**Alone we can do so little; together we can do so much."**

REFERENCES:

1. Census Statistic 2018, retrieved from http://www.indiaonlinepages.com/population/india-current-population. Html on April 3, 2018
2. Mehta, A., & Mehta, M. C. (2011). Rural women entrepreneurship in India: opportunities and challenges. International Conference on Humanities, Geography and Economics (ICHGE'2011).
3. Jayakumar,P and Kannan, J (2014) " challenges and opportunities for rural women entrepreneurs". Economics and Business Review, 2(1), 35-39.
4. Press information bureau government of India ministry of micro, small & medium Enterprises 11, Feb, 2019.
5. Siddiqui S women entrepreneurship: problems and inhibitions, national and the world, 14(346).

Journal Papers:

6. Malyadri, G. (2014). Role of women entrepreneurs in economic development of India. Indian journal of research, 3(3).
7. Behara, S.R. and Niranjan, K. (2012). Rural Women Entrepreneurship in India. IJCEM International Journal of Computational Engineering & Management, 15(6).
8. Ghosh, P., & Cheruvalath, R. (2017). Indian female entrepreneurs as catalysts for economic growth and development. The International Journal of Entrepreneurship and Innovation, 8(2), 139-148.
9. Deshpande Sunil, Sethi Sunita. Women entrepreneurship in India (problems, solutions& future prospects of development), Shodh,Samiksha and Mulyankan. Journal of International Research.2009,2(9).
10. Pharm and Sritharam (2013)"problems being faced by women entrepreneurs in rural areas". The international journal of engineering and science (IJES).2(3).52-55.

One day National Conference on
"Economic Instability: Antidote for Sustainability"
26th February, 2020 at Gopalan College of Commerce, Bengaluru, Karnataka, India

Tourism and Hospitality Industry

[1] M. Harish, [2] S. Jaswanth
[1, 2] B.Com student, Department of Commerce,
[1, 2] Kumaraguru College of Liberal Arts and Science, Athipalayam Road,
Chinnavedampatti, Saravanampatti post, Coimbatore – 641049, Tamil Nadu,India
Email - [1]harishmoorthy.19bpa@kclas.ac.in [2] jaswanth.19bpa@kclas.ac.in

Abstract: *Tourism is the act and process of spending time away from home in pursuit of recreation, relaxation, And pleasure, while making use of the commercial provision of services. As such, tourism is a product of modern social arrangements, beginning in Western Europe in the 17th century, although it has antecedents in Classical antiquity. By the early 21st century, international tourism had become one of the world's most important economic activities, and its impact was becoming increasingly apparent from the Arctic to Antarctica. Hospitality industry is an industry that depends on the availability of leisure time and disposable income. A hospitality unit such as a restaurant, hotel, or an amusement park consists of multiple groups such as facility maintenance and direct operations (servers, housekeepers, porters, kitchen workers, bartenders, management, marketing, and human resources etc.).Hospitality industry as an organized industry was formed in the 1950s or 1960s when a proper structure was formed. The industrial revolution which began in the 1970s facilitated the construction of hotels in Europe, England, and America. This are directly linked with one another and each industry contribute the development of another sector. This paper would investigate about tourism and hospitality industry, its origin and development and how it helps to accelerate the economic growth and job creation*

.

Key Words: *Tourism, Antecedents, Classical antiquity, Leisure and disposable income, economic Growth.*

INTRODUCTION:

Tourism is the process of spending time away from home in avocation of recreation, relaxation, and pleasure, while making use of the commercial provision of services. As such, tourism is a product of modern social arrangements, which began in Western Europe in the 17th century, although it has in Classical antiquity. At the time of 21st century, international tourism had become one of the world's most important economic activities it has a big impact of the country's economy and its impact was becoming increasingly even, Arctic and Antarctica became tourist spots. Hospitality industry is an industry that depends on the availability of leisure time and disposable income .It has become one of the emerging sectors in the economy. A hospitality unit such as a restaurant, hotel, or an amusement park consists of multiple groups such as facility maintenance and direct operations (servers, housekeepers, porters, kitchen workers, bartenders, management, marketing, and human resources etc.).Hospitality industry as an organized industry was formed in the 1950s or 1960s when a proper structure was formed. The industrial revolution which began in the 1970s facilitated the construction of hotels in Europe, England, and America.This are directly linked with one another and each industry contribute the development of another sector.Hospitality industry depends tourism for it's development in the economy.

OBJECTIVE OF STUDY:

- To find an antidote for an sustainability and to make economy stable
- To bring out the importance of tourism in GDP contribution
- Improving tourism to bring and maintain stability

ORIGIN OF TOURISM:

Tourism, in the 17th century, although it has antecedents in Classical antiquity. It is distinguished from exploration in that tourists follow a "beaten path," benefit from established systems of provision, and, as befits pleasure-seekers, are generally insulated from difficulty. At the time of early 21st century, in the world economy international tourism has its own part by contributing to their respective countries. The history of tourism attracted many peoples and it has become a study .The history begin long before the coinage of the world tourist at the end of 18th century. In the western tradition organized travel with supporting infrastructure, sightseeing and an emphasis on essential destinations and experience can be found in ancient Greece and Rome.

TYPES OF TOURISM:

Recreational Tourism: Tourism is an often activity for recreational purpose. Most of the people use tourism took for the purpose of change and rest; this is the reason why package tours have become so popular and tourism considers as a best revenue earning industry.

Environmental Tourism: Rich and affluent tourist are preferred to spend more visits to remote places where they get pollution free airs to breath this type of people will be attracted to the islands eg: Andaman and Nicobar islands.

Historical Tourism: Tourist is interested to know how our forefather lived and administered in a particular area. They visit heritage locations, temples, churches, museums, forts etc. And most people will be interested to know the living of the ancient people and their ancient life style.

Ethnic Tourism: This refers to people traveling to distance places looking to their routes and attending to family obligations. Marriage and death bring people together to their native places. Persons who are settled overseas during later part of life visit place of their birth for giving boost to ethnic tourism.

Cultural Tourism: Some people are interested to know how other people or communities stay, survive and prosper. The kind of culture they practice their art and music is different from ours. So, in order to acquire knowledge, understands culture well, to become familiar with the culture, they undertake journey. And India is a nation where are different cultures are followed by many peoples.

Adventure Tourism: There is a trend among the youth to take adventure tour. They go for trekking, rock climbing, river rafting etc. They organized camp fire and stay under the blue sky. This tourism is meant for people with strong nerves who can tolerate stress

Health Tourism: In recent years, health tourism has become highly popular. People visit nature cure centers and hospitals providing specialist treatment. Some poor people cannot afford the treatment and the medical facilities and the technology is lower intheir country. So,many foreigners visit India for treatment because similar services in their country are costly.

Religious Tourism: It is a type of tourism which is strongly influenced on the religionex: Muslim people must visit Mecca at Saudi Arabia this will obviously help you to understand that religion also creates the demand for tourism sector.

Music Tourism: Music Tourism it is part of visiting of countries, cities, town to see a fest or the individual who interests in the particular type of music which a country is a popular ex: Uk is the best pop and rock music.

Village Tourism: ***It involves traveling and arranging tours in order to popularize various village destinations***.

Wild life Tourism: It is a type of tourism which will be having interaction between the wild animals, it includes eco-animal friendly tourism and safari hunting it attracts peoples and mainly it attracts the kids.

ORIGIN OF HOSPITALITY INDUSTRY:

Large number of years prior, when street systems were rare and voyaging was unwieldy outsiders landing in a remote land needed to depend on either their outdoors aptitudes or a nearby's thoughtfulness when searching for cover. During the period of journey and the advancement of significant exchange courses all through Europe, it was for the most part motels and bars offering crude rooms to tired explorers. The possibility of a lodging worked for the sole motivation behind facilitating visitors didn't exist in Europe until the eighteenth century, when mechanical advancement and the presentation of quicker and progressively dependable methods of transport made long separation venture out accessible to more extensive open. With the inundation of enormous quantities of outsiders into significant urban areas, the requirement for convenience prompted the opening of the principal inns in the cutting- edge sense. From that point forward, the part has known an almost whole run of development and global extension

HOSPITALITY INDUSTRY HAS FOUR CATEGORIES:

- Food and Beverages
- *Travel and Tourism*
- Lodging
- Recreation

Food and Beverages:

Nourishment and drink division which is expertly referred to by its initials as F&B is the biggest portion of the accommodation industry. The F&B industry is evaluated to give half of all dinners eaten in the US today. It involves foundations fundamentally occupied with planning suppers, bites, and drinks for sure fire utilization on and off the premises. At the point when a café is a piece of an inn, administrations it renders can improve the visitor experience by giving brilliant nourishment and top of the line client service It can advantageously work as a feature of different organizations, for example, in bowling alleys or cinemas.

Travel and Tourism:

It is a service which deals with moving people from one place to another place. Ex, Buses, Cabs, Planes, Trains. It is a part of travel industry. When person spends money on lodging, food, while taking a vacation trip to enjoy

on a particular place and spend money for him to create pleasure, and business travel is when a person travels for work and spends money on lodging and food. Some people also spend on recreation while on a business travel. The major function of the tourism is to encourage people to travel. When people travel, either for business or leisure, they spend money on hospitality. So, it is clearly indicates that hospitality industry depends on the tourist people.

Lodging:

Lodging means accommodation in a one place one or 2 night for the purpose of personal visit or business visit. Fancy hotels, hostels, motels even in hotels there are categories like:

- Five Star hotels (E.g. Emirates palace in Abu Dhabi)
- Four Star hotels(E.g.Lyttos Beach Hotel in Greece)
- Three Star hotels (E.g. Hans Brinker hotel, Amsterdam)
- Two Starhotels (E.g. Ibis world trade center, Dubai).

Recreation

Recreation is any activity that people do for rest, relaxation, and enjoyment. The goal of recreation is to refresh a person's body and mind. Any business that provides activities for rest, relaxation and enjoyment, to refresh a person's body and mind is in the recreation business. Entertainment businesses which provide shows such as movie or theater, attractions which are places of special interest of visits such as zoos and museums, spectator sports and participatory sports are all parts of the recreation business.

RELATIONSHIP BETWEEN HOSPITALITY AND TOURISM:

Tourism and Hospitality industry goes hand to hand each are dependent of one other tourism depends on hospitality because even when there are good tourism spots there will be a demand of good hospitality for the tourist if there is good lodging facilities available there will be a increase in tourist peoples all over the world and we have one of 7 wonders in the world Taj Mahal. Tourism it is the activity of tourist where they engage in travelling to a destination where they want to spend their time on their vacation period which helps to create a good memory. Hospitality industry plays a role of the supplier of the services for tourist. The job of Hospitality is to providing a safe and enjoyable moment for patrons.

TOURISM AND HOSPITALITY INDUSTRY IN INDIA:

The Indian the travel industry and neighborliness industry have shown up it has one of the key drivers of development in the economy among the administrations part in India. The travel industry in India has critical potential considering the rich social and recorded legacy, assortment in biology, landscapes and places of normal magnificence spread the nation over. These days it becomes a prevailing segment in an economy. The travel industry is likewise a possibly huge work generator other than being a critical wellspring of outside trade for the nation. Expenses during the period January-November 2019 were US$ 26.78 billion enlisting a development of 3.7 percent year-on-year. According to World Travel and Tourism Council (WTTC), India positioned third among 185 nations regarding travel and the travel industry's absolute commitment to GDP in 2018. On the planet economy India was positioned 34th in the Travel and Tourism Competitiveness Report 2019 distributed by the World Economic Forum.

MARKET SIZE:

India is the most carefully propelled voyager country regarding advanced instruments being utilized for arranging, booking and encountering an excursion, India's rising white collar class and expanding expendable livelihoods has kept on supporting the development of residential and outbound tourism. During 2018, outside visitor appearances (FTAs) in India remained at 10.56 million, accomplishing a development pace of 5.20 percent year-on-year During January-November 2019, Foreign Tourist Arrivals (FTAs) were 96,69,633 with the development of 3.2 per cent. During January-November 2019, a sum of 25,51,211 traveler landed on e-Tourist Visa enlisting a development of 23.8 per cent. The travel and the travel industry part in India represented 8 percent of the all-out work openings produced in the nation in 2017, giving work to around 41.6 million individuals during that year. The number is relied upon to ascend by 2 percent annum to 52.3 million employments by 2028.International inn networks are expanding their quality in the nation, as it will represent around 47 percent share in the Tourism and Hospitality part of India by 2020 and 50 percent by 2022.

IMPACT OF TOURISM IN OUR ECONOMY:

POSITIVE IMPACTS:

- ✓ **Generating Income and Employment:**The travel industry in India has risen as an instrument of salary and business age, neediness easing and supportable human advancement. It contributes 6.77% to the national GDP and 8.78% of the all-out work in India. Very nearly 20 million individuals are currently working in the India's travel industry.
- ✓ **Source of Foreign Exchange Earnings:** The travel industry is a significant wellspring of outside trade

income in India. This has positive effect on the equalization of installment of the nation. The travel industry in India produced about US$100 billion out of 2008 and that is relied upon to increment to US$275.5 billion by 2018 at a 9.4% yearly development rate.

- ✓ **Preservation of National Heritage and Environment:** Tourism helps preserve several places which are of historical importance by declaring them as heritage sites.
- ✓ **Developing Infrastructure:** The travel industry will in general energize the improvement of different utilization of framework that benefits the host network, including different methods for transports, medicinal services offices, and sports focuses.
- ✓ **Promoting Peace and Stability:** The travel industry can likewise help advance harmony and steadiness in creating nation like India by giving occupations, producing salary and differentiating the economy.
- ✓ **The Multiplier Effect:** The progression of cash produced by visitor spending duplicates as it goes through different areas of the economy.
- ✓ **Regional Development:** The immature locales of the nation can incredibly profit by the travel industry advancement. A significant number of the monetarily in reverse locales contain zones of high beautiful excellence and social attractions.
- ✓ **Economic Value of Cultural Resources:** The travel industry gives money related impetuses to the improvement of numerous nearby specialties and culture; accordingly, it affects the pay of the neighborhood craftsman's.
- ✓ **Promotion of International Understanding:** The travel industry can likewise turn into a compelling instrument to build up a superior comprehension and cooperation among individuals of various nations.

