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# Macroeconomic Instability in Indian Economy: A Contemporary Short Run Analysis

N.M.P. Verma<sup>1</sup>

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**Abstract**—*It seems India is undergoing a major change during last four years. There was a time when the national income of the economy was heavily contributed by agricultural sector. This was followed by manufacturing sector. The contribution of service was the lowest. This data pertains to the beginning of Five Year Plans of India. The trend started contributing in the first two decades of the present century and tenth, eleventh and twelve five year plan. After the end of Twelfth Five Year Plan the convention of half decade based plan has been stopped. Moreover, railways budget has been merged with the main budget. In the monetary sector, a major reform took place in order to curb black money and fake currency. This harsh reform was demonetization in the monetary sector. This has affected the money market and the LM curve of the economy. The second reform was the fiscal sector reform. The major tax reform is in the name of implementing goods and service tax (GST) in the fiscal sector. This has affected the product market and hence the IS curve of the economy. In addition a major act came in the construction sector in terms of real estate regulation Act (RERA). This has affected the construction sector which predominates in terms of employment in the tertiary sector. The purpose of this paper is to examine impact of sectoral reform on macroeconomic variables. The study is based on secondary sources of data published by government agencies. The study reaches to the conclusion that the economy has been troubled with these three reforms. As a result there has been macroeconomic instability in the economy. The growth rate has declined, the unemployment rate has gone up, consumption has also reduced, inflation rate has not sky rocketed. The sustainability of the economy has been badly shaken.*

**Keywords:** *Demonetization, GST, RERA, Economic Growth, Unemployment Rates, Shaky Sustainability*

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## INTRODUCTION

Macroeconomic studies the various aggregated dimensions of work in the geographical boundaries of a nation. It plays a very interesting branch within economics discipline. Economics discipline normally focuses on the way three agents of the economy, the firms, the households and the government organize themselves to sustain life and upgrade its quality of living. The key economic activities are resource maintenance, production and generation of national output, distribution of produced output and the consumption of produced output. The leakage comes in the category of savings which in due course becomes ready for

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investment based on profit and welfare motives. In the process comes employment and general price levels i.e. inflation which are crucial key variables for labor and consumption respectively.

The macroeconomic goals are growth rates, unemployment reduction, price control, qualitative change in livelihood, consumption and maintaining a nice sustainable balance. In other words, achieving good living standard, stability in the economy, a secured economic environment and long term sustainability are top most macroeconomic goals. Taking the first macroeconomic goal first, superior living standard is possible with higher longevity, sound health and stressless life. These three components can give better happiness that can be very enjoyable. A country like Bhutan, although small, believes in happiness index rather than GDP growth. Therefore rise in GDP per capita is important but side by side such per capita GDP should be distributed in such a manner that gives better happiness and livelihood. The livelihood can be improved with appropriate basic necessary and comfortable goods and services such as balanced diet, hygienic housing, quality education and health and services such as transportation, communication, entertainment, cordial social relations between capitalist, labors and the government. This goal needs faster growth rates of GDP and rational allocation among factors of production for a superior livelihood. Concentration of GDP may lead to inequitable distribution; few gainers more losers compartment. Thus market mechanism and fiscal policies should look into this issue of superior livelihood for all. The issue of employment generation is linked to production of output. We are supposed to have a warranted rate of growth in Harrod - Domar perspective. Meaning thereby actual growth rate should be equal to expected growth rate. The economy should have nearly full employment equilibrium. But unfortunately, in our country, natural growth rate is very high and there is disguised and underemployment in the economy. This macroeconomic goal is a pertinent problem of developing nations including India. The rate of unemployment is increasing also around by 3.50 percent. This is a very alarming situation. So the employment sector in India has been chronically unbalanced. Of late it has further escalated because of demonetization (Das and Verma, 2017). In order to tackle this higher growth in backward region Indian should focus on northern states where there is enough scope to increase production and productivity. These states are Bihar, UP, Orissa, Madhya Pradesh and even Rajasthan. These are comparatively bigger states. The level of poverty is very high in these states. Also other social indicators such as education and health are very poor. People migrate more from these states and destabilize urban demand in metros of other developed states. Indian Southern states have developed a lot in terms of SDP, education, health, hygiene, and other services. We point out on the issue of governance that needs to be tackled very fairly and seriously. The bifurcated states have potentials to grow such as Jharkhand and Chhattisgarh. Coastal states have also enough potential to grow provided social conflicts are resolved and talents are

honored. High rates of unemployment are linked to individual and social stresses. This often even leads to suicides, domestic violence serious sickness, trafficking, organ selling, child abuse, sexual misconduct and crime. In case of fluctuating employment levels and also rates of inflation, including capital market, interest rates and foreign exchange, it becomes difficult for individuals and firms to improve productivity and rational planning. If instability is there then recession and boom prevail. The former leads to unemployment increase and later may lead to higher or hyper inflation. The economy is completely disturbed. Macroeconomic planners need to address this fluctuating short run situation and stabilize the economy. In the long run better livelihood is possible if individuals and firms foresee stability. This gives security to them and economy goes to a better stage of business cycle. Hence knife edge balancing is must.

Occasionally in the process of balancing good and services market, heavy reduction of natural resources take place. For example exhaustion of coal, water distress, fertility erosion, deforestation, missing river beds are some of the pertinent examples. The issue of sustainability requires availability of resources for consumption of our future generation as well. Environmental degradation, water pollution, air pollution global warming are some more environmental indicators which will harm our next generation. Similarly we have to see that our future generation should not be indebted heavily. Thus for sustainable goals to be fulfilled, it is required to be sustainable socially with equitable distribution in capital and labor rewards, financially with zero debt burden and environmentally so that ecological goal is fulfilled.

## **RECENT INDIAN POLICY SHIFTS**

In very recent years Indian government has implemented three reforms, one each in monetary sector, fiscal sector and the tertiary sector.

These are:

1. Demonetization cum remonetisation
2. Goods and Service Tax (GST)
3. Real Estate Regulation Act (RERA)
4. Implementation of demonetization in monetary sector (November 2016), subsequently led to the implementation of the goods and service tax in the fiscal sector (July, 2017) and real estate regulation act in construction sector reform in the service sector (2016). These three reforms are during 2016–2017. In the following analysis these three policies of the government shall be critically analyzed.

## **REMONETISATION CUM DEMONETISATION: A MONETARY SECTOR REFORM**

Barely one and half year has passed after the sudden declaration of remonetisation cum demonetisation drive. Indian economy has started showing all symptoms for which this strategy was confidentially made and later disclosed by the PM on 8 PM of November 8, 2016. The government stand on such demonetization was three fold; to check and filter out black money, to shift from a higher monetized economy to a lower monetized economy through use of plastic cards and other fiat money and lastly to reduce inflation through slower supply of higher remonetised currency of Rs.2000 and withdrawal of lower denomination currency of Rs.500 and Rs.1000. Economic Survey, 2016-2017 pointed out that the aim of the action was to curb corruption, counterfeiting the use of high demonetization notes for terrorist activists; and especially the accumulation of “black money” generated by income that has not been declared to tax authorities (Singh, 2017).

Wipro, one of the leading IT companies headed by Azim Premji, reported better than expected revenue for the 4<sup>th</sup> quarter and predicts to return to industry level growth by the end of this fiscal year. Wipro has not grown at industry levels for several years now. Its IT services revenues rose 70% in constant currency. Wipro is hiring more locals in US in the ratio of 50% Americans. Top IT CEOs have also got good performance pay although it is short of target. GENPACT CEO NV Tyagarajan got 62% of the targeted variable pay. Cognizant CEO obtained about 66% of the variable pay. Revenue growth had a greater weightage in the payout formula for performance bonuses. India’s largest online retailers Flipkart, Amazon, Snapdeal and others outpaces the American companies on the total value of goods sold in a market. Alibaba supported Paytm Mall and Shop clues are competing for third position (Verma, 2017).

Better performance in the last quarter can also been observed in the administration and logistics sectors. India’s efforts toward smoothing the ease of doing business are revealing fast and fruitful outcomes. Corporate Affairs ministry has started efficient decisions on the issue of starting a business. In February, it took two days to register a company. In March 2017, as many as 26 rules have been automated. In addition five different procedures merged to single one. Also many set rules have been simplified or deleted. Prior to demonetization cum remonetisation, in October 2016, public sector banks saw transaction worth Rs.109 crore from 61.7 crore debit cards issued till then. Private and foreign bankers had reported transactions worth Rs. 11048 crore through 12.25 crore issued debit cards.

In January, 2017 debit cards based transaction in public sector banks was of Rs.29,339 crore, and Rs.19664 crores transaction was by debit cardholder of private banks. The frequency of transaction through debit cards has also gone up from 19 transactions per card in October, 2016 to 40 a month in January, 2017. The economy

in the third quarter has shown merely half percentage dip in GDP growth rate which enhanced in the 4<sup>th</sup> quarter. It is further predicted that after implementation of GST from July 1, 2017 the economy will further grow transparently and swiftly. This will fulfil the target of 7.5% rate of growth as predicted by the Government of India, and 7.2% as predicted by IMF. The redistribution of wealth and income may also be equitable henceforth. Revenue to the government from taxes has also gone up drastically. However, Rs.2000 currency will have to be demonetized by next year in order to check corruption caused by high denomination currency.

Thus, it may finally be argued that larger digital transaction, emergence of informal credit market transactions and pumping of Rs.2000 (a high denomination currency after scrapping Rs.500 and 1000 currency) the fear factor of economic disaster was virtually suppressed drastically and beyond imagination. Remonetisation cum demonetization experiment may be viewed successful and more fruitful results may come from the current financial year but initially people face inconveniences and still trends are not clear.

#### **CURRENCY: SUPPLY-DEMAND IMBALANCE**

Nevertheless, a few apprehensions are expected. Firstly, higher value currency of Rs.2000 will be out from the market and there will be currency crunch in the economy. The reason behind this is that in Keynesian framework people save for transaction and precautionary motives. Since higher denomination currency is easier to save therefore households may try to save Rs.2000 currency. In Indian tradition households nonworking woman save some currency for precautionary purpose such as social ceremony, higher education, emergency treatments and such other required medium duration expenditure. Secondly, big political parties, business people and black savers hold higher currency. This was the money in circulation thus will decline. As a consequence, money multiplier will also fall. This may lead to fall in prices and so money market will shrink. Thus the shape of the LM curve will suddenly change because of hoarding of high value currency. It can be seen in historical perspective that the circulation of money is not uniform in all the months of a year. In Fishers equation  $V = PT/M$  but  $V$  is not constant all the year. This happens so because in the beginning of the financial years say April-May school admission requires huge money for admission and purchase of books and stationary so there is huge demand of currency Secondly, if there is election in some state or in the country then all of a sudden there is surge in demand of money to meet expenditure. On the supply side it can be added that many ATM machines are not recalibrated in accordance with new currency denomination such as Rs.200 notes, new designed Rs.100 notes and Rs. 1000 notes. Secondly in April 2016 the growth in notes circulation was 3.7 percent while in April 2017 money supply was 7.25 percent whereas in April 2018 the money supply hardly picked up to this level. Thirdly, retailers were accepting cards for payments during demonetization and culture was payment by card was getting promoted. All of a sudden after huge

money supply retailers started charging 2 percent extra for payment by card as commission of bank, transportation charge and manpower. This way again more demand of currency stated. Hence there is a supply–demand imbalance in money supply in April-May 2018. This has led to currency crunch in the economy. Now RBI is of the opinion that about one to two quarters may take to balance supply demand management of money supply. It may be predicted that because of elections in four states, Punjab, Goa, Uttarakhand and UP followed by forthcoming Karnataka election high value currency has been moved to these places. As a consequence, there is currency crunch in other states and hence monetary sector instability.

### **GST: A FISCAL SECTOR REFORM**

GST is an indirect tax. The tax was introduced in Indian economy on 1 July 2017. The catchment area of GST is throughout the economy. It replaced multiple cascading taxes which were levied by the central and state governments. It was implemented after constitutional amendments. The key objective of implementing GST is to replace indirect taxes with a unified tax. As a consequence, GST may set to reshape economy. Initially, the rate of GST was very high in comparison to other Asian, European and north American countries. The GST has a GST Council to administer. The Chairman of the Council is the Finance Minister of India himself. There are five following tax rates:

0%, 5%, 12%, 18% and 28%.

In addition to this there is a special rate of 0.25% on rough precious and semi-precious stones and 3% on gold, in addition to a cess of 15% or other rates on top of 28%. GST applies on few items like aerated drinks, luxury cars and tobacco products. GST council is periodically reviewing the rates and impact of GST.

The GST virtually negated several continued taxes and levies. Some of these are: central excise duty, services tax, additional customs duty, surcharges, state-level value added tax (VAT) and Octroi. Levies applicable on inter-state transportation of goods have also been wiped out and merged in GST. GST has been levied on all transactions such as sale, transfer, purchase, barter, lease, or import of goods/services. Indian Government enacted a dual GST model. It means that taxation is administered by both the Union and the concerned State Governments.. GST is levied on consumption. Therefore, taxes are paid to the state where the goods or services are consumed not the state in which they were produced. IGST complicates tax collection for State Governments by disabling them from collecting the tax owed to them directly from the Central Government. Under the pre-GST system, a state would only have to collect tax revenue.

The Central Government had played a motivational role to enhance the revenues of the States through GST. It is anticipated that in due course, GST will be levied on petroleum and petroleum products. The central government may compensate states

for any revenue loss incurred by them from the date of GST for a period of five years. Still appropriate rule has to be framed. IT networking would be the foundation of the GST regime. All tax payer services such as registrations, returns, payments and related other services would be available to the taxpayers online, which would make compliance easy and transparent. GST will ensure that indirect tax rates and structures are similar all over the country. It may bring certainty and improve business environment. In other words, GST would make doing business in the country tax neutral, irrespective of regional variations. A system of seamless tax-credits throughout the value-chain, and across boundaries of States may further enhance cascading of taxes. This may contain hidden business costs. Once there is reduction in transaction costs it would eventually lead to a healthy competitiveness for the trade and manufacturing sectors. The uniformity in tax rates and procedures across the country will also go a long way in reducing the compliance cost. GST may be simpler and convenient to administer than all multiple indirect taxes of the Centre and State. Everybody will embrace happily. The important point is that GST will show better tax compliance due to a IT networking initially in urban region.. GST may reduce the cost of collection of tax revenues. It will finally bring higher revenue efficiency. It may further be argued under GST there would be only one tax from the manufacturer to the consumer, leading to transparency of taxes paid by the final consumer In conclusion because of efficiency and transparency gains and prevention of leakages, the overall tax burden on most commodities will come down. This way consumer will share the benefits (Angrej Singh, 2017).

Thus GST may destabilize the multiple tax system. By the time GST council makes tax rates and structure consumer savvy and manufacturing friendly the product market will remain imbalanced. Thus IS curve will be fluctuating and instable in the short run.

### **RERA: A TERTIARY SECTOR REFORM**

The Real Estate (Regulation and Development) Act, 2016 (RERA) is an Act. It was passed by the Parliament of India. The Rajya Sabha passed the bill on March 10, 2016. The Lok Sabha passed it on March 15, 2016. Finally 59 of its 92 sections were notified on May 1, 2016 and the remaining provisions became effective from May 1, 2016. It was enacted to protect the interests of home buyers. It is a genuine protection from developers. It also increased investment in this sector in 2017. Under the Act, the central and state governments, are required to notify their own rules within six months, on the basis of the model rules framed under the central Act. For long period, home buyers have been aggrieved because the real estate transactions were developers friendly. RERA aims to strengthen equitable environment and fair transaction between the seller and the buyer of properties, especially in the primary market. RERA is simpler in implementation, accountable and transparent. The RERA will give the Indian real estate sector its first regulator. The Real Estate Act makes it mandatory for each state and union territory.

Flat buyers may accept because:

- allottees will be intimated about any minor addition or alteration.
- 2/3rd allottees will agree in issue of addition or alteration.
- prior publicity before registration with RERA banned.
- 2/3rd allottees agrees for transferring majority rights to 3rd party.
- project plan, layout, government approvals, land title status, sub-contractors will be known.
- timely completion of projects and delivery to the consumer feasible.
- quality of construction due to a defect liability period of five years.
- within 3 months welfare association will be formed after sale of majority of units.

Hence the most satisfactory point is that it provides a unified legally sound act for real estate buyers. It further seeks to benchmark the practice across the economy. Initially, a lot of work is to be done to get the existing and new project registered. Details such as status of each project executed in last 5 years, promoter details, detailed execution plans, etc., needs to be prepared. Specialized forums such as the State Real Estate Regulatory Authority and the Real Estate Appellate Tribunal, will be established for the resolution of conflicts pertaining to home buying and the aggrieved party. While the RERA sets the groundwork for fast-tracking dispute resolution the efficiency of case disposal are quite important. Since July 31, 2017, 23 states and union territories (UTs) have either established their permanent or interim regulatory authorities because every state and UT must have its own regulator. Developers will not be able to market their ongoing or upcoming projects, till they register either with the permanent or interim regulator in states. For ongoing projects, where completion or occupancy certificate has not been given, Only four states—Gujarat, Maharashtra, Madhya Pradesh and Punjab—have established their permanent Real Estate Regulatory Authority, while 19 states/UTs have established interim authorities. Only 23 States/UTs have notified the rules under the Act, while six states have drafted the rules but have not yet notified. A total of nine states/UTs have appointed interim Appellate Tribunals under the Real Estate Act, while only seven states have started the online registration under the Act.

Real estate sector in India saw a large revival after demonetization in the fourth quarter, 2016-2017 with sales, jumping 13% against a 22% decline in the third quarter of 2016-17 across top nine Indian cities. Further, launches of fresh residential projects across these top nine cities jumped 19% which is the highest in the last eight quarters. According to PropTiger. com report the long term outlook remains positive. RERA may rebalance supply and demand in real estate sector in the long run. The third component of brighter symptom is inventory. The unsold inventory is mainly caused by administrative turbulence because of RERA. Falling



investment has led to labor retrenchment and fall in investment. This shattered construction sectors such as brick, cement and mining.

### **FALLING EMPLOYMENT: A MAJOR MACROECONOMIC CONCERN**

After thumping majority in recent state elections in Uttar Pradesh, Uttarakhand, Goa and Manipur and forming the Government a few social issues have got focused for debate and action. One is the illegal closure of slaughter houses as per the decision of Supreme Court and National Green Tribunal (NGT). The second issue is the closure of liquor shops on highways and to shift shops 500 meters far from the highways. Employment can be both gainful and sinful. Employment is considered to be gainful if it is productive and sinful if it is productive but socio-legally disliked by majority. Thus later is seen as mean and degraded job. It can be a social cruelty also. History gives many evidences that job segregation and occupational diversification have its origin as per social variables. Important among them is caste, race and religion since decades and centuries. The job of slaughtering of animals was given to particular caste unanimously decided by the society in the country in past. Now this work of slaughtering has been done by a family generation after generation. The generations have been trained like this even when there was no proper technology advancement in this profession. Further the export business was very meagre prior to globalization. Even then a large number of slaughtering business flourished in informal sector. Society also promoted it in the case of goat/chicken. But in the cases of other animals such as buffalo, cow and several others there was a proper licensing system. The irony of Indian economy is that licensing and its huge attached rules are very cumbersome. Renewal of licenses is another complex issue. We know that more complicated rules also generate more bribery and corruption. The second related issue is investment and reinvestment. If somebody has already invested in this business that reinvestment becomes very smooth. If all of a sudden certain rules are promulgated for putting a ban or putting conditions which are fully or partly unfavorable for that business then investment promotion agenda of government is derailed. As a consequence, socially, although slaughtering business is a sinful occupation but economically it gives employment to lakhs of persons and livelihood to lakhs of families. There are broadly two types of people in the society-vegetarians dislike eating of meat, mutton, chickens, beef, etc. whereas non-vegetarians like eating of some types of these and may dislike some other types. In this religiously conscious situation majority of the people of society consider it as sinful employment. Even the social statuses of such employed people are considered to be of lower stature. The other related issue is when there had been shortage of food stuffs especially cereals, pulses, fruits and vegetables prior to green revolution in agriculture to mid 20<sup>th</sup> century people had been also depending on animals for food. The same habits and cultures have been continuing. Thus it is apparent that although slaughtering is socially sinful activity but it is a gainful employment. This adds to export and domestic business which enhances gross domestic product and brings foreign exchange. Needless to say that poverty is also reduced with this

employment. If slaughtering is discouraged and legally checked then, on the one hand, sins of society and cruelty against animals and birds may drastically reduce, at the same time; livelihood of numerous people will be at stake which may further hamper growth of national income. Thus there is a positive correlation between sinful employment and gainful employment. Both are moving in the same direction. The government will have to balance this situation in the light of global standards and indigenous religious emotions. Beautiful socioeconomic balancing needs social harmony, dynamic rhythm, transparent governance and compassionate behaviour. Present society should not be so ravaged and uncivilized as was the case of 18<sup>th</sup> and 19<sup>th</sup> centuries. Many foods substitutes are available as an alternative so is the case of productive employment. This is time that the government may consider to mull a long term policy if democratic norms have to be decently established (Verma, 2017).

The second issue of liquor shops to be shifted half kilometre away from NH may be treated as a short term inconvenience to the employed, producers and sellers as well as consumers. Some of the states have completely banned wine shops and even drinking inside the state such as Bihar. It is a social reality that women have been victim of drinking by their husband. It has also increased accidents on road side. It has also increased some other social evils against minors and young girls and promoted robbery. It is also observed that poor people spend more percentage of their income and wealth on consumption of alcohol. As a consequence, they also fall in the category of chronic poverty. But just pushing these shops half kilometre away from NH may hardly give a solution to these problems. Since social evils and sins are so high the government may consider following the global benchmarking and settling the complicated issues through compassion and motivational methods. Virtually India needs drastic cultural transformation. The cultural transformation is a gradual process. This way sins may be reduced as well as gainful employment generation may not be discouraged. As the 14<sup>th</sup> Dalai Lama said, “you must not hate those who do wrong or harmful things; but with compassion you must do what you can to stop them—for they are harming themselves, as well as those who suffer from their actions.” To conclude disciplining the Indian democracy can solve many problems related to employment either sinful or gainful. The strategy of disciplining of Indian democracy can be through motivation as well as compassion. The declining rate of employment, the falling work participation rate of women in both rural areas can be explained by demonetization policy, fiscal reform especially GST, many administrative corrective measures taken by state and central government including in monetary and real estate sectors and finally reduction in parallel economic activities. The good point is that the lower growth rate can also be observed because of qualitative change in the economy (Verma, 2017).

## **CONCLUSION**

Thus we reach to the conclusion that in the present scenario macroeconomic variables of Indian economy are completely disturbed. The disturbance is caused by three important policy shifts. Firstly the monetary sector reform was seen through

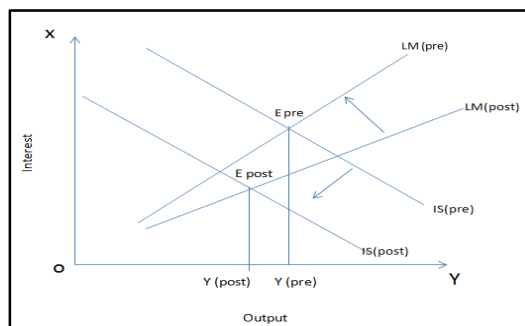
demonetization cum demonetization drive. This has caused acute currency crunch and low money supply in the economy. Money multiplier gone down and as a consequence GDP growth rate dipped. The second strategy in fiscal sector was through GST. This has caused all teething problems in the manufacturing sector. Also high tax rates caused low consumption. This has brought a recessionary symptom in the economy. Product market squeezed. Thirdly, because of RERA, construction sector employment reduced. Developers all of sudden faced many bottlenecks. New projects were not cleared for a few years. As a result situation in service sectors which creates maximum employment were slacked. Taking the cumulative effects of all these three policies the macroeconomic of India is destabilized. Growth rates of GDP gone down, industrial growth reduced, and construction sector employment declined and market forces are facing discouraged. Thus in the contemporary situation both money market (LM curve) and goods and service market (IS curve) are facing crisis. Hence we say that Indian macroeconomic instability is visible. This may otherwise not address seriously then it may prolong and IS-LM curve will remain unfavorable.

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## ANNEXURE

**Fig. 1: IS-LM Curve Showing Pre-reform and Post-reform Shift**



IS-LM pre line above shows pre reform (pre-demonetization, pre-GST and pre-RERA Policies) whereas IS-LM post line shows post reform (post-demonetisation, post-GST and post-RERA) situation. In the IS-LM diagram given

above, IS-post line shows a fall in goods and services market in comparison to IS-pre. Similarly, LM-post line shows a shrinking monetary economy in comparison to LM-pre lines. Hence, E-pre point shows higher interest, higher output trajectory. E-post point shows lower interest, lower output trajectory.

**Table 1: Macro Economic Data of India during 2014–15 to 2016–17**

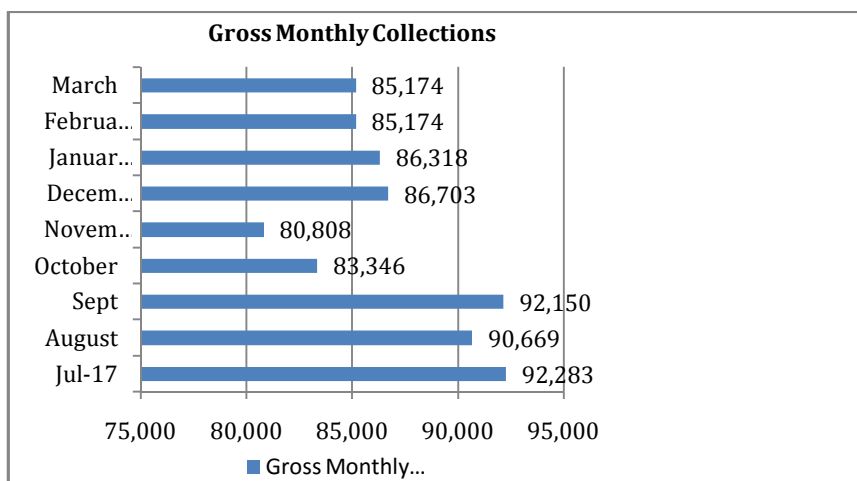
Variables	2014–2015	2015–2016	2016–2017
GDP (Real GDP Growth Rate)	8.2	7.1	6.6
GFCF	5.2	10.1	7.6
Inflation (All India consumer price index)	4.9	3.5	4.5
Manufacturing growth (Sectorial real GVA growth %)	12.8	7.9	5.1
Unemployment Rate (% change)	3.49 (0.01)	3.51 (0.86)	3.52 (0.87)
Investment rate	39.2	39.7	38.8
M1	25399.17	29203.50	29755.30
M2	26,005.80	30479.17	31201.67
M3	116,129.33	135470.36	136775.74

**Sources:** World Bank, International Labor Organization, Economy Watch, Reserve Bank of India (various Issues)

**Table 2: Monthly Compliance of GST 2017–18**

Year	Gross Monthly Collections	Percentage of Taxpayers who Filed Returns
July 2017	92,283	58
August	90,669	37
Sept	92,150	50
October	83,346	57
November	80,808	62
December	86,703	67
January, 2018	86,318	65
February	85,174	64
March	85,174	63

**Source:** Times of India, 2<sup>nd</sup> May 2018 based on Government data



**Source:** Times of India, 2<sup>nd</sup> May 2018 based on Government data

# Apatani Women in Contemporary Society: A Reality or Myth

Punyo Yarang<sup>1</sup>

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**Abstract**—*In Apatani society women is compare with children. In local term “nyimi-hime” means women and child. Both are often refer together as same category. It is believed that women cannot take a rational or decisive decision in the society. The women are weak as child and incapable to think like a man. Therefore in traditional Apatani society there is no space for the women to participate in decision making and have a lower status in the society as compare with men. This paper is an attempt to understand and analyse the status of Apatani women in the society which is still bound by traditions and customs. It is based on participant observation.*

**Keywords:** *Women, rights, traditions and custom, society*

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## INTRODUCTION

The Apatani is one of the well known tribe of Arunachal Pradesh. The Apatani society is patriarchal and patrilineal. They follow the marriage system of tribe endogamy and clan exogamy. Their religion is animism but in recent time many of them became Christian and Hindu as well. Ziro valley, land of the Apatani is the headquarter of Lower Subansiri district. The area covers 1015 Sq Km (approx). It is located at an altitude of 1564 meters above sea level, (Statistic Abstract, 2011). The Apa Tanii settlement of Ziro valley originally consisted of 7 (seven) large villages. They are (1) Hari, (2) Biila (3) Hiija (4) Hangu, (5) Bamin-Michi, (6) Miidang-Tage and (7) Dutta, but new villages have been established and extended outside the village due to the rapid growth of population and influence of modern life style. Traditionally they are divided into three groups and they celebrate the *Myoko* festival in rotation among the three. Viz, Niichi-Niitii group represented by lone Hangu village, Tiini-Diibo group comprising Hiija, Dutta, Miidang-Tage and Bamin-Michi. Talyang Hao group are Hari, Talyang-Kalung, Reru and Tajang. The main objective of the paper is to analyse the role and status of Apatani women.

## LITERATURE REVIEW

There have been few literatures written by the Anthropologists and travelogues on the Apatani tribe have consulted. Haimendorf (1945) was the first scholar to study the Apatani and their way of life systematically. His exploration of Eastern Himalayas, diaries of travels in Subansiri Region and Ethnographic notes on the tribes, he encountered in his maiden exploration of the area in 1944-45. His notes contain economic, political and social life of the Apatanis. He mentioned some of the social institutions like *Buliang* (village council), *Patang* (labour gang) and *Dapo*

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(covenant of the Apa Taniis). His book '*Himalayan Barbary*' (1955) gives an account of a tribal peace conference through council of *Buliang* (Apatani village council) and *Mel* (Nyisi village council) for conflict resolution between both tribes. In his book '*The Apatanis and their neighbours*' (1962) he describes about the functions of the *Buliang*. His other two books '*A Himalayan Tribe: from cattle to cash*' (1980) and '*The Highlanders of Arunachal Pradesh*' (1982) describes the impact of rationalized administration, opening up of education etc on the social and economic life of the Apatanis. His latest work '*Himalayan Adventure: Early Travels in North East India*' (1983) is the revised and expanded version of his earlier book titled 'The Himalayan Barbary' (1955) has short description about the organisation and function of the *Buliang* of Apatanis.

Chowdhary (1982) has made an attempt to present a profile of traditional culture of tribes of Arunachal.

Kani (1996) gives a good account of the Apatanis Socio-Political Institutions. Such as *Buliang*, *Patang*, *Nyibu*, *Buniing Ajing* etc. His book is very informative and first kind of work done by the insider.

Law Research Institute Eastern Region (1985). A project report prepared by the, Gauhati High highlighted the customary laws related to the rights inheritance of property of the Apatani.

Gyati, (2012) analyzed the political participation of Apatanis in Panchayat Raj Institution. Her work revealed that socio economic factors are the main basis of participation. Verma (1990, 1998) has theoretically and empirically showed the reasons for disparity in female participation.

## **METHODOLOGY**

The study is based on participant observation. It has been supplemented by gathering both primary and secondary sources. The primary data have been collected from the seven original villages of the Apatanis by undertaking of field study through direct interview method.