NEGATIVE IMPACTS:

- ✓ **Undesirable Social and Cultural Change:** The travel industry now and again prompted the obliteration of the social texture of a network, the more visitors coming into a spot, the more the apparent danger of that spot losing its personality.
- ✓ **Increase Tension and Hostility:**The travel industry can build strain, threatening vibe, and doubt between the sightseers and the nearby networks when there is no regard and comprehension for one another's way of life and lifestyle.
- ✓ **Creating a Sense of Antipathy:** The travel industry carried little advantage to the nearby network. In most comprehensive bundle visits over 80% of voyagers' expenses go to the aircrafts, inns and other universal organizations, not to neighborhood agents and laborers.
- ✓ **Adverse Effects on Environment and Ecology:** One of the most significant antagonistic impacts of the travel industry on nature is expanded weight on the conveying limit of the biological system in every vacationer territory.
- ✓ **Import Leakage:** This regularly happens when travelers request benchmarks of gear, nourishment, drinks, and different items that the host nation can't supply, particularly creating nations.
- ✓ Seasonal Character of Job: The openings for work identified with the travel industry are occasional in nature as they are accessible just during the visitor season.
- ✓ **Increase in Prices**: Expanding interest for fundamental administrations and merchandise from visitors will frequently cause cost climbs that adversely influence nearby occupants whose pay doesn't increment proportionately.

STRENGTH:

- India has a gigantic bunch of goals of differing types, more than what numerous nations bring to the table together at a total level
- A rich adventure which offers a one of a kind mix of at various times, which incorporates design, culture, present day courtesies and offices too.
- Some items like "Rural Tourism" are one of a kind in nature, which no other nation has though of or imagined
- A brilliant limited time battle which has stood out of a great many adventurers over the world

WEAKNESS:

Absence of co-ordination among the States just as Center in advancing goals/items. The Center just as the State advances goals autonomously. Such assortment of goals makes disarray in the psyches of the remote travelers visiting/ready to visit India as where would it be advisable for one to begin from?

- Procedure for arrival of Visa is a relatively extensive technique, contrasted with the South East Asian countries.
- Certain air terminals need proper foundation which declares remote carriers to avoid them
- Lack of proper availability among certain prime goals inside the nation. For Example, Air passages between certain household goals inside the nation is identical or to some degree more than corresponding flights abroad.

- Lack of value settlement office among significant goals the nation over. Request spikes higher room lease, which eats up significant extent of a remote vacationer's financial limit. In this manner, the traveller remains for an extensively lesser time and in the process has constrained time of introduction to the nation and its assets as a rule.

Opportunities created by tourism:

- India as a goal gives "esteem for cash" contrasted with the other South East Asian just as South Asian countries.
- India offers various sorts and kinds of goal, in type of a total bundle, contrasted with the south east/far east nations which unequivocally advance a couple of topics/items.
- Wide base of English talking populace – a significant favourable position contrasted with the South East Asian countries.
- Booming economy, developing outside interest in the significant areas has provoked monstrous progression of outsiders as of late. Verbal exchange has advanced Indian.

GOVERNMENT INITIATIVES:

The Indian government has realized the country's potential in the tourism industry and has taken several steps to make India a global tourism hub. Some of the major initiatives planned by the Government of India to give a boost to the tourism and hospitality sector of India are as follows:

- Ministry of Tourism launches Audio Guide facility App called Audio Odigos for 12 sites of India (including iconic sites).
- Prime Minister, Mr. Narendra Modi urged people to visit 15 domestic tourist destinations India by 2022.
- Statue of Sardar Vallabhbhai Patel, also known as 'Statue of Unity', was inaugurated in October 2018. It is the highest standing statue in the world at a height of 182 metre. It is expected to boost the tourism sector in the country and put India on the world tourism map.
- The Government of India is working to achieve 1 per cent share in world's international tourist arrivals by 2020 and 2 per cent share by 2025.
- Under budget 2019-20, government introduced a Tax Refund for Tourists (TRT) scheme like in countries such as Singapore to encourage tourists to spend more in India and boost tourism.
- Under budget 2019-20, the government allotted Rs 1,160 crore (US$ 160.78 million) for development of tourist circuits under Swadesh Darshan.
- Under Union Budget 2019-20, US$ 82.27 million was allocated for promotion & publicity of various programmses & schemes of the Tourism ministry.
- In September 2019, Japan joins a band of Asian countries, including Taiwan and Korea among others to enter into the Indian tourism market.

CONCLUSION:

In a conclusion we just need to convey that Tourism and Hospitality is one of the emerging sectors and it helps in the development of the country and it contributes to the economy and it also creates employment opportunities among individuals. When we take about tourism in India is a place where filled with various cultures and one of the 7 wonders in the world Taj Mahal it is a tourist spot it helps in the development of the economy. Our government also takes various initiatives to develop the tourism sector.

REFERENCE:

1. https://www.ibef.org/industry/tourism-hospitality-india.aspx
2. https://www.hospitalitynet.org/opinion/4082318.html
3. http://ijseas.com/volume2/v2i1/ijseas20160119.pdf
4. https://www.indiastudychannel.com/resources/140791-What-is-tourism-and-its-types-.aspx

One day National Conference on
"Economic Instability: Antidote for Sustainability"
26th February, 2020 at Gopalan College of Commerce, Bengaluru, Karnataka, India

MONETARY POLICY AND ECONOMIC STABILITY

[1] J. S. AKILESH, [2] B. T. VEDAVARSHAN
[1, 2] B. Com student, Department of Commerce,
Kumaraguru college of liberal arts and Science, Coimbatore, Tamilnadu, India
Email - [1] civil.akilesh@gmail.com, [2]vedavarshanthamaraiselvan@gmail.com,

Abstract: *Monetary policy refers to the policy of the central bank with regard to the use of monetary instruments under its control to achieve the goals specified in the Act. The primary objective of monetary policy is to maintain price stability while keeping in mind the objective of growth. Price stability is a necessary precondition to sustainable growth. Monetary policy is the macroeconomic policy laid down to achieve macroeconomic objectives like inflation, consumption, growth and liquidity. The RBI implements the monetary policy through open market operations, bank rate policy, reserve system, credit control policy, moral persuasion and through many other instruments. This research explores the various types of monetary policies implemented by The Reserve Bank of India and it further analyses its impact on the Indian Economy. It also examines the ways in which RBI manipulates the monetary instruments for maintaining a flexible inflation to have a balanced and stable economy. These instruments have played a major role in the GDP growth of India and this research further evaluates the effects of these monetary instruments on the GDP of Indian Economy.*

Key Words: *Monetary Policies, Economic Stability, Inflation, GDP.*

INTRODUCTION:

Monetary policy refers to the use of monetary instruments under the control of the central bank to regulate magnitudes such as interest rates, money supply and availability of credit with a view to achieving the ultimate objective of economic stability. In India, monetary policy of the Reserve Bank of India is aimed at managing the quantity of money in order to meet the requirements of different sectors of the economy and to increase the pace of economic growth. The RBI implements the monetary policy through open market operations, bank rate policy, reserve system, credit control policy, and moral persuasion and through many other instruments. Using any of these instruments will lead to changes in the interest rate, or the money supply in the economy. Monetary policy can be expansionary and contractionary in nature. Increasing money supply and reducing interest rates indicate an expansionary policy. The reverse of this is a contractionary monetary policy. For instance, liquidity is important for an economy to spur growth. To maintain liquidity, the RBI is dependent on the monetary policy. By purchasing bonds through open market operations, the RBI introduces money in the system and reduces the interest rate.

GOALS OF A MONETARY POLICY:

The primary objective of monetary policy is to maintain price stability while keeping in mind the objective of growth. Price stability is a necessary precondition to sustainable growth. In May 2016, the Reserve Bank of India (RBI) Act, 1934 was amended to provide a statutory basis for the implementation of the flexible inflation targeting framework The amended RBI Act also provides for the inflation target to be set by the Government of India, in consultation with the Reserve Bank, once in every five years. Accordingly, the Central Government has notified in the Official Gazette 4 per cent Consumer Price Index (CPI) inflation as the target for the period from August 5, 2016 to March 31, 2021 with the upper tolerance limit of 6 per cent and the lower tolerance limit of 2 per cent. The Central Government notified the following as factors that constitute failure to achieve the inflation target:

- The average inflation is more than the upper tolerance level of the inflation target for any three consecutive quarters; or
- The average inflation is less than the lower tolerance level for any three consecutive quarters.

Prior to the amendment in the RBI Act in May 2016, the flexible inflation targeting framework was governed by an Agreement on Monetary Policy Framework between the Government and the Reserve Bank of India of February 20, 2015.

THE MONETARY POLICY FRAME WORK:

- The amended RBI act explicitly provides the legislative mandate to the reserve Bank co-operate the monetary policy framework of the country.

- The framework AIMS at setting the policy (repo) rate based on an assessment of the current and evolving macroeconomic situation; and modulation of liquidity conditions to anchor money market rates at or around the repo rate. This influences aggregate demand which is a key determinant of inflation and growth.
- Once the repo rate is announced, the operating framework designed by the reserve Bank envisages liquidity management on a day to day basis through appropriate actions, which am at achieving the operating target the weighted average call rate (WACR)- around the repo rate.
- The operating framework is fine-tuned and revised depending on the evolving financial market and monetary conditions, while ensuring consistency with the monetary policy stance.

MONETARY POLICY COMMITTEE (MPC):

Section 45 b of the amended RBI act 1934 also provides for an empowered six-member monetary policy committee (MPC) to be constituted by the central government by notification in the official gazette the central government in September 2016 constituted the MPC as:

- Shakthikanta Das (Governor of RBI -chairperson)
- Deputy governor of the RBI, in charge of monetary policy-member
- 1 officer of the RBI to be nominated by the Central board-member
- Shri Chetan Ghate, professor, Indian statistical institute (ISI) - member
- Professor Pami dua, director, Delhi school of economics - member
- Dr.Ravindra H.Dholakia, professor, Indian institute of management, Ahmadabad – member

INSTRUMENTS OF MONETARY POLICY:

REPO RATE:

The fixed interest rate at which reserve Bank provides overnight liquidity to banks against the collateral of Government and other approved securities under the liquidity adjustment facility. Repo rate is used by monetary authorities to control inflation.

Description:

In the event of inflation, Central banks increase repo rate as this acts as this incentive for banks to borrow from the central bank. This ultimately reduces the money supply in the economy and thus helps in arresting inflation. Central Bank text the contrary position in the event of a fall in inflationary pressures.

REVERSE REPO RATE:

Reverse repo rate is the rate at which the central bank of a country (RBI) borrows money from commercial banks within the country. It is a monetary policy instrument which can be used to control the money supply in the country. This is done under the LAF (liquid adjustment facility).

Description:

An increase in the reverse repo rate at which the central bank fixes will decrease the money supply and vice versa, other things remain constant. An increase in the reverse repo rate means that commercial banks will get more incentives to park their funds within the RBI, thereby decreasing the supply of money in the market.

MARGINAL STANDING FACILITIY (MSF):

Definition: The marginal standing facility (MSF) in the rate at which the scheduled commercial bank borrows funds fortnight from the reserve Bank of India against the government approved securities.

Need for MSF: They need for MSF arises, to me the short-term emergency needs of the banks in cash of a severe cash shortage or when the interbank liquidity dries up completely and to curb the volatility in the overnight interest rates.

Volatility: Volatility refers to the variability of returns from the investments. It is directly proportional to the risk that is, the higher the volatility, the higher is the risk of not getting the desired returns from the investments because of the fall in the market price, at the time it is to be encashed. Thus, to restrain from such volatility, RBI offered commercial banks the service to pledge their government securities and get more funds at a rate higher than the repo rate.

Helps to control money supply: RBI uses marginal standing facility to control and manage the money supply in the financial system. With the increase in rate, the borrowing becomes expensive for the commercial bank in written the loans become dearer for the individual or corporate borrowers, which will result it in less flow of money in the market. Also, the MSF rate is often increased by RBI to curb the excessive availability of rupee and 2 to avoid further rupee depreciation against a dollar.

Description: Banks borrow from the central bank by pledging government securities at a rate higher than the repo rate under liquidity adjustment facility for LAF in short. The MSF rate is pegged 100 basis points for a percentage above the repo rate. under MSF can borrow funds up to 1 percentage of their net demand and time liabilities (NDTL).

LIQUIDITY ADJUSTMENT FACILITY:

Consists of overnight as well as term repo auctions. Progressively the reserve Bank has increased the proportion of liquidity injected under fine-tuning variable repo rate auctions of range of tenders. The aim of term repo is to help develop the interbank money market, which in turn can set market-based bench marks for pricing of loans and deposits, and hence improve transmission of monetary policy. The reserve Bank also conducts variable interest rate reserve repo rate auctions, as necessitated under the market conditions.

Description: LAF helps banks to quickly borrow money in case of any emergency or adjusting in the SLR/CRR requirements. LAF consist of repo and reverse repo operations. The collateral used for repo and reverse repo operations are Government of India securities. Oil bonds have also been suggested to be included as collateral for liquid adjustment facility. In LAF, money transaction is done via RTGS. LAF has emerged as the principal operating instrument for modulating short-term liquidity in the economy.

CASH RESERVE RATIO:

The average daily balance that a bank is required to maintain with the reserve Bank as a share of such percent of its net demand and time liabilities (NDTL) that the reserve bank may notify from time to time in the gazette of India. The objective of maintaining the cash reserve is to prevent the shortage of funds in meeting the demand by the depositor. The amount of reserve to be maintained depends on the bank's experience regarding the cash demand by the depositors. If there had been no government rules, the commercial banks would keep a very low percentage of their deposits in the form of reserves.

Description: Cash reserve is non-interest bearing, that is no interest is paid on the deposits, therefore, the commercials open keep the reserved below the safe limits. When the economy demands as contradictory monetary policy the central bank will raise the CRR. On the other hand, when the economic conditions, demand for an expansionary monetary policy the central bank cuts down the CRR. The cash reserve ratio method is handier and more effective where the open market operated and bank rate policy proves to be ineffective.

STATUTORY LIQUIDITY RATIO (SLR):

The share of NDTL that a bank is required to maintain in safe and liquid assets, such as, unencumbered government securities, cash and gold. Changes in SLR often influence the availability of resources in the banking system for lending to the private sector. The liquid assets are the assets readily convertible into cash, include Government bonds, are government approved securities, golden and cash reserve.

Description: RBI ensures the solvency of commercial banks and compels banks to invest in the government securities. By changing SLR, the flow of bank credit in the economy can be increased or decreased. Penalty @ 3% per annum above the bank rate is imposed if any commercial bank fails to maintain the statutory liquidity ratio. Further, penalty @ 5% per annum above the bank rate is imposed on a defaulter Bank if it continues to default on the next working day. The central bank imposes such a restriction so that the funds are readily made available to the customers on their demand

OPEN MARKET OPERATIONS:

The purchase and sale of government securities for injection and absorption of durable liquidity respectively. When the central bank wants to increase the money supply in the economy, it purchases the government securities, i.e, bills and bonds. On the other hand, Central Bank sells that Government bonds and securities if the money supply is to be curtailed.

Description: The major buyers of Government bonds compress of commercial banks, financial situations, big business corporations, and individual with high savings.

MARKET STABILISATION SCHEME (MSS):

This instrument for monetary management was introduced in 2004. Surplus liquidity of a more enduring nature arising from large capital inflows is absorbed through sale of short-dated government securities and treasury bills. The cash so mobilized is held in a separate government account with the Reserve Bank.MSS was launches to withdraw the excess liquidity in the system that was generated as a result of RBI's purchase of foreign currencies in the foreign exchange market. From2002 onwards, there was a huge inflow of foreign capital into India. This led to appreciation of rupee. Since appreciation is not good for exports, the RBI intervened in the foreign exchange market by buying dollars To buy dollars, RBI has to give rupees, in this way, high selling of rupee leads to excess liquidity (rupee) and thereby creating a potential for inflation. To overcome this situation, the RBI has sold Government bonds on a general basis depending upon the volume of excess liquidity in the system. Here bonds go to financial institutions and money goes back to the RBI. This withdrawal of excess liquidity is called sterilization. MSS is issued when there is high liquidity in the system. The bonds issued under MSS are called market stabilization bonds (MSB). Government is the owner of the securities. Government's securities (bonds/treasury bills) are sold or issued by the RBI as the central bank is the banker to the government.

BANK RATE:

It's the rate, i.e. interest rate that is charged by country's central bank on loans and advances to control money supply in the economy and banking sector.

This is typically done on a quarterly basis to control inflation and stabilize the country's exchange rate.

Description: Bank rate influences lending rates of commercial banks. Higher bank rate will translate to higher lending rates by the banks. In order to curb liquidity, the central bank and resort to raising the bank rate and vice versa.

Gross Domestic Product (GDP):

In India, the growth rate in GDP measures the change in the seasonally adjusted value of the goods and services produced by the Indian economy during the quarter. India is the world's tenth largest economy and the second most populous. The most important and the fastest growing sector of Indian economy are services. Trade, hotels, transport and communication; financing, insurance, real estate and business services and community, social and personal services account for more than 60 percent of GDP. Agriculture, forestry and fishing constitute around 12 percent of the output, but employs more than 50 percent of the labour force. Manufacturing accounts for 15 percent of GDP, construction for another 8 percent and mining, quarrying, electricity, gas and water supply for the remaining 5 percent The most controversial side of the monetary policy is that it reduces inflation by reducing economic growth. While various groups demand a decrease in interest rates, the RBI makes an independent decision which at times is not appealing to the government and other entities. This brings out the major conflict between stabilizing prices and fostering economic growth. Studies have shown that price stability has to be the primary concern of central banks as in the long run, a higher inflation hinders economic growth. There is a definite and remarkable economic impact of the monetary policy on Indian economy in the post-reform period. The importance of the monetary policy has been increasing year after year. Its role is very relevant in attaining monetary objectives, especially in managing price stability and achieving economic growth. Along with that, the use and importance of monetary weapons like bank rate, CRR, SLR, repo rate and the reverse rate have increased over the years. Repo and reverse repo rates are the most frequently used monetary techniques in recent years. The rates are varied mainly for curtailing inflation and absorbing excess liquidity thereby maintaining price stability in the economy. Thus, this short-time objective of price stability is more successful for the Indian economy rather than other long-term objectives of development. Monetary policy rules can be active or passive. The passive rule is to keep the money supply constant, which is reminiscent of Milton Friedman's money growth rule. The second rule, called the price stabilization rule, is to change the money supply in response to changes in aggregate supply or demand to keep the price level constant. The idea of an active rule is to keep the price level and hence, inflation in check. In India, this rule has been dominant, as a stable growth is a healthy growth. True economic stability isn't about keeping price fluctuations stable but rather keeping price fluctuations free from interference. Only in an environment freed from government and central bank's tampering with the economy can free fluctuations in relative prices happen. This successively goes to permit businesses to abide by the needs of consumers (i.e. will permit an efficient allocation of scarce resources). Fluctuations in prices are getting to mirror changes within the relative supply-demand conditions. For most economists, the key to healthy economic fundamentals is price stability. A stable price index, it's held, leads to the efficient use of the economy's scarce resources and hence results in better economic fundamentals. India is following a macro-economic policy that is stable and consistent and the country will continue on an economic growth path of 8 to 10 per cent per annum, a top economic advisor said on Thursday.

INFLATION:

India Inflation Rate Highest in Near 6 Years: Consumer price inflation in India increased to 7.59% in January of 2020 from 7.35% in December, above expectations of 7.4%. The inflation accelerated for the 6th straight month to the highest since May of 2014.

India November Inflation Rate Rises to Over 3-Year High: India's retail price inflation rate increased to 5.54 percent year-on-year in November 2019 from 4.62 in the previous month and compared with market expectations of 5.26 percent. A day after finance minister Nirmala Sitharaman said economic growth was rebounding, government data on Wednesday showed that retail inflation jumped to a 68-month high of 7.59 per cent in January on high food prices, while industrial output contracted by 0.3 per cent in December.The data released by National Statistical Office (NSO) raised concerns over the sustainability of `green shoots' in economic recovery and underscored the risk posed by inflation, which was cited by the Reserve Bank of India (RBI) for not cutting interest rates earlier this month. Sitharaman had, replying to the debate on her Budget for 2020-21 in both Houses of Parliament on Tuesday, stated that seven indicators, including a rebound in industrial activity reflected in positive IIP growth, and pointed towards green shoots in the economy.

OBJECTIVE OF STUDY :

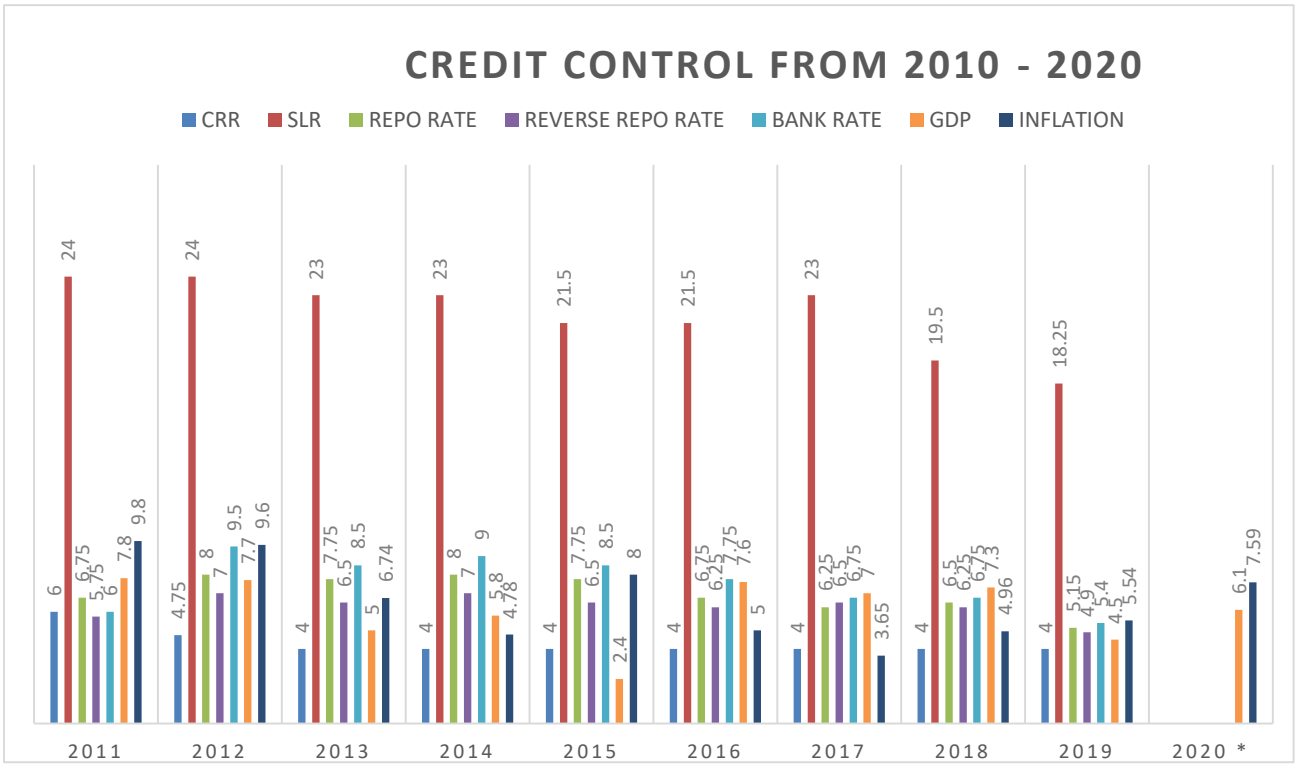
- To explore the various types of monetary policies implemented by The Reserve Bank of India and to further analyze its impact on the Indian Economy.
- To examine the ways in which RBI manipulates the monetary instruments for maintaining a flexible inflation, to have a balanced and stable economy.
- To evaluate the effects of the monetary instruments on the GDP and Inflation rate of Indian Economy

RECOMMENDATIONS:

Table 1:

Credit Control From 2011 - 2020 *							
YEAR	CRR	SLR	REPO RATE	REVERSE REPO RATE	BANK RATE	GDP	INFLATION
2011	6	24	6.75	5.75	6	7.8	9.8
2012	4.75	24	8	7	9.5	7.7	9.6
2013	4	23	7.75	6.5	8.5	5	6.74
2014	4	23	8	7	9	5.8	4.78
2015	4	21.5	7.75	6.5	8.5	2.4	8
2016	4	21.5	6.75	6.25	7.75	7.6	5
2017	4	23	6.25	6.5	6.75	7	3.65
2018	4	19.5	6.5	6.25	6.75	7.3	4.96
2019	4	18.3	5.15	4.9	5.4	4.5	5.54
2020 *						6.1	7.59

Graph.1



CONCLUSION:

RBI work as the monetary authority of India and there by operates the monetary policy. The Reserve banks development role includes ensuring credit to protect sectors of the economy, creating institutions to build financial infrastructure and expanding financial service. RBI announces monetary policy every year in the month of April. These fallout 3 quarterly reviews in July, October and January. Its advantage is that it is effective and flexible. It helps in a balanced growth by removal of sector wise imbalances. It helps in the precise control of money policy. As the same level of advantages it also has few limitations. It's difficult for the Central Bank to identify essential and non-essential sectors for the purpose of enforcing selective credit control. These monetary policies are very important to maintain a stable economy in India.

REFERENCES:

Websites:

- Bankbazzar.com
- RBI.org

Books:

1. Sandeep Garg (2019), *introductory macroeconomics* (Dhanpat Rai Publications: New Delhi).

Chapters in Books:

2. Chapter-5 – Money (Dhanpat Rai Publications: New Delhi).

One day National Conference on
"Economic Instability: Antidote for Sustainability"
26th February, 2020 at Gopalan College of Commerce, Bengaluru, Karnataka, India

Analysis of Social skill variables contributing to aptitude score associated with employability of engineering students

[1] Madhavi Wairagade, [2] Dr. Preeti Shukla
[1] Research Scholar, [2] Assistant Professor,
Department of Management Studies, Dr.C.V Raman University, Bilaspur, Chhattisgarh, India.
Email - [1] mwairagade@jit.org.in ,

Abstract: *India is one of the young countries in the world and is all set to become youngest country. However, there is a strong challenge of employability of engineering graduates. Hence there is a need to identify skill set required for making these emerging engineering graduates industry ready for entry level and also to predict the impact of various skills possessed by them on their employability. A study has been carried out to analyze the effect of students' performance in past and present in various social skill parameters like co-curricular activities, extracurricular activities, literary activities, other academic inputs, leadership activities, industry institute interaction, artistic activities etc on their performance in aptitude test conducted during campus placement drives. A sample of students from engineering colleges in Nagpur Region is considered under study. Multiple regression analysis has been used for the statistical analysis of data collected. Regression analysis is used to verify the relation between aptitude score of the students and social skill variables and it shows high positive correlation between them. It is found that performance in aptitude test shows strong positive relationship with social skills.*

Key Words: *social skills, employability.*

INTRODUCTION:

Campus placement activity is very significant for institutes, industries and students because of various reasons. The main aim of students for pursuing professional studies is to get employment after successful completion of course and be financially independent. This study has been carried out to assess the effect of students' performance in various activities during their academic life on their performance in aptitude test conducted during campus placement drives.

OBJECTIVE OF STUDY : To analyze the relation between parameters of social skills and engineering students' performance in aptitude test during campus placement drives.

LITERATURE REVIEW : *Gowsalya G. and Ashokkumar M.* investigated the existing literature in the field of employability skills prevailing in India and have reviewed the various employability skills like analytical skills, self-understanding, general management, work culture, leadership, problem solving ability and communication etc. for engineering graduates as well as university students. It emphasizes the importance of multitasking to get employment. *Prasad Hari et al.,* identified the employability skills among aspiring engineering graduates and evaluated CTEEP (Corporate Training and Employability skill Empowerment Program) and STEP (Student Training and Empowerment Program).The study concluded that, Peer Group Impact and Personal experiences plays key role in developing skills. Focused group discussions and professional networking can help to attain quick employment. *Gokuldas V. K. et al.,* identified predictors of employability of undergraduate engineering students in campus recruitment drives of Indian software companies. They have conducted a study for engineering graduates from a reputed engineering college in South India. It was observed in this study that knowledge of engineering (GPA) and proficiency in English language were two important predictors of employability for engineering graduates in campus interviews of software services companies. It was also found that, female students were better performers than their male counterparts, unlike in other core engineering sectors.