Apatanis are famous for industrious, hard labor and unique traditions and customs. Prof. C.V.F Haimendorf remarks the Apatani as one of the most advancing tribe in his book '*The Apatani and Their Neighbours*' (1962). The Apatani, like any other society in Arunachal Pradesh is patriarchal. It is still steeped in the traditional ethos. In Apatani, usually women are excluded from decision making and deliberations of village council called *Buliang*. The women are considered as incapable of understanding customs and customary laws of the society. Hence, they were not allowed to take part in the political decision, some of social and religious functions. No doubt it is being changing with the introduction of modern education and modern political institution but custom and customary laws still place the women as lower status.

Are women really empowered? Seems to be the question of the decade as this decade saw the rise of many women and the fight for equality seemed to dim in the face of the new empowered female citizens of our nation, state and family. But like a day that has its dawn bright and clear has its dusk as well, the dawn of the empowered women had a stronghold that seemed to slacken in the dusk. No doubt there are few Apatani women doctors, engineers, academicians, lawyer and businesswomen at present. It does not mean they are really empowered

There is a popular saying in Apatani "*nyimii hii nyibo niipa, sanii hii kiidi pa*". It means "girls are for others, so as leaves are for the earth". In this saying, comparing the girl child with leaves on the tree. The life of the women is hiding behind this philosophy in Apatani society. The meaning of saying is that, girls are not permanent in the parents' house so as leaves do not remain permanent to the tree, it has to fall to the ground. It can be considered that a leaves are very delicate, it easily falls at strong wind. So as girls are delicate and she can easily frighten by tough time and trials. It also believed that leaves have short lives on the tree, so as girls has short lives with parents. Destiny of the leaves is on the ground, so as girls destination is at others (husband) house. Tree leaves has greenery for a season, so as girls youthful days and fertility are for a shorter period if compared with the boys. Therefore, the girl child and women has lower status and lesser value in the society. Many of the parents still believe that any investment for girl child education is wastage.

The women are also compared with children. In local term "*nyimi-hime*" means women and child. Both are often referred together as same category. It is believed that women cannot take a rational or decisive decision in the society. The women are weak as a child and incapable to think like a man. The women are compared with a child also because of delicate and pampering nature and immature attitude. Women considered as child because of lose tong. Without knowing the fact women often pass judgment and comments. Therefore in Apatani society the women not allowed to participate in decision making. This paper is an attempt to understand and analyze the status of women in Apatani society at 21<sup>st</sup> century. It is based on participant observation. Attempt has also been made to highlight the areas where the women roles and space are limited by societal norms and customs. Following are the areas:

### **GENDER PREFERENCE AND NEWBORN BABY BIRTHDAY CELEBRATION**

At the birth of the newborn baby itself, people are anxious to know the gender of the baby whether it is boy or girl. We can commonly see the different reaction and way of celebration of relatives and parent of baby girl and of boy. In case of baby boy people appreciation and complements to the parents would more than the girl. It

makes the parents of baby boy more proud. In case of baby girl, surroundings would not make special appreciation. Especially a father's expression can be visibly seen to be different at birth of a boy and of a girl. In new born birthday party also we can see the difference. In case of boy, party arrangement would be grander and bigger than of girl child. This practice shows that the Apatanis preferred baby boy more than the girl. Preference of the baby boy is because of the societal pressure, i.e. by relatives and peer group. Society does not give much respect and reverence to the parents who have no son than those who have. Even a person is very rich but has no son, his richness has no value. There is feelings of fear and insecurity of the parents without having son because their property will go to their next nearest male kin as per customary law. Parents of the girl child also have apprehensions that their daughter will not be treated well or respected by her in laws, if they have no brother to protect her during family disputes or clash. There are many occasion such as social gathering, religious or ritual ceremonies and family gathering that the members interact with each other. At such gathering the parents who have no son has to face embarrassment to the comments and jokes pass by the other member. There is a saying "if you have hundred girl child, it is as if have no children but if you have one son also you can roar like a lion". It reflects the strength and standing of a person in the society based on gender of the children. Male child boasts the parent status in the society therefore the parents more prefer a boy than a girl.

### **POLITICAL PARTICIPATION AND RIGHTS**

*Neha Buliang* is the traditional village council of the Apatani. In *Buliang* councils, only the male members of the society do take part. Women are not even allowed to witness the proceeding of the deliberations except for serving rice wine. In Apatani society, generally ladies are considered as incapable to make equitable decisions. The Apatanis counted women as equal with the children. They say, "*nyimii-hime ka luniing mi tapa taya toh*" means "do not mind the words of women and children". But they respect the women in many ways. All the household chores besides looking after children are managed by the women. These chores include fetching water, feeding domestic animals within the house besides cooking and feeding her family members. She has also to look over if there is steady supply of rice in the house. Hence, she brings paddy from the granary and husk off after drying it either in the sun in the veranda of the house or on the hearth. She is to tend to kitchen garden for daily needs of vegetables come from it. Thus, these chores simply do not permit Apatani woman enough time to participate in the deliberation of the *Buliang*. This must be one of the valid reasons for excluding women from participation in the deliberations of the *Buliang*. Moreover, girls after attending the age of puberty are counted as adults, who have become capable to bear the family responsibility. When



the girl becomes an adult they are not allowed to play or sit on the *Lapang* (community platform for meeting and religious ceremonies). The Apatani believes that adult lady sitting on the *Lapang* may pollute the sacred place because of her menstrual cycle. In fact, many of important decisions are taken on the *Lapang*. It must be another reason that women cannot be the member of *Buliang*. The third reason for excluding women from the council member is the *Buliang* council member is hereditary and Apatani consider it as an ancestral property. Female cannot inherit the ancestral property as per the customary laws.

### RELIGIOUS ACTIVITIES

The religious belief of the Apatanis is animistic in nature. They believe that countless number of unseen gods and goddesses are surrounded to them. An Apatani saying goes, “*miyu saling la gyunyang santa, tiigo santa lingii du*” (human beings evolved along with malevolent and benevolent gods and goddesses). The laymen cannot appease or propitiate or communicate with the *Ui*. For that one has to possess certain qualifications and character. In local language they are called *Nyibu* (priest). They are recognized as mediator between mankind and gods and goddesses. They perform important work in all kinds of propitiations and offerings of sacrifices while officiating in community socio-religious function, individual rites connected with life cycle and illness. It is due to such role, the society has conferred them highest authority in religious administration. There is no women priest in the Apatani. Though women may have knowledge of sacred chanting but she cannot be a priest. All kind of religious ceremonies are conducted by male priest. Women can participate as member of ceremonial function but cannot propitiate as priest. Religiously, in some occasion the women are restricted to take part certain rituals and rite. Therefore women are considered to have less religious knowledge than the man. In any religious ceremony the role of the women are to serve food and rice beer. There is popular belief in Apatani, men can conduct religious ceremony without women but women cannot do without men.

### ECONOMIC RIGHTS AND ACTIVITIES

Traditional Apatani economic life is fully dependent on agriculture and forest. There are clear division of work between men and women in economic activities. Both the men and women have equal right to work but do not get equal wage. Women are paid lesser than men. Simple reason is that physically men are stronger than women and can work more than the women, this may not be correct. Women have no equal right to possess the wealth and property.

Apatani is strictly patriarchal society. The father being the head of the family enjoys full authority over the property belonging to the family. He uses the same in accordance with his wish and desire. The other members of the family enjoy and

share the property with the father but they cannot claim absolute right over the same property during father's life time or till the partition or distribution of the properties. All the children born to him and to his wife are entitled to enjoy and share ancestral and self acquired property till they live together. It is customary rules that inheritance of property goes to the male heirs only by succession. Inheritance is totally male line in Apatani. The daughters after their marriage go out to a different clan or village is not entitled to have any share of landed property of the father. The daughters are not entitled to inherit any movable property except to those ornaments and cloths which their mother inherited or acquired through own efforts. Besides, the parents may offer certain gifts to their daughter such as grain, ornaments, pig skin on the occasion of the wedding ceremony.

These are the main reason that Apatani women cannot walk at par with male counterpart in terms of decision making and political participation. Apatani women have no independent identity. Her identity is attached with her father or her husband. Women cannot take in an independent and bold decision because her space in the society is very limited. Her life revolves round in the four wall of the house. If any women break the taboo by taking a bold decision then she would be tagged with bad girl identity. No girl in the Apatani wants to have a tag of bad girl. Women are considered to be less self esteemed when compared to men. It is because of her least exposure to the world. Her will and wish always suppresses for the sake of customs and traditions. It is also observed that there is a conflict between customs and rule of law while interpreting the basic right of the Apatani women. Here the basic right of the women is being curtailed. The custom cannot be a law which is contradicting the basic principle of rule of law. Here lies the gender disparity in Apatani customs and traditions in terms of political rights, economic equality, social and religious responsibility.

## CONCLUSION

Customs and traditions change accordingly with the change of the society. There are some changes with the introduction of modern education policy and introduction of modern political institutions. Numerically there is an increase of women participation in decision making and in social and cultural affairs but the real change would have yet to come with the change of mindset. Change is necessary to empower the women. For that every men and women has to realize the deprivation of women rights in various aspects of life in the society. The government also has to bring out the mechanism for equilibrium distribution of rights to both men and women.

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# ICT Mediation in Teacher Education: Barriers and Suggestions

G. Madhukar<sup>1</sup>

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**Abstract**—*Information and communication technologies (ICT) have become a commonplace entity in all aspects of life. Across the past twenty years the use of ICT has fundamentally changed the practices and procedures of nearly all forms of endeavour within business and governance. Education is a very socially oriented activity and quality education has traditionally been associated with strong teachers having high degrees of personal contact with learners. The use of ICT in education lends itself to more student-centered learning settings. But with the world moving rapidly into digital media and information, the role of ICT in education is becoming more and more important and this importance will continue to grow and develop in the 21st century. Technology includes devices for encoding, decoding, storing, organizing, processing, retrieving, transferring, and presenting information with the help of the tele-signals roaring in the ear; there is a dire need to use technology in teachers training institutions to build Indian knowledge based society. If we use technology based teaching modulation in our teacher's training programmes then only we can build techno-people and adjust them in this techno-world. This paper is an attempt to explore the ICT mediation in teacher education to promote techno pedagogic cultural adaptabilities in teacher's training programmes, barriers and suggestions.*

**Keywords:** *Role of ICT, ICT Based Education, ICT use in teaching-learning process, ICT mediated education and causes of barriers.*

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## INTRODUCTION

The 1990s was the decade of computer communications and information access, particularly with the popularity and accessibility of internet-based services such as electronic mail and the World Wide Web (WWW). At the same time the CD-ROM became the standard for distributing packaged software (replacing the floppy disk). As a result educators became more focused on the use of the technology to improve student learning as a rationale for investment.

For more than forty years, innovative teacher and educators have been optimistic about computer uses in schools. Their vision for computer based modulation is quite clear. While information and communication technology (ICT) is not a panacea for all educational problems, today's technologies are essential tools for teaching and learning process. To use these tools effectively and efficiently, teachers need visions of the technologies' potentials, opportunities to apply them, training and

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just-in-time support or feed-back to the students and in experiment. Only then teachers could be informed and confident about the use of new technologies in techno-based quality enhancement in our teacher training institution.

According to UNESCO (2002) information and communication technology (ICT) may be regarded as the combination of 'Informatics technology' with other related technology, specifically communication technology. The various kinds of ICT products available and having relevance to education, such as teleconferencing, email, audio conferencing, television lessons, radio broadcasts, interactive radio counseling, interactive voice response system, audiocassettes and CD ROMs etc have been used in education for different purposes.

However, the use of information and communication technologies in the educative process has been divided into two broad categories: ICTs for Education and ICTs in Education. ICTs for education refers to the development of information and communications technology specifically for teaching/learning purposes, while the ICTs in education involves the adoption of general components of information and communication technologies in the teaching learning process.

Thus, ICT enabled education will ultimately lead to the democratization of education. Especially in developing countries like India, effective use of ICT for the purpose of education has the potential to bridge the digital divide.

## **TEACHER EDUCATION IN INDIA**

In India there are nearly 3.5 million teachers in the formal school system. Primary school teachers are required to have ten to twelve years of general school and two years of professional education. Secondary teachers must have a minimum of first degree from the university and one year of professional education. There are several institutions and systems for in-service education of teachers, ranging from school complexes at decentralized levels to programmer/s designed at executed at the central level, but co-ordination between various agencies is yet to be obtained (UNESCO, 1990). In comparison with other states, Kerala's share in respect to the growth of higher education is high. In Kerala, education sector has been identified by the government as a priority area. It presents a good example of a developing state in which the use of ICTs in education has central support.

The National Council for Teacher Education (NCTE) with the view to promoting and motivating quality research in Teacher Education, constituted a Research and Programme Advisory Committee in June 2004. The NCTE's concern is to enable Teacher Education institutions to prepare a work force of trained teachers who are fully conversant with the technology. It signed an MoU with INTEL Technology India Pvt. Ltd, Bangalore on 20<sup>th</sup> December 2006 with a view to achieve the objectives of imparting sustained professional development to all teacher educators from all recognized institutions and making ICT a part of Teacher Education Curriculum:

- The stages of teacher development and the levels of adoption of ICT by teachers.
- The ICT competencies required of teachers related to content, pedagogy, technical issues, social issues, collaboration and networking.
- The importance of developing standards to guide implementation of ICT in teacher education.
- Important strategies to consider in planning of infusion of ICT in teacher education and managing the change.

### **ICT MEDIATION IN TEACHER EDUCATION**

A Teacher Education Curriculum framework needs to be in consonance with the curriculum framework for school education. A teacher needs to be prepared in relation to the needs and demands arising in the school context, to engage with questions of school knowledge, the learner and the learning process. The expectations of the school system from a teacher changes from time to time, responding to the broader social, economic and political changes taking place in the society.

Education needs to orient and sensitize the teacher to distinguish between critically useful, developmentally appropriate and the detrimental uses of ICT. In a way, ICT can be imaginatively drawn upon for professional development and academic support. ICT has in a very short span of time, turned out to be one of the building blocks of the emerging information society.

### **NCF FOR TEACHERS: IMPORTANCE AND ENCOURAGEMENT**

National curriculum framework for teachers 2010, emphasizes on the quality and vision of the technology mediated teacher education and elaborates the context, concerns to the vision undergoing teacher education and school education as well, as there is a symbiotic relationship between both of them, technology can enhance both these sectors and mutually reinforce the necessary for qualitative improvements of the entire spectrum of education including teacher training. The new concerns of school curriculum and teachers training curriculum expect transactional modalities to emphasize in national curriculum framework for teachers and to all stages of school education. Teacher education should be equipped with technology based knowledge and ICT in education well as e-learning that is the centre-stage in the framework.

The 10<sup>th</sup> fifth-year-plan envisages internet and internet connectivity for college and university teachers under UGC scheme, computer and internet literacy for teachers and all the staffs is essential, beside this the special support activities for SC/ST minorities, women and disadvantaged groups. The Government of India have entered in ITs and ICTs sectors in a big way for emergence India as a super software power of the world.

## ICT ENHANCING TEACHING AND LEARNING PROCESS

The integration of information and communication technologies can help revitalize teachers and students. This can help to improve and develop the quality of education by providing curricular support in difficult subject areas. To achieve these objectives, teachers need to be involved in collaborative projects and development of intervention change strategies, which would include teaching partnerships with ICT as a tool.

ICT changes the characteristics of problems and learning tasks, and hence play an important task as a mediator of cognitive development, enhancing the acquisition of generic cognitive competencies as essential for life in our knowledge society. Students using ICTs for learning purposes become immersed in the process of learning and as more and more students use computers as information sources and cognitive tools, the influence of the technology on supporting how students learn will continue to increase.

ICT environment improves the experience of the students and teachers to be used intensively in learning time for better results. The ICT environment has been developed by using different software and also the extended experience in developing web based and multimedia materials. ICTs have an important role to play in changing and modernizing educational systems and ways of learning.

Teachers generate meaningful and engaging learning experiences for their students, strategically using ICT to enhance learning. Students enjoy learning with the independent enquiry which the innovative and appropriate uses that ICT fosters. They begin to acquire the important 21st century skills which they will need in their future lives.

### CAUSES OF BARRIERS

India has a billion-plus population and a high proportion of the young and hence it has a large formal education system. The demand for education in developing countries like India has skyrocketed as education is still regarded as an important bridge of social, economic and political mobility. There exist infrastructure, socio-economic, linguistic and physical barriers in India for people who wish to access education. This includes infrastructure, teacher and the processes quality. There exist drawbacks in general education in India as well as all over the world like lack of learning materials, teachers, remoteness of education facilities, high dropout rate etc. Verma (2000, 2002).

### MANY ICT PROGRAMS HAVING FOLLOWING BARRIERS

- *Gender as Barrier:* For years, women have had a small role when it comes to technology, using technology, and inventing technology. It has been observed that the digital divide is much more than men.

- *Disability as Barrier:* Lack of accommodation for people with disabilities causes a gap in those people's abilities to access to technology.
- *Race as a Barrier:* Minorities which is not dictated by access issues but by how minorities tend to choose to use technology.
- *Infrastructural Barriers:* India still lacks a robust telecommunication infrastructure with sufficient reliable bandwidth for internet connection. Public libraries which can provide access to the internet do not have computers. Although cyber cafes have been increasing, poor people cannot afford to have access to it due to high cost.
- *Literacy and skill Barriers:* The lack of skill in using computer and communication technology also prevents people from accessing digital information.
- *Economic as Barrier:* The lower income group does not have discretionary money to spend cyber-café.
- *Content as Barrier:* To ensure that all the citizens are able to receive diverse content relevant to their lives as well as to produce their own content for their communities and for the internet at large.
- *Language Barriers:* Today a large percentage of information content on the internet is in English which is a barrier for the people whose primary language is not in English.

## **SUGGESTIONS**

- Teacher Education institutions should be ensured with financial and human resources with training for successful incorporation of ICTs.
- It is also necessary to extend a stronger understanding of future learning needs and future environments for ICT skills.
- Provide a short-term foundation course that focuses hands on ICT experience as the initial stage of pre-service training.
- Provide more advanced ICT courses as elective for students who need or want to develop more advanced ICT based pedagogical skills.
- Integrate ICT components into all the subject matters of areas such as Mathematics, Social Studies, and English and so on so that students have role model for ICT integrated and teaching and learning.
- The ICT curriculum should facilitate change towards a more inclusive approach that promotes positive and supporting interdependence between students and teachers while maintaining individual accountability and autonomy.



## CONCLUSION

At present our teachers training programmes are not well equipped with new technologies, it should be revised and reviewed so that technology played a role to integrate educational aspects and educational institutions i.e. teacher training institutions, colleges, universities and school system, as techno-learning convert Indian population to Indian knowledge based society. Teachers and administrators do have the skills to apply the techno-learning arena in our education system.

Teachers can access and spread techno-learning through lesson plans, networks of teachers, pedagogical techniques, heutagogical techniques, techno-based modulation, evaluation, feed-back and other forms of new web based technology as these are the potentials of teaching assistance, especially designed for quality enhancement.

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# Teacher Work Behavior in Relation to Emotional Intelligence of Special Education Teachers

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**Abstract**—*The present aim of research paper is to study teacher work behavior in relation to emotional intelligence of special school teachers for the purpose of study consisted of forty special school teachers of special schools of gautam budh nagar district selected by applying simple random sampling method. Standardized tests were administered as a tool for data collection. The statistical techniques like product moment methods of correlation and t-test were used to test the hypotheses. The conclusion revealed that there is significant relationship between teacher work behavior and emotional intelligence of special school teachers.*

**Keywords:** *Teacher Work Behavior, Emotional Intelligence*

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## INTRODUCTION

The teaching is a noble profession. The teachers are the heart of the matter and core of whole educational process. The strength of education system largely depends upon the quality of teachers who sustain it. Teachers are those individual who makes a student from their skills. It is therefore, imperative that those individuals, who give the knowledge of basis of education, should be able to impart character among the students. They are the experts who arouse enthusiasm and are a source of inspiration for the students. No doubt, teacher is the real architect of nation and the maker of the humanity. But knowledge inclusion has its own limitations (Verma, 2015).

## EXCEPTIONAL CHILDREN

J.E Wallace Wallin suggests that in "a typical group of 1,000 elementary school children from environments of inferior, medium and superior economic and social status about 500 children will present problems calling for special educational, psychological, social, physical adjustments because of exceptional scholastic, intellectual, emotional, social, personality or physical conditions. At least one-tenth of these children suffer from mental or physical disabilities, so sufficient gravity require special provisions". These children are deviations from the normal. They differ from the normal in physical, mental or emotional factors and thus the term 'exceptional children' may be applied to them.

Crow and Crow consider that "the term typical or exceptional is applied to traits or to a person possessing the trait if the extent of deviation from normal possession of that trait is so great that because of it the individual warrants and receives special attention. Hence his behavior responses and activities are thereby affected.

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## **TEACHERS WORK BEHAVIOR**

Teacher's work behavior is another important element. Teacher's activities are very complex and difficult to analyse. It has been rightly said that "teaching can be best understood not as a single activity but as a whole family of activities some people are of the opinion that teaching is creative and therefore, immeasurable. But still the supervisor should observe the teacher in action. More and more efforts are being made to define the elements of teaching. There are four components of teacher's work behavior, which are given below.

### **TEACHING SKILLS**

Teaching skills are those skills which are used to plan and organize our teaching lessons. Beforehand, finish the subject syllabus in time for exams, to closely scrutinize our students while making use of good language. We have full control over what we do while teaching to speak clearly. While teaching, use the background quite often while teaching, use the blackboard quite often while teaching, respond well to criticism and supervision of the teaching, never begin to teach new things without being told and always take care to maintain good physical appearance while teaching.

### **WORK INITIATIVE**

Work initiative refers as to always capably tackle unpredictable situations in the school, to keep our self up to date with new developments in our teaching subjects, to keep a look out for better ways to teach, to finish work quickly and look for more, to give extra time to our teaching activity in schools, to do more work in school and to participate in all important school activities, to communicate effectively in activities, never stay away from the class room more than necessary.

### **INTERPERSONAL RELATIONSHIP**

Inter personal relationship refers as to help others when caught up with our own work, to get along well with our colleagues, to cooperate with fellow teachers to feel at ease with the principal of our school, to be helpful and considerate towards our students, often give advice to our students, to be courteous when dealing with parents, to take up leadership roles in various school activities, to encourage students to have discussions about their problems to talk excessively about personal matters with my colleagues.

### **WORK HABITS**

Work habits refers as to take correction work name to finish fast, to teach the same things over and over again, to make ourselves aware of the result of our teaching, to be usually relaxed while teaching, not to be absent from school more often than necessary, to be punctual for our work, not to day dream during teaching hours, not to use corporal punishment when our students do wrong, take care to maintain the equipment used while teaching, never do other kinds of work during school hours, never be absent without notifying during the school hours. But all these quality of teachers are systematically related with the intelligence or affected by their intelligence.

## **EMOTIONAL INTELLIGENCE**

According to S.K. Mangal and Shubhra Mangal, "The aspects of Emotional Intelligence like, Intrapersonal awareness (Knowing about one's own emotion) Inter-personal Awareness (knowing about other's emotions), Intra personal Management (Managing one's own emotions) and Inter personal management (managing others emotion) respectively".

### **INTRA PERSONAL AWARENESS**

Intra personal awareness is the first component of emotional intelligence which can be measured or by which we can know about one's own emotions. By this we can observe own-self and recognize feelings as it happens. Channeling emotions in the service of goal emotions, self-control and delaying gratification refers to the ability in administering or managing self in every day to get the highest results.

### **INTER PERSONAL AWARENESS**

Inter personal awareness is the second component of emotional intelligence which can measure or by which we can knowing about other's emotions. By this we can observe other self and recognizing of other's feeling as it happens. Sensitivity to other's feelings, concerns, taking their perspective and appreciating the difference in how people feel about thing.

### **INTRA PERSONAL MANAGEMENT**

Intra personal management is the third component of emotional intelligence which can be measured or by which we can know about the managing of one's own emotions. Channeling emotions in the service of a goal emotional self-controls delaying gratification and stifling impulses and handling feelings, so that they are appropriate to realize what is behind a feeling finding ways to handle fears and anxieties anger and sadness.

### **INTER PERSONAL MANAGEMENT**

Inter personal management is the fourth component of emotional intelligence which can be measured or by which we can know about the managing of other's own emotions. This is the skill to managing the subordinates and the social relations, the ability in getting along with others, the ability to interest work according to the aptitude of the person.

If there is any relationship between emotional intelligence and teacher's work behavior is established then proper education is provided. Therefore, the researcher selects the topic as 'Teacher Work Behavior in Relation to Emotional intelligence of special schools teachers.'

## **OPERATIONAL DEFINITIONS**

### **TEACHER WORK BEHAVIOR**

Teachers Work Behavior refers as the special schools teacher's ability towards teaching skills, work initiative, Inter personal relationship and work habit as measured by P. Sharma on Teacher's Work Behavior Scale (2001).

## **EMOTIONAL INTELLIGENCE**

Emotional intelligence refers as person's ability to inter-personal awareness (own emotions), Intra-personal awareness (other emotions), inter-personal management (own-emotions) and intra-personal management (other emotions) as measured by S.K. Mangal and S. Mangal on Mangal Emotional Intelligence Inventory (2004).

## **SPECIAL EDUCATION TEACHERS**

Special school teachers are those individual who are teaching in special school affiliated by Rehabilitation Council India.

## **OBJECTIVES OF THE STUDY**

- To study the significance relationship between teacher's work behavior and emotional intelligence of special school teachers.
- To study the significance relationship between teaching skills and emotional intelligence of special school teachers.
- To study the significance relationship between work initiative and emotional intelligence of special school teachers.
- To study the significance relationship between inter-personal relationship and emotional intelligence of special school teachers.
- To study the significance relationship between work habits and emotional intelligence of special school teachers.
- To study the significance difference in teacher's work behavior of male and female special school teachers.

## **HYPOTHESIS OF THE STUDY**

- There exists no significance relationship between teacher's work behavior and emotional intelligence of special school teachers.
- There exists no significance relationship between teaching skills and emotional intelligence of special school teachers.
- There exists no significance relationship between work initiative and emotional intelligence of special school teachers.
- There exists no significance relationship between inter-personal and emotional intelligence of special school teachers.
- There exists no significance relationship between work habits and emotional intelligence of special school teachers.
- There exists no significance relationship between teacher's work behavior of male and female of special school teachers.

## SAMPLE

The researcher used simple random sampling for collection of forty school teacher data of Gautam Budh Nagar districts.

## ANALYSIS AND THE INTERPRETATION OF THE RESULTS

Table 1 reveals that the correlation of special school teachers between teacher's work behavior and emotional intelligence was 0.65. This result represented as positive moderate correlation between teacher's work behavior and emotional intelligence of special school teachers.

**Table 1: Co-efficient of Correlation between Teacher's Work Behavior and Emotional Intelligence of Special School Teachers**

Variables	N	Co-efficient of correlation	Nature of Correlation
Teacher's Work Behavior	40	0.65	Positive Moderate Correlation
Emotional Intelligence	40		

In the light of the above results, the hypothesis that there exists no significant relationship between teacher's work behavior and emotional intelligence of special school teachers stand rejected. Correlation of teachers work behavior and emotional intelligence of special school teachers indicates that increase of emotional intelligence has positive effect on teacher's work behavior of special school teachers.

**Table 2: Co-efficient of Correlation between Teaching Skills and Emotional Intelligence of Special School Teachers**

Variables	N	Co-efficient of correlation	Nature of Correlation
Teacher's Teaching Skills	40	0.56	Positive Moderate Correlation
Emotional Intelligence	40		

Table 2 reveals that the correlation of special schools teachers between teachers teaching skills and emotional intelligence was 0.56. This result represented as positive moderate correlation teaching skills and emotional intelligence of special school teachers.

In the light of the above results, the hypothesis that there exists no significant relationship between teaching skills and emotional intelligence of special school teacher's stand rejected. Correlation of teaching skills and emotional intelligence of special school teachers indicates that increase of emotional intelligence has positive effect on teachers teaching skill of special school teachers.

**Table 3: Co-efficient of Correlation between Work Initiative and Emotional Intelligence of Special School Teachers**

Variables	N	Co-efficient of Correlation	Nature of Correlation
Teacher's work initiative	40	0.69	Positive Moderate Correlation
Emotional Intelligence	40		

Table 3 reveals that the correlation of special schools teachers between work initiative and emotional intelligence was 0.69. This result represented as positive moderate correlation between teachers work initiative and emotional intelligence of special school teachers.

In the light of the above results, the hypothesis that there exists no significant relationship between work initiative and emotional intelligence of special school teachers stand rejected. Correlation of work initiative and emotional intelligence of special school teachers indicates that increase of emotional intelligence has positive effect on teachers work initiative of special school teachers.

**Table 4: Co-efficient of Correlation between Inter-personal Relationship and Emotional Intelligence of Special School Teachers**

Variables	N	Co-efficient of Correlation	Nature of Correlation
Teacher's Work Inter-personal	40	0.54	Positive Moderate Correlation
Emotional Intelligence	40		

Table 4 reveals that the correlation of special schools teachers between teacher's inter-personal relationship and emotional intelligence was 0.54. This result represented as positive moderate correlation between teachers inter-personal relationship and emotional intelligence of special school teachers.

In the light of the above results, the hypothesis that there exists no significant relationship between inter-personal relationship and emotional intelligence of special school teachers stand rejected. Correlation of inter-personal relationship and emotional intelligence of special school teachers indicates that increase of emotional intelligence has positive effect on inter-personal relationship of special school teachers.

**Table 5: Co-efficient of Correlation between Work Habits and Emotional Intelligence of Special School Teachers**

Variables	N	Co-efficient of Correlation	Nature of Correlation
Teacher's Work Habits	40	0.45	Positive Moderate Correlation
Emotional Intelligence	40		

Table 5 reveals that the correlation of special schools teachers between work habits and emotional intelligence was 0.45. This result represented as positive moderate correlation between teacher's work habits and emotional intelligence of special school teachers.

In the light of the above results, the hypothesis that there exists no significant relationship between work habits and emotional intelligence of special school teachers stand rejected. Correlation of work habits and emotional intelligence of special school teachers indicates that increase of emotional intelligence has positive effect on work habits of special school teachers.

**Table 6: Significant difference between Male and Female Special School Teachers in their Work Behavior**

Variables	Group	N	t-ratio	Level of Significance
Teacher's Work Behavior	Male	20	1.63	Not significant at 0.5 level
	Female	20		

Table No 6 reveals that the t-ratio between male and female special school teachers was 1.63. The mean difference of work behavior between male and female special school teachers was not significant at 0.5 levels.

In the light of the above results, the hypothesis that there exists no significant difference in mean of work behavior of male and female special school teachers stand accepted. Comparison of male and female special school teachers indicates that there was no significant difference between male and female special school teachers on their work behavior.

### DISCUSSION OF THE RESULTS

Education is a social process. Through this social process, the whole personality of individual is developed and the society is uplifted. The process induces education in the society to be followed in different ways. These are formal, informal and non-formal.

The formal way of education in the society is maintained in the schools, colleges and universities. It is a conscious process of teaching and learning in the schools and educational institutions. The direct interaction between teachers and students are maintained. The teacher's role is crucial in the formal educational tasks. He is the real artist in the educational field. The whole educational structure depends upon the teacher plays role as a manager, co-operator leader etc.

The personality of teacher greatly affects the learning of the students. The tasks of teacher in the teaching learning process are divided into three ways such as cognitive, affective and psychomotor.

The cognitive (knowing) role of teacher includes planning, presenting and evaluating the teaching learning process. It includes knowing compression, application, analysis, synthesis and evaluation of subject matter. The present teacher facilitates the skills of handling the cognitive aspect of behavior. The affecting (feeling) role of teacher in educational field includes awarding his own emotions managing his own emotions, motivating one-self while recognizing and influencing other's emotions and handling the relationship with students. The present teacher at primary level is given less priority to learn different skills of handling emotional side of behavior. The psychomotor (doing) role of teachers includes all activities in the educational setting that is the circular and co-curricular



activities. The present teacher at special level also develops some skills within the teacher to handle the activities in the educational setting. Teacher and students are actively participating in learning process. They are direct interacting towards educational objectives. The present education does not give better education to special school teachers to learn the various skills of handling the teachers work behavior. The special school teachers are less aware of teacher work behavior skills of handling the educational tasks. Therefore, the affective aspect of behavior of special school teachers is different some them.

The study reveals that were individual differences in the teachers work behavior among special school teachers. The present teacher behavior at special level may not help the teachers much to learn and in managing the teachers work behavior. The curriculum of special school teacher requires changes because it does not facilitate the all-round development of personality. The study shows that the teachers were selected for teaching profession special differs in their working behavior towards society. The study shows that the teachers work behavior was increased with respect to emotional intelligence. The work behavior of special school teachers represented better success of teaching profession so the norm of becoming the teacher should be given priority.

The study shows that the teachers teaching skills had increased with respect to their emotional intelligence, which gave the better teaching to the students of special school. The study shows that the teachers work initiative was also increased with respect to emotional intelligence so that the teachers of special school got better working initiative towards the emotional intelligence. The study shows that teacher's interpersonal relationship was also increased with respect to emotional intelligence so that the teachers of special school got better personal relationship among the students as well as the other teachers.

The study shows that teachers work habits had increased with respect to emotional intelligence which shows that the teacher who had emotional intelligence gave better performance towards working habits of special school teachers. The role of gender in an individual also affect in some fields, but in the teachers work behavior the role of male and female category based on gender were not different. The study shows that effective managing of teachers work behavior was related to person's abilities rather than affected by gender of special school teachers.

## **EDUCATIONAL IMPLICATIONS**

The aim of education is to humanize the humanity and to made life progressive, cultured and civilized. It is through education that man develops his thinking and reasoning, problem solving and creativity, intelligence and aptitude positive sentiment and skills, good values and attitudes etc. Teacher holds a key position in

the whole of infrastructure of education. Studies by psychologist, clearly confirmed that the personality of the teachers is a powerful factor in the learning habits and personality development of the students. Emotional intelligence essentially reflects our ability to deal successfully with other people and with our own feelings and thus ensures that an individual be able to attain dizzy heights in his personal as well as professional life.

The educational implications of the present study were not difficult to discern. The subject of the study was of much importance in the present context as there was a growing realization of focusing attention on the special school teacher's personality traits and emotional intelligence of the special school teachers including their management of teaching and learning as well as dealing with students in an effective and efficient ways.

The present study points out that the personality of special school teachers was given priority of the teaching learning process. His behavior must be like a role model for the students. So the special school teacher behavior must be adjustment with the environment out the study shows all those who were selected for teaching profession were different within their behavior pattern of dealing with the environment.

The human being was divided into two areas such as male and female, on the variable of sex. The role of sex also guides the special school teachers to adjust in the society in different ways. However, the study shows that the variable of sex do not affected the special school teachers in possessing emotional intelligence.

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# Urban Crime and Safety: A Case of Some Selected Gated Neighborhoods in Oshodi/Apapa Local Government Area, Lagos State

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**Abstract**—*The prevalence of gated communities has security undertone, this is largely due to lack of confidence in public security agencies to protect and ensure adequate security. Thus, gated communities are targeted towards reducing the incidence of crime. In Nigeria, particularly Lagos State, the concept of gated communities is fast growing in response to safety and security challenges. The paper explores urban security and gated neighborhoods phenomenon in Lagos. Hence, this study reveals the existence of two major forms of gated neighborhood in the study area: partially closed and totally closed. Development fragmentation, rising tension, and economic segregation among residents, restriction in the use of communal open space, social segmentation, separation, and inaccessibility during emergencies are major problems arising from this phenomenon. Recommendations include: the need to address hindrance to emergencies response by gated neighborhood, promotion of communal space sharing, formulation of appropriate policy measures to address urban fragmentation tendency.*

**Keywords:** *Gated Neighborhood, Crime, Security, Safety, Development*

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## INTRODUCTION

Generally gated community is a form of residential environment where there is strict control of inflow and outflow of vehicular and pedestrian traffic. It is also a community characterized by closed perimeter wall and fences (Ilesanmi, 2012). Grant and Mittelste (2003) defined gated community as housing development on private roads closed to general traffic by a gate across the primary access. The development may be surrounded by fences, walls, or other natural barriers that further limit public access. It consists of number of streets with shared amenities. Gated community is not a new phenomenon. Judd (1995) opined that in the last 20<sup>th</sup> century an ancient urban form reappear in modern settlements, fortified developments which are becoming increasingly commonly characterized by closing off streets to enhance local security and control traffic flow.

The origin of gated communities is due to security concern in residential environment and lack of confidence in public security agencies to protect and ensure security of the citizenry. Thus, gated communities are targeted towards reducing or curbing the incidence of crime and violence. This view is further

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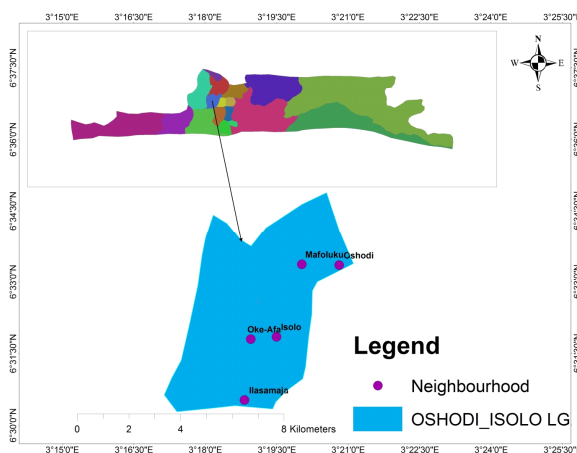
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confirmed by Grant and Mittelste (2003); the authors noted that gates and barriers indicate depth of security concern which contemporary cities must address to curb crime, traffic, loss of sense of community, and fear of mixing.

In Nigeria, the origin of gated community could be traced to the government-reserved area (GRA), a fortified enclave of residences for the rich, ruling elite, which reflected the status-related factor (Ilesanmi, 2012) and security concerns (Uduku, 2010). In Nigeria today, the concept of gated communities is fast growing in response to safety and security all over the country (Ajibola, Oloke, and Ogungbemi, 2011). This paper examines the dynamic of gated community vis-à-vis types, implications, perceptions and appropriate measures to counter the ills of gated community.

## STUDY AREA

The study focuses on Oshodi-Isolo local government area. Oshodi-Isolo local government area, and is located in the southern eastern part of Lagos State, Nigeria, with an area extent of 41.98 square kilometers (Lagos State Government, 2012). It lies within latitude  $6^{\circ} 58'N$ , longitude  $3^{\circ} 39'N$ , latitude  $6^{\circ} 50'$ , and longitude  $3^{\circ} 35'E$ . It is bounded by Ikeja local government in the North and Alimosho Local Government Area in the West. Mushin Local Government Area lies to the east while it shares boundary with Amuwo Odofin in the South and Surulere Local Government Area in the South East (Adejobi, 2012).



**Fig 1.1: Map of Lagos State (Nigeria) showing the Selected Study Areas in OSHODI/ISOLO Local Government Area (Spatial Resource Dept., 2017)**

Residential land use is the dominant land area in the local government area, this account for 35.87 percent of total land uses. Notably residential areas include, Ilasamaja, Oke Afa, Isolo, Oshodi and Mafoluku. Commercial land use is another predominant use in Oshodi, commercial areas can be found along major roads such as Agege motor road, Airport road, Oshodi-Apapa expressway. The total land area of

commercial uses in the local government area is 4.73 square kilometers (11.27%). Industrial land uses accounts for 7.67 percent of total land area and industrial land uses include; Ilasamaja industrial area, Abimbola industrial area, Iyana Isolo industrial zone. Circulation land use account for 10.10 percent of total land area in Oshodi-Isolo local government area and major arterial roads within the local government include Oshodi-Apapa Expressway, Agege Motor Road, Airport road, Cele Express link road. Other land use are agriculture/open space 4.73 sq km (11.27%), mixed use 2.35 sq km (5.60%), and public/educational land use 3.92 sq km.

## RESEARCH METHOD

The study made use of secondary and primary data. Secondary data were derived from relevant published and unpublished literature, while primary data were derived from questionnaire administration. The sample frame for this study is the total population of Oshodi-Isolo local government, estimated at 933,276 (author projection using geometric population projection at 3.5% growth rate with 1996 base year population of 545,776). To determine the sample size of this study, the study adopts Taro Yamane's (1973) statistical formula ( $n = \frac{N}{1 + N(e)^2}$ ) at 5 percent error margin and 90 percent confidence level, thus the study sample size is 271 residents.

The study respondents were selected from residents of gated community in the study area. The study adopts a systematic random sampling technique in the selection of sample. The random route walk method was used for selecting respondents. The random route walk method is a systematic procedure by which an interviewer moves in the field to select respondents (residents in buildings) while maintain a fixed sampling interval. Data are presented using descriptive statistical methods.

## REVIEW OF RELATED LITERATURE

The challenge of urban safety and livability has been traced to urban insecurity, consequence of increasing urban crime. The city is a melting point of people from diverse cultural, racial and religious backgrounds, for economic reasons. The heterogeneity of the urban environment makes it an attractive place for different forms of violence and crime (Agbola, 1997). Levels of crime in some developing countries pose very significant problems for municipal governments and make particular demands on governments. Urban crime increasingly affects the quality of life and urban development throughout the world.

Schaefer (1989), referred to crime as a violation of criminal law of which its formal penalties are applied by some governmental authority. A normative definition views crime as deviant behavior that violates prevailing norms, specifically, cultural standards prescribing how humans ought to behave. This approach considers the complex realities surrounding the concept of crime and seeks to understand how

changing social, political, psychological, and economic conditions may affect the current definitions of crime and the form of the legal, law enforcement, and penal responses made by the State (Edewor, 2010). Crime affects different people in different ways. It affects the health, the emotions, the finances and the overall wellbeing of both victims and witnesses either at a first hand or a second hand level (Edewor, 2010).

According to Chukwunika (2010) there are three main categories of crimes namely: crimes against a person; crimes against property and crimes against public order. The crimes against a person include such deviant acts as murder, assault, and rape. The crimes against property are forgery, burglary, arson, vandalism and violent stealing. Drug addicts and narcotics are interpreted as crime against the public order.

In many urban centers of Nigeria today, criminal activities are assuming dangerous tendencies as they threaten lives and properties, the national sense of well-being and coherence, peace, social order and security, thus, reducing the citizen's quality of life (Ahmed, 2010). They are especially afraid of armed-robbers, paid assassins, political thugs and other criminals who assess life as being worthless (Ahmed, 2012).

Habitat Safer Cities Report (2007), noted causes of crime to be in three manifolds: social, institutional and situational (physical urban environment). Social causes includes social exclusion and marginalization; lack of social control; lack of socialization in the family and schooling; crisis in local traditions and values and lack of integration into society. Situational (physical urban environment) causes includes failure to master the urbanization process; lack of urban services; absence of the conception of security in urban polices and planning; degradation of urban neighborhoods and crowding and illegitimacy of certain quarters that causes non-legal zones and trafficking of weapons.

UN Habitat Safer Cities report also noted consequences of crime and violence to be general feeling of insecurity which results in: abandonment of neighborhoods and avoidance of certain quarters; development of "architecture of fear"; stigmatization of certain quarters or populations; creation of climate that threatens the foundation of democratic institutions in urban areas and impedes economic development.

Since the 1990's, fear of crime has become a global concern (Garland and Sparks, 2000). Measures to reduce crime and recourse to self-help are seemly inability of government to guarantee the security of the people, most especially in Nigerian urban centers, notably Lagos metropolis. This is further framed by Landman and Schönreich (2005) that one of the consequences of government's inability to protect the life and property of all its citizens especially in developing countries is the formation of private alternatives to crime prevention and control. Gated neighborhoods are part of the alternative to address the challenge of urban insecurity.

Gated communities are “walled or fenced housing development to which public access is restricted, often guarded using closed circuit television (CCTV) and/or security personnel, and usually characterized by legal agreement (tenancy or leasehold) which tie the residents to a common code of conduct’ (Blandy *et al* 2003). From this, a gated community is basically a residential environment where access or entrance to the areas is either prohibited or controlled by means of gates, security personnel or security equipment.

Gated communities, scattered all around the world, differ from country to country, with respect to their characteristics and in particular with respect to different reasons for development in relation to security, ethnicity and prestige (Gulumser and Levent, 2007). In Latin American countries, the phenomenon first emerged as summer resorts then become a solution for ethnicity (Coy and Pöhler, 2002). In Europe, the primary reason for gated communities is the seasonal use of houses in coastal zones, and a fashion trend. In Central-Eastern Europe, they first appeared after the collapse of state socialist systems (Frantz, 2006).

As noted by Erişen (2003) gated communities are based upon the idea of being isolated against the disorder, dust, noise, and crowds of the city. They place total security and protection from discourse of fear and violence as its primary feature. The most important and leading characteristic of gated communities are the exclusion and segregation of non-residents to access to streets, parks, playgrounds, sidewalks. They are designed in such a way that penetration by nonresidents seems impossible. Physical barriers are created and these places may be patrolled by sophisticated systems which largely influence designs of the establishment and regulations about the people who are allowed to enter and the activities that are carried out there.

Naudé (2003) opined that from a criminological perspective, public road closures have a limited success rate. It can reduce some opportunistic or impulsive crimes, particularly theft, burglary, vandalism and street crimes (such as pick-pocketing and snatch-and-grab crimes) which are mostly committed by opportunistic and impulsive criminals. It has very little impact on the overall crime rate at city, regional or national level. Graham and Bennett (1995) are also of the view that although some physical security measures may be effective at the level of individual targets, there is very little evidence to show that it can be effective at the level of whole estates, cities, regions or countries’ which seems to support the displacement of crime viewpoint.

Ghonimi et al (2010), concluded that gated communities are not a holistic approach for urban development, that there is a division between practice of gated communities and theories of good communities; there is a division between inserted westernized gated pattern and required supposed compatible pattern with unique characteristics of gated community new towns.

However, despite gating, visitors must be allowed into the enclosed area, such as family and friends, domestic workers, municipal workers, construction workers, garden and repair and delivery services, there is still a high crime risk in such closed areas.

According to Naudé (2003), other consequences of public road closures is that the larger the enclosed area or the security village, the more difficult it will be to control lawful and unlawful access which in turn increases the crime risk. Especially when the borders of the security controlled area are the existing, often inadequate, boundary walls and fences-this is frequently the case. Access controlled areas can also create false feelings of safety which can increase inhabitants' crime risk as they are inclined to become complacent resulting in a decrease in their vigilance, observation and surveillance of their environment.

Another serious problem is the fact that public road closures are problematic for emergency services such as the police, ambulances, fire brigade and private security services which can endanger life. Grant (2003) also stated that during emergencies, access for fire fighters, the police, and ambulances to evacuate the injured is likely to be a major concern. The question is whose right to life is the most important: those who want to protect themselves and their property from crime or those who need emergency lifesaving services? Economically, it can also have a negative effect on business operations in the enclosed area as it restricts the flow of people to the business area.

Tremendous inconvenience is also caused for the general public who are forced to use alternative routes which in turn causes congestion and high pollution (detrimental to the health of the home owners in these streets). Such traffic congestion can also increase the risk of pedestrian and vehicle accidents.

## FINDINGS AND DISCUSSION

From the total 271 questionnaires administered in the study area, 235 were retrieved and valid for analysis, this represents 86.7 percent of total administered questionnaire. This section examines different variable associated with the theme of the study.

### RESPONDENTS AGE DISTRIBUTION

**Table 1: Age Distribution of Respondents**

Age	Frequency	Percentage
0-25 Years	8	3.40
25 – 29 Years	13	5.53
30 – 34 Years	28	11.91
35 -39 Years	17	7.23
40 – 44 Years	33	14.04
45 – 49 Years	57	24.26
50 – 59 Years	46	19.57
60 Years Above	33	14.04
<b>Total</b>	<b>235</b>	<b>100</b>

Source: Field Survey, 2015

The age classification of the respondents within the gated neighborhood indicates that the respondents age cohort range from 25 years above. The respondents within the age bracket of 0-25 years are 8 (3.40%), 25-29 years are 13 (5.53%), 30-34 years are



28 (11.91%), 35-39 years are 17 (7.23%) among other (table 1). This implies that the survey cut across different age cohort in the study area and thus the outcome of the survey reflects the opinion of the different age cohort that make up the study area. It could be inferred that the study area is conducive for different age cohort.

### SEX OF THE RESPONDENTS

**Table 2: Sex Status of Respondents**

Sex Status	Frequency	Percentage
Male	153	65.11
Female	82	34.89
<b>Total</b>	<b>235</b>	<b>100</b>

*Source:* Field Survey, 2015

The male population of the gated community is 153 (65.11%) while the female is 82 (34.89%) (See table 2). The implication of this information is that the study sample cut across the gender, as such the researcher would have the privilege to acquire information from different gender perspective. The study further aligns with the traditional notion of male dominance as household-heads.

### EDUCATIONAL STATUS OF THE RESPONDENTS

**Table 3: Neighborhood Educational Background**

Educational Background	Frequency	Percentage
No Formal Education	4	1.70
Primary School	16	6.81
Secondary School	35	14.89
Post-Secondary Education	195	82.98
<b>Total</b>	<b>235</b>	<b>100</b>

*Source:* Field Survey, 2015

This research work reveals that over 90 percent respondents claimed to have one form of educational background. As revealed in the survey, respondents with primary school educational background are 16 (6.81%); respondents with secondary school educational background are 35 (14.89%) while respondents with post-secondary education (college of education, polytechnic and university) are 195 (82.98%). Only 4 respondents (1.70%) have no form of education (see table 3). The inference drawn from this is that majority respondents could be regarded as educated and based on the basic assumption that being educated implies ability to read and write it then could be assume that all respondents will be able to read and interpret the contents of the questionnaire and increase the quality of the research output.

### AVERAGE MONTHLY INCOME OF THE RESPONDENTS

Study area residents in low and medium income earning group earn below N18,500 and N80,000 on monthly basis, these are over 60 per cent of the total population of respondents (see table 4). This implies high prevalent of low and medium income

earners in the study area. Furthermore, the low earning capacity of these populations could impacts of their ability to fulfill financial obligations in maintenance of security personnel and other procurement of security devices associated with gated communities.

**Table 4: Average Monthly Income of Respondents**

Income	Frequency	Percentage
Below N18,000	81	34.47
N18,001 – N30,000	12	5.11
N30,001 – N60,000	39	16.60
N60,001 – N80,000	40	17.02
N80,001 – N100,000	27	11.49
N100,001 above	36	15.32
<b>Total</b>	<b>235</b>	<b>100</b>

Source: Field Survey, 2015

## NEIGHBORHOOD TYPE

**Table 5: Gated Neighbourhood Type**

Gated Type	Frequency	Percentage
Partially Closed	173	73.62
Totally Closed	62	26.38
<b>Total</b>	<b>235</b>	<b>100</b>

Source: Field Survey, 2015

As indicated in the outcome of this research work, the two major types of gated neighborhood in the study area are partially closed and totally closed gated neighborhoods (see table 5). The partially closed neighborhood open the main gate to visiting and thoroughfare vehicular and pedestrian traffic for certain number of hours in the day, while the totally closed neighborhood close the main gate for vehicle thus discourage thoroughfare. Though, the gate is open to residents with different forms of identification. Inference drawn from this is that; the study area is different from generally classification of gated neighborhoods as indicated in the literature review.

## SECURITY MEASURE OF NEIGHBORHOOD

**Table 6: Security Measures of Neighbourhood**

Security Measures	Frequency	Percentage
On-site security guards	193	82.13
CCTV/surveillance cameras	11	4.6
Electrified wire fences	7	2.9
Security alarms	24	10.21
<b>Total</b>	<b>235</b>	<b>100</b>

Source: Field Survey, 2015

Apart from gates and fences, the residents were asked to indicate other forms of security measures deployed in the study area, the respondents noted that on-site security guards ranked high among other neighborhood security measures.

However, in some area, security alarms, CCTV/surveillance cameras and electrified wire fences were installed (see table 6). These results shows that gated community in the study area is not at par with some of noted gated communities in developed countries where advanced security and surveillance security measure are installed to ensure the safety of the neighborhood.

## NEIGHBORHOOD SECURITY MANAGEMENT

**Table 7: Neighbourhood Management**

Neighborhood Management	Frequency	Percentage
Community Development Association	235	100
Private Security Firm	-	-
Individuals	-	-
<b>Total</b>	<b>235</b>	<b>100</b>

*Source:* Field Survey, 2015

It is revealed that there is consensus view among the residents that the communities are managed by community development association (table 7). From personal interview, it was indicated that the association are responsible for collection of security dues, payment of security personnel, and purchase of security devices, public enlightenment programmes and arrangement for security agencies such as Police to patrol their neighborhood on regular basis among other functions.

## CRIME EXPERIENCE IN NEIGHBORHOOD

**Table 8: Neighbourhood Crime Experience**

Crime Experience	Frequency	Percentage
Yes	37	15.74
No	198	84.26
<b>Total</b>	<b>235</b>	<b>100</b>

*Source:* Field Survey, 2015

From the survey, it is clearly indicated that majority of the residents have fewer experience of crime incidence as claimed by 198 (84.26%) of the total respondents while 37 respondents (15.74%) have experienced crime incidence (see table 8). It could thus, imply that there is high level of security and safety in gated communities in the study area and this could be attributed to security and safety measures put in place.

Furthermore, the low number of respondents with crime experiences in the study area indicates the effectiveness of gated neighborhood in addressing the challenges of insecurity. It thus implies that the gated nature of the community has effects on the community security level.

## CRIME TYPE IN NEIGHBORHOOD

Sequel to the question on crime, the respondents were asked to indicate the nature of crime in the general neighborhood. From the responses, dominant crime includes robbery 22.98%, burglary and car theft 57.45% and 16.60% respectively

(see table 9). The prevalence of these crime types in the wider neighborhood has implications on emotional well-being of residents and level of productivity. Thus, based on the low rate of crime incidence in the gated community, it could be inferred that adoption of gated status by other neighborhoods in the study area could help reduce the general level of crime in the area. This would also align with a study in USA by Blakely and Snyder (1997) that enclosed neighborhoods reported a reduction in crime after the streets have been closed.

**Table 9: Neighbourhood Crime Type**

Neighborhood Crime	Frequency	Percentage
Kidnapping	-	-
Robbery	54	22.98
333Burglary	135	57.45
Murder	-	-
Car Theft	39	16.60
Other	7	2.98
<b>Total</b>	<b>235</b>	<b>100</b>

Source: Field Survey, 2015

## ADVANTAGES OF THE GATED COMMUNITY

**Table 10: Advantages of Gated Neighbourhood**

Gated Neighborhood Advantages	Frequency	Percentage
Increase Prestige	11	4.68
Safety and Security	191	81.28
Reduced Traffic Congestion	49	20.85
Increased Communal Interaction	17	7.23
<b>Total</b>	<b>235</b>	<b>100</b>

Source: Field Survey, 2015

From the survey, security and safety feature obtained from gated community ranked higher among other features. Other advantages as identified by respondents include increase prestige, reduced traffic congestion, and increased communal interaction (see table 10). This implies that basic reason for seeking accommodation in gated neighborhood is largely due to its perceived benefit of providing adequate security to residents living within.

## DISADVANTAGES OF THE GATED COMMUNITY

**Table 11: Disadvantages of Gated Neighbourhood**

Gated Neighborhood Disadvantages	Frequency	Percentage
Economic Segregation	24	10.21
Restriction in the use Open Space	13	5.53
Social Segmentation and Separation	34	14.47
Inaccessibility during Emergencies	164	69.79
<b>Total</b>	<b>235</b>	<b>100</b>

Source: Field Survey, 2015

From this research work, it is clear that the implications of gated neighborhood varied. Among the disadvantages of gated community includes; economic segregation among residents, restriction in the use open space, social segmentation and separation among residents, and inaccessibility during emergencies. However, from these disadvantages, over 60 percent of respondents agreed that inaccessibility during emergencies ranked high. This implies that residents are concerned about getting timely attention in time of emergencies.

## NEIGHBORHOOD LIVABILITY

**Table 12: Neighbourhood Livability**

	<b>Frequency</b>	<b>Percentage</b>
High Livability	121	51.49
Moderate	73	31.06
Low Livability	41	17.45
<b>Total</b>	<b>235</b>	<b>100</b>

*Source:* Field Survey, 2015

Respondent's opinion varied on the level of livability of the gated community in the study area (see table 12). Livability refers to the environmental and social quality of an area, which includes local environment conditions, presence of quality education and health institutions, infrastructure, purchasing power administered by its consumers, safety of self and property and recreational-leisure-lifestyle avenues (Bhattacharyya, 2014).

From the respondents perspective, the level of livability in the gated community is considerably okay as acclaimed by 121 (51.49%) and 73 (31.06%) respectively while only 41 (17.45%) were of contrary view. This implies that gated neighborhood in the study area to a large extent is fit for habitation as it fulfills basic human security need.

## SECURITY AGENCIES INTERVIEW GUIDE

This section presents the responses to the interview guide administered on Oshodi-Isolo local government security personnel (Vigilante /Neighborhood Watch and Nigerian Police Force). From the records, the most common crime in the study area is crime against person and crime against property (table 13). Crime against property involves willful destruction, burglary, car theft. These are crime most reported by the respondents in the study area.

The police reporting officer noted that the commercial and industrial nature of the area heightens crime occurrence in the neighborhoods. Identified strategies used in combating act of crime by the Oshodi-Isolo Police Division include; surveillance, intelligence gathering, undercover work, stop and search and detailed secret investigation. Some of the crime and detective training attended by the division staff

include finger print anti-fraud, anti-robbery, general detective, photographic, records keeping, legal interpretation and forensic investigation. The Oshodi-Isolo divisional police noted that there are challenges to combating crime incidence in the neighborhood; these challenges include poor remuneration of security personnel, inadequate crime control equipment, poor funding, and uncooperative attitude of members of the public and insufficient training of officer.

**Table 13: Reported Cases of Crime in OSHODI-ISOLO Local Government Area (2009–2013)**

Year	Crime Against Persons	Crime Against Property	Crime Against Lawful Acts	Total
2009	113	89	11	213
2010	88	76	15	179
2011	94	81	8	183
2012	120	93	5	218
2013	118	123	9	250

Source: Nigeria Police Force Oshodi-Isolo Division, 2015

From the responses of Oshodio-Isolo Vigilante/Neighborhood Watch the rate of crime incidence in the study area is high. The security agencies were of the opinion that street crime, vandalization and social unrest were the most common act of crime in the study area. The response strategies of Oshodio-Isolo Vigilante/Neighborhood Watch include public awareness, participation in police community peace committee, constant monitoring. The local security agency noted the poor accessibility of some of the areas in the local government as a major challenge in combating crime in the community.

## CONCLUSIONS AND RECOMMENDATIONS

Based on findings of this research, meeting the livability of settlements extends beyond the efforts of private individual and local association. There are benefits and ills in gating phenomenon in the study area. However, the challenges of the gating of neighborhoods could impact on the level of livability, thus, the need to adequately address security challenges in the study area.

Based on the outcome of the research, the study recommends the followings:

- Setting up relevant government agencies to deploy adequate security mechanism to gated or non-gated neighborhood in the study area to address the challenges of the increase incidence of crime;
- Setting up appropriate policy formulation to regulate the operations of gated neighborhoods to improve emergencies response.
- Deployment of more security devices to reduce the incidence of fear and ensure urban livability in the study area;
- Provision of adequate security by government to both gated and non-gated communities in the study area.

- Setting up appropriate control measures to control gated neighborhoods in order to address economic and social exclusion challenges.
- Training and re-training of officers of the Oshodi-Isolo division police in order to cope with the new and sophisticated methods of crime and criminality.
- Provision of adequate crime prevention and control weapons as well as necessary logistics and communication gadgets that will make information dissemination on the activities of criminals effective.

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# Emerging India with E-Governance

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**Abstract**—India is currently at the implementing stage of several structural reforms aimed at sustainable development. Governments at Central, state and partly at local levels are facing challenges posed by increased demand for better quality of governance. While the developed world and some Asian countries have moved very quickly, India continues to lag behind in meeting the increasing levels of citizen expectations. The massive population growth, diversity of cultures, acute poverty and high illiteracy create numerous difficulties in delivery mechanisms of government services. The existing processes of service delivery and governance need to be improved. E-Governance has been recognized as a vital force for transformational improvement in quality, efficiency and effectiveness of governance. A governance strategy driven by information and communication technology has to be developed and applied with the objective of bringing in more transparency and increased accountability. Successful leveraging of e-governance opportunities, however, involves many factors which include human capital, financial resources, well-directed initiatives, leadership intent, administrative structural changes and citizen awareness. The enthusiasm for realizing the potential of IT is often dampened by the barriers to successful implementation. Information and technologies can make a significant contribution to the achievement of good governance. There is an urgent need to carry out study in the Indian environment to take a snapshot of the possible barriers in the implementation of IT applications and draw a meaningful framework in this direction to workout alternative solutions to remove these barriers.

**Keywords:** Participation, Rule of law, Transparency, Responsiveness, Equity, Efficiency, Accountability, Good governance and E- Governance.

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## OBJECTIVES

The objective of this paper is to analyze the consequences of Information Technology on the functioning of government and also to discuss the impact of ICT on governance, Demonetization, Panchayati Raj Institution, Legal and policy frame work.

## METHODOLOGY

In this paper, I used historical, analytical and descriptive method to analyse the interrelationship in between ICT and governance. Mostly secondary source of data have been used for ratification of results.

## INTRODUCTION

Government is a critical and inseparable element of the state. The government is constitutionally responsible state for administration through various institutions to

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ensure a better society and improved lives of citizens. So, the focus is on the state, and the state remains the principal actor in the entire process of administration. In the course of administration, the government creates a relationship between its various institutions and citizens. The nature of this relationship depends the nature of the state, e.g. whether it is a military state, autocratic state, democratic state, or any other form. Moreover, the relationship among the state, the market and the civil society has undergone a rapid and huge change all over the world. With this background, 'governance' is recognized as an important concept in recent years both by the nation states as well as by the international agencies giving fund for developing activities. In India it has gained prominence in academic, as well other arenas, after the launch of liberal economic policies in 1991.

Governance has a clear relationship to the redefinition of the role of the state in India. In many advanced countries, the redefinition of the role of the state has a direct bearing on the conceptualization of the term governance. The concept was again strengthened with the beginning of the process of globalization. Thus with globalization, a new set of actors, such as the state and its institutions, the market, civic organizations, and citizens have emerged. This has resulted to a new pattern of relationship between these actors, giving a new twist to the meaning of the term, governance. It may be said that governance implies the renewed pattern of relationships between these actors.

The term, governance, is derived from the Greek term, *kubemao*, which means 'to steer'. So, governance is the process that steers affairs of the State. Governance is characterized mainly by transparency, accountability, participation, rule of law, and efficiency. Good governance would promote and ensure development. It includes three key ingredients, namely, legality, legitimacy and participation.