MATERIALS: Having a professional degree alone is not adequate to get a job in any organization. In the present scenario, employers seek that employees should have excellent domain knowledge along with necessary competencies in soft skills. For the purpose of this study data of performance of engineering students in various activities in past and present and also of their performance in campus placement rounds has been collected.

METHOD: In this study the effect of performance of students in these activities in past and present, on their performance in aptitude test round has been analyzed using multiple regression analysis.
The independent parameters are social skills of the students and dependant parameter is aptitude test score. The linear relationship is being represented as

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \varepsilon$$

Where,

Y = Aptitude test Score
β = Regression coefficient
X_1 = Curricular activity credit score
X_2 = Extra-curricular activity credit score
X_3 = Credits score for participation in Art related activities
X_4 = Credit score for Literary activity
X_5 = Credit score other academic input
X_6 = Credit score for participation in Industry-Institution Interaction programme
X_7 = Credits for exhibiting Leadership qualities
ε = Error term

ANALYSIS & DISCUSSION:

An attempt has been made to evaluate the effect of students' performance in different activities in their academic life on their performance in aptitude test conducted during campus placement drives. The sample consists of students from engineering colleges affiliated to Nagpur university.The social skills of the students represented through their performance in various extra and co curricular activities (like Sports, Cultural activities, paper presentation, debate, extempore speech, projects, public speaking, quiz), participation in Arts related activities, literary activities, other academic activities like computer languages and spoken languages, Industry institute interaction through summer trainings, industrial tours and visits, step up program, industry projects and leadership qualities like holding a post of monitor, president, secretary etc. in school, college, NCC, NSS, Scout / Guide, any other club or social service group. For the purpose of this study, these activities have been broadly classified into seven categories viz. co curricular activity, extra-curricular activity, participation in arts related activities, literary activity, other academic inputs, participation in Industry-Institution Interaction programme, leadership qualities etc.

ANOVA analysis

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
IV	Regression	1167.414	7	166.773	123.142	.000[b]
	Residual	841.032	621	1.354		
	Total	2008.445	628			
a. Dependent Variable: aptitude test score (f-value =2.6393 at 1% level of significance)						
b. Predictors: (Constant), leadership qualities, art, industry institute interaction, curricular activity, Extra Curricular Activity, literary activity, other academic input						

FINDINGS:

Analysis of Variance (ANOVA) between Aptitude test score and Social skill variables has shown that there is a positive relationship between students' performance in social skills and their aptitude test score in campus placement drive. The statistical analysis of data using multiple regression analysis has revealed that after putting the values of regression coefficients, the linear equation becomes:

$$Y = 2.464 + 0.04(X_5) + 0.009(X_6) - 0.118(X_7) + 0.223(X_8) + 0.442(X_9) + 0.097(X_{10}) + 0.207(X_{11})$$

RESULT:

The outcome of the study is as follows:

- 58.10% variance in aptitude test score is explained by participation and performance of students in activities mentioned above.
- It has also been found that aptitude test score is determined by participation in industry institute interaction and other academic inputs like knowledge of computer languages and spoken languages, leadership activities and literary activities.
- Among these activities, other academic inputs have been found to have highest impact on aptitude test score.
- The preference for artistic activities is inversely related to aptitude score i.e. the more the participation in artistic activities, the less will be the aptitude test score.

RECOMMENDATIONS:

Engineering institutes may take more efforts and encourage students to gain technical knowledge beyond their syllabus like various certification courses related to various latest technical aspects, communication skills, improvement in spoken languages etc. and also to participate and excel in literary and leadership activities. They should be encouraged to actively participate and take the responsibility of monitor, president, secretary etc. in school, college, NCC, NSS, Scout / Guide, any other club or social service group, cultural or social events. All this will in turn improve the employability of engineering graduates.

CONCLUSION:

From the above study it can be concluded that performance in aptitude test is largely affected by participation of students in activities related to other academic inputs like computer languages and spoken languages etc. followed by literary and leadership activities. However, those students who had inclination or preference for artistic activities were not able to get higher scores in aptitude test.

REFERENCES:

1. Gowsalya G. and Ashokkumar M. (2015), Employability Skill: A Literature Review, published in International Journal of Advance Research in Computer Science and Management Studies, Volume 3, Issue 3, pp. 353-60, March 2015.
2. Prasad Hari et al., Alarming Employability Skills Deficiency among Budding Engineering Graduates – a study on engineering graduates in Chittoor District", Journal of Management Research, Volume 3, Issue 1, ISSN 2347- 4270, 2014.
3. Gokuladas V. K., Technical and non-technical education and the employability of engineering graduates: an Indian case study, International Journal of Training and Development 14:2, ISSN 1360-3736.

One day National Conference on
"Economic Instability: Antidote for Sustainability"
26th February, 2020 at Gopalan College of Commerce, Bengaluru, Karnataka, India

SUSTAINABLE DEVELOPMENT: AN ECOLOGICAL ECONOMICS PERSPECTIVE

Mr. AYYAPPAN N.
Assistant Professor, Hindustan Business School, Bengaluru, Karnataka
Email - appuammu1328@gmail.com

Abstract: *This paper offers a definition of sustainable development from an ecological economics perspective. For this, it begins with a historical analysis of the sustainable development concept from its origins as eco-development to its present formulation as green economy. It follows an assessment of the weak sustainability concept premises, which allows the neoclassical environmental economics not to take into full account the natural reality in its environmental policy proposals. The analysis of the ecological economics theoretical foundations, in turn, has made it possible to conceive a strictly ecological definition of sustainability, a necessary condition for the sustainable development definition proposed. Finally, the paper deals with the problem of slowing down the economy to zero growth without causing a crisis and the problem of changing the consumption expectations in consumption societies. A definition of sustainable development is then proposed.*

Key Words: *Sustainable development, Ecological sustainability, Thermodynamic equilibrium, Zero growth, Steady state.*

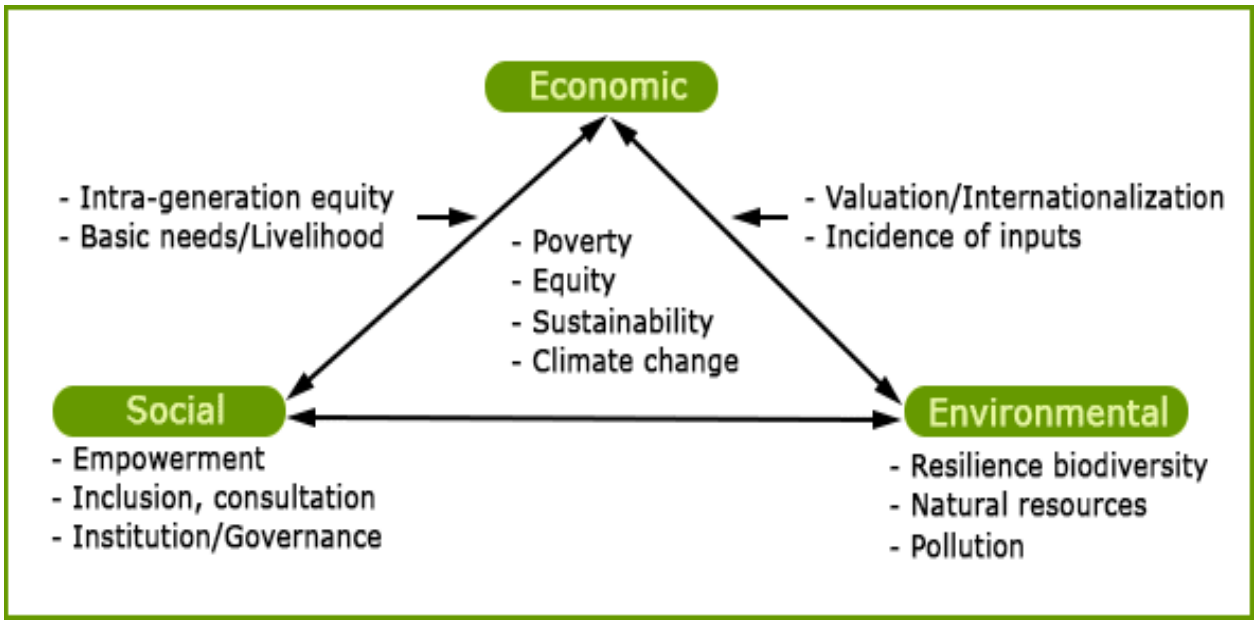
INTRODUCTION:-

This paper aims to provide a definition of sustainable development from an ecological economics perspective. Since the term emerged in the 1970s under the name of eco-development, its most accurate definition has been the object of controversy. To be sustainable, development must be economically sustainable (or efficient), socially desirable (or inclusive) and ecologically prudent (or balanced). The first two criteria were present in the debate on economic development started in the post-war period. The third is new. The terms "sustained economic growth" and "exclusionary economic growth" opposed the neoclassical mainstream current to the heterodox, Marxist and structuralism currents. To the first, sustained economic growth[1] was open as a possibility to all countries, being a necessary and sufficient condition for social inclusion. To the second, on the contrary, economic growth and its benefits were for the few, the core capitalist countries. Marxists and structuralisms disagreed among themselves, however, about the causes of the fact. Nonetheless, they have all rejected the idea of environmental limits to growth as proposed by the Club of Rome. The environmental criterion proposed by eco-development lists was acceptable to these currents, but the way they integrated it to the other criteria put them in a unique position in this debate. The goal of the second section of this paper is to analyze this trajectory of formulation and evolution of the concept of eco-development. Due to their assumptions and propositions, eco-development lists have taken a unique position vis-à-vis other currents under debate: they shared the rejections of the idea of zero growth; but differentiated themselves from each of them: in relation to the mainstream, because of their concern for potentially important environmental losses and poverty and income concentration; in relation to Marxism and structuralism, for assuming that the situation of poor countries resulted from predominantly endogenous factors.

OBJECTIVES OF STUDY:

- *Objectives of the economic system* - maximizing the amount of goods and services produced in the techno sphere, maximizing the efficient use of mineral resource flows, biological, energy and information flows; adaptation technologies mineral resources and reprocessing products.
- *Objectives of the social system* - equitable allocation of goods and services between the social contract partners at local, national or global; adequate training of all members of society in socio-economic process; creating, using and adapting permanent structures and mechanisms of political, institutional or related to information management systems that provide flexibility and self-regulation of social and economic; correlation systems evolution economic, social and environmental; maintaining cultural diversity to support faster adaptation of chance.

- *Objectives of the ecological system* - maintaining biodiversity in support of the possibility of adapting the schimbarea conditiilor geo biosphere; compliance mechanisms of self-regulation and the natural cycle times in the biosphere.



REVIEW OF LITERATURE:

The concept of sustainable development in its most recent disguise of *green economy* reflects this problem in that it incorporates the need for adopting sustainability parameters while taking into account the environmental risk. Regarding the alleged "trade-off" between economic growth and the environment, its inexistence is reaffirmed, but reinforcing especially the arguments that justify this assumption based on expectations of advances in the generation of "triple winner" technologies: in social, economic and environment terms. The third section of the paper presents the theoretical foundations that justify the position of the mainstream rejection of the conclusions of the Club of Rome report and of optimism about the ability to overcome only relative environmental limits to economic growth. This optimism stems from two assumptions: there are almost no limits to increased efficiency in the use of natural resources, and these can be largely replaced by capital. The environmental problem is seen primarily as a market failure due to the nature of natural resources such as air and water as public goods, thus generating a negative externality problem. In this sense, the most efficient environmental policy is one that creates the conditions for economic agents to "internalize" the costs of the degradation they cause. State action is necessary only to correct this market failure, through either privatization or the pricing of natural resources. Once these failures have been resolved to ensure the correct economic signals of the relative scarcity of these environmental services, the dynamic of intertemporal allocation of resources based on cost-benefit assessments would tend to be processed efficiently, with no problems such as uncertainty and risk of irreversible losses. It must be said, however, that not everyone in this current has accepted these logical conclusions based on the assumptions made, considering that there are many situations in which one should opt for the preservation of a given ecosystem due to its importance and irreplaceability. In the fourth and fifth sections, the paper elaborates on the argument for defining sustainable development from an ecological economics perspective. In the fourth section, initially the criticism of environmental economics assumptions enables developing a concept of ecological sustainability that does not exist in the various definitions of sustainable development. It is not possible to increase indefinitely the efficient use of natural resources (second law of thermodynamics), and capital is essentially complementary to natural resources, which are represented especially by complex ecosystems that are vital for human survival. Therefore, the production of materials/energy cannot be indefinitely increased, and this will require the end of economic growth at some point, to prevent the carrying capacity of the planet – which science in unable to accurately estimate - from being exceeded. From these assumptions, the central issue for ecological economics is how to get the economy to work while accepting the existence of these limits. Two action plans need to be considered:

- One concerns specific policies for each type of environmental problem to be tackled;
- The other is related to the stabilization of the system's expansion at a sustainable level - zero growth.

Regarding the first action plan, in the case of ecological economics, reversing the rationale behind the decision of environmental economics would suffice: the amount of natural resources to be used - *scale* - must be previously defined based on ecological sustainability parameters. Setting limits to the use of natural resources raises the problem of their *distribution* among the various actors, which should be based on the criterion of justice. Finally, the market will be responsible for the efficient *allocation* of investments within the framework of these ecological and

social constraints. As for the second action plan, which is the topic of the fifth and final section, the paper briefly examines the two problems to be addressed for achieving zero growth:

- Stopping economic growth without generating a crisis;
- Consumer expectations in consumer societies.

The technical solution to the first problem is especially the formulation of macroeconomic policies, an environmental macroeconomics. Specifically, it entails facing, for example, the issue of employment, inequality, and incentive to technological innovation. The legitimacy for implementing these policies depends on the solution to the second problem, the one about consumer expectations that legitimates economic growth policies. The acceptance by the population of consumption constraints for the benefit of the populations of other countries and/or of a distant future necessarily implies a certain amount of altruism. However, the necessary altruism that legitimizes zero growth policies can be enhanced by the growing realization that the current level of material comfort is more than enough, and that continuing growth efforts will produce more harm than good. A definition of sustainable development is therefore proposed.