Over the past few years, the concept of good governance has become the subject of intense interest. Precisely speaking, the distinctive features of good governance are: participation, accountability, consensus oriented, transparency, responsiveness, effectiveness, efficiency, equitableness, inclusiveness, and following the rule of law. The concept of good governance also includes feature such as the minimization of corruption, and, being responsive to current and future needs, and taking into account, the aspirations of society in large. Good governance need to ensures that all, including the poor and other disadvantaged groups, are included and have the means: (a) to influence the direction of development, (b) to make contributions to development and have these recognized, and (c) to share the benefits of development to improve their lives and livelihoods.

However, this would require the government to change itself—its processes, its outlook, laws, rules and regulations and also its way of interacting with the citizens. It would also require capacity building within the government and creation of general awareness about e-Governance among the citizens provides efficient storing and retrieval of data, instantaneous transmission of information, processing information and data faster than the earlier manual systems, speeding up governmental processes, taking decisions expeditiously and judiciously, increasing transparency and enforcing accountability. It also helps in increasing the reach of

government—both geographically and demographically. In India, the main thrust for e-Governance was provided by the launching of NICNET in 1987—the national satellite-based computer network. This was followed by the launch of the District Information System of the National Informatics Centre (DISNIC) programme to computerize all district offices in the country for which free hardware and software was offered to the State Governments. NICNET was extended via the State capitals to all district headquarters by 1990. In the ensuing years, with ongoing computerization, tele-connectivity and internet connectivity established a large number of e-Governance initiatives, both at the Union and State levels. E-governance includes integration of several stand-alone systems and services between Government-to-Citizens (G2C), Government-to-Business (G2B), Government-to-Government (G2G) and Government-to-Employee (G2E).

<b>E-Governance Model</b>	<b>What is it?</b>	<b>Services Offered in India</b>
Government to Citizens (G2C)	Government Services which are used by the citizens, where they website for services rendered by the government	<ul style="list-style-type: none"> <li>• Payment of online bills such as electricity, water, telephone bills etc.</li> <li>• Online registration of applications.</li> <li>• Copies of land – record</li> <li>• Online filling of complaints.</li> <li>• Availability of any kind of online information</li> </ul>
Government to Government (G2G)	Includes services shared between the governments (States and Center) and between various government agencies, department and organizations.	<ul style="list-style-type: none"> <li>• Sharing of information between police department of various state.</li> <li>• Government document exchange which includes preparation, approval, distribution, and storage of all governmental documents is also done through e-governance.</li> <li>• Most of the finance and budget work are also done through e-governance.</li> </ul>
Government of Employee (G2E)	Includes online tools, sources, and articles that help employees maintain communication with the government	<ul style="list-style-type: none"> <li>• All Kind of data submission (attendance record, employee record etc) from various government offices is done by this model</li> <li>• Employee can file all kinds of complaints and dissatisfaction by this model</li> <li>• All Kind of rule-regulation and information for employees can be shared by this</li> <li>• Employees can check their payment and working record.</li> <li>• Employees can register all kind of working forms online.</li> </ul>
Government to Business (G2B)	Online non-commercial interaction between local and central government and the commercial business sector with the purpose of providing businesses information	<ul style="list-style-type: none"> <li>• Collection of taxes.</li> <li>• Rejection and approval of patent is also done by this model</li> <li>• Payment of all kind of bills and penalty.</li> <li>• Sharing of all kind of information, rules and data.</li> <li>• Complaints or any kind of dissatisfaction can be shown by this.</li> </ul>

## INDIA'S E-GOVERNANCE TRANSFORMATION INITIATIVES

India's e-governance transformation initiatives started in the 1990s. Since then the country has made considerable progress in the information and communication technology sector. To improve IT performance and productivity, the Government of India approved the National e-Governance Plan (NeGP) on May 18, 2006 which seeks to improve delivery of government services to citizens and business establishments with the vision to "make all government services accessible to the common man in his locality, through common service delivery outlets and ensure efficiency, transparency and reliability of such services at affordable costs to realize the basic needs of the common man".<sup>4</sup> e-Governance has become the basic requirement to any form of governance at the local, regional, national or international level. Thus the government sponsored e-governance projects with the corporate world took a big leap to provide the impetus for long-term growth of e-governance within the country. Demands generated from political leadership, capacity building needs, and perceived citizen expectations all have contributed to IT innovations. At the state level, many state governments started off their initiatives in the same period by taking up projects to serve their people through ICT. Today every state has a State Electronic Mission (SEM) to provide e-government services to the citizens. India's e-governance transformation has been progressing rapidly. By 2013, over one billion e-government transactions have been logged and growth rate is rising exponentially.

Some purposeful steps and initiatives from vision to implementation include:

1. Thirty one Mission Mode Projects (MMPs) across a wide range of public services such as passport seva, e-procurement digitization of land records, national citizen database, etc.
2. Eight e-Government Support Components to help set up the required infrastructure (State WideArea Network, State Data Centres, Common Service Centres, etc.) with technical and financial partnership with the private sector.
3. e-Government Management Structure comprising multiple committees to resolve bottlenecks and oversee programme execution.

Today with the launch of State Electronic Mission and under the State Data Centre guidelines, inclusion of 'Citizen Services under Governance' has become a necessity in every State/UT. The MeeSeva of Andhra Pradesh, Nimmadi of Karnataka, e-Sampark in Chandigarh, Friends in Kerala, BetiVidhao in Gujarat, Haryana Land Records Information System, i-Bhu-Goal in Bihar, e-Payment Gateway (GOI), Online Monitoring of Nirmal Bharat Abhiyan (GOI), Electronic Bank Realization Certificates (GOI), Passport Seva Project (GOI) and similar projects have started bearing fruit in the form of acceptance by end-user citizens.

## **SOME CENTRAL GOVERNMENT INITIATIVES AS MISSION MODE PROJECTS (MMP)**

- E-office
- Immigration, Visa and Foreigners Registration & Tracking
- UID
- Pensions
- Banking
- Posts

## **STATE MISSION MODE PROJECTS**

- E-Governance in Municipalities
- Public Distribution System
- Crime and Criminal Tracking Network
- Health
- E-Panchayat
- E-District
- National Land Records Modernization Programme(NLRMP)

## **INTEGRATED MISSION MODE PROJECTS**

- E-procurement
- E-court
- E-Biz
- Common Services Centres

## **RECENT INITIATIVES**

- Direct Cash transfer
- Aadhar Enabled Payment system (AEPS)
- Digital India program
- MyGov citizen portal
- E-Kranti scheme
- Digital Cloud for every Indian

## **M-GOVERNANCE**

M-Governance is not a replacement for e-Governance, rather it complements e-Governance. M-Governance is the use of mobile or wireless to improve Governance service and information “anytime, anywhere”. Mobile applications also rely on good back office ICT infrastructure and work processes. It has potential of using mobile phones as input devices in certain areas where last mile connectivity becomes issues for simple data inputs of critical importance for decision making in government departments. M-Governance is not a new concept. The private sector has been greatly leveraging these of mobile phones for delivery of value added services for the following which however are mostly SMS based: Banking, Media, Airlines, Telecom, Entertainment, News, Sports, Astrology, and Movie Tickets Etc.

## **MOBILE SEVA**

It aims to provide government services to the people through mobile phones and tablets. It has been developed as the core infrastructure for enabling the availability of public services through mobile devices. Mobile Seva enables the integration of the mobile platform with the common e-Governance infrastructure consisting of State Data Centers (SDCs), State Wide Area Networks (SWANs), State and National Service Delivery Gateways (SSDGs/NSDG).It enables a government department to integrate both web and mobile based services seamlessly and enhances the access to electronic services tremendously leveraging the very high penetration of mobile phones, especially in rural areas. A Mobile Applications Store (m-App Store) has also been developed by DeitY as part of Mobile Seva. The Mobile Governance Portal and the m-App Store can be accessed at <http://mgov.gov.in/>. The m-Appstore currently hosts over 240 live mobile applications. The live applications can be downloaded and installed free of cost on a mobile phone by any person.

Before the era of e-governance, government delivery of services was manual and opaque which caused great difficulties to the citizens. Scenes of overcrowded government offices, long queues, employee absenteeism, arrogant and rent seeking attitudes and inefficiencies were a common sight. It appeared that the focus of employees was more on corrupt practices than on citizen’s service delivery. Government land and other registration records, birth and death registration, municipal permission, etc. which were essential aids in getting benefits under welfare programmes remained buried in files. Citizens faced hardships in having access to government services because of the tedious office procedure, and longer time lags. So e-Governance has now been widely recognised as an important means for transformational improvement in quality, efficiency and effectiveness of governance the world over.

## **ADVANTAGES OF E-GOVERNANCE**

E-Governance Does Not Only Hold Economic Potential Awareness Core Element of 21<sup>st</sup> Century Knowledge-based Govt. Online Economy/Society.

Following are the advantages of E-Governance

*Speed:* Technology makes communication speedier. Internet, Phones, Cell Phones have reduced the time taken in normal communication.

*Cost Reduction:* Most of the Government expenditure is appropriated towards the cost of stationary. Paper-based communication needs lots of stationary, printers, computers, etc. which calls for continuous heavy expenditure. Internet and Phones makes communication cheaper saving valuable money for the Government.

*Transparency:* Use of ICT makes governing profess transparent. All the information of the Government would be made available on the internet. The citizens can see the information whenever they want to see. But this is only possible when every piece of information of the Government is uploaded on the internet and is available for the public to peruse. Current governing process leaves many ways to conceal the information from all the people. ICT helps make the information available online eliminating all the possibilities of concealing of information.

*Accountability:* Once the governing process is made transparent the Government is automatically made accountable. Accountability is answerability of the Government to the people. It is the answerability for the deeds of the Government. An accountable Government is a responsible Government.

*Convenience:* E-Government brings public services to citizens on their schedule and their venue.

*Improved Customer Service:* E-Government allows to re-deploy resources from back-end processing to the front line of customer service.

*Increased Access to Information:* E-Government improves the accessibility of government information to citizens allowing it become an important resource in the making the decisions that affect daily life and so it helps in empowerment of citizens.

## **DISADVANTAGES OF E-GOVERNANCE**

Electronic governments also consist on certain disadvantage. The main disadvantage of an electronic government is to move the government services into an electronic based system. This system loses the person to person interaction which is valued by a lot of people. In addition, the implementation of an e-government service is that, with many technology based services, it is often easy to make the excuse (e.g. the server has gone down) that problems with the service provided are because of the technology.

The implementation of an e government does have certain constraints. Literacy of the users and the ability to use the computer, users who do not know how to read and write would need assistance. An example would be the senior citizens. In

general, senior citizens do not have much computer education and they would have to approach a customer service officer for assistance. And also in case of rural people, it gives scope for middle man, who distorts the information. Studies have shown that there is potential for a reduction in the usability of government online due to factors such as the access to Internet technology and usability of services and the ability to access to computers. Even though the level of confidence in the security offered by government web sites are high, the public are still concerned over security, fear of spam from providing email addresses, and government retention of transaction or interaction history. There has been growing concern about the privacy of data being collected as part of UID project. The security of cyber space and misuse of data is still holding back the citizens to full adaptation of Aadhar card. Eg Ms Dhoni's Aadhar details leaked.

## **CHALLENGES IN E-GOVERNANCE**

There are large numbers of potential barriers in the implementation of e-Governance. Some hindrance in the path of implementation, like security, unequal access to the computer technology by the citizen, high initial cost for setting up the e government solutions and resistance to change. Challenges identified as trust, resistance to change, digital divide, cost and privacy and security concerns.

### **TRUST**

Trust can be defined along two dimensions: as an assessment of a current situation, or as an innate personality trait or predisposition. The implementation of public administration functions via e-government requires the presence of two levels of trust. The first is that the user must be confident, comfortable and trusting of the tool or technology with which they will interact. The second dimension of trust pertains to trust of the government. There has to be a balance between ensuring that a system prevents fraudulent transactions and the burden that extensive checks can take place on people who are honest. Recently, confidential information on military veterans was compromised when a computer containing their personal information was lost. This type of incident can erode trust and user confidence in government systems. Trust, along with financial security, are two critical factors limiting the adoption of e-government services.

### **RESISTANCE TO CHANGE**

The innovation diffusion theory states that over time an innovation will diffuse through a population, and the rate of adoption will vary between those who adopt early, referred to as early adopters and to those who adopt the innovation much later, referred to as—laggards.

The resistant to change phenomenon can explain much of the hesitation that occurs on the part of constituents in moving from a paper based to a Web-based system for interacting with government. Citizens, employees and businesses can all have their

biases with respect to how transactions should be processed. However, government entities and public policy administrators cannot ignore the changes that occur as a result of the implementation of information and communication technology. Education about the value of the new systems is one step toward reducing some of the existing resistance. It can also be particularly useful for a leader or manager, to buy into the new system at an early stage in the adoption process.

### **DIGITAL DIVIDE**

The digital divide refers to the separation that exists between individuals, communities, and businesses that have access to information technology and those that do not have such access. Social, economic, infrastructural and ethno-linguistic indicators provide explanations for the presence of the digital divide. Economic poverty is closely related to limited information technology resources.

An individual living below poverty line does not afford a computer for himself to harness the benefits of e-government and other online services. As the digital divide narrows, broader adoption of e-government in the public domain becomes possible. Economic poverty is not the only cause of digital divide. It can also be caused by the lack of awareness among the people. Even some of the economic stable people don't know about the scope of e-governance. Awareness can only help to bring users to that service delivery channel once. It cannot guarantee sustained use of the system unless the system is also designed in such a way as to deliver satisfactory outcome. Procedures need to be simplified to deliver concrete benefits and clear guidelines provided to encourage their use by the actual end users and reduce user's dependence on middlemen/intermediaries.

### **INFRASTRUCTURE AND SPEED**

Even in the urban areas, the speeds of Government websites and its user friendliness is suspect. People would like to use the resources available, but it can all go waste if the websites are badly designed (which many are) and do not open up fast enough. NIC's own portal is a rather well done website though!

### **COST**

Cost is one of the most important prohibiting factor that comes in the path of e-governance implementation particularly in the developing countries like India where most of the people living below the poverty line. Elected officers and politician don't seem to be interested in implementing e-governance

### **PRIVACY AND SECURITY**

There will be three basic levels of access exists for e-government stakeholders: no access to a Web service; limited access to a Web-service or full-access to a Web service, however when personal sensitive data exists the formation of the security



access policy is a much more complex process with legal consideration. With the implementation of e-government projects, effective measures must be taken to protect sensitive personal information. A lack of clear security standards and protocols can limit the development of projects that contain sensitive information such as income.

## **PRE-REQUISITES FOR E-GOVERNANCE**

Implementation of the e-governance services requires the focus on three prerequisites:

- Human capital and capacity building structures.
- Well defined institutional structures with clear roles, responsibilities and accountability.
- Widespread access to technology platforms with focus on initiatives of:
  - Internet adoption
  - Cloud enablement
  - Open data initiatives and
  - Cyber security.

India's e-governance transformation has been progressing rapidly since 2006 when the Indian government launched a vision for stronger delivery of citizen services through the National e-Governance Plan (NeGP). While the country is grappling with host of human capital, structural and technological challenges; there are success stories to share. But India has a long way to reach standards of e-governance. The country must accelerate its e-governance movement from vision to broad-based and effective implementation. The way forward lies in increasing the demand for e-governance services, both by driving up internet adoption and through creating more focused offerings. For this, India's e-governance missions need to clearly identify their implementation functions, and create empowered, focused leaders with teams held accountable for their delivery.

## **CRITICAL FACTORS FOR E-GOVERNANCE AGENDA**

Government at one level with extensive e-governance experience may have adequate information, skills and resources needed to implement new initiatives rapidly. Those with less experience may find it useful to proceed in phases, running pilots and developing detailed business cases before building capabilities at scales. This approach can allow governments at other levels to build robust databases and supporting systems before building large-scale projects. Governments may have

different capability levels and objectives for e-governance programmes, but they can all benefit from three ways: sharing data across public organisations; pursuing partnership with the private sector; and promoting citizen co-creation.

### **DISSEMINATING AND SHARING INFORMATION**

Most public sector organizations complain that it is difficult to exchange data with other organizations. This obstacle limits the value of e-governance analysis which requires multiple agencies to contribute to current valuable data, including information on demographics, health care and educational services, travel and transport terrain and other aspects of the economy. In many cases information sharing is difficult because government departments rely on different data sources and computer platforms. Getting all groups and institutions to agree on a uniform approach to data collection and management would facilitate development, but this may not be possible in decentralized systems where agencies operate autonomously. If governments tend to create uniform platforms for disseminating and information sharing, they also consider instituting safeguards in order to ensure that data are adequately protected. For example, data sets could be classified into levels based on sensitivity. The lower layers would be accessible to many other organizations, with progressive access restrictions for higher layers. With such protections in place, departments might be more willing to share relevant data. In such a information exchange environment governments not only reduce costs but also save time by establishing a centralised system that oversees joint projects between departments and helps all involved personnel find information more easily, “MeeSeva” (in Telugu literally translates to ‘At your service’) initiative of the Government of Andhra Pradesh, for example, aimed at service to citizens. It has been conceptualized and planned with the objective to provide universal and non-discriminatory delivery of all government services, using information and communication technology. MeeSeva provides faster, easier and transparent access to various G2C services.

### **PURSUING PARTNERSHIPS WITH PRIVATE SECTOR**

Many public and private organizations are pursuing e-governance initiatives in several fields, and there may be some overlap between their efforts. Building partnerships across relevant organizations and sectors can allow different groups to pool their material, financial and personnel resources, thereby reducing redundancy and helping to catalyze better insights. In the sphere of health care, this is quite common. In some states, municipal governments have partnered with multiple external groups on e-governance services for public service delivery. The successful partnerships typically involve two or more parties that are equally interested in the project. Rather than simply exchanging data, they are willing to meet and share ideas about questions to get at solutions. It also helps if both parties have compatible computer systems, or at least use the same data sets, since they will

otherwise have difficulty in sharing information. Unique Identification Project (UID), for example, was initially conceived by the Planning Commission (GOI) as an initiative that UID aims to empower residents of India with a unique identity and a digital platform to authenticate anytime, anywhere. The core values of UID include “Integrity, commitment to inclusive nation building collaborative approach.” The mission of the UID was to “encourage innovation and provide a platform for public and private agencies to develop Aadhaar linked applications”. It was to “collaborate with partners and service providers in leveraging Aadhaar to serve residents effectively, efficiently and equitably”.

### **PROMOTING CITIZEN CO-CREATION**

Compiling and analyzing data is a tedious task. But governments can reduce some of the complications by promoting citizen involvement in many ways. The Deputy Commissioner in the District could call on citizens to report problems in their neighborhoods, such as damaged public property. Although governments cannot mandate participation, they may find that public interest is high and that people want to be part of the solution, especially for problems that concern their own neighborhoods. Governments could also encourage citizen participation by offering them competitions or ‘hack-a-thons’ in which computer programmes develop geospatial applications based on public data. If governments choose to garner information from the public, it might be helpful to create a central database of all reports, which will provide officials of the departments with an integrated view of the issues that matter to constituents. A central database can also enhance efficiency by reducing response time and making it easier to analyze data. Call centres in the rural or urban areas will map requests and can see where calls of specific types are coming from and also making this data available to the public. Citizens only need to know one phone number or Website to receive help from all city agencies. Governments would need to create trust-based relationships with citizens and businesses through greater transparency and accountability by setting up a foundational infrastructure for key digital services.

### **CONCLUSION**

We have seen how the concept of e-governance and m-governance has evolved in Indian scenario and how much it is required for transparency and accountability on the part of government and at the same time it is also a toll to increase the participation of people in policy making by empowering them with the right information at right time. The penetration of internet, telecommunication services in India has increased in the last decade and this gives a ray of hope to the citizens of India to fight with the long persisting problems of poverty, corruption, regional disparity and unemployment. But at the same time, due to slow pace of project completion, red-tape and resistance from the side of government employees and citizens too has not given the desired result.

Demonetization, a Masterstroke by Mr. Modi is the result of good governance. The aim of government actions is to combat tax cheating, counterfeiting and corruption. It is to break the grip between corruption and black money. The downward GDP revision is fallout of the disruptions caused at various levels in the economy due to de-legalisation of banknotes. But everyone will adjust as move is towards the country Swachh Bharat Abhiyan. This is what the people have been asking for long time which has finally happened. Thus in a bid to quicken the pace of technical integration and boost the e-Governance implementation and acceptance in the country, the new Modi Government has put its weight behind the Digital India initiative. There is the need to look at present e-governance initiatives from management perspective of 'good governance' wherein a citizen needs to have a channel of requesting a service, i.e. a service as per citizen demand.

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# Empirical Relationship between Nifty 50 and Exchange Rate with Reference to India

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**Abstract**—*This Paper deals with the short run causal relationship between stock market price index Nifty 50 of National Stock Exchange and exchange rate of LRs./USD, LRs./GBP, LRs./Euro. Augmented Dickey Fuller Test has been applied to check the stationarity of the data. Granger Causality Test has been applied on the data taken on daily basis from April 01, 2012 to March 31, 2017. The study found Bi-directional relationship between LNifty 50 and LRs./USD where as uni-directional relationship between LNifty 50 and LRs./GBP & LNifty 50 and LRs./Euro. LNifty 50 reinforce LRs./USD and LRs./USD reinforce LNifty 50. There is uni-directional or one way causality relationship exist in case of L Rs./GBP and LNifty 50 and LRs./Euro and LNifty50 that means L Rs./GBP Granger cause LNifty50 and LRs./Euro Granger cause LNifty50 but this does not apply other way around, it implies that there is indication of noise trading model of interaction between L Rs./GBP and LNifty 50 and LRs./Euro and LNifty 50. L represents the log form of data.*

**Keywords:** *LNifty50, exchange rate, Augmented Dickey Fuller, Granger Causality Test.*

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## INTRODUCTION

The relationship between stock market and exchange rate has drawn attention to various big market participants like Financial Institution, Qualified Institutional Buyer, Non Institutional Investor and Foreign Institutional Investor, they are the big players in the market so there is need to assess the impact of exchange rate on stock market and impact of stock market on exchange rate. It is evident that role of exchange rate is a important factor for identifying the stock market either in positive or negative direction. Large numbers of exporting and importing firms are listed in the Indian stock market and fluctuation in exchange rate impacted their profitability hence causing to affect the price of shares of that firm which directly or indirectly affects the stock market index. In this research paper, we apply the Granger causality test to reinvestigate the causality relationship between Nifty 50 and exchange rate of Indian Rupee with respect to US Dollar, British Pound and European Euro i.e LRs./USD, LRs./GBP, LRs./Euro is taken for consideration.

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Aggarwal (1981) has the prime credit to find the correlation between rate of exchange and stock price as cited by Jayashankar and Rath (2017), examined the linkages between rate of exchange, rate of interest and stock return in India and found the relationship among these variables are not significant at lower scales, move on to higher scales, clear association seen between them. These linkage can also affect business cycle (Verma, 2013).

The remainder of this article is organized as follows. Next section reviews the Conceptual Framework. Section III describes the research method applied for data analysis. Section IV describes the analysis of the data, and Section V deals with the conclusion of the study. The study focuses on exploring the relationship between stock market price and exchange rate.

- National Stock Exchange Nifty 50 are considered for Stock market index and LRs./USD, LRs./GBP, LRs./Euro are considered for the exchange rate.
- The study is for the period of April 01, 2012 to March 31, 2017.
- The research has focused almost exclusively on the Indian Capital Market and exchange rate.

## CONCEPTUAL FRAMEWORK

Aggarwal (1981) has the prime credit to find the correlation between rate of exchange and stock price and he used monthly data from the USA during 1974-1978. He found that there occurs a positive relationship between dollar declines in the effective rate of exchange of the dollar which leads to decline in the stock price. Morely and Pentecost (2000) examines the association between stock prices and rate of exchange for G-7 countries for the period 1982-1994 using co-integration method and finds that the stock price index and rate of exchange shows a common cyclical pattern, but short run in nature. Ibrahim (2000) studied the linkages between stock price and rate of exchange in Malaysia during 1979 to 1996. They applied granger causality test and bi-variate and multivariate co-integration. They found that there is a unidirectional causality from stock market to rate of exchange. Mohammed N. (2000) studies the short run and long run linkages between rate of exchange and stock price for Bangladesh, India, Pakistan, Sri Lanka during 1994 to 2000. They employed the Standard Granger Causality and error correction model and Co- integration on monthly data. The study revealed that there is no short run relationship and also no long run equilibrium association between rate of exchange and stock price for India and Pakistan. Pathe and Karnik (2000) examined relation of Indian stock market and macro economic variables and investigate that there is no long-run stable linkage between rate of exchange and stock prices. Abdalla and Murinde (1997) examined the association between rate of exchange and stock prices of India, Korea, Pakistan and Philippines during the period of January 1985 to July 1994. They employed Bi-variate Vector Autoregressive models on monthly data of stock price index. They found

unidirectional short run causality from rate of exchange to stock price for Korea and Pakistan and unidirectional long-run relationship for India and Philippines. Jayashankar and Rath (2017) examined the linkages between rate of exchange, rate of interest and stock return in India. Their findings revealed that the relationship among these variables were not significant at lower scales. As we move on higher scales, we find clear association between them. Korhonen (2015) investigated the rate of exchange and stock market and found that the co-integration relationship between the stock market and exchange market. He also proposes that rate of exchange exposure cause change when the linkage between stock market and rate of exchange emerges. Mishra (2004) studied the causality relationship between stock market and the foreign exchange market using Granger causality test and Vector Auto Regression technique during April 1992 to March 2002. The result reveals that there exists a unidirectional causality between the rate of exchange rate and rate of interest and between the exchange rate return and demand for money and also there is no Granger's causality between the exchange rate return and stock return. Kumar (2013) analysed the volatility spillovers and the return between the rate of exchange and stock price in India, Brazil, South Africa. The result of GARCH model reveals that the assimilation between foreign exchange market and the stock and also shows the reality of bi-directional spillover between foreign exchange market and stock in India, Brazil, South Africa. Yang (2014) studied the association between stock returns and rate of exchange for nine Asian markets (India, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan and Thailand) from January 1997 to August 2010 using Granger causality test. They found that quantile causal relations varies across different periods and different quantiles, whereas casual effect of rate of exchange on stock return is heterogeneous across quantiles and overall evidences revealed that many stock and foreign market is negatively correlated.

## **RESEARCH METHODOLOGY**

### **RESEARCH QUESTIONS**

On reviewing existing literature, following questions have been proposed:

- What relationship exists between LNifty 50 and exchange rate with respect to LRs./USD, LRs./GBP, LRs./Euro.
- Is there any casual relationship exists between LNifty 50 and exchange rate with respect to LRs./USD, LRs./GBP, LRs./Euro.

### **RESEARCH OBJECTIVES**

The objectives of the study are to find out:

- Causal relationship between stock market Index LNifty 50 and exchange rate viz LRs./USD, LRs./GBP, LRs./Euro
- Long run equilibrium relationship with stock market Index Nifty 50 and exchange rate viz LRs./USD, LRs./GBP, LRs./Euro

## RESEARCH VARIABLES

To address the objectives of the study, four variables, stock market Index Nifty 50 and exchange rate viz. USD in terms of Indian Rupees, GBP in terms of Indian Rupees and Euro in terms of Indian Rupees are collected from National Stock Exchange and RBI websites.

Data are collected on Daily basis. The daily data of all the variables viz. stock market Index Nifty 50, exchange rate, Indian Rupees in terms of USD, Indian Rupees in terms of GBP and Indian Rupees in terms of Euro have been taken from April 1, 2012 to March 31, 2017 from the RBI and National Stock Exchange website and converted into logarithm for stabilizing the data.

## RESEARCH HYPOTHESES

It is an assumption and proposition developed to test the relationship between the variables with the help of statistical techniques (Bhattacharjee, 2012). To address the objectives of the study, main six hypotheses have been formulated. Description of null and alternate hypotheses has been shown in Table 1.

**Table 1: Description of Hypotheses**

H. No.	Null Hypotheses	H. No.	Alternate Hypotheses
H0 <sub>a</sub>	LNifty 50 does not Granger Cause LR <sub>s</sub> /USD.	H1 <sub>a</sub>	LNifty 50 Granger Cause LR <sub>s</sub> /USD.
H0 <sub>b</sub>	LR <sub>s</sub> /USD does not Granger Cause LNifty 50.	H1 <sub>b</sub>	LR <sub>s</sub> /USD Granger Cause LNifty 50.
H0 <sub>c</sub>	LNifty 50 does not Granger Cause LR <sub>s</sub> /GBP.	H1 <sub>c</sub>	LNifty 50 Granger Cause LR <sub>s</sub> /GBP.
H0 <sub>d</sub>	LR <sub>s</sub> /GBP does not Granger Cause LNifty 50.	H1 <sub>d</sub>	LR <sub>s</sub> /GBP Granger Cause LNifty 50.
H0 <sub>e</sub>	LNifty 50 does not Granger Cause LR <sub>s</sub> /Euro.	H1 <sub>e</sub>	LNifty 50 Granger Cause LR <sub>s</sub> /Euro.
H0 <sub>f</sub>	LR <sub>s</sub> /Euro does not Granger Cause LNifty 50.	H1 <sub>f</sub>	LR <sub>s</sub> /Euro Granger Cause LNifty 50.

## RESEARCH TOOLS FOR DATA ANALYSIS

Granger Causality Test has been applied to address research objectives and to test hypotheses. The prerequisite for using the Granger Causality Test is that the nature of time series data should be stationary. The stationary of the data has been checked by employing Unit Root Test consisting of Augmented Dickey Fuller Test. E-views 9 software is applied for the analysis of data.

### STATIONARITY TEST: AUGMENTED DICKEY FULLER TEST

The ADF test involves the estimation of following regression equation as per Gujarati, Porter & Gunasekar (2012):

$$t = t$$

The Schwarz's information criteria as suggested by Schwarz are used to select optimal lag length (m). The hypotheses of this test are:

H0: =0 Non - stationary

H1: <0 Stationary



## GRANGER CAUSALITY TEST

Granger Causality Test was proposed by C.W.J Granger in 1969. The regression equations for the test are given below:

The null hypothesis is = 0. If is statistically significant but is not, it means X causes Y. In the reverse case Y causes X. But if both the values are statistically significant, causality runs both ways.

## ANALYSIS AND FINDINGS

### AUGMENTED DICKEY FULLER TEST

Augmented Dickey Fuller Test (ADF) has been performed to check the stationarity of the data for all the variables. Results of ADF test have been shown in Table 2. Test involves a null hypothesis that data has unit root i.e. non-stationary and alternate hypothesis that the data is stationary. As per Table 2, some of the variables are found stationary at level i.e. integrated of order 0 or I(0) or some at first difference I(1). In order to make consistency first difference of all the variables have been taken to perform Granger Causality Test.

Table 2: Augmented Dickey Fuller Test

Particulars	At Level (t-Statistics)		At First Difference (t-Statistics)		Decision
	With Intercept	With Intercept and Trend	With Intercept	With Intercept and Trend	
LNifty 50	-1.063279	-2.1300	-31.5946*	-31.5815*	I(1)
LRs./USD	-2.4102	-2.7163	-26.7145*	-26.7637*	I(1)
LRs./EURO	-1.7618	-2.7163	-26.7145*	-26.7637*	I(1)
LRs./GBP	-1.4659	-1.2368	-32.7170*	-32.8219*	I(1)

## GRANGER CAUSALITY TEST

Granger Causality Test is the major tool to test the causality relationship between the variables. Table 3 shows the results of Granger Causality Test between LNifty 50, and LRs./USD, LRs./GBP, LRs./Euro. On the basis of F statistics the hypothesis will be accepted or rejected.