The concept of sustainable development:

The concept of *sustainable development* emerged under the name of eco*development* in the 1970s. It resulted from the effort to find a third alternative path to those that put development lists on the one side and advocates of zero growth on the other. For the latter, called "zeroists" or (pejoratively) "neo-Malthusians", environmental limits would lead to catastrophes if economic growth were not stopped. The controversy that put development lists against "zeroists" began with the publication of the report prepared by the Meadows couple, from MIT, under the auspices of the Club of Rome, on environmental limits to economic growth whose conclusion was that economic growth needed to be stopped to prevent the depletion of natural resources and pollution from causing a sharp drop in living standards. The first United Nations Conference on Environment held in Stockholm in 1972 was the stage of this polarization that tended to generate deadlocks. This conclusion came at a time of strong global economic growth driven by the recovery from the post-war chaos ("The Glorious Thirty") and the rise of some emerging nations such as the "Asian Tigers" and of Brazil as the country of the "economic miracle". In turn, the vast majority of countries remained poor, with problems to start a process of sustained economic growth. Until then the great controversy about economic development put on the one side those who saw the scenario of global inequality as a problem of historical stages in the process of economic growth, i.e., each country would be able, at a given time, to start a trajectory of sustained economic growth, which was seen as a necessary and sufficient condition for social development. The difficulties that many countries faced in order to meet the conditions necessary to take off towards the process of sustained economic growth resulted primarily from *endogenous factors* (Rostow, 1960). On the other side were those who saw both international inequality and national inequality (concentrated income distribution in poor countries) as a result of some form of perverse articulation between rich and poor countries for the benefit of the first and of a minority, small elite, in the latter. In other words, inequality stemmed primarily from *exogenous factors* related to the form of unfavorable inclusion of poor countries in the international division of labor. Initially, all currents rejected the conclusions of the Club of Rome report. To mainstream economists firstly because there were theoretical reasons (which will be discussed in the next section) to reject the idea that natural resources could represent an absolute limit to economic growth; and secondly because of the socioeconomic and political consequences of zero growth for both poor and rich countries. To the representatives of the second current there were no theoretical reasons to justify defending the lack of environmental limits to economic growth. The problem was also in the socio-economic implications of this idea, but related to the perpetuation of exclusion in favor of central capitalist countries. The first UN reactions following the Stockholm Conference, with the support of eco-development lists, were not only to defend the need for economic growth in poor countries, but also to consider poverty itself as one of the root causes of environmental problems in those countries. According to the *Cocoyok Declaration (1974),* the population boom would be the result of the lack of all types of resources, which in turn would lead this population to overuse the land, water and other natural resources. The responsibility of industrialized countries to the problems of underdevelopment would lie in over-consumption. They would have to reduce their consumption levels and disproportionate participation in the pollution of the biosphere. The positions taken in *Cocoyok* were consolidated in the Dag-Hammarskjöld Report (1975), which goes further to pinpoint the responsibilities of industrialized countries resulting from the legacy of colonialism. The colonial system would have concentrated the land suitable for agriculture in the hands of a social minority and European settlers. Consequently, large masses of the original population were expelled and marginalized, and forced to use less suitable land.

The conciliatory proposition of eco-development lists is based on a normative concept of what development can and should be: it is possible to maintain efficient (sustainable) economic growth in the long term alongside improved social conditions (by distributing income) while respecting the environment. However, efficient economic growth is seen as a necessary but not sufficient condition for improving human welfare: the desired income distribution (the primary indicator of social inclusion) does not automatically result from economic growth, which can be socially exclusionary; specific public policies designed to prevent growth from benefiting only a minority are necessary; likewise, the ecological balance can be adversely affected by economic growth and limit it in the long run

without the help of ecologically prudent policies that encourage the increase of eco-efficiency and reduce the risk of potentially important environmental losses. In the case of poor countries, this set of policies would provide an opportunity for them to start a process of sustained economic growth, distributing income and avoiding repeating the trajectory of environmental impacts of developed countries. More than an opportunity, these policies would be the very condition for a development based chiefly on the endogenous forces of those countries ("self reliance"). Because of their assumptions and propositions, eco-developmentalists have taken a unique position in relation to other currents under debate: they share with all of them the rejection of the zero growth idea, but differentiate themselves from each of them: in relation to the mainstream for its concern about potentially important environmental losses and poverty and income concentration; in relation to Marxism and structuralism, because they assumed that the situation of poor countries resulted from essentially endogenous factors, although they also pointed to the need for developed countries to show solidarity in the struggle to overcome international inequality - either by increasing foreign aid or by correcting business and financial mechanisms that are unfavorable to developing countries (see Sachs, 1981, 1986). At the beginning of the following decade, UNEP organized the Nairobi Conference in 1982, when the decision was made to create a World Commission on Environment and Development under the leadership of the Prime Minister of Norway, Gro Harlem Brundtland. The results of the effort were made public in 1987, in a document entitled *Our Common Future, a*lso known as the Brundtland Report (1991). Similarly to eco-development lists, the authors of the report considered that the environmental risk of economic growth should be taken seriously, a concern that was expressed in the motto defining what should be understood as sustainable development: "the development that meets the needs of the present without compromising the ability of future generations to meet their own needs." Sustainable development can be achieved through a set of policies capable of simultaneously guaranteeing the increase in national income and access to basic social rights (economic security, access to health and education) and reducing the impact of increased production and consumption on the environment. Thereafter, the term "sustainable development" has replaced almost completely the term "eco-development", while expressing the same normative concept.

The second UN Conference on the environment took place in Rio de Janeiro, Brazil, the same year in which an update of the first Club of Rome report was published ratifying the key conclusions of the original document. Interestingly, twenty years after the first conference, it had become clearer that technical progress - the magic wand of optimistic developmentalists - had been much more efficient in addressing the issue of the environment as (a) a provider of raw materials than in confronting the issue of the environment as (b) a provider of ecosystem services: (a) the prices of raw materials had fallen, t*hanks to technical progress* in the exploitation of natural resources, in the replacement of expensive inputs for cheaper ones, and in the (ecological) efficiency of their use; (b) however, pollution and the degradation of ecosystems had increased *despite technical progress.* This second fact (b) is reflected in the updated report of the Club of Rome, whose main highlight is the destruction of ecosystems and its implications in the carrying capacity of the planet, to the extent that ecosystems as a whole provide the main ecosystem service, i.e., the ability to absorb and recycle the waste generated by human activities. The risk of depletion of non-renewable raw materials, especially oil, pales before this. In any event, the conclusion of the analysis remains the same: economic growth needs to be stopped. Another important fact to note in the socioeconomic context of that time was the realization - taking Brazil was an iconic case - that economic growth by itself could be highly exclusionary. High-income concentrations could persist despite years of strong economic growth, because of structural problems that could only be solved through more active State intervention. These facts have contributed to strengthen the position of advocates of the concept of sustainable development: there is a risk of important environmental losses, and economic growth can be socially exclusionary; the solution is a set of public policies that remove structural obstacles to the dynamic redistribution of income and address environmental problems with caution and ecological efficiency (technical progress). The emergence of the global warming issues in the 1990s, however, ultimately brougth the debate to a new level in relation to two key aspects: (a) the assessment of environmental risk; (b) the "trade-off" between economic growth and the environment. Regarding the first aspect, the notion of prudence gives way to the most appropriate and accurate concept of Precaution, raised to the condition of principle - formally adopted at the Rio 92 Conference. Prudence applies to situations of risk in which the distribution of probabilities is known. Precaution applies when there is uncertainty. In the first case, safety procedures can be defined with probable margins of precision, thus enabling maintaining a given course of action. In the second case there is only one safety procedure: stopping or reducing the course of action in order to buy time for the acquisition of new knowledge that reduces or eliminates uncertainty (Hourcade, 1997). In the case of global warming and its confrontation based on the Precautionary Principle (as proposed by the Kyoto Protocol), the issue of ecosystem uncertainty highlights the second aspect, since the rapid reduction of emissions is costly. Although eco-development lists have not denied the existence of some sort of "trade-off" between economic growth and the environment, the assumption was that this trade-off would be negligible provided that the set of proposed policies was adopted. Policies that supposedly addressed the risk of environmental losses in a proper way, based on prudence. Actually, this "trade-off" has become the main reason for results to fall short of what was expected in the successive conferences on the environment after Rio-92. The difficulties in implementing the Kyoto Protocol have reinforced the position - based on the work of William Nordhaus – of the advocates of smooth, low cost induction of change in the energy matrix (decarbonization) through moderate

fees on fossil fuels, which minimizes or ignores the uncertainty about the possibility of potentially catastrophic, irreversible losses. In turn, the reports of the Intergovernmental Panel on Climate Change (IPCC) have reinforced the arguments of environmentalists in favor of stronger action to reduce emissions. The Stern Review (2006) represented something of an effort to respond to the recurring deadlock: by agreeing with environmentalists (and ecological economists), it accepts upfront the need to identify a sustainable scale (it considers a maximum temperature rise of 2°C). Stern criticizes the gradualism of Nordhaus, considering the risk of important environmental losses if the temperature rises above that limit. Once a limit has been established - which represents a scale of use of natural resources – it will be then necessary to seek a cost-effective solution. His decision rule is that of environmental efficacy and cost-effectiveness. To him, gradualist models such as that of Nordhaus do not reckon a number of impacts and, in particular, catastrophic impacts. Regarding the latter, Stern works with subjective probability distributions although, as pointed out by Vale (2011, p.127), he recognizes not being sure about which probability distribution he should use and so he arbitrarily increases the estimated costs of inaction. The explicit concern about intergenerational distribution (and justice) leads him also to adopt a very low, close to zero discount rate. However, he explicitly rejects the idea of zero growth as the ultimate solution to the environmental problem. Similarly, to eco-developmentalists, he proposes a set of environmental policies capable of taking the environmental risk into account, but with low "trade-off" between economic growth and the environment. In contrast, however, he structures these policies based on a framework of macroeconomic scenarios where the environmental costs of inaction are estimated.

In the recent report of the United Nations Environment Program on Green Economy (UNEP, 2011), the fundamental eco-developmental premise is explicitly stated, but similar to the Stern Review it is included in a stricter macro-economic analytical framework. Two key aspects of this analytical scheme deserve to be highlighted: firstly, environmental risks can be estimated, therefore enabling the simulation of scenarios showing the cost-benefit of adopting a particular set of policies; secondly, the problems stem primarily from the inefficient allocation of production factors; this inefficiency, in turn, results from market failures related to ecosystem services, as well as from wrong incentives arising from existing public policies. Also worth noting is the explicit adoption of the "unorthodox" premise that capital and natural resources are not perfect substitutes; ecosystem services in particular would be very limitedly replaced by capital. Policy proposals are a mix of command and control policies and with policies based on economic instruments. In relation to the first, an aggressive environmental regulation is also recommended to anticipate future scarcity. As for the second, beyond the pricing of ecosystem services, it will be necessary to virtually reverse the signals of an economic incentive structure which, in key-sectors such as energy and transport favor the use of fossil fuels and individual transport. Developing countries have specificities - such as large portions of the population still living on forestry activities and small subsistence agriculture - that need to be addressed through specific policies. Supposedly, the "greening" of these activities would be capable of simultaneously increasing the supply of jobs and labor productivity and therefore of income. There is no "trade-off" between economic growth and the environment. The issue of environmental limits raised by the Club of Rome would be nothing but a "myth".There is a great expectation towards the role of technology: "green" technologies which are "triple winner": environmentally friendly, socially appropriate and economically efficient. Another UN report (DESA, 2011), whose title precisely expresses this expectation, indicates the policies required to stimulate technological change, especially so that emerging countries may be able to "leapfrog" directly into these new triple-winner technologies. The technological revolution of the green economy would be different for three reasons: (a) the short period of time within which it should occur given the pressure on ecosystems; (b) because of that and the limitations of market mechanisms, governments will have to play a much more active role in the production and dissemination of technology; (c) the need for international cooperation, since the main environmental problems are global in nature.

Analysis & Interpretation:

Environmental economics: the thermodynamic Saci and the capitalist Midas:

From the point of view of *environmental economics* (neoclassical mainstream), natural resources (as a source of both inputs and ecosystem services) do not represent, in the long run, an absolute limit to economic growth. This position is based on two premises: (a) there are almost no limits for scientific / technological progress to increase efficiency in the use of natural resources (eco-efficiency); and (b) capital, labor and natural resources can perfectly replace one another. Thus, on the one hand waste emission would tend towards zero with the endless increase in the efficient use of natural resources, causing the progressive decoupling of the economic growth process from its materials/energy base; the economy operates in a world as if the second law of thermodynamics, the Law of Entropy, does not apply. In turn, natural ecosystems that are inevitably lost due to human expansion would be easily replaced by capital. Therefore, it is a world where a *thermodynamic saci pererê* and a *capitalist king Midas* working together would guarantee perpetual economic growth. Thus, the availability of natural resources (NR) can be a constraint to economic growth, but only a relative constraint that can be *indefinitely* overcome by scientific and technological progress. It all happens as if the economic system could move smoothly from a resource base to another as each of them is exhausted, with scientific and technological progress as the key variable to ensure that the replacement process

will not limit economic growth, thus guaranteeing its sustainability in the long term. At the limit, as provocatively stated by Solow (1974), the economy could get along without natural resources! In the literature this idea became known through the concept of *weak sustainability*. An economy is considered "non-sustainable" if gross savings are less than the combined depreciation of produced and non-produced assets – natural Resources (Atkinson et al.,1997). The underlying idea is that investment compensates future generations for asset losses caused by current consumption and production (formally presented by the "Hartwick rule"). It would have been empirically observed that the natural evolution of the individuals' preferences resulting from the economic growth process itself would be towards lower tolerance of this growing shortage of these services due to pollution, representing what can be expressed as an Environmental Kuznets Curve (**Figure 1**): as per capita income rises with economic growth, environmental degradation increases up to a point from which the environmental quality starts to improve. The explanation for this would be that in the early stages of the economic development process, increasing environmental degradation is accepted as a negative, but inevitable, side effect. However, after a certain level of economic well-being, people become more sensitive and willing to pay for the improvement of environmental quality, which would have led to the introduction of institutional innovations and organizational measures to correct market failures arising from the public nature of most environmental services. These institutional and organizational innovations, in turn, guarantee a pace of introduction of technical innovations in production processes capable of compensating for the pressure of economic activities on the environment (Grossman and Krueger, 1995).