Table 3: Granger Causality Test

Null Hypotheses	Lags	F-Statistics
LNifty 50 does not Granger Cause LRs./USD.	3	3.1411*
LRs./USD does not Granger Cause LNifty 50.	6	3.2907*
LNifty 50 does not Granger Cause LRs./GBP.	2	1.4414
LRs./GBP does not Granger Cause LNifty 50.	4	2.0542**
LNifty 50 does not Granger Cause LRs./Euro.	1	1.2875
LRs./Euro does not Granger Cause LRs./Nifty 50.	7	3.4200*

\* indicates significance at 5% \*\* indicates significance at 10%

## HYPOTHESES TESTING

In all, six main hypotheses have been formulated, out of six hypotheses, 02 hypotheses have been accepted whereas, remaining 0 rejected. Table 4 shows the acceptance and rejection of hypotheses in the study.

**Table 4: Hypotheses Testing**

H.No.	Null Hypotheses	Decision	Direction
H0 <sub>a</sub>	LNifty does not Granger Cause LRs./USD.	Reject	Bi-directional
H0 <sub>b</sub>	LRs./USD does not Granger Cause LNifty.	Reject	
H0 <sub>c</sub>	LNifty does not Granger Cause LRs./GBP.	Accept	Uni-Directional
H0 <sub>d</sub>	LRs./GBP does not Granger Cause LNifty.	Reject	
H0 <sub>e</sub>	LNifty does not Granger Cause LRs./Euro.	Accept	Uni-Directional
H0 <sub>f</sub>	LRs./Euro does not Granger Cause LNifty.	Reject	

## FINDINGS

On the basis of result shown by Granger Causality test the main findings of the study are as follows:

It is found that there is bi directional Granger causal relationship exist in case of LNifty and LRs./USD, whereas uni-directional causality relationship exist between LNifty and LRs./GBP, LNifty and LRs./Euro. Exchange rate with respect to US Dollar affects the LNifty and LNifty Nifty affects the LRs./USD. Investors who invest in Nifty should consider the movement in LRs./USD before investing in the Indian market and who deals with the exchange rate w r to LRs./USD should analyze the movement in LNifty because upside or downside in LNifty affects the LRs./USD.

## CONCLUSIONS OF THE STUDY

In this study empirical causal relationship between LNifty 50 and exchange rate LRs./USD, LRs./GBP, LRs./Euro is examined by use of data from April 2012 to 2017. A main issue has been whether information about movement in LNifty 50 is useful in improving forecasts for exchange rate LRs./USD, LRs./GBP, LRs./Euro and vice versa. There is bi directional or two way causal relationship has been found with respect to LNifty and LRs./USD which indicates that information might flow simultaneously rather than sequentially into the market. (Medeiros and Doornik 2006). This implies that the strong form of market efficiency holds since public information is reflected on stock prices. It means LNifty Granger cause LRs./USD and LRs./USD causes LNifty thereby LRs./USD is one of the most important factor for forecasting the stock LNifty and vice versa. In another words it can be said that LRs./USD are more efficient than LRs./GBP, and LRs./Euro. Only in the case of LNifty- LRs./USD bi directional or two way causal relationship has been found means LNifty Grangercause LRs./USD and LRs./USD Granger causes LNifty thereby LNifty is most important factor for forecasting the LRs./USD and vice versa. LRs./USD may be one of the most important factor for considering the investment in

this LNifty. Our results are in line with the results of the Abdalla and Murinde (1997), Jayashankar and Rath (2017) but opposite to the findings of Battacharya *et al.* (2002) Mohammed .N (2000) and Pathe and Karnik (2000).

There is uni directional or one way causality relationship exist in the case of LNifty 50 and LRs./GBP, LRs./Euro meaning LRs./GBP, LRs./Euro Granger cause LNifty 50 but this does not apply the other way around that is indicative of noise trading model of return volume interaction in these stocks.

## DIRECTIONS FOR FUTURE RESEARCH

Only NIFTY50 index and exchange rate with respect to LRs./USD, LRs./GBP, LRs./Euro were considered for analysis. The analysis may be further extended to BSE 30 or Sensex and others exchange rate also. Only short run dynamic relationship has been checked, long term linear relationship may be checked by cointegration method. The data has been taken on daily basis, it can further be extended on monthly or quarterly basis to check whether any difference exist in findings.

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# Measuring Performance in Insurance Services of India: An Empirical Study

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**Abstract**—*Performance of an organization is a core process of development activity. In the fast changing business environment, this process of performance measurement is also affected with the changed key performance indicators. Hence, maintaining a consistent PMS in an organization becomes a tough task. In case of services like insurance businesses, this process seems to be more complicated as the key factor i.e. human being is most dynamic in its characteristics. The researcher has attempted to explore these issues of measuring performance in insurance services in India. This study focuses on understanding the different performance measurement systems adopted by Indian insurance companies along with approaches used to measure the performance. The study further aims to learn the different factors which is distorting the PMS of the organization, the effectiveness of PMS and need for the change in the existing PMS. The different insurance companies in India are found to use different key performance indicators and approaches to understand and measure the organizational performance. The performance measurement systems adopted by Indian companies are also found to be different than that followed by multinational companies.*

**Keywords:** *PMS: performance measurement system; KPI: key performance indicators; Insurance services; Indian service businesses*

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## INTRODUCTION

Performance is an input-bound efforts leading to output-bound results. This input-output relationship needs to be assessed in order to gain people's commitment which is ultimate goal of every service organization. Insurance services in India are undergoing a change process overcoming from orthodox business style to align with global businesses. The sustainability, competition and mounting service expectations have made it complex for decision makers to rethink on their strategy. The generation change with life style transformation in economically growing nation complicates task of competing with multinational companies in insurance services in India. In this turmoil climate, the performance measurement of these services remains a herculean task due to dynamic characteristics of performance indicators.

Insurance services in India, once considered as compulsion rather than need, are now a household affair. The economics behind the business in insurance services,

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probably in early stage, was not so much discussed in open domain in India. Hence, major concern for insurance companies was not competition but, in the changed scenario, the companies have to think in different perspective as business is no more a compulsion but a choice of customer. The businesses have to explore newer key performance indicators financial as well as non-financial. Information and communication Technology have also added new dimensions to look for a competitive edge. Performance measurement system in Indian companies needs to be studied in view of above circumstances to take on their business at next level. It becomes inevitable to understand the current measures and approaches in practice to define need for the change in PMS.

## **OBJECTIVES**

Keeping in view the key concerns of PMS in insurance businesses in India, this study aims to address the key areas in mainly four parts. The study aims:

- To learn about the different performance measurement systems adopted by Indian insurance companies;
- To underline approaches used to measure the performance of the organization in insurance services;
- To know the different factors distorting the PMS of the organization and
- To understand the effectiveness of PMS and need for the change in the existing PMS.

## **LITERATURE REVIEW**

The performance measurement came into the picture in and after mid 20th century with more and more investors looking into the businesses. Johnson and Dixon advocated this concept in an evolution era of performance measurement system. The budgeting and accounting was further augmented by Activity Based Costing (ABC) leading to bottom line measurement by focusing on activities and devising mechanism of assessment. Robert Kaplan and Steve Anderson also suggested improved version Time-driven Activity Based Costing to sidestep the difficulties associated with large-scale ABC implementation. The ABC method appeared to be a valuable instrument in many developing countries like India especially in service businesses.

Performance measurement has always been a herculean task in service businesses especially in developing countries like India. The researchers have studied PMS in different service businesses in Indian situations. Different service businesses have their own strategy to focus on financial indicators and non-financial indicators. The pure financial perspective is no more a success mantra to sustain against competition. The trade-off balancing between financial results and competency

building for future seems to be prime concern now for insurance companies. Hence, developing a measurement system with balanced hands is much more crucial. Measurement system not only in term of designing of system but, also, disposal of existing system is very important. Indian companies are innovative enough to design the new system as per the demand, but disposal of existing or traditional system is very poor. Meyer & Gupta also express the same view. As far as designing and implementing new PMS, newer information technology can be an aid to implement performance measurement system in services businesses, but the disposal of existing PMS in a respectable manner remains an intriguing affair. The literature in the field of performance measurement also emphasizes the importance of maintaining relevant measures that continue to reflect the issues of importance to the business.

## RESEARCH METHODOLOGY

The research methodology for this study is a comprehensive outcome of different studies and literature of PMS. Apart from the reference based on the literature and studies in PMS, the study follow the framework of questionnaire used in three Indian studies conducted on performance measurement system in different services businesses namely in banking, hotel and telecommunications. These references also become crucial due to study of Indian service businesses. These studies used a simple instrument of questionnaire to collect the comprehensive data from the service companies. In this study, the similar research design was adopted as was used in referred studies. The use of secondary data has only been used to select the insurance companies for the study whereas primary data has been collected to decipher the trend. The last three-year's financial performance of the companies has been taken as the criterion to select the insurance companies for the study.

The study was conducted with the select companies of Indian insurance sector (Annexure 1). The total 55 executives of Indian insurance companies were approached in-person (30 in nos.) and through mail (25 in nos.). Respondents mainly included *development officers*, *branch managers* and *divisional managers* or equivalent positions due to their core business involvement & in-depth understanding as well as ease and accessibility for the research. The mail response was negligible as none reply was received whereas the in-person response was good due to personal follow-up (Table 0). Twenty nine responses were received against the distributed questionnaires through in-person. The 25 responses out of 29 received (86.2%) were useful. The total numbers of companies covered in the research study were seven having offices located mainly in Kanpur and Lucknow region of Uttar Pradesh, India.

**Table 1: Respondents Profile**

Sector	Mode of Contact	No. Contacted	Total Response	Useable	% Useable over no. contacted	% Useable over total response	No. of responding companies
Insurance Services	In person	30	29	25	83.3	86.2	08
	Mail	25	0	0	00	00	

### PERFORMANCE MEASUREMENT SYSTEM IN INSURANCE SERVICES

The performance measurement system in insurance services in India has been analyzed in three major parts namely (1) Performance Objectives and Measures; (2) Performance Measurement Approaches and (3) Strategy and Performance Measurement System. The first part includes the major focus on performance objective to understand the objectives, measures, participation in objectives setting, frequency of objective setting and impact assessment in objective planning. The second part aims to focus on performance measurement approaches, impact, distortion factors, global and local practices etc. The third part attempts to align the strategy with performance measurement system.

#### (A) PERFORMANCE OBJECTIVES AND MEASURES

Table 1 and 2 shows major strategic and financial objectives and corresponding measures for the insurance services. Competitive advantage is the major strategic objective pursued in this sector as per 52% of the responses measured by premium earned and accretion during the financial year. 44% of the responses indicated that they aim to maximize service quality and reliability being measured by service time response and customer complaints response. 32% of the responses give primacy to the objective of satisfying the customer being measured by increase in customer base. To educate and encourage staff to make use of IT which is now becoming priority objective as indicated by 20% of the respondents by targeting at IT usage ratio, training programme etc..

**Table 1: Strategic Objectives & Measures**

S.N.	Objectives	Measures	No. of Responses	Percentage
1.	Customer satisfaction	Increase in customer base	08	32
2.	Gain competitive edge	Premium and accretion	13	52
3.	Maximize service quality and reliability	Service time, response time, customer complaints response	11	44
4.	Educate and encourage staff in usage of IT	IT usage ratio, training program, Usage of IT by each employee	05	20

\* No. of respondents & no. of responses differs due to multiple options.

On other hand, growth in revenue is important financial objective (48% of the responses). Revenue earned through existing customer or new customer is used for measurement of this objective. Profitability (40% of the responses) is the second leading objective in insurance services as indicated by profit-based measures. 28% of the respondents indicated that annual financial figures as reflected by asset growth and asset management measures are important objective for performance measurement.

**Table 2: Financial Objectives & Measures**

S.N.	Objectives	Measures	No. of Responses	Percentage
1.	Growth in revenue	Revenue by service-existing or new, percentage of active value customer base	12	48
2.	Profitability	Profit based measures	10	40
3.	Annual financial figures	Asset growth and asset management	7	28

*\* No. of respondents & no. of responses differs due to multiple options.*

As for as periodicity of the objective setting is concerned, the objectives are set annually in general, but changing pattern in insurance have led the setting the objectives half yearly and monthly. Table 3A reveals that annual setting of objective by 56% of the responses, half yearly by 24% of the responses and quarterly by 20% respondents. The frequency in objective increases with the need for exercising better monitoring and control over the system.

**Table 3A: Frequency of Objective Setting**

	No. of Responses	Percentage
Annual	14	56
Half yearly	06	24
Quarterly	05	20
Others (Monthly/Weekly)	-	-

Table 3B shows the participation in objective setting. The 64% of the respondents said that objective setting is the sole responsibility of management and there is no or very little role of employee, where as 20% of the respondents do consider the employee role in objective setting and out of which 16% of the responses indicated that objectives are set by joint efforts of management and employee.

**Table 3B: Participation in Organizational Objective Setting**

Participation	No. of Responses	Percentage
Management	16	64
Employee	05	20
Both	04	16

Table 4 shows the figures for the role of employee in objective setting, internal sharing of results, taking measures in improving activities and role of PMS in new policy formulation. 68% of the respondents expressed that there is negligible role of



employees in objective setting process and 20% of the responses indicated minimal role in the objective setting process. The internal sharing of the performance results varies from moderate (16% of the responses) to catalytic (32% of the responses) in all the organizations included in study. The sharing of results also helps employee to re-invest knowledge and experience for innovation. The role of the PMS in new policy formulation is viewed as active (40% of the responses) and catalytic (32% of the responses) by almost all the organization in insurance sector.

**Table 4: Performance Measurement Implications**

	Negligible	Minimal	Moderate	Active	Catalytic
Employee Participation in Objective Setting	17	5	03	0	0
Sharing of PM results Internally	0	02	07	08	08
Use of Measures in improving activities	0	01	08	09	07
Role of PMS in new policy formulation	0	01	06	10	08

### **(B) PERFORMANCE MEASUREMENT APPROACHES**

Table 5A shows the performance measurement approaches used by insurance companies in India. 48% of the responses indicated that companies are following benchmarking approach to measure the performance in insurance sector. 44% of the responses revealed that companies are using the balance scorecard approach for PMS. Only 8% of the responses indicate that activity based costing is used for the performance measurement.

**Table 5A: Performance Measurement Approaches**

Approaches	No. of Responses	Percentage
Activity based costing	02	8
Balance Scorecard	11	44
Process Re-engineering	0	0
Benchmarking	12	48
Others _____	-	-

Table 5B shows the impact of different approaches on the performance of companies. The companies using benchmarking approach find average to high impact of performance of their respective organization in insurance sector. The companies using balance scorecard realizes moderate to high impact of approach on performance. Activity based costing approach is found to have moderate to high impact on performance. In general, the approaches adopted in the insurance sector have moderate to high impact on performance.

**Table 5B: Approach Impact on Performance**

Approaches	No Impact	Little Impact	Average Impact	Moderate Impact	High Impact
Activity based costing	0	0	0	01	01
Balance Scorecard	0	0	0	06	05
Process Re-engineering	-	-	-	-	-
Benchmarking	0	0	1	04	07
Others _____	-	-	-	-	-

The nature of services affects the performance approach very much, which is evident in Table 5C. 80% of the respondents agree with this concept. Only 20% of the responses feel that there is no effect of nature of services on the performance approach.

**Table 5C: Nature of Services Vs Performance Approach**

	No. of Responses	Percentage
Nature of services affect measurement approach	20	80
No affect of nature of services	5	20

Table 6 shows the reason for non-standardization of services in insurance sector. 72% of the responses indicated that it is hard to measure the impact of services immediately. 16% of the respondents agree that the services in insurance sector are people dependent and 12% of the respondents indicated that services are technology dependents, thereby causing the non-standardization of services.

**Table 6: Reasons for Non Standardization of Services**

Reasons	No. of Responses	Percentage
More people dependent	04	16
More technology dependent	03	12
Hard to measure immediately	18	72
Others _____	-	-

Table 7A reflects the difference in local and global practices in PMS in insurance sector. 52% of the responses indicated that the practices adopted by Indian and global companies in regard to performance measurement are different. Forty eight percent of the responses indicates that there is no difference in the performance measurement practices across Indian and global companies.

**Table 7A: Local Vs Global Practices**

	No. of Responses	Percentage
Differs in Practices	13	52
Same in Practices	12	48

Table 7B shows the reasons for the difference in PM practices. 40% respondent believes that the difference is mainly due to the economic status of the country. 36% of the responses expressed that technological advancement is the major causal factor for difference in performance measurement practices. The latest software and packages makes it easy to evaluate the performance in very short span of period. 28% of the responses indicated that insurance services are human dependent where as 24% of the respondents say that the difference in practices is due to social structure of the country. Only 08% of the responses agreed on cultural differences causing difference in PM practices in local and global companies.

**Table 7B: Reason for Difference in Practices**

	No. of Responses	Percentage*
Human dependency	07	28
Cultural difference	02	08
Economic Status	10	40
Social structure	06	24
Technological Advancement	09	36

\* No. of respondents & no. of responses differs due to multiple options.

Forty eight percent of the responses indicated that the process of measurement is distorted by human behavior (as shown in Table 8), where as 36% of the respondents agree on technology as major distortion factor. 16% of the responses expressed that both human behaviour and technology distort the PM process.

**Table 8: Distortion Factors**

Factors	No. of Responses	Percentage
Human Behavior	12	48
Technology	09	36
Human Behavior and Technology both	04	16
Others	-	-

### **(C) STRATEGY AND PERFORMANCE MEASUREMENT SYSTEM**

Ninety-six percent of the responses reflect that the insurance sector is mainly using the cost based strategy. 60% of the responses indicated for the focused cost leadership strategy where as 24% of the respondents their strategy to be the best cost provider strategy. 12% of the responses indicate that they use overall cost leadership strategy. Only 04% of the respondents pointed out that their company uses the overall differentiation leadership strategy.

**Table 9: Business Strategy**

Strategy	No. of Responses	Percentage
Overall cost leadership strategy	3	12
Overall differentiation leadership strategy	1	4
Focused cost leadership strategy	15	60
Focused differentiation Strategy	00	00
Best Cost Provider Strategy	06	24

Table 10 shows most important performance indicators in insurance services. 48% of the responses indicated that customer satisfaction is the leading indicator whereas 44% of the respondents agree on profit being an important performance indicator in insurance sector. Quick response and quality measures are also important performance indicator as attributed by 04% of the respondents each respectively.

**Table 10: Most Important Performance Indicator**

Indicators	No. of Responses	Percentage
Profit	11	44
Quality Measures	01	4
Customer satisfaction	12	48
Employee satisfaction	0	00
Quick response	01	4

Table 11 shows that the importance of various factors in insurance sector with comparative analysis between Indian and global companies as per the responses from companies operating in India. Innovation has been considered to be of high importance factor for the global companies (80% of the responses) as compared to 28% of the responses for Indian companies. Indian companies give average importance (40% of the responses) to innovation factor. Quality factor is given almost same importance for both Indian and global company in insurance sector. Indian companies are not giving high importance to time factor (32% of the responses) as compared to global company (48% of the responses). The customer satisfaction factor has been given high importance by Indian companies (68% of the responses) as compare to global organization (52% of the responses).

**Table 11: Importance of Various Factors**

	Indian Company					Global Company				
	1	2	3	4	5	1	2	3	4	5
Innovation (percentage)	00 (00)	00 (00)	10 (40)	08 (32)	07 (28)	00 (00)	00 (00)	00 (00)	05 (20)	20 (80)
Quality (percentage)	00 (00)	00 (00)	03 (12)	12 (48)	10 (40)	00 (00)	00 (00)	03 (12)	11 (44)	11 (44)
Time (percentage)	00 (00)	00 (00)	08 (32)	09 (36)	08 (32)	00 (00)	00 (00)	03 (12)	10 (40)	12 (48)
Customer Satisfaction (percentage)	00 (00)	00 (00)	00 (00)	08 (32)	17 (68)	00 (00)	00 (00)	02 (08)	10 (40)	13 (52)

Scale: 1: No Importance; 2: Very Little Importance; 3: Important; 4: Very Importance; 5: High Importance

Fifty two percent of the responses indicated that the change in business system is mainly due to the cut-throat competition in the market in insurance sector. 24% of the respondents expressed that the change is due to change in customer behavior. The change in the business objectives is the causal factor for the change in business

system as per the 16% of the responses. Only 08% of the responses indicate on change in approach by business having a bearing on change in business system in insurance sector.

**Table 12: Change in Business System**

	No. of Responses	Percentage
Change in business objectives	04	16
Change in customer behavior	06	24
Change in approach	02	08
Competition	13	52
Other _____		

Table 13 reflects the view on management perception about the performance measurement system in Indian and global organizations. 40% of the responses indicate that there is very little difference in management perception about PMS in Indian and global companies where as only 08% of the respondents revealed that there is no difference at all. These responses are mainly from the multinational companies operating in India. Rest 52% of the respondent indicated that the difference in management perception about PMS in Indian and global companies varying from very much (24% of the responses) to substantial (28% of the responses).

**Table 13: Difference in Management Perception of PMS in Indian and MNCs**

	No. of Responses	Percentage
Differs very much	06	24
Substantial difference	07	28
Very little difference	10	40
No difference	02	08

As far as the long-term strategy is concerned, 32% of the responses indicated that there is no long-term strategy for PMS at all. 28% of the respondents revealed that they have started developing the long-term strategy for PMS. 16% of the respondents agree that their policy for PMS is partially in place. Twelve percent of the responses each view that their strategy for PMS is exactly or mostly in place. Combined together it is revealed that companies do have long-term strategy for PMS to serve extent in this industry (68% of the responses).

**Table 14: Long-term Strategy for PMS**

	No. of Responses	Percentage
Exactly in place	03	12
Mostly in place	03	12
Partially in place	04	16
Have started	07	28
Not at all	08	32

The organizations having the long-term strategy for the performance measurement system are realizing the effectiveness of the system. 44% of the responses indicated that the existing PMS in their organization is somewhat effective which need little bit improvement. 32% of the responses revealed that PMS use is very effective where as 24% respondents accepted that the system is totally effective. It can be inferred therefore that organizations studied do find their PMS in use to be effective positively.

**Table 15: Effectiveness of Performance Measurement System**

	<b>No. of Responses</b>	<b>Percentage</b>
Completely ineffective	00	00
Very ineffective	00	00
Some what ineffective	00	00
No effect	00	00
Some what effective	11	44
Very effective	08	32
completely effective	06	24

The improvements in the performance achieved after using the proper performance measurement system is shown in Table 16. The performance of companies in insurance sector has improved by the use of existing PMS of organization during the previous year. Nine of the responses indicated that the performance improvement has been in the range of 16-30% where as 06 responses reflected that 31-50% improvement in previous year is achieved. Only 04 respondents indicated that improvement in performance was up to 15%. Six responses reflected that improvement in performance has been more than 50% in the previous year. This shows that the existing performance measurement system in the organizations studied has contributed in improving the performance of the organization absolutely.

**Table 16: Performance Improvement in Previous Year**

	<b>No. of Responses</b>
0-15 %	04
16-30%	09
31-50%	06
50-75%	04
76-100%	02

## **ANALYSIS AND FINDINGS**

The study indicates clearly that the main objectives of insurance companies are customer satisfaction, gaining competitive advantage, and improve service quality with IT enabled services. The important measures to evaluate the objectives are increase in customer base, premium and accretion, time etc. The important performance indicators reflecting change in business system are profit, quality measures, customer satisfaction, and quick response. The focus of insurance

companies on gaining competitive advantages without focusing on customer satisfaction seems to fritter away as the sector is heavily dependent on services and its quality along with product. The companies are seems to focus on service improvement without working on product. It is noteworthy here that the role of employee in objective setting process is negligible which prohibits the alignment of policy and customer need. The internal sharing of the results also becomes unproductive process in absence of policy awareness.

The insurance sector follows benchmarking approach for performance measurement along with balance scorecard. The public sector companies are mainly using benchmarking while multinational companies are using balance scorecard approach. This also explains for the difference in performance measurement practices in insurance services at local and global level.

Hence, it is visible that different performance measurement systems are used by Indian insurance companies.

The insurance sector in India seems to have focused cost leadership business strategy without long term strategic planning. As insurance services gears up, the focus on long term strategic planning can help public sector companies to compete with the multinational companies operating in India as well as other Indian private sector players. The sector appears to have these differences in practices due to economic status and technological advancement mainly. It can be seen that companies in public sector and private sector uses different approaches and practices to measure the performance of the organization. It appears that this difference may bridge up in the coming decades with more and more MNCs leading the sector.

The major distortion factor in insurance services in India appeared to be human factor. Technology is also distorting PMS process as the sector just passed through automation process leaving human aside. This might have further clicked human ignorance leading to human factor stronger.

PMS in insurance services in India seems to be somewhat effective which needs to be strengthening further. This indicates a probable change or modifications in existing PMS in order to make it highly effective.

## **CONCLUSION**

The Indian companies in insurance sector in India seem to be using different performance measurement systems so far to measure their performance. The approaches and measures across the different companies also seem to be different. This research further indicates a strong need of PMS alignment across the sector in order to make it effective. A focused leadership strategy by Indian insurance companies can lead the segment to a competitive edge over the multinational players.

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## ANNEXURE 1

### LIST OF ORGANIZATIONS

#### Insurance Companies

Name	Places of Study
LIC, India	Kanpur, Lucknow, Bangalore
SBI life Insurance	Kanpur, Lucknow
The New India Insurance Co. Ltd.	Kanpur, Lucknow
National Insurance Co. Ltd.	Kanpur, Lucknow
Oriental Insurance Co. Ltd.	Kanpur, Lucknow
United India Insurance	Lucknow
Allianz Bajaj	Lucknow, Kanpur



# Demonetization: Rationale and Impact

Ajit Kumar Singh<sup>1</sup>

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**Abstract**—*The present paper examines the rationale and the impact of demonetization on the Indian economy. It is argued that demonetization was a hasty and ill conceived policy which was badly implemented. It has caused damage to the economy in the short run. Vast number of people suffered inconvenience and avoidable trouble in depositing the banned currency and withdrawing new currency to meet their consumption and business demand. Millions also lost their jobs. The economic activity got a severe jolt from which it is still to recover. In the short run demonetization has led to a decline in the GDP growth rate. When and what long term gains will accrue remains uncertain.*

**Keywords:** *Demonetization, Economic Impact, Black Money, Cashless Economy*

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## INTRODUCTION

The Prime Minister of India announced the demonetization of the Rs. 500 and Rs. 1000 notes on 8th of November 2016 with a view to curb black money and terrorist funding. It was indeed a bold decision which gave a sudden jolt to the economy. However, several reputed economists criticized demonetization as an uncalled decision (Singh 2017). Prof Arun Kumar, an authority on black income in India, observed that demonetization was a foolish step likely to hurt the poor most. According to the Nobel Laureate Amartya Sen both, the idea and the way it was implemented, was akin to a “despotic action” and betrayed the “authoritarian nature of the government”. According to Prabhat Patnaik, Professor Emeritus, Jawaharlal Nehru University, New Delhi, the move to demonetize 87 per cent of country’s currency betrayed an abandonment of reason that was truly frightening. Dr. Manmohan Singh, the former prime minister of India, observed that “in one impetuous decision, the Prime Minister has shattered the faith and confidence that hundreds of millions of Indians had reposed in the Government of India to protect them and their money.” He warned that this policy could act as a negative shock to the economy.

The move got flak from experts from outside India also. The *Economist* of London questioned the move saying that withdrawing 86% by value of the cash in circulation in India was a bad idea, badly executed. It went on to say that however clever the plan looked on paper, it was both extraordinarily blunt and risky. More recently the Editor-in-Chief of *Forbes* magazine, Steve Forbes, has criticized demonetization, calling this decision ‘sickening and immoral’ and a ‘massive theft of people’s property’. He compared it to the failed attempt of Indira Gandhi to control population growth through ‘*nasbandi*.’

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Now one year has passed since the momentous decision. It is time to take an objective look at the rationale and the impact of the decision on the Indian economy. The present paper is an attempt in that direction.

## **THE MOTIVES**

Officially demonetization was said to be aimed at destroying corruption, unearthing black money, stopping counterfeiting and choking terrorist funding. Some political commentators, however, have drawn attention to the hidden political agenda of the move. Barbara Harris, emeritus professor at Oxford University and an astute observer of Indian political economy, observes that “*notebandi* is alleged to be motivated by the ruling BJP’s desire to undermine opposition parties in advance of 2017 elections in UP, Punjab and Goa—and others elsewhere, running up to the general election in 2019.” The opposition parties like SP and BSP, who were believed to be keeping large illegal cash holdings to fight election and who were taken by surprise by the announcement, are likely to have suffered a big blow weakening their capacity to fight elections, while for the BJP it appeared to be business as usual. The timing of the decision does lend credence to this view.

Another factor which might have led the government to take this decision was that it was led to believe that over rupees three lakh crore of black money will be rendered illegal and will not come back into the banking system. The counsel of the government informed the Supreme Court that one third of money in circulation was not likely to be deposited in the banks. This was expected to reduce the liability of the Reserve Bank of India to the same extent, which would enable it to give this money as one time dividend to the government, which will then be able to fund large infrastructure and social welfare schemes through this bonanza.

According to the statistics released by the Reserve Bank of India, with an unexplained delay of nearly eight months, almost 99 per cent of the Rs. 15.5 billion cash freed through demonetization has come back to the banking system making a mockery of the entire exercise. Out of the Rs. 15.4 billion notes declared illegal only Rs. 16000 did not come back into the banking system. Some money is still lying with NRIs and cooperative banks pending Supreme Court judgment on the validity of demonetization.

## **GLITCHES IN THE IMPLEMENTATION**

The way in which demonetization was implemented suggests that the announcement of demonetization seems to have been made without adequate preparation and without detailed considerations of its consequences for the people and the economy. Ideally the RBI should have got the new notes printed in adequate quantity before the announcement of the decision. But no such preparation seems to have been made in advance. Consequently people had to wait for hours in long queues before bank windows. Over 100 old and sick persons even died while

standing in the queue. The pain was borne mainly by the middle classes and the poor. The rich could hire people to stand in queues on their behalf.

The new Rs. 2000 notes which were issued to the public were of little use for meeting their day to day expenditure in the absence of low denomination notes. In fact, they made stashing of black money easier. The ATM machines were not calibrated to dispense Rs. 2000 notes which differed in size from the earlier currency. As a result ATMs went dry for days together putting people to great inconvenience. This caused shortage of cash in the hands of the people. Marriage and social ceremonies had to be postponed. The RBI and the government responded to the emerging situation in a knee jerk manner. As many as 62 amendments were issued in less than two months regarding the payment of cash by the banks. All this caused immense and avoidable confusion and inconvenience to the public.

The timing of demonetization was also ill-conceived. Demonetization was announced in the beginning of November which is a busy season for agriculture and the economy. It is noteworthy that the earlier two decisions to demonetize in 1946 and 1978 were announced in the month of January, after the end of the busy season.

The process of remonetization was also painfully slow. Even after one month of demonetization the RBI was able to pump into the system only Rs. 4.61 lakh crore, that is, less than one third of the demonetized currency. Currency with the public declined by almost 50 per cent during the months of November and December 2016. It was only after April 2017 that the cash crunch could ease somewhat, with over three-fourth of the currency back in circulation. But it took nearly a year to reach the level of currency with public in November 2016 (Table 1).