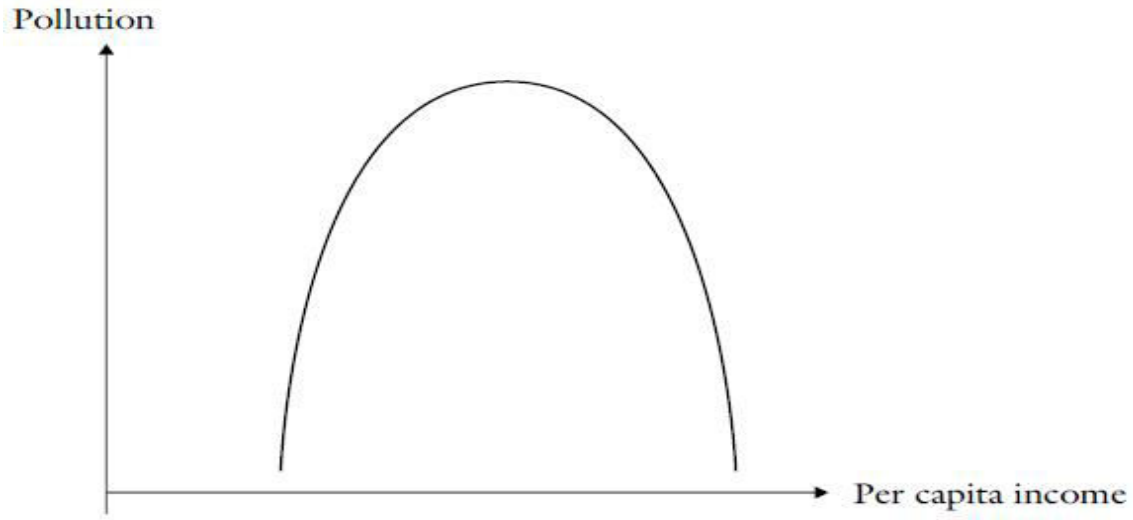


Figure 1 – The Environmental Kuznets Curve

The optimal solution would be that which could somehow create the conditions for the free operation of market mechanisms: either directly, through the elimination of the public nature of these goods and services by defining property rights over them (Coasian bargaining), or indirectly through the economic valuation of the deterioration of these goods and the application of these values by the state through taxes (Pigouvian tax). The first would entail privatizing resources such as water, air etc. which, among other obstacles, would collide with the high transaction costs arising from bargaining processes involving hundreds or even thousands of agents. The second assumes that it is possible to calculate the values from a marginal curve of environmental degradation. Thus, economic agents would enjoy a trade-off between their (marginal) pollution control costs and the (marginal) costs of environmental impacts (externalities) caused by their production activities, which they would be forced to "internalize" by paying the corresponding taxes (prices) (**Figure 2**)**:** economic agents will seek to minimize the total cost resulting from the sum of how much they will spend to control pollution (control cost) with the amount to be paid for pollution taxes (degradation cost). The optimization point is called "optimal pollution", in which the total cost is minimized. The most efficient environmental policy is that which creates the conditions through pricing for economic agents to "internalize" the costs of the degradation they cause. Ensuring "sustainability" would be ultimately a problem of intertemporal *allocation* of resources between consumption and investment by rational economic agents whose motivations maximize utility. Collective action (through the State) is necessary only to correct market failures that occur because most environmental services are public goods (air, water, ability to absorb waste, etc.) and therefore have no price. Once these failures have been resolved to ensure the correct economic signals of the relative scarcity of these environmental services, the dynamics of the intertemporal allocation of resources based on cost-benefit assessments would tend to be processed efficiently, with no problems of uncertainty and risk of irreversible losses. Not everyone, however, has accepted that this logical conclusion based on the assumptions made. For long, economists participating in this current have been concerned about the risk of potentially important irreversible environmental losses; important in that they can cause significant losses of well-being that could be prevented. This

dilemma between the conservation and exhaustion of a given ecosystem has been structured as a discrete choice issue, which recognizes that there are many situations in which the full conservation or the irreversible transformation of a given ecosystem can be legitimately claimed. The problem is defining which one. And economists, as noted by Pearce & Turner (1990), have not solved this problem. However, they have proposed some pioneering methods that could contribute to that, such as those by Krutilla & Fisher (1985), Ciriacy-Wantrup (1952) and Bishop (1978).

Krutilla & Fisher have developed an algorithm to ensure that the benefits of the conservation option are correctly factored into the basic equation of a cost-benefit analysis applied to the environmental problem. Thus, the estimated value of the benefits that the conservation of a given resource would entail begins to be treated as part of the costs of the development project. This value, in turn, takes into account the fact that the price of this natural resource (δ) would tend to increase over time, as it becomes progressively scarcer. Furthermore, it is believed that technical progress (φ) can have a negative effect on the economic viability of the development project in question (or of maintaining a given course of action) by making other investment options attractive. The introduction of the price factor and the technology factor differentiates the Krutilla-Fisher algorithm from more conventional analysis by moving the "benefit of the doubt" to the conservation side. Thus, the risks inherent in the cost-benefit analysis would be reduced in situations in which the losses can be very importantes. The pioneering work of William Nordhaus (1993, 2008) is the main reference in the "mainstream" effort to treat with rigor a problem that in theory should not require special treatment. Theoretically, the problem of global warming could be solved like that of any other environmental externality resulting from a market failure in the use of public natural resources, by pricing the ecosystem service of climate regulation. Thus, as the cost of warming increases progressively, the market would induce the introduction of technological solutions that reduce the cost of controlling greenhouse gas emissions (mitigation). Initially, as pointed out by Vale (2011), Nordhaus found that the *laissez-faire* would not be enough, and that State intervention beyond pricing would be required (as in the establishment of minimum efficiency standards for engines), in order to force a faster adjustment of emissions to adequate safety levels. However, he abandoned this idea, which is alien to neoclassical orthodoxy, to favor a strictly orthodox treatment of internalization of a global environmental externality. The big challenge, then, would be to estimate marginal curves of control cost (mitigation) and pollution cost for a complex and very Long-term global problem. Nordhaus' feat was precisely that, i.e., to estimate a very long-term marginal cost curve for global warming based on the optimization of an intertemporal economic growth model, which would enable putting a price on the ecosystem service of CO_2 absorption capable of, when added to the prices of fossil fuels, *internalizing* (and solving) the global warming issue.

Considering the structure of the Krutilla-Fisher algorithm, Nordhaus' model has the effect of making clear to economic agents the benefits of changing the current energy mix based on fossil fuels: over time, the present value of the benefits of the current energy mix falls due to technical progress (κ) in alternative sources (mitigation costs), while the value (δ) of the service ecosystem of CO_2 absorption, as measured by the cost of emissions, increases because of its growing scarcity, until it is completely replaced by another energy mix ("backstop technology"). These movements characterize a 'ramp': between 1990 and 2010 carbon prices should rise slightly because environmental damages would be few and technological options would be costly. As of 2010, prices should rise sharply. Thus, Nordhaus manages to maintain allocative efficiency as a rule of decision in terms of marginal cost-benefit to address an environmental problem that he had singled out initially as deserving special, non-marginalist State action.

Ecological economics: sustainable scale and the law of entropy:

From the standpoint of *ecological economics,* the environment represents an absolute limit to the expansion of the economy, which is one of its subsystems. However, if by definition a subsystem cannot be larger than the system that contains it, its size in relation to the whole does not have the system as its maximum limit, but rather its carrying capacity, which is defined by thresholds of ecosystem resilience. This is one of the fundamental premises of ecological economics that has its origin in the work of Kenneth E. Boulding. To illustrate this idea, Boulding (1966) uses the analogy of the "cowboy economy" and the "spaceship economy". In the first, the economic subsystem - the cowboy in the Great Plains – does not have enough critical mass to cause some important irreversible ecosystem impact; in the latter, the size of the economic subsystem - the spaceship crew - is large enough to endanger its own survival if the resources available are not handled carefully. It is not possible to replace essential ecosystem services with capital. Natural resources (natural capital) are complementary to capital and/or labor. The current size of the economic subsystem and its rapid expansion bring the planet ("Spaceship Earth") closer to the second. With regard to population growth, all, including neoclassical environmental economists, generally accept the idea of limits of "Spaceship Earth". The difficulty lies in the idea that economic growth, increasing production and per capita income are also limited by the size of Spaceship Earth. This limitation is due to the law of entropy, according to which no productive matter and energy change activity (first law of thermodynamics) is possible without an irreversible entropic degradation process that generates waste (second law of thermodynamics); it is possible to reduce the amount of waste by increasing eco-efficiency, but beyond a certain point there are insurmountable entropic limits. This is another fundamental premise of Ecological Economics which has its origin especially in the work of N. Georgescu-Roegen (1971). Based on these two assumptions, Herman Daly (1996), the pioneer responsible for incorporating these ideas into a theoretical body that founded ecological economics, concludes that the total waste inevitably generated by the extraction, processing and

consumption of natural resources in a given period of time (which he calls "throughput") cannot exceed the carrying capacity of the Earth and that, therefore, zero growth is the only way to prevent that from happening. The thermodynamic destabilizing effects of human activities result from two sources. The first source of imbalance is the expansion of human occupation of the space. Rich estuarine ecosystems give way to cities and ports; huge natural spaces are radically transformed by agriculture, forestry and animal husbandry. The second is the introduction of materials and energy from sources exogenous to the system. The minerals found in the Earth's crust at concentration levels (mines) that economically justify their exploitation are inert, i.e., they either do not interact or interact only marginally with biological activities in the ecosphere. The mining, processing and consumption of these materials result in the production of waste that will be dispersed in the ecosphere, forcing ecosystems to adapt in order to absorb them. Depending on the amount, this waste represents a source of pollution that can affect or even destroy the ability of ecosystems to provide services. These activities have impacts similar to those of volcanoes, with the difference, however, of being selective: the volcanoes spew especially relatively high entropy materials such as silica, which are abundant in nature, so that their assimilation by ecosystems is easier (besides the fact that ecosystems have co-evolved with volcanic activities for hundreds of millions of years); human mineral extraction practices, on the contrary, are focused on low-entropy materials concentrated in certain places by telluric forces for million years, thus hindering their assimilation by ecosystems. Added to these materials are those produced artificially, an already huge number of new substances whose impacts on ecosystems and directly on humans are not well known, such as POPs (Persistent Organic Pollutants), hormone-mimicking molecules, etc. In the long term, therefore, the sustainability of the economic system is not possible without the stabilization of waste (and heat) production levels according to the carrying capacity of the planet. This is the biggest limiting factor: the environment as a producer of ecosystem services and not as a producer of non-renewable raw materials. Services that cannot be replaced by capital and that the market is incapable of adequately taking into account.

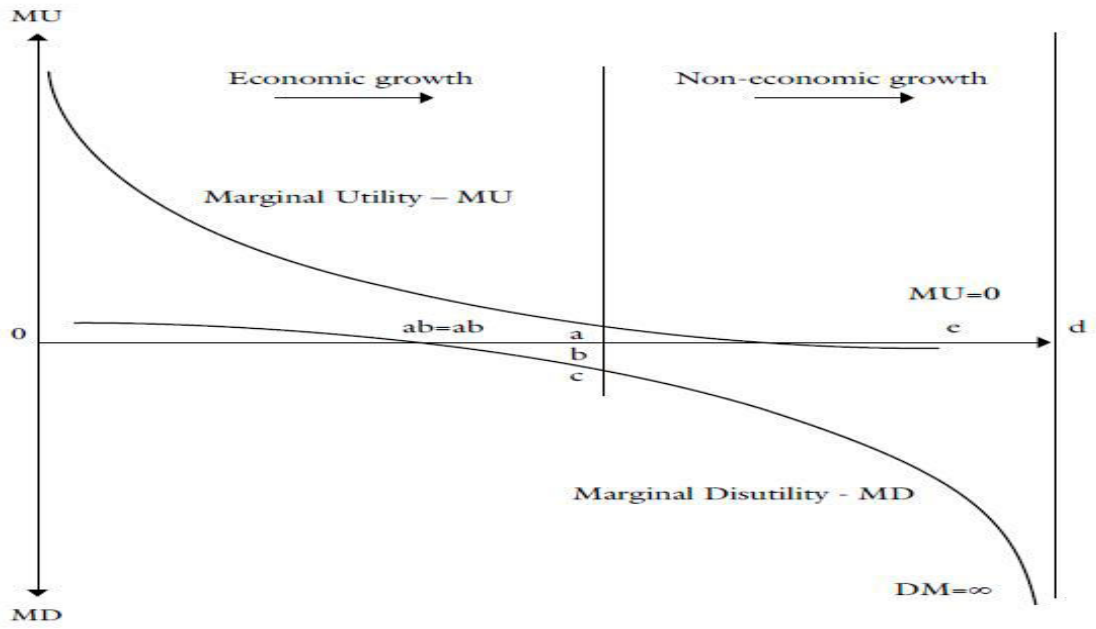
Once the existence of a carrying capacity that cannot be exceeded is recognized, the next issue is its size. To what extent human pressure on ecosystems can be absorbed by these without a catastrophic rupture? Great efforts have been made in this regard. According to Rockstrom et al. (2009a, 2009b), for example, the current scale of human activities would have already exceeded the limits of ecosystem services of biodiversity, nitrogen cycle and climate regulation. However, although these efforts are required, it must be recognized that these ecosystem services result from complex ecosystems that have, *inter alia*, the property of resilience, i.e., the ability to rebalance without rupturing (or phase shift, to use a more precise thermodynamics language), whose *threshold* cannot be fully known. It is a radical uncertainty that science is unable to solve. From these assumptions, the central question for ecological economics is how to get the economy to operate while accepting the existence of these limits. Two action plans need to be considered: (a) one relates to specific policies for each type of environmental problem to be addressed; (b) the other to the stabilization of global waste production at sustainable levels - zero growth. Conventional environmental economics, as we saw earlier, only takes into account the first action plan, in that it ignores the existence of environmental limits to growth, based on the possibility of unlimited replacement of scarce resources with abundant resources and/or capital. In the case of environmental goods traded in the markets (material and energy inputs), it is assumed that the growing shortage of a particular good raises its price, thus leading to the introduction of innovations that enable saving it and, at the limit, replacing it with other, more abundant resources, whose stocks the economic agents are supposed to know, along with quality differences, the future course of technological progress, and demand itself. In fact, as pointed out by Daly (1996), the prices reflect the availability of each resource regardless of the total stock of resources, thus preventing them from being used to signal an optimal extraction process from the standpoint of sustainability. In the case of environmental services not traded in the market due to their nature as public goods, the adjustment mechanism proposed does not take into account key ecological principles to ensure sustainability, in that this mechanism is based on cost-benefit calculation by economic agents with a view to *allocating* resources between investments in pollution control and payment of pollution fees to minimize the total cost. The fees, in turn, will be calculated based on either a set of economic valuation methodologies that measure directly or indirectly the willingness of individuals to pay for environmental goods and services.

Therefore, the point of equilibrium, known as "optimal pollution", is about economic and not ecological balance since, as pointed out by Godard (1992), one cannot talk about balance in economic terms when the assimilative capacity of the medium is exceeded, which is the case in point considering that pollution remains. The fact that the assimilative capacity is exceeded in a given period (t) reduces the assimilative capacity in the following period and so forth, and may result in *irreversible* loss. There is therefore a "net destruction", and only their second order effects are taken into account, i.e., those that affect the level of well-being of other agents in the short term. This adjustment mechanism implies that technology and preferences (and, implicitly, income distribution) are used as nonphysical *parameters* that determine a position of equilibrium in which the physical *variables* of the quantities of goods and services used (*scale*) are adjusted. Thus, it is the *allocation* of investments in pollution control and payment, according to the technology and optimizing preferences of the agents, that determines the scale of use of natural resources.

In the case of the ecological economics, this process needs to be reversed, starting by determining the sustainable scale of use of natural resources. Thus, what used to be process adjustment variables (amount of ecosystem goods and services to be used) are now being treated as physical parameters of ecological sustainability, to which the (now) nonphysical variables of technology and preferences should adjust. Because of the technology, the latter begin to be limited by the scale. Determining a *sustainable scale,* in turn, involves other values besides the individual pursuit of maximizing gain or well-being, such as solidarity between and within generations. These values have to be affirmed in the context of scientific controversies and uncertainties in complex cases such as those of global environmental problems. In such cases, the scale deemed sustainable can only be determined through collective decision-making processes, from perspective of application of the *Precautionary Principle.* Thus, without a collective intervention to define the scale that society deems sustainable, the improvement of environmental quality induced by environmental degradation (the Environmental Kuznets Curve) tends to be limited to the degradation that affects the level of well-being of the very agents making the decision (such as that caused by the emission of sulfurous gases, particulates, disposal of domestic sewage, etc.), leaving aside that whose effects involve more dispersed and long-term costs as is the case, for example, of the degradation caused by the emission of carbon dioxide responsible for the greenhouse effect (Arrow et al. 1995). Once the sustainable *scale* has been determined, the issue of distribution of the right of access - which has become restricted - to a particular ecosystem good or service follows suit. This issue does not exist in the conventional analytical scheme, since there are no environmental limits. The basic distribution criterion should be one that society considers fair. Once the distribution of the right of access based on a fairness criterion accepted by all has been defined, the *allocation* of available resources between investments in pollution control and investments in pollution payment should be made based on market criteria. In the case of global warming, the policies proposed by the Kyoto Protocol followed this analytical framework. A sustainable scale of use regarding the capacity to absorb greenhouse gases was defined[33] based on ecological criteria; then the *distribution* of the use of this capacity among signatory countries was established based on criteria considered fair (emission reduction based on the contribution of each country); and finally the *allocation* of investments was left to the carbon market, with the addition of the ingenious Clean Development Mechanism (CDM). Regarding the second action plan - stabilization of the level of heat and waste emissions in developed countries, which implies stopping economic growth (zero growth) - the problem is how to do it without generating a socioeconomic crisis (to be discussed in a coming section). In the case of developing countries, economic growth is essential to eliminate poverty and inequality. For those, policies like the ones advocated by UNEP (2011) and by eco-development lists in general are the ones that should be implemented. Politically and operationally, as seen in a previous section, it is possible to develop a set of policies that lead to institutional, organizational and technological innovations capable of putting these countries on a path of sustainable growth until they achieve levels of material comfort similar to those of developed countries.

Final Remarks: steady state and welfare:

The debate about zero growth or even degrowth[36] has gained momentum in recent years. There are two problems to be tackled simultaneously for achieving what Daly (1996) called *steady state:* (a) the problem of stopping growth without generating a socio-economic crisis; (b) the problem of consumer expectations in consumer societies. The technical solution to the first problem is mainly the formulation of macroeconomic policies – an environmental macroeconomics. Specifically, it is about tackling, for example, the problem of employment, of inequality and of incentive to technological innovation. The pioneering work of Victor (2008) for the Canadian economy, and of Jackson (2009) for the British economy, present options of macroeconomic policies that would enable stabilizing production growth considering the following issues: variations in the proportions between investment and consumption, changes in investment nature and conditions, greater public investment, greater environmental restrictions, increased employment by reducing working hours, and a neutral tax reform that penalizes the intensive use of natural resources, among other policies. The legitimacy for the implementation of these policies depends on the solution of the second problem, the one regarding consumer expectations that give legitimacy to the opposing, growth incentive policies. One must not lose sight of the fact that the emergence of mass consumer societies was unprecedented in human history and released the great mass of the population from the oppression of poverty. It was the result of a process of sustained economic growth. This, in turn, was only possible when certain cultural/institutional conditions coincided in Medieval Europe, with certain political/geographical conditions that enabled the systematic introduction of technological, organizational and institutional innovations, giving rise to what Braudel (1979) termed *Mutant Civilization.* The acceptance by the population of environmental restrictions involving some sort of sacrifice for the benefit of the populations of other countries and/or of a distant future necessarily implies a certain dose of altruism, particularly if these restrictions aim to stop economic growth (Romeiro, 2000). However, this necessary legitimizing altruism of zero growth policies may be enhanced by the growing realization that the current level of material comfort is more than enough, and that continuing growth efforts will produce more harm than good. A feeling that one could be moving towards what Daly & Farley (2004) called non-economic growth**,** in which the increase in satisfaction (utility) brought by economic growth is lower than the increase in dissatisfaction.



The first case is not surprising, to some extent, since stepping out of poverty and having increased access to goods and services is always a source of relief and satisfaction. The second result, apparently paradoxical (the "Easterlin Paradox"), shows that the fact that people consume more than the previous generation does not bring greater satisfaction. According to Abramovitz (1989), this fact could be explained by a set of psycho-cultural reasons, of which one of the most important would be the fact that the satisfaction each individual gets by increasing his consumption capacity is related to the consumption capacity of his fellow citizens; that is, if income increases for society as a whole, the perception of increased consumption capacity vanishes. Thus, the American citizen of the 1990s - although his consumption capacity is much higher than that of his grandfather or great-grandfather – does not see it as something that can make him happier.

In summary, from the point of view of ecological economics, sustainable development should be understood as a process of improvement of human well-being based on a material/energy production that ensures the comfort that is deemed appropriate and that has been stabilized at a level consistent with the thermodynamic limits of the planet. Therefore, it implies a Steady State in which consumption growth as a factor of social emulation gives way to cultural, psychological and spiritual growth; a development process as freedom, as defined by Sen (1999), a process of permanent improvement in the conditions necessary for the full realization of "an individual's capacity to flourish."

Findings and suggestions:

Sustained growth understood as a long-term growth process that results from a virtuous cycle of savings and investment that increases employment and income, which, in turn, expand opportunities for new investments. Maurice Strong, director of UNEP, had suggested this name but Professor Ignacy Sachs, from the EHESS of Paris University is recognized historically as the leading theoretician of this concept. The modeling performed was a system dynamics that had just been developed by Jay Forrester. A simulation based on system dynamics is essential if we want to know, for example, what happens in a given system when the flow of input or output of an exogenous source of energy or matter increases or decreases. But it cannot be used for "forecasting" situations involving the expansion of the system under analysis. This was precisely the weakness of the model, because the technological variable implies the possibility of relative magnification of the system (Planet Earth) under analysis. In the first report, the conclusion was that if the observed trends - in relation to the increase in world population, industrialization, pollution, use of natural resources etc. –remained unchanged, the limits of the planet would be reached within a hundred years. In the second, the conclusion is even more extreme, in that the rates of use of many essential resources and of generation of various types of pollution would have already exceeded the rates that would be physically sustainable. And the remedy as well, because it will not only be necessary to achieve zero growth as soon as possible, but also to significantly reduce the flows of matter and energy by rapidly increasing eco-efficiency. Recognizing the epic nature of the proposed changes, it considers that facing this challenge requires more than productivity and technology; it also requires "maturity, compassion and wisdom" The policy proposal to reduce emissions under the Kyoto Protocol represents the theoretically optimal solution advocated by Ecological Economics, as will be discussed in the next section. The work of Nordhaus is noteworthy for its pioneering nature (dating back to the 1970s) in addressing this global warming problem and for its neoclassical orthodoxy. The assumption is that the "environmental and social goals of a green

economy can also generate increases in income, growth, and enhanced welfare" For example, it is estimated how much annual investment in renewable energy and energy efficiency is required (between $50-170 billion) to avoid an environmental cost of climate change of $500 billion! Or yet, when it is estimated that the opportunity cost of deforestation is three times greater than its benefits. "One of the major findings of this report is that a green economy supports growth, income and jobs, and that the so called trade-off between economic progress and environmental sustainability is a myth, especially if one measures wealth as a stock of useful assets, inclusive natural assets, and not narrowly as flows of produced output" .Initially natural resources (R) didn't even appear in the production function. In its subsequent inclusion the function type - first-degree homogeneous - Y = f(K, L, R) was maintained, implying that the amount of resources (R) required can be as small as is desired, provided that the amount of capital (K) is large enough. Georgescu-Roegen criticized this version of the neoclassical production function (which he dubs Solow-Stiglitz variant) calling it "magic." For an analysis of Georgescu-Roegen's work, see Chechin (2010). Baumol (1986) admits the thermodynamic restriction that the efficiency of real systems cannot be increased indefinitely, but the replace ability between capital and natural resources would ensure perpetual economic growth. That is, the thermodynamic *saci* does not exist, but the capitalist Midas does and could handle the problem by himself. For an internal critique of the Baumol thesis, see Amado & Sauer (2010). "The world can, in effect, get along without natural resources, so exhaustion is just an event, not a catastrophe" (Solow, 1974, p.11). The present value of a given development project D is deducted from the benefits of preservation P. Where

- is the discount rate;
- is the variation rate in the resource's price;
- is the "decadence" rate given by technological progress.

In cases where these uncertainties are even greater and the benefits of the development alternative are dubious, the criteria of the Krutilla-Fisher approach would not be sufficient to prevent irreversible losses of resources whose conservation would prove *a posteriori* to be invaluable. In this case, an alternative would be the so-called safe minimum standards approach (SMS), developed especially by Bishop (1978) based on the work of Ciriacy-Wantrup (1952). However, the need to define these standards contradicts the assumptions mainstream economists work with. Randall & Farmer (1995) consider that the cost-benefit analysis provides a good idea of the satisfaction of human preferences (individual), but admit that there are good reasons to impose a minimum safeguard standard (SMS), unless the cost of that is intolerably high. The definition according to which the intolerably high cost of conservation should be in accordance with the standard economic thinking based especially in sustaining adequate levels of consumption by human populations.

CONCLUSION:

Daly's (1996) idea of Steady-State was inspired by John Stuart Mill who, in view of the potential of the industrial revolution to overcome the historical poverty of humanity in the 19th century, envisioned the need to stabilize material production because of environmental limits, emphasizing that, after all, the most important activities, such as "education, art, religion, basic research, sports and human relations" did not depended on perpetual economic growth. In the medieval West, the anthropocentric view of the meaning of human presence on Earth derived from the Judeo-Christian cosmology, in which human beings were created by God in his image and likeness and to whom the entire Earth and its resources are subject, coincided with territorial fragmentation and, within regions, the division of power between the center (the crown) and the local lord, implying the existence of multiple centers of decision. The first represented a remarkable change of mind in human history and contributed to a strongly proactive attitude in the sense of manipulating and transforming nature, by inventing new methods and procedures. The second enabled expressing the first; insofar as it allowed innovative agents to bargain, their ideas with leaders in a mutual competition (see White, 1970, 1978; Jones, 1993; Mokyr, 1990; Landes, 1998, among others). The term "social entropy" is being used to define situations of social degradation such as family breakdown, loneliness, teenage pregnancy, etc.

REFERENCES:

1. ABRAMOVITZ, M. *Thinking about growth*. Cambridge: Cambridge University Press, 1989.
2. ALTVATER, E. *O preço da riqueza*. São Paulo: Editora da Unesp, 1992.
3. AMADO, N. B.; SAUER, I. L. *Observations on Perpetual Economic Growth*. Texto para Discussão. PPGE/IEE-USP, 2010.
4. ANDRADE, D. C.; ROMEIRO, A. R. Degradação ambiental e teoria econômica: algumas reflexões sobre uma "Economia dos Ecossistemas". *Economia*, Brasília, Anpec, v.
5. ARRIGHI, G. *A ilusão do desenvolvimento*. Petrópolis: Vozes, 1997.
6. ARROW, K. et al. Economic growth, carrying capacity and the environment. *Science*, n.268, April 1995.
7. ATKINSON, G. et al. *Measuring sustainable development*: macroeconomics and the environment. Cheltenham: Edward Elgar, 1997.
8. BAUMOL, W. J. On the possibility of continuing expansion of finite resources. *Kyklos*, v.39, n.2, 1986.
9. BISHOP, R. C. Economics of endangered species. *American Journal of Agricultural Economics*, n.60, 1978.

10. BOULDING, K. E. The economics of the coming spaceship earth. In: *Environmental quality in a growing economy*. Baltimore: Resources for the Future; Johns Hopkins University Press, H. Janet Ed. 1966.
11. BRAUDEL, F. *Civilisation matérielle, économie et capitalisme*. Paris: Armand Collin, 1979.
12. BRUNDTLAND, G. H. *Nosso futuro comum*. Rio de Janeiro: Editora da Fundação Getulio Vargas, 1991.
13. CHECHIN, A. *A natureza como limite da economia*. A contribuição de Nicholas Georgescu-Roegen. São Paulo: Senac; Edusp, 2010.
14. CIRIACY-WANTRUP, von S. *Resource conservation*: Economics and policies. Berkeley: University of California Press, 1952.
15. ALY, H. *Beyond growth*. The economics of sustainable development. Boston: Beacon Press, 1996.
16. DALY, H.; FARLEY, J. *Ecological economics*. Principles and applications. Washington: Island Press, 2004.
17. DEQUECH, D. Uncertainty: a typology and refinements of existing concepts. *Journal of Economic Issues*, v. 45, 2011.
18. DESA. The great green technological transformation. *World Economic and Social Survey*. United Nations, 2011.
19. ROMEIRO, A. R. Sustainable development and institutional change: the role of altruistic behavior. *Texto para Discussão*, IE/Unicamp, n.97, 2000.
20. UNEP. *Greening the Economy. Pathways to Sustainable Development and Poverty Erradication*. United Nations Environmental Program Report, 2011.
21. VALE, P. M. *Economia das mudanças climáticas*: uma avaliação dos principais modelos. Campinas, 2011. Dissertação (Mestrado em Desenvolvimento Econômico, Espaço e Meio Ambiente) – Instituto de Economia, Universidade Estadual de Campinas.