**Table 1: Pace of Remonetisation of the Economy (Rs. Billion)**

Date	Currency with public	Net Addition to Currency	Currency As % of Currency on 1-Nov-16
1-Nov-16	15262.3		
9-Dec-16	7809.5	-7452.8	51.2
6-Jan-17	8112.3	302.8	53.2
3-Feb-17	9803.0	1690.7	64.2
3-Mar-17	11309.0	1506.0	74.1
19-Apr-17	13289.5	1980.5	87.1
12-May-17	14035.6	746.1	92.0
9-Jun-17	14462.0	426.4	94.8
7-Jul-17	14660.5	198.5	96.1
4-Aug-17	14754.0	93.5	96.7
1-Sep-17	14802.7	48.7	97.0
6-Oct-17	14963.0	160.3	98.0
13-Oct-17	15328.5	365.5	100.4

Source: Reserve Bank of India

The government also did not anticipate the ingenuity of the Indian people especially those with black money to deal with the situation. The practice of hiring 'Q' labour

and hiring of accounts for depositing money in the name of other persons made a mockery of the whole exercise. The government also did not take into account the capacity of the banks to handle the task nor could put adequate check on the process. As a result some of the unscrupulous bank officials made a fast buck by converting black money into white.

Having looked at the motives of demonetization and the shortcomings in its implementation, let us now turn to an analysis of its impact on the economy.

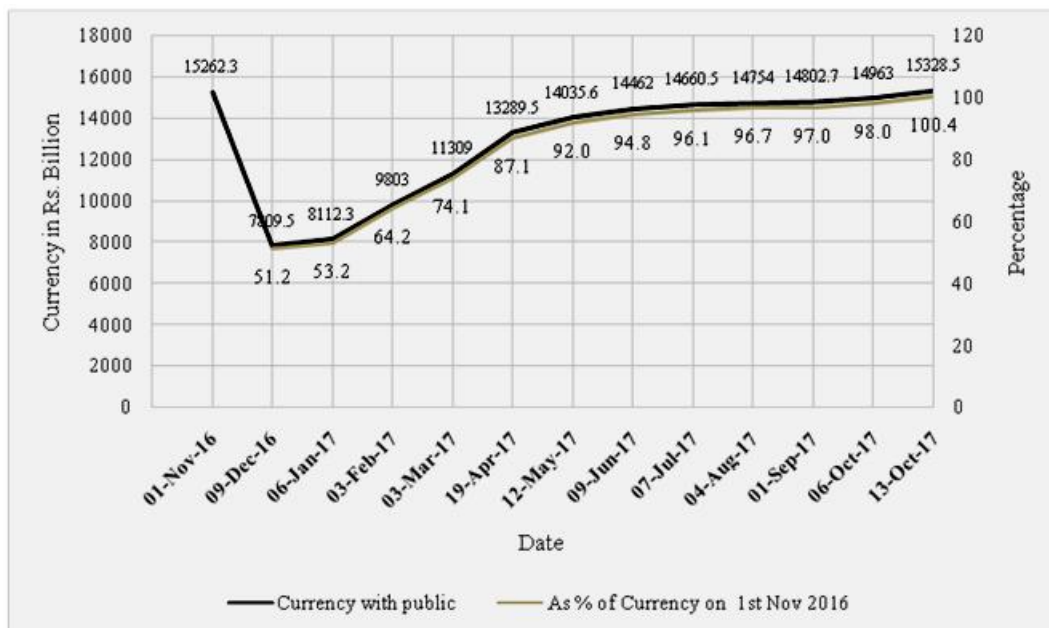


Fig. 1: Pace of Remonetisation of the Economy

## THE IMPACT

Apart from causing untold and avoidable misery and difficulties to millions of people, the demonetization decision has caused huge damage to the Indian economy, the full dimension of which are still unfolding. India has traditionally been a cash intensive economy. According to an estimate about 78 per cent of all consumer payments in India are affected in cash. In such circumstances a sudden withdrawal of 87 per cent of currency in circulation was bound to dampen the economic activity.

The cash crunch following demonetization reduced consumer demand by 30-40 per cent in most of the sectors and rendered millions of poor workers unemployed. According to a CMIE estimate nearly 1.5 million workers became unemployed in the wake of demonetization. The informal economy in which over 80 per cent of the workers are engaged suffered a huge set back. There were worrying reports of

factories being closed and workers returning to their village for want of employment from all parts of the country. The leather industry of Agra and Kanpur, brassware of Moradabad, handloom of Varanasi, gur making industry of west UP, diamond cutting, powerloom industry of Surat and Bhiwandi, wool industry of Ludhiana all were plunged into deep economic crisis. Unable to pay the wages of the workers they were forced to substantially reduce their numbers or completely shut down their operations. The informal channels of finance on which the farmers, traders and small industry depended dried up damping economic activity. The ripple effects of economic slowdown are bound to continue for a long time. To kick start the economy again would be a difficult task even after full remonetization of currency.

Worst affected have been the farmers who had already suffered two years of drought. In the absence of cash the farmers were unable to purchase seeds, fertilizers and other inputs or to pay the agricultural laborers. The delay in sowing and application of fertilizers was bound to reduce productivity of the crop causing further hardship to the farmers. The farmers also suffered loss of income due to fall in agricultural prices on account of reduced demand.

The number of the workers rendered unemployed is difficult to assess in the absence of data. However, indirect data confirms that laborers were significantly affected. The increased demand for work under MNREGA provides an indication of the distress caused by demonetization on rural labor. *Economic Survey 2017 Vol. 2* confirms that there was increased demand for social insurance through programmes like MNREGA over the demonetization period (early November 2016-March 2017). This was especially true for the less developed states, comprising Bihar, Chattisgarh, Rajasthan, Jharkhand, West Bengal, and Odisha which witnessed about a 30 percent increase in mandays worked on MNREGA.

All economists agreed that demonetization will dampen the growth rate of the economy at least over the short period. Dr. Manmohan Singh had indicated that growth rate may decline by 2 per cent point. Most of the external agencies—both domestic and international—lowered their growth projections for India for 2016-17, from a range of 7.0-7.9 per cent before demonetization to 6.3-7.3 per cent after demonetization. The Reserve Bank of India reduced its projection of growth for 2016-17 from 7.5 per cent to 7.1 per cent. According to CSO real GDP growth declined from 8 percent in 2015-16 to 7.1 percent in 2016-17, as momentum slowed over the course of the fiscal year. Real GDP growth slipped from 7.7 percent in the first half of 2016-17 to 6.5 percent in the second half. Quarterly real GDP growth also shows a deceleration in the third and fourth quarters relative to the first two quarters. It may be pointed out that a one per cent decreases in GDP amounts to a loss of Rs. 1.5 lakh crore. These estimates seem to be on the lower side as they fail to take into account the full damage caused to the informal economy in the absence of data.

Mahesh Vyas of the Centre for Monitoring Indian Economy had estimated the transaction cost of demonetization for the 50 days at Rs.1,28,400 crore. The cost had several components. Workers who stood in queues to exchange their old currency notes with new ones lost Rs.15000 crore in terms of foregone wages during the 50-day period. The loss to banks, whose employees borne the brunt of the enormous task of depositing banned notes and had to work overtime leaving no scope for conducting their normal lending business, was estimated at Rs.35,100 crore during this period. The RBI was estimated to bear a cost of Rs. 16,800 crore on account of the cost of printing of new currency and transportation of new currency to bank branches, ATMs and post offices. The business enterprises were estimated to have lost Rs. 61,500 crore due to reduced demand. These estimates probably err on the lower side.

The Reserve bank of India came out with a study on the macroeconomic impact of demonetization in March 10, 2017. The study indicated that demonetization has impacted various sectors of the economy in varying degrees. It is worthwhile to look at the major findings of the RBI study, which are given below:

- The impact of demonetization on GVA (Gross Value Added) growth was estimated at about 33 bps for the full year 2016-17. As per the second advance estimates of the CSO released on February 28, 2017, GVA growth for 2016-17 is pegged at 6.7 per cent, which is about 30 bps lower than what was estimated on January 6, 2017.
- Organized manufacturing was impacted adversely as evident from (i) the decline in the sales of fast moving consumer goods (FMCG) and automobiles in all the months from November to January; (ii) contraction in the manufacturing purchasing managers' index (PMI) in December for the first time in 2016; and (iii) deceleration in export growth during November.
- The adverse impact of demonetization on disposable incomes and hence on consumer spending resulted in slowdown in domestic demand for apparels and other end-products of textile industry.
- According to the Centre for Monitoring Indian Economy (CMIE), new investment proposals dropped to Rs. 1.41 trillion in Q3 as against an average of Rs. 2.36 trillion in the preceding nine quarters.
- Some segments in the services sector also appeared to have been adversely impacted. The services PMI fell sharply from 54.5 in October to 46.7 and 46.8 in November and December, respectively, entering contraction territory for the first time after June 2015.
- Production of cement, one of the main indicators for the construction sector, decelerated sharply in November, and contracted by 8.7 per cent and 13.3 per cent in December 2016 and January 2017, respectively.

- Sales of commercial vehicles—an indicator for transportation activity—contracted by 11.6 per cent in November, 5.1 per cent in December 2016, and 0.7 per cent in January 2017, as against an average growth of 6.9 per cent during April-October 2016. Growth in sales of passenger vehicles also decelerated to 1.8 per cent in November and contracted by 1.4 per cent in December.
- In agriculture and plantation activity, *rabi* sowing, which was higher by 4.8 per cent in November 2016 than a year ago, picked up subsequently and was about 6 per cent higher than last year by February 3, 2017, covering about 101 per cent of the normal area.
- The impact of demonetization on inflation in the near-term stemmed mainly from moderation in food inflation, especially perishables, as inflation excluding food and fuel remained broadly unaffected.
- Decline in currency in circulation on account of demonetization led to a surge in bank deposits. Between October 28, 2016 and January 6, 2017 total currency in circulation declined by about Rs. 8,800 billion. This, in turn, was largely reflected in sharp increase of about Rs. 6,720 billion in aggregate deposits of the banking system. The sudden increase in deposits created large surplus liquidity conditions in the banking system.
- Loan disbursements by all categories of NBFCs declined significantly in November 2016 compared with the monthly average disbursements during April-October 2016, especially for micro finance companies whose business is more cash intensive.
- Post-demonetization, 23.3 million new accounts were opened under the *Pradhan Mantri Jan Dhan Yojana* (PMJDY). The total balance in PMJDY deposit accounts peaked at Rs. 746 billion as on December 7, 2016 from Rs. 456 billion as on November 9, 2016—an increase of 63.6 per cent.
- India's export growth, after having accelerated in September-October 2016, slowed in November 2016 (2.4 per cent in US\$ terms on a y-o-y basis) as shipments, especially from some labor-intensive sectors, were adversely affected by demonetization. Export growth recovered in December 2016 and January 2017 to 5.5 per cent and 4.3 per cent, respectively.
- Export shipments of gems and jewellery, readymade garments, meat and dairy products, and handicrafts and carpets either declined or recorded a lower growth in November 2016 as compared with October 2016. Exports of sectors such as gems and jewellery, leather and leather products, and meat, dairy and poultry products contracted in January 2017.

- An upshot of demonetization was that the digital modes of payments picked up sharply. After demonetization, there has been a significant emphasis on digital modes of payment. The catalytic push from demonetization hastened migration towards digital payments in November and December 2016. However, ease in availability of cash by progressive remonetization impacted the pace of growth of digitalization in February 2017.

What was the impact of demonetization on the avowed objectives of destroying corruption, black money, counterfeiting, and terrorism? There is a general agreement among observers that the government has failed in achieving these objectives through demonetization. Corruption particularly at the lower level of bureaucracy continues unabated as the experience of the common man shows. According to a recent report 50 per cent citizens have accepted that they had to pay bribes to the local officials to get their work done during the last year. Demonetization has also failed to strike a body blow to the phenomenon of black money, the main objective of demonetization as the processes through which black money is generated have not been blocked. In the meanwhile new avenues of generating black money have been opened in the process of the exchange of old notes against new notes through the legal and illegal channels. Demonetization has not succeeded in stopping the printing of fake currency. Fake Rs. 2000 notes have been caught by the police in raids across the country. The problems of terrorism and naxalism after suffering a temporary setback have again resurfaced. Hardly any day goes by when an incident of terrorist attack does not take place and our soldiers don't die in terrorist attacks in Kashmir. The same is true about naxalism. According to a news item published in the *Economic Times* (New Delhi 5th October 2017) the naxals were able to convert over 70% of their old notes by luring or threatening people.

### **SHIFT TOWARDS CASHLESS ECONOMY**

Stung by the failure of demonetization, the government started justifying the move on other grounds as an afterthought. It was emphasized that the aim of the move was to expand the formalization of the economy and shift towards a cashless economy. It was argued that this would reduce the scope for generating black money, expand the tax base and increase tax revenue of the government in the long run.

There has indeed been a move towards greater use of digital payment after demonetization. According to the *Economic Survey 2017 Vol. 2* even though the immediate post-demonetization surge has moderated in some cases, the level and pace of digitalization are still substantially greater than before demonetization. The ratio of cash to GDP has declined by about 1.6 percentage points down from 11.3 percent of GDP to 9.7 percent. According to a recent report in *Times of India* (Lucknow November 4, 2017) number of monthly digital transfers which stood at 102 crores in November 2016 went up sharply to 156 crores in March 2017, but



have come down to 138 crores in August 2018. The value of digital transaction had shot up from Rs. 607 crore in 2015-16 to Rs. 1076 crore in 2016-17 and is expected to touch the level of Rs. 1800 crore in 2017-18 (Das & Verma, 2017).

There are some serious considerations associated with digital transfers which have not been fully taken into account. These include the large numbers of illiterate people in the country, the limited availability of power and wifi connections especially in the rural areas, the charges connected with digital transactions, the increasing threat of frauds and so on. The immediate beneficiaries of the service charges for electronic transactions are the foreign MNC based in USA and China. PAYTM the largest gainer in terms of digital payments is backed by Ali Baba of China.

There is no basis to argue that digital transfers are a better mode of transaction and the use of cash in transactions is something undesirable. Cash is a convenient, anonymous and safe method of payment. It is universally accepted, reliable and does not involve any cost to the payer. It also exercises control on spending and does not encourage profligate expenditure through credit card, which has ruined many people (Payments Advisory Group 2010).

Many of the arguments advanced for promoting a cashless economy do not hold water. There is no evidence to show that use of cash encourages illegal activities. There are multiple channels through which money laundering and terrorism are financed. The use of cash does not necessarily promote shadow economy as the experience of Germany and Japan shows (Crane Payment Systems 2010). There is no necessary link between cash and bribery which takes various forms. Nor can one argue that use of cash is inefficient and costly as compared to digital payments.

The use of digital payment depends upon a number of factors like spread of digital technology and infrastructure, state of development of the economy, habits and preferences of the people, etc. Nearly 90 per cent of transactions in the world are still in the form of cash. Table 2 shows the use of cashless payment in selected countries. In countries like Netherlands, France, Sweden and Canada cashless transactions constitute around 80 per cent of total transactions. This proportion is 52% in United Kingdom and 45% in USA. In Australia and Germany about one third of transactions are cashless. In Japan, a highly developed country, cashless transactions are as low as 14%. The corresponding figures for China and India are 10% and 2% respectively. The coefficient of variation is as high as 57.2%.

The use of cash is far from vanishing even in the developed countries. In fact, the volume of currency has been increasing in these countries. According to a working paper of Crane Payment Systems the US currency in circulation has steadily increased since the post-war era of the 1940's. In fact the increase in the currency in circulation has actually accelerated in the 1990's and over the last decade despite the number of recessions. Similarly Euro banknotes usage is increasing and that

Europeans are becoming increasingly comfortable with having €100 and €50 banknotes in their wallets. British banknotes in circulation grew from less than £20 Billion in 1993 to more than £45 Billion in 2009. In times of financial crisis the use of cash for transactions goes up in these countries as people lose faith in the banking system.

**Table 2: Proportion of Cashless Transactions in Selected Countries**

Countries	Cashless Transactions
1-Singapore	61%
2-Netherlands	60%
3-France	59%
4-Sweden	59%
5-Canada	57%
6-Belgium	56%
7-United Kingdom	52%
8-USA	45%
9-Australia	35%
10-Germany	33%
11-South Korea	29%
12-Spain	16%
13-Brazil	15%
14-Japan	14%
15-China	10%
India	2%
Coefficient of Variation	57.2%

## EXPANSION OF TAX BASE

Another spin off from demonetization is claimed to be the expansion of the tax base and higher tax revenue receipts. However, some of the claims are exaggerated and misleading. The number of new individual tax payers did increase from 63.5 lakh in 2015-16 to 80.7 lakh in 2016-17. But as the *Economic Survey 2017 Vol. 2* points out the net addition amounted to only about 5.4 lakh taxpayers after taking into account the past rate of growth. The average income of the new taxpayers is reported at Rs. 2.7 lakh, which is not far above the tax threshold of Rs. 2.5 lakh. The addition to the reported taxable income of these new tax payers was about Rs.10,600 crore. The big fish are yet to be brought under the tax net.

The government is claiming that not all the cash deposited in banks is white money. The Finance Minister in his budget speech informed the Parliament that Rs. 4.9 lakh crore have been deposited in 1,48,000 bank accounts with a minimum amount of Rs. 80 lakhs. Notices to a large number of persons have been issued to explain the source of income. It will take years to prove that the money deposited is not white and tax liability on the same is determined. Every case has to go through a

prolonged and tenuous period of appeal and settlement. As Karan Thapar in his column in Hindustan Times observes “For now, all we can say is some black money will be identified and taxed but what proportion is that of the total and what the gain will be is unknown.”

What would be the extent of black money and how much of it would be taxed remains a million dollar question. There are doubts about the capacity of the income department and the integrity of the tax officials to handle this stupendous task. The whole process has meanwhile unleashed the fear of tax raids and harassment of tax payers and opened up avenues for the income tax officials to make illegal gratification.

## CONCLUSION

To conclude, demonetization was a hasty and ill conceived policy which was badly implemented. It has caused damage to the economy in the short run. Vast number of people suffered inconvenience and avoidable trouble in depositing the banned currency and withdrawing new currency to meet their consumption and business demand. Millions also lost their jobs. The economic activity got a severe jolt from which it is still to recover. The GDP growth rate has plummeted. When and what long term gains will accrue remains uncertain. Fight against black money and corruption is a long term exercise which requires action on several fronts together. Demonetization was not the appropriate policy instrument for achieving these goals. Even though it did not unleash a political set back to the ruling party, its economic justification remains doubtful.

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# Why is Sharecropping Extinct in the US South but Persistent in West Bengal? A Review of Comparative History

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**Abstract**—*Sharecropping is dominant as a contractual form of land tenure in developing countries, but not very popular in developed countries. We analyze the rise and demise of sharecropping in the U.S. and contrast it with its popularity in India. Several factors affecting labor supply and demand contributed to a decline of sharecropping in the U.S. and a strengthening in India, but highly important were institutional and political factors as well in each country. This raises the questions of institutional development since the type of institutions that eventually emerge in a society depends on the power of the elite relative to citizenry.*

**Keywords:** *Developing Country, labor supply*

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## INTRODUCTION

Among the dominant contractual forms of agrarian relations, sharecropping, fixed rental contract, and fixed wage contract sharecropping continues to fascinate economists. 'It has shown an often astonishing historical continuity and tenacity' and has 'displayed the capacity to disappear and reappear' (Byres, 1983).

Table 1 shows tenancy arrangements across the world around 1970. Most of the land around the world (79 percent) was owner operated, as it was in Asia (86 percent) and North America (63 percent). Yet, of the land that was under tenancy, as high as 85 percent was cultivated by sharecroppers in Asia compared to 32 percent in North America. For the world, 36 percent of tenanted land was under sharecropping around 1970. Records indicate that the tenant operated land in the U.S. stayed in the 23-31 percent range between 1880 and 1930 and steadily fell thereafter to 9.2 percent in 2002. In the American South between 1880 and 1900, the percentage of farms under share contract fell slightly from 28 to 25 percent in the five states of Alabama, Georgia, Louisiana, Mississippi and South Carolina. In the year 1988, the sharecropped area amounted to 32.6 percent of the tenanted land, which puts the incidence of share tenancy at around three percent of cultivated land (Canjels, 1998). In comparison, sharecropping remains a dominant form of tenancy in West Bengal, at about 80 percent of all land under tenancy, though its incidence has fallen gradually over time. Sharecropped land as a percentage of total land area

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cultivated in West Bengal before major tenancy reforms were instituted in the late 1970s stayed around 20 percent (Table 2).

Though sharecropping has been described in classical and pre-classical economic history as inefficient, its persistence across countries over centuries raises a lot of controversy. It is not enough to list and analyze the reasons for the existence of these contract types. The puzzle will remain unsolved until a convincing explanation of their spatial and temporal variation and their links with economic environment emerges in a general framework (Eswaran and Kotwal, 1985). Thus, an obvious question to any student of agrarian economic history is why sharecropping is an important contractual form of land tenure in almost every developing country but not in developed countries.

Our paper is an attempt toward resolving this puzzle using a comparative analytic framework. We investigate the sources of the rise and demise of sharecropping in the U.S. South, and its persistence in West Bengal, India. We find that the contractual form prevailing in any region depends not only on (1) the existing technology, the nature of the crop, and the extent of market development, or on (2) the institutions that secure tenancy rights and improve credit market access, but also on (3) broader economic and socio-political environment. In Section 2, we summarize the arguments offered in the literature to explain the existence of sharecropping. We analyze in Section 3 the reasons for the emergence and subsequent demise of sharecropping in the U.S. South between 1865 and 1955. Then, in section 4, we examine the Indian case to see why sharecropping shows a durable persistence in West Bengal during colonial and post-colonial periods. Section 5 brings together arguments from the earlier sections to compare the causes and consequences of sharecropping in the two regions we consider. Section 6 offers a brief conclusion and indicates directions for further research.

## **THEORY AND EMPIRICS OF SHARECROPPING**

Explanations offered for the existence of sharecropping contracts can be summarized under four major headings: (1) a trade-off between transaction costs and risk sharing, (2) screening of workers of different qualities, (3) imperfections in the markets for non land inputs, and (4) a partnership arrangement in which both agents have incentives to self-monitor their pool of un-marketed resources.

*Risk-sharing:* Cheung (1969) argues that while the fixed-rent and fixed-wage contracts have lower transaction costs, sharecropping offers the advantage of risk sharing. In any area, the dominant contractual form is determined, *ceteris paribus*, by the optimal trade-off between transaction costs and risk sharing. The empirical evidence does not, however, endorse risk sharing as the main motivation behind sharecropping (Pant, 1981; Rao, 1971; Chao, 1983). Further, if we include supervision cost into transaction costs as we should, the argument that

sharecropping involves higher transaction costs than the fixed-rental and fixed-wage contracts lacks empirical support.

*Screening:* In the screening models (Hallagan, 1978; Newbery and Stiglitz, 1979), sharecropping is a suitable screening tool to attract high-ability tenants and solve the problem of information asymmetry about tenant efficiency. For most rural communities, however, the assumption of ignorance about tenants' abilities on the part of landlords is not reasonable as skills do not stay unknown forever, unless there is a perennial influx of fresh tenants (Ray, 1998). Due to limited mobility of tenants, such information (about efficiency and assets of sharecroppers) should be readily available. Moreover, if there is competition for various types of tenants, the role of the screening device disappears, as there is no incentive to screen to begin with.

Thus, screening models cannot explain why sharecropping might predominate in one area while quite another contractual arrangement would prevail elsewhere. Screening models also fail to explain the change in the contract structure resulting from a change in technology or from the development of markets. For example, in the postbellum U.S. South, with the advent of mechanization, the sharecropping contracts changed to wage contracts (Day, 1967). Also in some parts of India, tenancy contracts changed to wage contracts in the 1960's after the introduction of new technology (Rao, 1977).

*Input Market Imperfections:* On the other hand, imperfections in, or absence of, the market for some factor inputs is more appealing as an explanation of sharecropping. Researchers have found that inputs such as skilled family labor (Pant, 1983), credit (Jaynes, 1982), bullocks (Bliss and Stern, 1982), managerial ability (Bell and Zusman, 1979), and technical know-how (Reid, 1976) are examples of factors for which markets are imperfect. By involving the tenant in the production process, sharecropping becomes an effective self-monitoring contract to gain access to information about the tenant. This access to the tenant's supervision ability or to his bullocks is also possible, however, through a fixed rent contract. Thus, we need better explanations for why sharecropping persists.

A partnership arrangement in which landlords and tenants have incentives to pool their unmarketed resources in order to mitigate morally hazardous behavior for both parties has been examined by several authors (Basu, 1992; Eswaran and Kotwal, 1985; Ghatak and Pandey, 2000). Basu (1992) argues that in poor societies, a contract is usually underwritten by an implicit clause that frees the tenant from rent payments in times of major crop failures. Such implicit contracts create a tension between a tenant who may prefer risky projects and a landlord who likes safer ones. By minimizing such a tension, sharecropping emerges as a dominant system from among a class of tenancy arrangements.

Sen (2011) argues that in several other ways can sharecropping emerge as a robust institution. For example, sharecropping can help where seasonal variation in price can hurt the tenant because she must sell her produce during harvest time when the price is lower. In another of his models Sen (2011) assumes there is a third agent who competes with the landlord as a buyer of the tenant's output. Such a model of imperfect competition in the product market generates a set of Pareto-improving contracts and sharecropping comes out as the unique contract that is robust to the emergence of the third agent.

Eswaran and Kotwal (1985) take an input monitoring approach. When a single agent undertakes all the monitoring of input quality, he becomes the sole residual claimant, such as the landlord in a wage or fixed rental contract. The inherent market imperfection that underlies the agricultural system explains tenancy contracts as methods of combining un-marketed productive inputs. What particular method gets chosen eventually depends on such exogenous parameters as the endowment distribution across the classes of factor owners and the prevailing production technology. The equilibrium contractual structure emerges from the optimizing decisions of both the landlord and the tenant. Thus, sharecropping exists to pool un-marketed resources with the implications of the conventional wisdom that it exists to share risk.

Moral hazard and riskiness in farming is also emphasized by Ghatak and Pandey (2000) who claim that under limited liability for tenants, fixed rent contracts induce farming practices that to the landlord will look too risky. Fixed wage contracts, on the other hand, offer too little incentives to the tenant to supply optimal efforts. Once again, sharecropping arrangements provide a balanced solution.

Against the background of these theoretical insights, we now analyze sharecropping in the U.S. South between 1865 and 1955, and in West Bengal, India, during colonial and post-colonial periods, in sections 3 and 4 respectively.

### **RISE AND DEMISE OF SHARECROPPING IN THE U.S. SOUTH**

In the postbellum rural South, attempts to re-establish plantation agriculture gave rise to new forms to tenancy farming, namely, (1) wage workers, (2) sharecroppers, (3) share tenants, and (4) cash tenants. Though a wide variety of sharecropping arrangements were tried, the most common form of sharecropping was a 50-50 share of the crop yield, where the owner provided the seed, equipment, farm, and buildings. Sharecropping spread rapidly throughout the South. Between 1880 and 1910, the proportion of rented farms in the South rose from 12 to 15 percent, and proportion of sharecropped farms rose from 24 to 35 percent. Thus, up to 70 percent of the tenancy-farmers were sharecroppers in the region (Ransom and Sutch, 1972; Reid, 1973). According to 1959 Census, the number of black sharecroppers increased from 285,000 to 613,000 between 1900 and 1930 (see Table 3). The number of sharecroppers increased from 50 to 85 percent of all

tenants during that period. An examination of different and sometimes controversial views on the subject shows that the rise and spread of sharecropping in the postbellum South is attributable to the following factors:

*Economic Situation and Institutional Arrangement:* In the post-Civil War period, due to low savings, and the absence of banks and credit institutions in the agrarian interior of the South, southern farmers faced a major problem in their attempts to acquire capital. Many freedmen might not have the necessary expertise to farm by themselves. Land ownership was highly concentrated. Also the wholesale amnesty of ex-confederates given by President Andrew Johnson wiped out the freedmen's hope for 40 acres of land and a mule from the U.S. government. A search for better working arrangements thus led the farmers to alternative forms of tenancy such as sharecropping.

*Incompleteness of the Labor Market:* After emancipation of slaves in the immediate post-war period, attempts to use wage labor, organized into gangs performing specialized tasks, faced severe disenchantment in southern agriculture. Though the Freedmen's Bureau tried to establish wages, there was great variation in wage rates (Ransom and Sutch, 2001). Falling cotton prices caused a fall in wages. Poor working conditions and low wages led to 'Black rebellion' against the wage-plantation system. Establishment of the Black Codes intensified the discontent of the labor force. Two other factors were also important in the emergence of fixed or share tenancy. One was the scarcity of workers during peak seasons. The other was an increasingly difficult task of keeping a free labor force motivated and reliable through direct controls (Parker, 1980). This made plantation owners dissatisfied with the work gang and wage labor system. Thus, as a compromise arrived at as early as 1867, the freedmen and majority of planters began resorting to fixed rents and sharecropping. In "Origins of Southern Sharecropping", Shlomowitz (1979) suggested that probably 'increased effectiveness of the incentives' and 'closely matching effort and reward at the individual family' level led to the final transition to sharecropping.

*Efficient Market Response/Risk-Sharing:* Following the Marshallian theory of sharecropping (Marshall, 1920), many economic historians argued that sharecropping was Pareto-inefficient. It (i) reduced the work effort of workers, discouraged technological progress and investment, (Ransom and Sutch, 1979; Mandel, 1978), and (ii) created a political culture that hindered economic progress (Alston and Ferrie, 1989; Mandel, 1978). Following Johnson (1950) and Cheung (1969), however, many analysts (including Reid, 1973; Alston and Higgs, 1982) have argued that sharecropped farms were about as efficient as owner-cultivated farms in the American South. Smaller tenants had a direct incentive to be efficient. The cause of the sluggish growth of agriculture during 1860-80 was not sharecropping as such, but rather capital destruction and reduced work force due to emancipation. In sharecropping, (i) the strong interest of the sharecropper as well



as the owner in the efficiency of agricultural production, (ii) the sharing of risks between landlords and labor, (iii) the increase in productivity resulting from a reduced need for the management of labor, and (iv) the increased competition among workers to draw landowners' attention were behind the rise of sharecropping in the South 'as a logical market response'. The 'continuing incentive to cooperate' explained much of the efficiency and popularity of sharecropping (Reid, 1977; Alston and Higgs, 1982). In a more recent empirical study, using county data from the postbellum South, Garrett and Xu (2003) find the evidence of significantly higher output elasticity of sharecroppers compared with owners on all occasions and that of tenants on some occasions. Their study supports the view that sharecropping spread widely because of higher productivity and thus it was an efficient market outcome.

*Choice of Technology:* According to several historians (Garrett, 1990; Sawers, 2004), 'an important dynamic and progressive' element in Southern agriculture was landowners' adoption of the mule as an appropriate choice of draft animal. This is but one instance of sharecroppers being efficient in using appropriate technology based on their knowledge of locale farming and geography.

*Comparative Advantage:* Ransom and Sutch argue that sharecropping and the merchant-creditor-debt-peonage system trapped the sharecropper in cash-crop (cotton) production and prevented self-sufficiency in the South. However, many studies (Brown and Reynolds, 1973; DeCanio, 1973; Wright and Kunreuther, 1977) suggest that comparative advantage of the South, consistent with efficient choice of short-term profit maximization, improved resource allocation and promoted specialization even though it might have been inconsistent with long-term stability and individual security.

*Risk Reduction:* Many historians argue that, compared with cash tenancy, sharecropping implied less exposure to risks of crop failure and adverse price movements for the tenant. Also, the poor black farmers' choices were limited. The cash tenancy was almost impossible for them, due to higher costs of acquiring capital and other assets.

Despite advantages, however, sharecropping is beset with a severe problem, the problem of agency monitoring. Evidence shows that the sharecropped farms in the South were less productive than were the family-operated farms in the North which kept Southern economic growth low. The reasons for the decline of sharecropping and then its virtual demise in the U.S. South may be discussed as follows:

*Great Depression and the New deal:* During the Great Depression of 1930s, agriculture was devastated and many farmers lost their land and home. This prompted the government to set minimum prices for harvested crops, such as cotton, tobacco, wheat, and others. The government, under the New Deal, also paid farmers to cut back on the acreage they planted. The subsidy was paid to those who

operated the farm. Thus, the incentives to reduce the acreage coupled with a floor price guarantee caused many Southern landowners to terminate the contracts with sharecroppers.

*Mechanization of Agriculture:* The need for laborers with knowledge of farming in specific locale was greatly reduced by the gradual mechanization of agriculture and scientific advances (Alston and Ferrie, 1996). With the money received from the government, planters purchased tractors and other machinery. Mechanization enabled owners to farm their land with fewer croppers and laborers. Finally, the development of cotton-picking machines and its widespread use by 1960s also promoted self-cultivation.

*Agro-Chemical Inventions:* New herbicides, pesticides, improved fertilizers, and high-yielding varieties (HYVs) became important in raising productivity per person. Farmers were able to meet many of their labor needs by using seasonal migrant workers who came and worked only during harvest times. Chemicals used to make cotton plants drop their leaves before harvesting and to make the boles ripen all at the same time also helped.

*New Character of Southern agriculture:* The introduction of new opportunities such as the planting of peanuts, citrus, and soybeans, tree cropping of orchard fruits, and raising livestock and poultry gave a new character to Southern agriculture. Greater expansion of commercial markets also fueled the decline of sharecropping.

*Internal Migration to Cities:* Starting with World War I, but mainly during WWII, the first major out-migration of the blacks took place towards the North for better jobs and higher wages. Though they were virtually all in the low-skill jobs, the migrant blacks still received a substantially higher wage than the income they obtained in tenant agriculture. The rising redundancy of sharecroppers in the South and their search for better living conditions caused the largest internal migration in American history to the towns of the South, and to the cities of the North, West, and Midwest.

*Discrimination and other changes:* “Jim Crow” segregation laws were also a factor that caused many blacks to migrate to escape the indignities and harassment of this system. The spread of railroads, information and communication technology, and a gradual but steady pace of industrialization in the South also helped to improve the mobility of the blacks and poor farmers. This migration continued until 1960s.

In sum, mechanization and commercialization of agriculture, and out-migration of laborers to urban areas led to a severe decline of sharecropping. As a result of both the demand and supply factors in the labor market (Heinicke, 1994), the largest drop in the percentage of sharecroppers among all tenants occurred in the 1950s (Table 3). The proportion of farms under sharecropping kept falling until its virtual demise in the late 1960s in the South.

## SHARECROPPING IN WEST BENGAL, INDIA

In the pre-British period, the absence of any 'sharecropping class' in the social division of labor (unlike 'agricultural class' and 'laboring class'), shows that although sharecropping has been practiced since ancient times in India, the institution was not pervasive. It expanded widely during the British period, and by early nineteenth century, the number of non-cultivating landowners and sharecroppers had increased significantly (Hunter 1883, Kosambi 1969, Dasgupta 1984).

The rise and expansion of sharecropping in Bengal in the colonial era is attributable to the economic and social developments, which took place between 1757 and 1770. We can categorize the major causes into supply-side and demand-side factors.

On the *supply* side, we find three important factors:

1. Major events, such as the famine of 1770, other subsequent famines, and 'Burdwan epidemic' affected poorer people the hardest and made a large section of the population poorer. This caused a wholesale transfer of land out of the hands of small and poor farmers (Chaudhury, 1973).
2. A considerable proportion of weavers and other artisans were unable to earn enough in their trade for subsistence. They switched to agriculture as their main occupation primarily as sub-tenant sharecroppers with more resourceful tenants (O'Malley and Chakrabarty, 1909).
3. The immigration of tribal laborers from neighboring Chhotanagpur area who were originally hired to clear the forests joined the stream of sharecropping class.

Analyzing from the *demand* side as well, three factors were important:

1. The number of non-cultivating or absentee landlords to whom land was transferred but who were not willing or able to farm the land themselves increased (Mukherjee, 1973).
2. Expansion of urban job opportunities for the more educated farming families heightened their reluctance in cultivation (Mishra, 1961).
3. Increasing differentiation among peasantry and consequent concentration of land left richer farmers with more land than they could handle and hence they share-contracted a portion of their holdings.

Compared to wage contracts, sharecropping required little time in management and supervision, and thus emerged as an obvious choice for tenancy. A lack of historical data prior to 1920 precludes an analysis of sharecropping as a preferred form of tenancy. Most likely, the unpredictability of weather conditions would make risk-sharing a major contributor to such an outcome in Western part of Bengal in the undivided India which was prone to flood and drought. Comparatively, East Bengal, now Bangladesh, had heavier rainfall and surer harvest.

Legal protection of fixed-rent tenants but not of sharecroppers provided by a law in 1928 is another important cause of sharecropping having acquired a favored status with the land-owning class. Also, food grain prices rose steadily in the 1920s and 1930s which made it more lucrative for landowners to receive the rent in kind, and hence to choose share tenancy. The sharecroppers on the other hand, preferred sharecropping to working as hired workers because of relative independence in working conditions, guarantee of fuller employment throughout the year, and an opportunity to stick to an occupation in which they were efficient. Many of these tenants used to farm their own land before becoming sharecroppers (Dasgupta, 1984).

Sharecropping as a form of tenancy varied widely in West Bengal across areas, crops, and seasons, depending on the bargaining power of sharecroppers (O'Malley and Chakravarti, 1909; as cited in Dasgupta 1984). In most cases the croppers had little bargaining power. Paucity of alternative sources of livelihood for tenants meant that the landlords had an upper hand in setting relative shares for the two parties, in manipulating the conditions of a loan, making threats of eviction, and frequently evicting some tenants (Pal, 1995). In his detailed study, Cooper (1988) argues that the relationship between sharecroppers and landlords was no better than that between a servant and a master. The deteriorating working conditions of the sharecroppers during 1930s and 1940s inspired several agrarian movements like the Bengal Tebhaga Movement of 1946-47 which demanded, without success, that the sharecroppers receive a fairer two-thirds share of their agricultural production.

During the British rule, the problems of sharecroppers were not addressed and legislation such as the Bengal Tenancy Act of 1885, amended later in 1929, only helped the landlords. After independence, the new government made various attempts to improve the living standards of sharecroppers through tenancy reform. The Land Reforms Act of 1955 and its successive amendments promised revolutionary advances in favor of the sharecropper. The output share for the tenant was raised to 50 percent in cases where input sharing with the landlord continued, and to 60-75 percent when no such sharing was involved. In addition, hereditary legal rights to cultivate the rented land was instituted, the self-cultivation clause used to evict the sharecropper was redefined, the issuance of a receipt by the landlord was made mandatory for crop payment made by the tenant, and provisions were made for the legal means to settle disputes (Dasgupta, 1984; Ghosh, 1986; Saha, 1996). These revolutionary steps remained mostly in paper, however, until 1977 when Operation Barga Law was finally passed. Before the Barga, crop shares for the tenant stayed significantly below the legal minimum, only a few sharecroppers were registered, and tenure was widely perceived as being insecure (Banerjee et al., 2002; Bardhan and Rudra, 1984). Though Barga was not a program of large-scale redistribution of land, it helped secure tenure for the incumbent

sharecropper and his successive generations. Operation Barga resulted from the actions of the peasant organizations of ruling political parties that worked in tandem with village-level administration to encourage registration. During the period 1977-90, the fraction of registered sharecroppers rose from 23 to 65 percent.

Operation Barga is widely regarded as a success in institutional development. Yet, not all positive outcomes can be attributed to legal changes. Other helpful factors were expansion in public and private irrigation, and technological change that also took place about the same time. We need to control for these variables in a study of the impact of legislation on tenancy rights and productivity. In their careful study of the productivity effect of Operation Barga, Banerjee et al. (2002) show that this program accounted for a significant 36 percent of total growth in agricultural production during 1977-90. They find significant increases in agricultural productivity resulting from two factors: (a) a bargaining power effect because the tenant could now negotiate better for a higher share of output, and (b) a security of tenure effect. It appears that the possible loss in yield due to the moral hazard problem arising from a lack of eviction threat and empowerment of sharecroppers was far outweighed by the gain in yields accruing from a greater tenant stake in output and a more secure tenancy.

### COMPARATIVE ASSESSMENT

From our discussion of events in two different historical episodes, we find that sharecropping emerged as an institution out of major socio-economic and political changes. It rose after civil war in the postbellum U.S. South, whereas in Bengal it emerged during the British colonial era. Its spread in Bengal followed the major famine of 1870s that had resulted in mass poverty of farmers and artisans. Drought proneness of agriculture was another factor (Verma, 1988). The British *zamindari* system which gave rise to an absentee landlord class, and migration of tribal laborers were other results of the famine. In both regions, sharecropping appeared to be an efficient market response given the socio-economic conditions in each area. Imperfections of capital and credit markets in both these societies seem to strengthen the risk-sharing argument as a prime cause of the rise of sharecropping. These imperfections made key resources unmarketable to a large extent and raised their value in a sharecropped tenancy (Eswaran and Kotwal, 1985; Reid, 1977). After the abolition of slavery in the U.S., the devalued supervisory and managerial ability of the landlords, and a lack of managerial ability among the emancipated slaves seemed to interact with the rare access to credit for tenants to make sharecropping inevitable (Alston and Higgs 1982, Reid 1976).

Nature of crops (cotton in the U.S. South, and rice and jute in Bengal) was another factor that helped the cause of sharecropping. These crops required high labor intensity, and careful monitoring and supervision throughout the season in a way that seemed more feasible in sharecropping. Long-run considerations such as

maintenance of soil productivity also elicited landlord participation better under sharecropping both in the US (Reid, 1979) and in India (Bliss and Stern, 1982; Smith, 1959). Crop yields have also been found to be higher in sharecropping than in other tenancy arrangements (Bliss and Stern, 1976; Mangahas *et al.*, 1976).

Against all the factors described above was advanced technology in the hands of resource-rich landlords that led a transition from share tenancy contracts to wage contracts both in the U.S. South (Day, 1967) and in parts of India (Rao, 1977).

In the U.S., the government measures like the New Deal helped landowners to get rid of sharecroppers. Agricultural subsidy given to growers if they reduced acreage effectively encouraged farming by owners and severely impacted the extent of sharecropping. There were no measures taken in the postbellum U.S. South to improve the conditions of sharecroppers. Instead, many repressive laws continued to exist in various states that perpetuated the poverty for several decades. In India, on the other hand, the government attempted to improve the socio-economic conditions of the rural poor through measures such as non-discriminatory education, health and other facilities, equal voting rights for every citizen from the beginning (unlike black sharecroppers in the American South). In addition, various legislative attempts were made to benefit sharecroppers after independence in several dimensions including tenure security, and the provision of credit. Recent studies show that these measures have had a positive impact on both productivity and equity (Banerjee *et al.*, 2002; Saha and Saha, 2001).

As our discussion indicates, political origins to some economic outcomes can be strong at times. Black population in the U.S. did not have any significant representation in Congress until after the Voting Rights Act was passed in 1965 and strengthened later. The policies adopted earlier did not seem to serve the interests of the black population, much less black sharecroppers, particularly in the South. Slavery abolition, for instance, was followed by legal restrictions to keep the black workers in farms. One solution was to turn them into sharecroppers without giving them enough economic power in the form of high enough share of the produce or political power through recognition of their right to assume public offices. Once the landowners' need for labor fell because of the availability of capital-intensive techniques and other changes in agriculture, the institutions designed to curb outflow of labor were discarded. This was eventually followed by mass migration of blacks from farms in the South, particularly during WWII.

In West Bengal, on the other hand, universal suffrage was established once the country became independent in 1947. More to the point, Bengal had, from a century before, been a leader in the kind of social movement that aimed to reduce oppression by the rich and powerful over the weak and downtrodden. Bengal, more than other states in the country, was also influenced by Marxist ideology that appealed to social activists and political organizers in the class- and caste-ridden

society of India. Since sharecroppers belonged to the group that was mostly poor but not prosperous, the legislative changes in agriculture appear to have successfully targeted them to a certain extent. It is natural that the size of such targeted improvement would be determined, at least in part, by the threat of a major rebellion the elite would consider they would face in the absence of pro-poor policies. This story seems consistent with Acemoglu and Johnson (2006) about the dynamic relationship between elites and common citizens. At least in West Bengal, the influence of the elite has shifted significantly away from the landed aristocracy to urban industrialists.

Bardhan and Mookherjee (2006) find that the local governments in West Bengal responded well to the demands of the majority of citizens who were poor. Operation Barga program went a long way to registering tenants, and the associated land redistribution program succeeded in distributing surplus land (holdings over and above the ownership ceiling). Though only a small fraction of such land was actually distributed to the tillers or other deserving beneficiaries during the 1980s and 1990s, it nevertheless amounted to a much larger percentage in W. Bengal than under similar programs in any other state of India except Jammu and Kashmir. Bardhan and Mookherjee (2006) claimed that agrarian institutional reforms made by the Left front government have produced relatively large productivity and distributive benefits in W. Bengal.

## CONCLUSION

Our comparative discussion of sharecropping in India and the U.S. raises an interesting question. Would ensuring tenancy rights and credit market access through government programs in the US South after reconstruction have saved the South, particularly the black sharecroppers, from a century of poverty? Reid (1977) raises a similar historical conjecture that access to credit and land for black sharecroppers could have avoided long-term poverty in the South. Also, in his analysis of sharecropping in American economic history, he concludes that attempts to restrict any form of tenancy resemble attempts to restrict the development of human capital.

Since diffusion of knowledge over time reduces the relative advantage of the landlord, sharecropping may even reemerge in parts of the world. Notable examples include the state of Haryana, India (Sau, 1976), some pockets in the U.S. Midwest, and California (particularly in strawberry farming as described, for instance, by Wells (1996)). These possibilities may exist elsewhere and the factors that have led to a reemergence of sharecropping deserve serious research. Further, future empirical research could also test Sen's (2011) hypothesis that sharecropping could be a unique tenancy contract when there is imperfect competition in the product market and there is a third agent to possibly buy the tenant's output. On the other

hand, such places as the states of Bihar and Orissa in India that share a common border with West Bengal do not, unlike West Bengal, have sharecropping as a dominant form of land tenure. Despite having similarity in political framework and economic conditions, the land system in many Indian states is controlled by big landlords in a way that leaves land redistribution or even a secure tenancy a distant political goal for most rural inhabitants. To our knowledge, a detailed analysis of why such differences persist has not been attempted yet.

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## APPENDIX

**Table 1: Distribution of Farms and Land Tenure Status in the World in 1970<sup>5</sup>**

	Asia	Africa	Latin America	Europe	N. America	World
Number of Countries Enumerated	10	4	15	12	2	46
	(5)	(1)	(7)	(3)	(1)	(17)
Distribution of farmland (percent)						
Owner cultivation	84.0	9.2	80.4	58.9	36.6	61.1
Pure tenancy	5.9	3.0	6.2	12.5	11.9	9.0
Owner-cum-tenancy	10.1	29.1	5.6	28.5	51.5	27.2
Other	0.0	58.7	7.8	0.1	0.0	2.7
Sharecropping (percent of tenanted land)	84.5	0.0	16.1	12.5	31.5	36.1

Sources: World Census of Agriculture, United Nations, Food and Agricultural Organization (cited in Otsuka et al., 1992)

<sup>5/</sup> See end-notes for coverage of countries in each group.

**Table 2: Sharecropping in Bengal**

Source of Inquiry	Year	Land Area under Sharecropping (%)
Floud Commission	1938	20.0
Plot to plot enumeration	1944	39.3
Bengal Rural Survey	1946	24.7
West-Bengal Rural Survey	1952	35.2
National Sample Survey	1960s-70s	18-22

Source: Ghosh and Dutt, 1977, Table 13.3, p.118

**Table 3: Black Tenants and Sharecroppers in the US: 1900-1959**

Year	Total (in 000s)	Share-Tenants (in 000s)	Share-tenants (Percent of Total)
1900	560.6	284.8	49.2
1910	681.1	413.9	60.8
1920	718.0	608.4	84.7
1930	714.4	613.0	85.8
1940	520.7	460.5	86.5
1950	374.8	330.9	98.4
1959	141.0	125.3	88.9

Source: US Census of Agriculture, 1959 (as cited in Niemi, A., 1980)

# The Introduction of the National Identity Scheme: An Assessment of the Dilemma between Social Benefits and Challenges

Anisur Rahman Khan<sup>1</sup>

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**Abstract**—*Biometric national identity card schemes are increasingly becoming common around the world and considered as an essential social component of our time. It is assumed that providing national identity cards to all the citizens will help governments to combat various social malice such as terrorism, illegal immigration, fraudulent activities, and accelerate social service delivery. Nevertheless, the introduction of national identity card has been a matter of academic and policy debate. This paper, based a review of literature, portrays a general overview and the current state of knowledge and understanding about the issues and concerns associated with national identity schemes. Although the use of biometric technology-based national identity schemes need not or do not face refusals, the unintended, unwelcome and unanticipated consequences on society of such a high-tech scheme must be critically considered to ensure utmost benefits to the society. It is also suggested that in order to combat or control social threats and vices, social resistance is more important than the introduction and use of high technology.*

**Keywords:** *Identify cards, biometric, security, cost, benefit, challenge*

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## INTRODUCTION

In the wake of the influx global migration, tremendous threat of terrorism, crime and fraud, and the demand for modernisation of public services, many governments around the world are nearly unanimous in their silver bullet: identity policy (Whitley, & Hosein, 2010). The basic function of a national identity system is to link a stream of data with a person (Clarke, 1994). Identification is defined as the act of identifying, the state of being identified or something that identifies one (Clarke, 1994). The verb identify is linked to the noun identity, such as in the case of the term identity card which can be used to identify someone belonging to a particular group (Micheal, & Micheal, 2006). When a governmental identification system exists, then an official identity is produced which can then be reproduced in subsequent identification processes. The state makes use of instruments for compulsory registration and identification for each one of its citizens in order to establish such an identity (Hornung, & Roßnagel, 2010). Issuing National Identity (ID) cards to the citizens is a measure of such identification. Modern bureaucracy demands that all individuals of a particular society may are identified in such a manner so that they are entitled to call

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themselves citizens. Without identification, one cannot perform the responsibilities of citizenship such as voting, nor enjoy the benefits, such as protection against external or internal threats to well-being (Lyon, 2009). As a matter of fact, the introduction of National IDs has made a difference to the lives of the citizens across the countries, and it will continue to make a bigger imprint on their lives in future (Islam, Baniamin, & Rajib, 2012). At this backdrop, this review captures the arguments that are in favour of introducing biometric national identity cards in one side and highlights the controversies surrounding the issue on the other side. Finally, it identifies some specific risks and pitfalls associated with national identity card schemes.

### **IDENTITY CARD: WHY?**

Governments across the world are rushing to implement national identity systems. The aims of these systems vary widely, but the many proposals involve a push to create 'perfect identity' that will fuse the biometric details of every person with vast central databases containing personal information (Davies, 2005). It is said that biometrics, which is literally the 'measurement of life' refers to the technology of measuring, analysing and processing the digital representations of unique biological data and behavioural traits such as fingerprints, eye retinas, irises, facial patterns, hand geometry and body odours. It can be used for identification purposes of the individuals (Mordini, & Petrini 2007). Around the world, biometric technologies are on the rise enforcing an integration of biometrics into the lives of citizens. Such technologies often leave citizens with no choice but to accept biometrics (Krupp, Rathgeb, & Busch, 2013). There are some specific reasons that make biometric-based identity cards or smart cards a topic of great interest which include: i) more countries are starting to use them; ii) there is strong pressure to include biometric data for anti-terrorism and police purposes; and iii) the time now has come when the capabilities of electronic chips relating to electronic identity are ready to be used such as; electronic authentication and signature (Combet, 2004). After the 9/11 event, the issue of issuance of national identity card has largely been staged on the global platform, and several countries such as the USA, the UK, the Netherlands, France, Italy, Greece and some Eastern European countries began to consider adopting smart national ID cards (Kityadisai, 2004). Very specifically, dangers associated with the social security problem like terrorism, illegal immigrations and unworthy claimants of public benefits have encouraged the governments around the world to impose ID cards of their citizens (Rule, 2005).

In the UK, the bio-metric based national identity card was introduced after the enactment of 'Identity Cards Bill' for the purposes of the interests of national security; the prevention or detection of crime; the enforcement of immigration controls; the enforcement of prohibitions on unauthorised working or employment; and for securing the efficient and effective provision of public services (House of

Commons, 2005). Belgium is one of the first countries in the world to implement electronic identity card scheme on a national scale with an aim to providing citizens a secured identity document, and also a brand-new digital signature and identification tool for faster and secure access to public and private services online (Gemalto, 2011). The Estonian ID card roll-out is known to be the most successful in Europe. It has been organised in public-private partnership and many applications are working with it such as; e-ticketing, drivers permit verification, health insurance, banking and digital signature and checking of bills (European Commission, 2006). Some Asian countries such as; the Philippines, Japan, Malaysia, and Thailand, have also made concrete attempts establishing an electronic smart ID card policy. For instance; the unrest in the south of Thailand and the increasing threat of terrorism forced Thai government to go with a smart ID card scheme as a measure to counter terrorism (Kitiyadisai, 2004).

In South Asia, India has introduced the world's largest biometric-based identity scheme called 'Unique Identification' (UID) for its 1.2 billion people (Jacobsen, 2012). UID aims at giving the government a clear view of India's population, enabling the government to target and deliver services effectively, and achieving greater returns on social investments, monitor money and resource flows across the country (UIDAI, 2010 cited in Jacobsen, 2012). To fulfil ambition to become a Smart Nation, Bangladesh launched ID card programme in the nineties. Recently, such programme has been spread in a massive scale across the country. In Bangladesh, the impact of NID cards on the daily life of people are growing as the government has declared that citizens above 18 years age must acquire NID cards in order to receive 22 specific public and private services (Islam, Baniamin, & Rajib, 2012)<sup>2</sup>. The major expected benefit of a National ID System in Bangladesh is to assist service agencies in public and private sectors to verify the identity of the service recipients in a streamlined and timely manner (Election Commission, nd).

Despite having some concrete arguments in favour of launching identity cards at the national level, there are many controversies against each of the arguments. Some of the arguments as such have been stated below.

## **CONTROVERSIES**

National identity cards of all sorts are controversial. The implementation of ID cards has raised resistance and objections in various countries (Kitiyadisai, 2004). Many

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<sup>2</sup>In 2008 Government of Bangladesh specified through a gazette notification that NID have to be presented in case of 1) Issuance and renewal of a passport, 2) Driving license, 3) Trade license, 4) Tax identification number (TIN), 5) Bank accounts, 6) Business identification number, 7) Business bank account, 8) Beneficiary's owner account (Stock Exchanges), 9) Connection of utility services, 10) Telephone connection, 11) Mobile phone registration, 12) Internet connection, 13) Cable television connection, 14) Registration for public exams, 15) Marriage registration, 16) Loans, 17) Government Subsidies, 18) Government Allowances, 19) Buying land, 20) Selling land, 21) School admissions and 22) Lodging cases in court.

of the arguments articulated in relation to national ID card schemes involve claims regarding the advantages and disadvantages of large-scale databases, connecting multiple databases and incorporating millions of people (Neyland, 2009). While the governments have drawn together a justificatory schema involving press releases, reports and claims for support from a variety of groups all designed to position the ID card as reasonable, feasible and necessary, anti-ID card groups have drawn together a similar coalition in opposition (Neyland, 2009). In the USA, the UK, Canada and Australia the proposals for introducing national ID cards and registry systems had raised serious debate with regard to control and privacy issues (Fussell, 2004). Interestingly, many ID proposals around the world are running aground because they have failed to win the trust of citizens. In their haste to implement powerful new identification and tracking technologies, governments are quickly discovering that civil liberties and privacy campaigners are finding a new and popular voice (Davies, 2005). Specifically, opposition to ID cards and their technical infrastructure typically emerges on both practical and principled levels. On a practical level, security, cost, efficiency, and effectiveness inform arguments against a card-based identity system. The stated benefits of these cards are actually misleading. Critiques based on principle draw upon a civil liberties frame, highlighting how card-based identity systems facilitate increased state surveillance and act as a breach to constitutional or moral dignities by penetrating into the realm of civil liberty (Milberry, & Parsons, 2013).

There are many less-than-obvious risks and pitfalls concerning the use and misuse of national identity cards, and also some genuine problems with biometric registrations. For example; the assessment of London School of Economics, UK warns that biometric registration may have to be repeated every five years for much of the population. As people become aged, their biometrics change and become less reliable, and as a result of that, these people tend to face problems with the use of their cards. Hence, continuous updating of biometric information is needed (LSE, 2005). Some other discrete problems can appear out of biometric-based smart card technology system such as; i) the recordability of fingerprints can be temporarily limited by injuries to fingertips or broken fingers and through dirty fingertips. A permanent loss of a fingerprint template could occur as a result of fingertips being burned or scarred. Intensive manual work or working with toxic agents can also destroy the fingerprint template; ii) the recordability of the face can be temporarily lost after major facial surgery; and iii) the recordability of the iris template can be temporarily impaired due to the dilation of the iris as a consequence of the taking of certain medicines. Permanent losses of recordability may occur as a consequence of eye diseases e.g., blindness, cataracts or glaucoma. In addition, enrolment is often made more difficult by drooping or narrow eyelids, which partially cover the iris (Petermann, Sauter, & Scherz, 2007). These problems might result in a person not being enrolled in an identity system and also in denial of access to services-potentially disastrous for the individual concerned (Davies, 2006).

Probably the vulnerability with the greatest threat to smart ID card schemes is human error. This is amply illustrated by the chaotic handling of all kinds of personal and sensitive data by various government agencies. For example, such problem has been badly proved by the mishandling performance of the UK Government agencies. Human error can take place at any stage where humans interact with the scheme. During the enrolment processing, data can be incorrectly entered leading to confusion once the identity card has been issued. Likewise, during enrolment, biometrics can be poorly captured leading to a higher level of false rejects (Arora, 2008).

On the other hand, the implementation of smart national identity cards needs a huge financial involvement. For example; in the case of UK, LSE's (2005) report estimates between 10.6 billion pound and 19.2 billion pounds for a ten year rolling excluding public and private sector integration costs and possible overrun costs. The report further estimates that costs are also to be incurred for imparting training to the staff, establishing new facilities, buying expensive biometric equipment and updating biometric information. In this regard, NO2ID (nd) estimates that additional tax burden of setting up the scheme in the UK is around 200 pound. So, there remains a question whether citizens are ready to accept such additional cost in the form of increased tax. Besides, the consequences of losing one's card could potentially be a more serious problem and it can negatively affect virtually every aspect in a person's daily routine (Smith, 2008), and such loss may be financially very disastrous.

In regard to personal liberty civil rights groups say that smart ID cards could easily violate personal privacy and deprive one of one's liberties. They are especially more concerned about corrupt or unauthorised government officials who could use personal data to manipulate and control people (The Nation, 18 April 2004, cited in Kitiyadisai, 2004). In reality, ID cards pose many risks to personal liberty which include: i) risks from the legal use of accurate information; ii) risk of reliance on false information; iii) risk of intentional creation of false information; iv) risks from illegal use of accurate information; v) risk of over-dependence on some feature of the system (Froomkin, 2008).

Smart identity card scheme invites social, economic and digital divides in society (Kitiyadisai, 2004), and it might lead to the formation of an unhealthy social system and can act as a breach of human rights. In the context of Thailand, Kitiyadisai (2004) notes that the smart ID cards would put marginalised and minority groups such as; hill tribe people, immigrant workers, illegal foreign workers, homeless people, refugees, and illiterate citizens at the other end of the social spectrum, making it harder for them to have access to social services and creating more difficulties in proving their entitlements and identities.

One of the strong arguments for many countries for going with smart identity card scheme is to shield against identity fraud. In fact, service providers need to



ascertain one's identity to prevent fraud and harm. But the belief that smart NID cards could provide irrefutable biometric matches without false positives and negatives is fallacious. Also, such systems can still be cracked, and the criminals and terrorists will find ample of ways to exploit them (Neumann & Weinstein, 2001). No security on any database can be guaranteed, particularly one that contains such amount of information which are likely to be accessed millions of time every day and data that changed on thousands of individuals every day. Captivatingly, nominally "secure", trusted ID is more useful to a fraudster (NO2ID, nd). As with any large-scale IT implementation risks are omnipresent. National ID cards are just as vulnerable to attack as any other IT system especially when one considers smart ID cards and their respective infrastructure as a form of critical national infrastructure (Arora, 2008).

## CONCLUSION

The benefits brought by the National ID system are yet to be fully proved and this system is inextricably allied with many risks and shortcomings. Without considering the probable risks and shortcomings, the introduction of National Identity Card on a large scale will only invite a lot of unintended, unwelcome and unanticipated consequences. Policymakers should make a careful assessment of those consequences, and should not be subjugated to the stereotyped notion "others are doing, why shouldn't we"? Developing countries should seriously consider whether they have the luxury to go with such an intervention. These countries have many important responsibilities to accomplish for their citizens other than the mere introduction of the national ID card. In particular, social vices should be tackled by social measures, relying on ID card to tackle social vices might not be a very effective solution. Technology is often least powerful to social forces. At the same time, social acceptance/non-acceptance towards biometric recognition, benefits and threats must be critically assessed before giving high importance or obligation to a particular policy issue like compulsory biometric scrutiny of the citizens for having national identity cards. Citizens must be given the right to say either 'No' or 'Yes' to sharing their personal information. The risks of identity fraud are common, and any personal damage caused by identity fraud cannot be reversed so easily. Over-collection of data not only increases the risks of leaks but also makes efforts more difficult to reverse.

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# Environmental Perspectives of Buddhism: A Study on Ideas and Practices

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**Abstract**—*Environmental conservation emerged as an important component of contemporary times. Attempt has been made to conserve ecologically sensitive resources by strategies at one level and attitudes at another level. In the case of attitudinal change, the domain of spirituality plays an important role. After 1970s an increasing realization emerged on the fact that Buddhism as religion and spiritual system is capable of promoting ecological sensitivity. This paper shows the process of emergence of the green Buddhism and its transformation from idea to practice in different countries with particular reference to north Indian city of Lucknow. The main argument of this paper is that Buddhism with its ecological dimension gaining prominence as one of the important solutions to the ecological problems which are induced by excessive consumerism.*

**Keywords:** *Green Buddhism, Buddha, Conservation, Ecology, Lucknow*

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## INTRODUCTION

Environmental crisis emerged as critical challenge to human society. It has become an imperative phenomenon for contemporary society to handle environmental problems which are threatening the existence of the planet earth. It has been estimated that by 2050 ecological manifestations of global warming would be visible in the form of submerge of coastal areas across the world, severe water crisis, critical disconnection within the food chain and several others. On account of these changes, if we believe the words of Amartya Sen, ecological crisis is capable of ending the journey of the beautiful planet earth. In the words of Al Gore, former vice-president and environmental activist from United States of America, if human race does not develop strategies and attitudes for handling environmental problems, we would not be able save our planet earth from disaster. This paper proposes that the Buddhism as an idea and practice is capable of promoting sustainable conservation of ecology by the way of facilitating harmonious relationship between human beings and nature.