One day National Conference on
"Economic Instability: Antidote for Sustainability"
26th February, 2020 at Gopalan College of Commerce, Bengaluru, Karnataka, India

A Study on Employees Attitude towards organizational Change

Dr. S. Naveen Prasath
Assistant Professor, New Horizon College, Bangalore.
Email - naveenps4edu@gmail.com,

Abstract: *This study focuses on employee workplace and demographic predictors to know the employee attitudes and behaviors regarding organizational change. The findings indicate significant relationships between readiness for change and workplace and demographic factors. The economic and social environment is so dynamic that without adopting to such change even the most successful organization cannot survive in the changed environment. Any business in today's fast-moving environment that is looking for the pace of change to slow is likely to be sorely disappointed. In fact, businesses should embrace change. Change is important for any organization because, without change, businesses would likely lose their competitive edge and fail to meet the needs of what most hope to be a growing base of loyal customers. It is difficult for organizations to avoid change, as new ideas promote growth for them and their members. Change occurs for many reasons such as new staff roles; increases or decreases in funding; acquisition of new technology; new missions, vision or goals; and to reach new members or clients. Changes can create new opportunities, but are often met with criticism from resistant individuals within the group.*

Key Words: *Organizational change, Employees attitude, Job satisfaction, Job security and Commitment.*

INTRODUCTION

Change in some way is the necessary aspect of human life is change. Change is the only constant in this world. Everything keeps on changing continuously. Change simply refers to alteration in the existing conditions of an organization. Occupational stress and organizational change are now widely accepted as two major issues in organizational life. The current study explores the linkage between employees attitudes towards organizational and two of the most significant construction organizational behaviour; occupational stress and organizational commitment. This study focuses on employ workplace and demographic predictors to know the employee attitudes and behaviours regarding organizational change. Five hundred fifty six surveys out of one thousand were returned from full time academics working in govt universities. The findings indicate significant relationships between readiness for change and workplace and demographic factors. The attitude of employees during change process in organization plays a vital role in the implementation of new ideas in the organizations. Change plays a major drawback which creates problems in all organizations. It is not a surprise that resistance to change occurs and it is the foremost reason for failure to change.

OBJECTIVE OF THE STUDY:

- To analyze employees attitude and its impact towards organization study
- To identify key factors of employees attitude towards organizational change.
- To find out resisting points of employees for organizational change.
- To analyse employees resistance and its impact on organization development.
- To find out ways to develop employees attitude towards organizational change.

LITERATURE REVIEW:

According to Coch and French (1948), Kot- ter(1995), Kotter and Cohen (2002) many organizations had the drawbacks regarding the attitude of employees which lead to failures in change. But research had proved that some organizations had adapted themselves to change and it had provided a good outcome in organizational performance. The growing globalisation of business and increasing competition and technological advancement has led to an increasing need to change organisational policies and strategies (Hampel and Martinsons, 2009). The pace of challenges is increasing and thus organisational change is considered unavoidable (Drucker, 1999). In organisation, most problems and challenges are generated by competition, advanced technology, mergers, expansion, product quality maintenance, or enhancing employee efficiency on the one hand and rapid growth, new business ventures,

exciting opportunities, innovations, and new leadership and management approaches on the other (Madsen et al., 2005, p-213). To overcome these challenges, organisations are often under pressure for survival and stay competitive in future. In such adverse environment, employee attitudes and behaviours to accept organisational change is considered important for management and change agents for successful organisational change (Armenakis et al., 1993; Bernerth, 2004). In fact, organisational change examines the capabilities of managers, employees and work environment. It affects employee attitudes and behaviours because of transferring a situation from the known to the unknown which can build up uncertainty, strain and anxiety among employees. Domain researchers focused on change that may have a serious negative impact on employee attitudes and productivity (Weber and Weber, 2001). Thus creating employee positive attitudes and behaviors researchers advocated on employee readiness as an important and dominant factor for promoting effective and successful organisational change programmes (Eby et al., 2000; Bernerth, 2004; Rafferty and Simon, 2006; Bareil et al. 2007). The dynamic concerned with organizational change is managing it effectively and successfully (Hanpachern et al., 1998). Thus managers, change agents, and researchers are anxious to deal with employees within organizations through readiness predictor variables. Literature reveals individuals as the centre of analysis for the success of organizational change programs (Judge et al., 1999). In this regard many predictors like knowledge and skills, social relations in the workplace, organizational culture, management leadership relationships, logistical and occupational risks of change, ability to cope with change, to solve job related problems, social support; active vs. passive job; job demands, self-efficacy, appropriateness, management support, and personal valence (Hanpachern et al., 1998; Cunningham et al., 2002; Miller et al., 2006; Holt et al., 2007).

Organizational Change:

Organization change takes place when a company makes an evolution from its current state to some desired expectations. Managing organizational change is the process of forecasting and implementing change in organization in such a way as to reduce employee resistance and cost to the organization while at the same time maximizing the effectiveness of the change effort. From an inactive perception, organizational change occurs as a reaction to an ever-changing environment or as a response to a current emergency situation. Change is an approach of shifting/transitioning individual's teams. It is an organization process intended at helping stakeholders to accept and hold change in their business environment in their delicate lives.

Organizational changes mainly focus on two factors namely:

- Organizational factors/External factors
- Individual factors/Internal factors

Organizational/External Factors: The exterior environmental factors occur outside the organization and causes changes within the organization. External environmental factors like social condition, availability of re- sources, economy, technology, politics and business scenario may influences organizational change.

Individual/Internal Factors The internal environment of an organization refers to the organization structure, systems, people and performance. The internal force that influences organizational activities are employee behaviour and attitude.

ANALYSIS AND INTERPRETATION:

Employee Attitude towards Change:

Thurstone, (1931) defined attitude as an influencer for or against an emotional leaning. All port, (1935) detailed attitude as a mind and neural condition of willingness, planned through knowledge, exert an instruction or lively pressure upon the individual's response to all substance and situations which it is related. Attitude is a word related to psychology, and attitude differs from person to person perception. The main focus of research on attitude concerns the nature, function of attitude and how employees mould themselves towards change. The employee attitudes can influence character to formulate the response to change. Employee attitude focused on individual attitude towards change in the organization. The attitude brings positive or negative type of activities of employees during the change process. There are two types of employee's attitude towards change. One aspect of employees may have a negative attitude towards organizational change and are more likely to re- fuse to accept the change. And the other aspect of employees have a positive attitude towards organizational change are more likely to hold up to the change.Koslowsky and Zeev (1990) commented that employees who are reliable towards the organization have a positive attitude regarding change. In other hand, employees who are not committed to the organization; has a negative attitude to- wards the change. According to Erich J.Schwarz, (2009), employees who have positive attitude towards change in the organization become valuable employees to the organization. Apfelthaler, (2008) revealed employees recognized change with valuable training, which helped in the development of the employees with effective skill. Baumgartner, K (2008), described that most of the employees are not prepared for change. Employee's negative attitude towards change is due to the fear about job. They avoid change because they may be unable to cope up with change and may lose their job when organization is downsized or reshuffled with change. Meyer (2002) stated that employees who are highly pleased with the organization have no reason for reporting negative attitude without

any threat in common. Contented employees themselves show greater attention in organizational change behaviour in ascertaining the goals and providing precise outcome. To effectively cope with permanent change in their business organization should commonly focus on planned change. To overcome resistance to change, organization should prepare a clear arrangement and change awareness among employees in order to generate well planned work surroundings and in proportion work agenda to reduce pres- sure and insecurity. Karyn E. Trader-Leigh (2001) projected that change and organization transformation is a rigid effort. Change fails because surroundings are not ready to agree to change and do not well look forward to the strength on individual system. Individuals' personal and emotional impact and domination of norms, traditions, compatibility and supporting factors are the reasons to individual resistance to change. Maria Vakalo (2005) detailed of professional pressure related to negative attitudes to change. Tension created by difficult task related to burden and unfair pay, can cause negative attitude to- wards organization change and therefore reside in change process. According to West wood, (1984), Gottfried (1994) and Thom- as and David (2005) not only male employee's attitudes are changing during change implementation in the organization but women employees are also mostly conflicted to change in everyday practice. Leanne catcher, (2009) understood that the organization change influences the attitude of both the gender according to the workplace and it entitled the things which traditions and situation, where employees resists change that determine the job fulfillment and lack of confidence for the work. Lan Coa, (2013) opined employee attitude is proactively determined by the environment and their individual objective and morals. Hechanava (2003) said that in order to make change valuable, employees need to feel sufficiently skilled and knowledgeable in particularly during change supportive statement which would reduce panic and doubt and there- fore, opposition to change.

FINDINGS:

Factors Affecting Employee Attitude towards Change:

Job satisfaction Locke, E.A. (1969) defined job satisfaction is the pleasurable emotional state resulting from the appraisal of one's job as achieving or facilitating one's job values and it is conceptualized as a general attitude toward an employee. Job satisfaction is highly important because it is significant to the physical and mental well-being of employees, i.e. job satisfaction has relevance with human health and it is essential to understand the factors involved in job satisfaction to improve the well being of employees. Work is an important feature of employee lives and most employees spend a large part of their lives at work. Schwepker (2001), Smith, P.C., Kend- all, L.M. and Hulin, C.L, (1969). Tait, M., Padgett, M.Y. and Baldwin, T.T. (1989) argued that job satisfaction is linked with job performance, workplace turnover and life satisfaction. Job dissatisfaction predicts withdrawal behaviours like turnover and absenteeism which measures the financial impact of employee on organizations. Hence measuring facet of job satisfaction can attain a complete picture of their specific strengths and weaknesses related to organization. Cascio, (1986); Mirvis & Lawler, (1977).

SUGGESTIONS:

Job security: Myths and Reality (1994) proposed an interesting starting point to define job security as the relative assurance, owned by an employee, that he/she is shielded against damages that would result from the loss of his/her work. Morris et al., (1993) stated job security as one of the most important obstacle for change and it is directly related with the organizational commitment. Compensation and benefits' is another occupational stressor associated with negative attitude to change. Employees need to undergo sufficient training and should be educated particularly during change because job security reduces fear and uncertainty that act as resistance to change.

Commitment: Commitment is the extent to which a person identifies with and works towards organization-related goals and values. Noble and Mokwa (1999). Guest, (1987) and storey (1992) observed that employees committed to the organization are the valuable resource to the organization. Becker, (1992) projected commitment consists of four factors such as commitment to the organization, to the top management, to im- mediate supervisors and to work groups. Workers who feel that the organization is committed to them are likely to have a positive attitude says Eisenberger et al, (1990), Meyer and Smith (2000). According to Mowday et al. (1979) organizational commitment is an attitude, which exists between the individual and the organization where it considered as a relative strength of the individual's psychological identification and involvement with the organization Jaramillo et al., (2005), described commitment as representative connecting stress and attitude of employees. The negative or positive attitudes are strongly related to commitment in the organization. Iverson (1996) said believed that employees who are highly attached to the organization are ready to accept organizational change. Cordery (1993), held that employees may generate negative attitude of Commitment towards change and its consequences is unwilling to deliver the change.

CONCLUSION:

One of the most baffling and recalcitrant of the problems which business executives face is employee resistance to change. Resistance is usually created because of certain blind spots and employee attitudes with the technical aspects of new ideas. Management can take concrete steps to deal constructively with these employee attitudes. The steps include emphasizing new standards of performance and encouraging them to think in different

ways, as well as making use of the fact that signs of resistance can serve as a practical warning signal in directing and timing technological changes. An organization must develop a new vision and a new faith in the workforce before it can approach the organizational change process. Managers must exhibit a trust in the workers to contribute to solving organizational problems, which in turn will build trust in management. The door must always be open for individuals to take an active role in improving the organization, allowing for open communication, initiative, and teamwork in problem solving.

REFERENCES:

1. Stephen P.Robbins (2011).organizational behaviour-Pearson.
2. K.Aswathappa (2013).Human resource management-Tata McGraw hill publication
3. M.N.Mishra (2010).Organizational behaviour & corporate development-Himalaya publishing house.
4. Drucker, P.F. (1999). Management Challenges for the 21st Century. New York: Harper
5. Business.Eby, L.T., Adams, D.M., Russell, J.E.A. and Gaby, S.H. 2000. 'Perceptions of organizational readiness for change: Factors related to employees' reactions to the implementation of team based selling.' Human Relations, 53(3): 419-442.
6. Fatima, M. 2002, "Management of Quantum Change in Pakistan Organizations", The Journal, 7(3), 1-17.
7. Fullan, M. and Pomfret, A. (1977). Research on curriculum and instruction implementation. [9]. Review of Educational Research, 1, 335-397.
8. Gaertner, K.N. and Nollen, S.D. 1989. 'Career Experiences, Perceptions of Employment Practices, and Psychological Commitment to the Organization'. Human Relations, 42(11): 975-991.
9. Gilbert, N. 2001, Researching Social Life, 2nd edn, Sage, London.
10. Goulet, L.R. and Singh, P. 2002. 'Career Commitment: A Re-examination and an Extension'. Journal of Vocational Behaviour, 61(1): 73-91.
11. Hair, J. F. , Black, Jr. W.C., Babin, B.J., Anderson, R.E. and Tatham, R.L. 2006, [14]. Multivariate Data Analysis, 6th , PEARSON Prentice Hall, USA.
12. Hampel P. S and Maris G. Martinsons 2009, "Developing international organizational change theory using cases from China", Human Relations, 62(4), 459-499.
13. Hanpachern, C., Morgan, G.A. and Griego, O.V. 1998. 'An extension of the theory of margin: A framework for assessing readiness for change'. Human Resource Development Quarterly