## METHODOLOGY AND OBJECTIVES OF THE PAPER

The main objective of this paper is to analyse the ecological dimension of Buddhism and its potential to create spiritual and ethical values for addressing ecological issues. It has been proposed that Buddhist belief system not only focuses on the metaphysical aspects of human life but also proposes useful suggestions to evolve

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harmonious relationship between human beings and nature which is critical requirement of the contemporary world.

The information for this paper is gleaned from both primary and secondary sources. So far as secondary sources are concerned, information has been gathered from books and articles. In case of primary sources, information has been gathered from field interaction with some of the Buddhist organisations located in the north India city of Lucknow.

## **REVIEW OF LITERATURE**

Ecological crisis has captured the imagination of academic and public domains after 1970s. Gradually, ecological perspective emerged as a paradigm in social and human sciences. From 1980s onward ecological dimension of the Buddhism attracted the attention of scholars and activists. Some of the Buddhist doctrines are perceived as potential concepts which are capable of addressing ecological problems (Loveloock, 1989). This perspective has acquired further prominence in the context of western romantic ecological thinking which looked at Asian philosophical and religious traditions as ecologically harmonious (Callicot and Aimes, 1989). By the early 1990s, the green Buddhism emerged as a coherent conceptual category which deals with the relationship between ecological conservation and Buddhist spiritual system (Badiner and Hunt, 1990). By the late nineteenth century, the green Buddhism became an important academic field of research (Stephaine, 2000). The doctrinal positions of Buddhism on ecologically important species were explored by some studies (Waldau, 2002). Interest on the green Buddhism went to such an extent that a manual for Buddhist ecology has been prepared by Deaniel H. Henning (2002).

Indian scholars too took up the task of documenting the green dimension of Buddhism. Nath Twari and Ananda Mishra's *Environmental Ethics: Indian Perspective* (Tawari and Mishra, 2012) and K.C. Pandey's *Ecological Perspectives in Buddhism* (Pandey, 2008) are some of the notable examples. These studies emphasise the point that the Buddhists belief system is capable of evolving sensible attitude towards environmental issues and thereby create a paradigm of sustainable management of living and ecological resources. In other words, these studies propose that eco-spirituality as one of the important solutions for addressing ecological problems of the contemporary world.

## **BUDDHIST DOCTRINES AND ECOLOGY**

Buddhism has been considered as a religion which envisaged, preached and practiced the harmonious relationship between not only among human beings but also between human beings and nature (Snadell, 1987). Emergence of deep ecology movement has popularised the concept of transcendental attitude towards ecology which is guided by culture and spirituality. Deep ecologist Arne Naess proposes the

concept of deep ecology means transforming the self of individuals and making them more sensitive towards ecological problems. He proposed that the Buddhism is the best suitable spiritual system which is capable of making human beings more sensitive towards biotic world (Naess, 1988).

At doctrinal level, Buddhism is radically a bio-centric religion in nature. This means that the Buddha perceives human beings as one of the species, of course more wise species within the complex web of life systems. The symbolic connection between nature and Buddhism can be captured from the fact that the birth of Buddha took place in forests, enlightenment happened under tree, his first ordination ceremony conducted in Saranath forests, his missionary life mostly spent in forests and finally his death happened under a pair of Sal trees. He strongly believed that human being is not master rather benevolent custodians of nature. The Buddhism thus teaches that human beings do not have unquestionable rights over the resources of nature and other species (Queen and King, 1996).

The first noble truth of Buddhism says that life is full of sorrow or grief, second one is, desire is root cause of sorrow, third is realization of cessation of *Dukkha* and fourth one is the Noble Eightfold Path which leads to realization of nirvana. If we apply this core doctrine of the Buddhism to ecological domain, the following analogy can be made: ecological crisis of contemporary world represent the condition of what the Buddha said about *Dukkha*. The reason for ecological crisis is unlimited and unrestricted wants and desires of human mind in the form of consumerism which is root cause for exploitation of nature (Rahula, 1959). If we apply the first noble truth to the condition of world in the domain of environment, it is evident that ecological degradation is one of the critical phenomena responsible for sufferings of several millions. Apparently *Dukkha* or the First Noble Truth applies to the natural environment with the recognition that nature is suffering as a whole and that serious environmental crises are appearing locally and globally (Guha and Gadgil, 1995).

The Second Noble Truth of the Buddha explains the cause of suffering, as everything in the world falls under the law of cause and effect. Buddhist teachings see the cause of all suffering in desire, aversion, and delusion, all of which emerge from people's ignorance and clinging (Sankrityayan, 2011). In short, the Buddha proposes that the root cause of *Dukkha* is desire (*Tanha*) of individual. The main reason for desire is unrestricted passions that continuously trouble individual and produce more sorrow. Desires for the Buddha are root cause of sorrow in this world and each and every individual are subjected to this process. If we were to interpret the second noble truth in terms of environment the following observations can be made:

- a. Everything in the universe is subject to the law of cause and effect. Every act of man has an effect on the universe. Thus man is part of the process and subject to the laws of nature, including impermanence and suffering along with other beings;
- b. Recognizing this fundamental principle, people should be friends with other living beings, and should protect the living environment.
- c. However, the above principles are dependent on development of the environmentally sensitive human self with the help of freedom, happiness and moral conviction. This process can only be achieved with the help of transcendental and spiritual understanding of various forms of nature and adoption of reverence for entire biological world. It is this process that may guide our behaviour towards ecologically sensitive resources and prevent human beings from indiscriminate destruction of ecology (Payutto, 1995).

Environmental dimension the third noble truth offers a fascinating dimension of ecological spirituality. When it is possible to identify the causes of environmental problems, it is then becomes possible to look for the ways to reduce or eliminate environmental problems. This requires people to realize that they are a part of the natural environment along with other living beings. It also means that environmental conservation need to get into consciousness of people which may bring about positive transformative changes in the attitude and promote sustainable use of resources of nature.

The Fourth Noble Truth (*Magga*) explains the path that leads to the cessation of *Dukkha* or suffering/unsatisfaction. Although the Buddha teaches the fact that the world is full of suffering, he also provides the means to overcome this suffering. The Noble Eightfold Path consists of: Right Understandings and Right Motives or Thoughts (the Wisdom Group); Right Speech, Right Action and Right Means of Livelihood (the Virtue Group); and Right Effort, Right Mindfulness, and Right Concentration (the Concentration Group) a groups of ethical code help us to have positive attitude towards nature (Coomoraswamy, 1985).

An analysis on present global ecological crisis can be made with the doctrine of 'Dependent Arising' *pratityasamutpada* which is basically pertains to the causal relationship between things. Furthermore, it also suggests the ways to overcome problems from its origin. The short formula can be described by the way of arising as follows: "When there is this, that comes to be; (Imassmiñ sati idañ hoti), with the arising of this, that arises. (Imassuppādā idañ upajjati)" while by way of cessation going "When this is not, neither is that (Imasmiñ asati idañ na hoti), with the cessation of this, that ceases (Imassa nirodhāidañ nirujjhati)" ((Payutto, 1997).

Through the analysis of Dependent Arising doctrine, the reason for global eco-crisis can be traced as follows: because of ignorance, we perform various actions; because

of actions we are aware of sensations: seeing, hearing, smelling, tasting, touching and thinking. Because of the awareness of sensation, body and mind are forms (the animated organism) ready to function. As the feelings are caused by the sense contact, we have a desire to seek pleasurable sense object and consumer products which are made from petro- chemicals producing carbon dioxide as a by-product. The Buddhist teachings thus propose that excessive consumerism which is root cause of ecological degradation is strongly rooted in the attitude of pleasure seeking.

The use and misuse of the resources of nature according to Buddhism is due to lack of proper perception. It advocates the doctrine of critical dependency of species on each other which is famously known as biocentrism. The Buddha has recognised the importance of interdependency of species on each other and the kind of perception human beings should adopt towards all living species which can be captured from the following reflection:

- Let every creature's heart rejoice,
- Whatever breathings beings there are,
- No matter whether timid or bold,
- With non expected, long or big
- Or middle-sized or short or thin
- Or whether dwelling far or near
- That are or that yet seek to be
- Let every creature's hart rejoice. (Bachelor, and Brown, 1994: 4)

The ostensible point is that eco-spirituality of Buddhism emphasized the fact that nature and myriad life forms are ultimately a part of one ultimate reality. The view of organic unity and relationship within species at one level and between human beings and nature at another level has been advocated as a virtue to be followed for happy life for all. Once the organic unity of bio world is recognised, human beings would be able to appreciate the importance of preserving ecological factors.

The concept of morality which means a good attitude of human being towards other beings has been one of the important foundational principles of Buddhism. The Buddhist concept of morality is not only confined to human society but also extends toward other species of nature. The meaning and utility of morality can be captured from words of the Buddha while he spoke to his son Rahula. He said:

Even so Rahula, a physical act should be undertaken only after repeated reflection; a verbal act should be undertaken only after repeated reflection; a mental act should be undertaken only after repeated reflection. If you, Rahula, wish to undertake a physical act, you should reflect on the act so: "That physical act which I wish to do

might lead to harm of self and that might lead to the harm of others, and that might lead to the harm of both; this physical act is unskilled, its yield is anguish its results in anguish'....But if you, Rahula, while reflecting so, should find: 'That physical act which I wish to do would lead neither to the harm of self nor to the harm of other nor to the harm of both; this act is skilled, its yield is happy, its result is happy'---a physical act like this, Rahula, may be undertaken by you. (Bachelor and Brown, 1994: 7-8).

The Buddha clearly said in the aforementioned passage that any act that to be undertaken should reflect the best possible interests of doer and effected. This premise is undoubtedly highest degree of morality which is capable of solving many critical problems that humanity has been facing in general and ecological problems which are threatening the existence of the planet Earth in particular. The apparent fact is that Buddhist spiritual and value system inherently embedded with fascinating dimension of ecologically sensitive values and ethics.

### **ENGAGED GREEN BUDDHISM FROM GLOBAL TO LOCAL LEVEL**

The concept of engaged Buddhism means use of Buddhist value system in addressing the problems of humanity in the contemporary times. The examples of engaged Buddhism can be observed from the promotion of Buddhist values such as peace, friendship, compassion, and meditation etc for creation of healthy society are prominent. The engaged Buddhism also had exciting ecological dimension famously referred to as the green Buddhism which uses teachings of the Buddha for addressing the ecological issues. The main objective of the green Buddhism is to propose moralistic and spiritual dimension of ecology by focusing the teachings of the Buddha and promote sympathy and empathy for saving ecology (Baura and Baura, 2015).

The United States of America has witnessed a vibrant Buddhist environmental activism with several innovative strategies for addressing ecological problems. The Earth Sangha was established by Chris and Lisa Bright who happens to be long time practicing Buddhists and environmental activists represents good example of organised green Buddhist activism. They started this in 1997 at Washington DC. The main aim of this non-profit organisation is to integrate the principles of Buddhism with environmental activism. The activist part of this organisation can be captured from its engagement with the Native Forest Project to save and promote native trees. It also engaged in promotion of forest cover by planting native wild trees. This process attempted to promote compassion for nature and ecology as a value among Americans and encouraged them to save living species consisting of trees, animals and other livings forms.

The vibrant ecological protection movement in Thailand represents a good example of green Buddhist activism and its impact upon addressing ecological problems. Here monks tried to addresses problems of deforestation and ecological destruction



by using the teachings of the Buddha. The main site for Buddhist green activism in Thailand was saving tropical forests. Teachings of the Buddha are used for promotion of conservation of forests among forest dependent communities. The "ecology monks" have engaged in environmental and conservation activities and attempted to restore environmental degradation causes. One of the important objectives of Buddhism is to relieve the humanity from suffering. The root causes for these sufferings are greed, ignorance, and hatred. The monks of Thailand see the destruction of the forests, pollution of the air and water, and other environmental problems as ultimately caused by people acting through these evils, motivated by economic gain and consumerism. They believe that their fundamental moral duty is to fight against these evils. Forest destruction was represented here as an antithesis to the Buddhist values of compassion to nature and its forms (Walter, 2007). This eco-spirituality and gospel certainly is more effective in influencing the attitude of people which connect the Buddhist Dharma with saving ecology (Darlington, 2004).

The ecological activism of monks gained wider popularity in the due course of time in Thailand. Given the respect the Sangha commands in Thai society, the potential for their ecological activism is naturally bright. This can be illustrated through the analysis of an ecology project conducted in 1991 in Nan Province located in northern Thailand. This project, coordinated by Buddhist monks involved in creation and sanctification of protected community forestry through the ordination of the largest remaining tree in the forest. The tree ordination provides insight into how ecology monks throughout Thailand are adapting Buddhist rituals to promote forest conservation. The tree ordination ceremonies are performed by many participants in the Buddhist ecology movement to raise the awareness on environmental destruction in Thailand and to build a spiritual commitment among local people in conserving the forests and watersheds. Some large-scale ordinations have been carried out for publicity to make the government see the environmental impact of some of its economic development plans. (This was the case in the southern province of Surat Thani in March 1991, when over 50 monks and lay people entered a national park to wrap monks' robes around all the large trees in a rainforest threatened by the construction of a dam.) Most the tree ordinations are targeted local residents and villagers, through their participation in these ceremonies, signify their acceptance of this adaptation of a Buddhist ritual to sanctify the forest and thereby protect it.

### **ECOLOGICAL DIMENSION OF BUDDHISM IN LUCKNOW**

In case of India we do not have any organized green Buddhist movement yet, but ecological activism making inroads gradually in Indian Buddhism. In the domains of culture, ethics and values, Buddhist notions of compassion for life exist strongly among Indians. But organized or institutionalized activism for addressing ecological issues has not yet taken any concrete shape in India. But beginning in this direction could be seen. To explain this phenomenon, some examples have been drawn from

Lucknow a north Indian city. The rationale for selecting this city is that vibrant revival of Buddhism after independence and its expression in the form of Buddhist art and establishment of several Buddhist viharas. It has been noticed that these viharas are taking keen interests in the ecological dimension of the Buddha's teachings. A greater realization of protecting environment by using the teachings of the Buddha could be seen in the activities of several Buddhist viharas in Lucknow. While observing the activities of these viharas from ecological perspective, two broad activities related to promotion of ecological conservation are observed. Those as follows: celebration of important events of Buddhism by focusing on activities such as tree plantation and publication of literature for propagation of virtues of ecological protection as part of Buddhist Dharma. Attempt has been made by Buddhist organizations in Lucknow inculcate the virtue of ecological conservation as part of Buddhist teachings in order to promote harmony with nature. The subsequent section documents some of the case studies to prove this proposition.

The Dharmodaya Buddha Vihar was established in 1989 having 150 registered members and several other followers. The members of the Vihara not only create awareness about ecological importance of Buddhism but also celebrate Buddha Purnima and organize plantation activities in Lucknow. The ecological message of the Buddha has been disseminated by small articles written in Hindi language published by the Vihar. Activities such as tree plantation and garbage cleaning are promoted as values propagated by Buddhism. The story of Risaldar Buddha Vihar offers an interesting story to know about operational process of green Buddhism. It was established in 1948 by Buddhist Monk Buddhchand who attended the conversion ceremony of Dr. B.R. Ambedkar. It has 25 registered members and several thousand as followers. The occasions such as Van mahotsava, Buddha Purnima, sangha day, elephant festival, dhamma day, Buddhist New Year and Vesak (birthday of Buddha) are celebrated with tree plantations in Lucknow and meetings on ecological importance of Buddhism are also being organized. Another interesting aspect is that some of the members of this Vihar occasionally visit slum areas and villages nearby Lucknow to propagate environmental conservation activities such as hygiene, keeping surrounding clean as a part of Buddha Dharma.

Another important Buddhist association in Lucknow is the Bhagavan Buddha Vihar established in 1994. It has 165 registered members and many other associated as followers. As a part of regular activities, this Vihar promotes van mohostv (tree plantation) regularly. Along with the main message of the Buddha, his teaching on saving ecology and nature was also propagated by the members of this vihara. The executive committee of the Vihar answered on the question of what is the main message of Buddhism on ecology in the following lines: 'the Buddha taught us how to respect life and ecology'. This answer shows the level of understanding the members of the vihara possessing and their appreciation for ecological dimension of Buddhism. But the fact is that these values are not being propagated aggressively.

The Mahendra Buddha Vihar of Lucknow actively engaged in not only propagation of Buddhism but also ecologically engaged Buddhism. It has more than 500 registered members and several others who are indirectly associated. This Vihar carefully observe the van mahostav and encourage its members to undertake tree plantation during rainy season. Besides this, the Vihar has journal like Garima Bhaarti, magazines like Indian Buddhist Dhamma Mission, books like Bhagwan Buddha Aur Unka Dhamma. This vihar has its own printing press and books magazines and other journals are printed by it to spread the message of the Buddha to the unaware public. In the propagation of the message of the Buddha increasing awareness on ecological virtues of Buddhism have been propagated. I would not suggest the fact that Buddhist Viharas in Lucknow are aggressively and actively promoting ecological conservation as an integral part of Buddhism. But the trend of combining the Buddha's teachings with environmental conservation could be seen as trend which begun to take shape here.

### **POLICY IMPLICATIONS OF GREEN BUDDHISM**

Green version of Buddhism and its value system as a discourse and practice has both short term and long term policy implications and may exercise impact upon green governance in India. These are as follows:

- Environmental policies such as water, forests and wild life should focus on morality and inculcate values on spiritual importance of nature and its resources.
- At the level of implementation of public policies for management of ecologically important resources the ecological virtues of Buddhism and Hinduism should be propagated to bring about attitudinal change.
- The compassionate teachings of the Buddha for saving life forms should be included into educational syllabus seriously.
- Buddha Purnima should be declared as national plantation day.

### **CONCLUSION**

The process of ecological conservation and its importance has emerged as a paradigm of human thought and action in the contemporary world. Spiritual world which engages with human society has gradually been realizing its duty to promote ecological conservation to save the planet Earth from disaster. Several religions such as Christianity, Islam, Jainism Hinduism and others begun to address ecological problems as part of divine mandate. In this process, Buddhism engaged with ecological issues in more serious way than others on account of its doctrinal disposition towards the relationship between human beings and nature. Undoubtedly, Buddhism potentially embedded doctrinal ideas on conservation of nature and ecologically important resources such as forests, water and wild animals.

It is now a visible phenomenon that from global to local level the ecological importance of Buddhism which facilitates the harmonious relationship between human beings and nature has been recognized. The realization and recognition of ecological importance of Buddhism could also be seen in India, particularly in north Indian city of Lucknow. Ecological spirituality indeed could be one of the effective means of saving ecology and thereby saving humanity.

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# Goods and Services Tax in India: A Note

Angrej Singh<sup>1</sup>

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**Abstract**—*GST is an indirect tax which was introduced in India on 1 July 2017 and was applicable throughout India which replaced multiple cascading taxes levied by the central and state governments. Under GST, goods and services are taxed at the following rates, 0%, 5%, 12%, 18% and 28%. The Goods and Services Tax was launched at midnight on 1 July 2017 by the President of India Pranab Mukherjee and Prime Minister of India, Narendra Modi. The launch was marked by a historic midnight (1 July–2 July) session of both the houses of parliament convened at the Central Hall of the Parliament. Harmonized System of Nomenclature (HSN) is a 6-digit code for identifying the applicable rate of GST on different products as per CGST rules. If a company has turnover upto Rs. 1.5 Crore in preceding financial year then they need not to mention HSN code while supplying goods on invoices, if a company has turnover more than 1.5 Cr but up to 5 Cr then they need to mention 2 digit HSN code while supplying goods on invoices and if turnover cross 5 Cr then they shall mention 4 digit HSN code on invoices.*

**Keywords:** *Reform process, Security transaction tax, Uniformity of Tax Rates, Improved Competitiveness*

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## INTRODUCTION

Goods and Services Tax (GST) is an indirect tax which was introduced in India on 1 July 2017 and was applicable throughout India which replaced multiple cascading taxes levied by the central and state governments. It was introduced as The Constitution (One Hundred and First Amendment) Act 2017, following the passage of Constitution 122nd Amendment Bill. The GST is governed by a GST Council and its Chairman is the Finance Minister of India. Under GST, goods and services are taxed at the following rates, 0%, 5%, 12%, 18% and 28%. There is a special rate of 0.25% on rough precious and semi-precious stones and 3% on gold. In addition a cess of 15% or other rates on top of 28% GST applies on few items like aerated drinks, luxury cars and tobacco products. GST was initially proposed to replace a slew of indirect taxes with a unified tax and was therefore set to dramatically reshape the country's 2 trillion dollar economy. The rate of GST in India is between double to four times that levied in other countries like Singapore.

## HISTORY

The reform process of India's indirect tax regime was started in 1986 by Vishwanath Pratap Singh, Finance Minister in Rajiv Gandhi's government, with the introduction of the Modified Value Added Tax (MODVAT). Subsequently, Manmohan Singh, then Finance Minister under of P V Narasimha Rao, initiated early discussions on a Value Added Tax at the state level. A single common "Goods and Services Tax

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(GST)" was proposed and given a go-ahead in 1999 during a meeting between then Prime Minister Atal Bihari Vajpayee and his economic advisory panel, which included three former RBI governors IG Patel, Bimal Jalan and C Rangarajan. Vajpayee set up a committee headed by the then finance minister of West Bengal, Asim Dasgupta to design a GST model.

The Ravi Dasgupta committee was also tasked with putting in place the backend technology and logistics (later came to be known as the GST Network, or GSTN, in 2017) for rolling out a uniform taxation regime in the country. In 2002, the Vajpayee government formed a task force under Vijay Kelkar to recommend tax reforms. In 2005, the Kelkar committee recommended rolling out GST as suggested by the 12th Finance Commission. After the fall of the BJP-led NDA government in 2004, and the election of a Congress-led UPA government, the new Finance Minister P Chidambaram in February 2006 continued to work on the same and proposed a GST rollout by 1 April 2010. However in 2010, with the Trinamool Congress routing CPI (M) out of power in West Bengal, Asim Dasgupta resigned as the head of the GST committee. Dasgupta admitted in an interview that 80% of the task had been done. In 2014, the NDA government was re-elected into power, this time under the leadership of Narendra Modi. With the consequential dissolution of the 15th Lok Sabha, the GST Bill–approved by the standing committee for reintroduction–lapsed. Seven months after the formation of the Modi government, the new Finance Minister Arun Jaitley introduced the GST Bill in the Lok Sabha, where the BJP had a majority. In February 2015, Jaitley set another deadline of 1 April 2016 to implement GST. In May 2016, the Lok Sabha passed the Constitution Amendment Bill, paving way for GST. However, the Opposition, led by the Congress demanded that the GST Bill be again sent back to the Select Committee of the Rajya Sabha due to disagreements on several statements in the Bill relating to taxation. Finally in August 2016, the Amendment Bill was passed. Over the next 15 to 20 days, 18 states ratified the GST Bill and the President Pranab Mukherjee gave his assent to it. A 21-members select committee was formed to look into the proposed GST laws. State and Union Territory GST laws were passed by all the states and Union Territories of India except Jammu & Kashmir, paving the way for smooth rollout of the tax from 1 July 2017. There was to be no GST on the sale and purchase of securities. That continues to be governed by Securities Transaction Tax (STT).

## **LAUNCH OF GST**

The Goods and Services Tax was launched at midnight on 1 July 2017 by the President of India Pranab Mukherjee and Prime Minister of India, Narendra Modi. The launch was marked by a historic midnight (1 July–2 July) session of both the houses of parliament convened at the Central Hall of the Parliament. Though the session was attended by high-profile guests from the business and the entertainment industry including Ratan Tata, it was boycotted by the opposition due to the predicted problems that it was bound to lead to for the middle and lower class Indians. It is one of the few midnight sessions that have been held by the parliament - the others being the declaration of India's independence on 15 August 1947, and the silver and golden jubilees of that occasion. Members of the Congress boycotted the GST launch altogether. They were joined by members of the Trinamool Congress, Communist Parties of India and the DMK. These parties

reported that they found virtually no difference between the GST and the existing taxation system, claiming that the government was trying to merely rebrand the current taxation system. They also argued that the GST would increase existing rates on common daily goods while reducing rates on luxury items, and affect many Indians adversely, especially the middle, lower middle and poorer classes.

### **TAXES SUBSUMED**

The single GST replaced several former taxes and levies which included: central excise duty, services tax, additional customs duty, surcharges, state-level value added tax and Octroi. Other levies which were applicable on inter-state transportation of goods have also been done away with in GST regime. GST is levied on all transactions such as sale, transfer, purchase, barter, lease, or import of goods and/or services. India adopted a dual GST model, meaning that taxation is administered by both the Union and State Governments. Transactions made within a single state are levied with Central GST (CGST) by the Central Government and State GST (SGST) by the State governments. For inter-state transactions and imported goods or services, an Integrated GST (IGST) is levied by the Central Government. GST is a consumption-based tax, therefore, taxes are paid to the state where the goods or services are consumed not the state in which they were produced. IGST complicates tax collection for State Governments by disabling them from collecting the tax owed to them directly from the Central Government. Under the previous system, a state would only have to deal with a single government in order to collect tax revenue.

### **HSN CODE IN GST AND RATES**

HSN (Harmonized System of Nomenclature) is a 6-digit code for identifying the applicable rate of GST on different products as per CGST rules. If a company has turn over upto Rs. 1.5 Crore in preceding financial year then they need not to mention HSN code while supplying goods on invoices, if a company has turnover more than 1.5 Cr but up to 5 Cr then they need to mention 2 digit HSN code while supplying goods on invoices and if turnover cross 5 Cr then they shall mention 4 digit HSN code on invoices. The GST is imposed at different rates on different items. The rate of GST is 18% for soaps and 28% on washing detergents. GST on movie tickets is based on slabs, with 18% GST for tickets that cost less than Rs. 100 and 28% GST on tickets costing more than Rs.100. The rate on under-construction property booking is 12%. Some industries and products were exempted by the government and remain untaxed under GST, such as dairy products, products of milling industries, fresh vegetables & fruits, meat products, and other groceries and necessities. The introduction of the GST increased the costs of most consumer goods and services in India including food, hotel charges, insurance and cinema tickets. Upon its introduction in the country, GST led to a number of protests by the business community, primarily due to an increase in overall taxes and hence the prices of goods. Check-posts across the country were abolished ensuring free and fast movement of goods.

The Central Government had proposed to insulate the revenues of the States from the impact of GST, with the expectation that in due course, GST will be levied on petroleum and petroleum products. The central government had assured states of compensation for any revenue loss incurred by them from the date of GST for a period of five years. However, no concrete laws have yet been made to support such action.

## **BENEFITS OF GST**

### **FOR BUSINESS AND INDUSTRY**

*Easy Compliance:* A robust and comprehensive IT system would be the foundation of the GST regime in India. Therefore, all tax payer services such as registrations, returns, payments, etc. would be available to the taxpayers online, which would make compliance easy and transparent.

*Uniformity of Tax Rates and Structures:* GST will ensure that indirect tax rates and structures are common across the country, thereby increasing certainty and ease of doing business. In other words, GST would make doing business in the country tax neutral, irrespective of the choice of place of doing business.

*Removal of Cascading:* A system of seamless tax-credits throughout the value-chain, and across boundaries of States, would ensure that there is minimal cascading of taxes. This would reduce hidden costs of doing business.

*Improved Competitiveness:* Reduction in transaction costs of doing business would eventually lead to an improved competitiveness for the trade and industry.

*Gain to Manufacturers and Exporters:* The subsuming of major Central and State taxes in GST, complete and comprehensive set-off of input goods and services and phasing out of Central Sales Tax (CST) would reduce the cost of locally manufactured goods and services. This will increase the competitiveness of Indian goods and services in the international market and give boost to Indian exports. The uniformity in tax rates and procedures across the country will also go a long way in reducing the compliance cost.

### **FOR CENTRAL AND STATE GOVERNMENTS**

*Simple and Easy to Administer:* Multiple indirect taxes at the Central and State levels are being replaced by GST. Backed with a robust end-to-end IT system, GST would be simpler and easier to administer than all other indirect taxes of the Centre and State levied so far.

*Better Controls on Leakage:* GST will result in better tax compliance due to a robust IT infrastructure. Due to the seamless transfer of input tax credit from one stage to another in the chain of value addition, there is an in-built mechanism in the design of GST that would incentivize tax compliance by traders.

*Higher Revenue Efficiency:* GST is expected to decrease the cost of collection of tax revenues of the Government, and will therefore, lead to higher revenue efficiency.

### **FOR THE CONSUMER**

*Single and transparent tax proportionate to the value of goods and services:* Due to multiple indirect taxes being levied by the Centre and State, with incomplete or no input tax credits available at progressive stages of value addition, the cost of most goods and services in the country today are laden with many hidden taxes. Under GST, there would be only one tax from the manufacturer to the consumer, leading to transparency of taxes paid to the final consumer.



*Relief in Overall Tax Burden:* Because of efficiency gains and prevention of leakages, the overall tax burden on most commodities will come down, which will benefit consumers.

## MAJOR CHRONOLOGICAL EVENTS

1. Based on inputs from Govt of India and States, the EC released its First Discussion Paper on Goods and Services Tax in India in November, 2009.
2. In order to take the GST related work further, a Joint Working Group consisting of officers from Central as well as State Government was constituted in September, 2009.
3. In order to amend the Constitution to enable introduction of GST, the Constitution (115th Amendment) Bill was introduced in the Lok Sabha in March 2011. As per the prescribed procedure, the Bill was referred to the Standing Committee on Finance of the Parliament for examination and report.
4. Meanwhile, in pursuance of the decision taken in a meeting between the Union Finance Minister and the Empowered Committee of State Finance Ministers on 8th November, 2012, a 'Committee on GST Design', consisting of the officials of the Government of India, State Governments and the Empowered Committee was constituted.
5. This Committee did a detailed discussion on GST design including the Constitution (115th) Amendment Bill and submitted its report in January, 2013. Based on this Report, the EC recommended certain changes in the Constitution Amendment Bill in their meeting at Bhubaneswar in January 2013.
6. The Empowered Committee in the Bhubaneswar meeting also decided to constitute three committees of officers to discuss and report on various aspects of GST as follows:
  - a. Committee on Place of Supply Rules and Revenue Neutral Rates;
  - b. Committee on dual control, threshold and exemptions;
  - c. Committee on IGST and GST on imports.

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# Employment in India's ICT Sector: Some Empirical Analysis

Balwant Singh Mehta<sup>1</sup>

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**Abstract**—*India's information and communication sector has emerged as a 'growth engine' of the Indian economy in recent decades. The sector is contributing to economy in terms of GDP, foreign direct investment, export earnings and employment generation. However, there is continuous debate on its contribution to economy and employment generation and the profile of workers. This paper explores these important aspects particularly the quality of employment and profile of ICT sector in recent years. The finding shows that educated urban youth particularly from metros have benefited by ICT sector in recent years. The sector is providing better quality employment in terms of better average monthly income, regularity of work, social security benefits and tenure of work compared to Non-ICT sector.*

**Keywords:** *Employment, ICT Workers, Social Security, India*

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## INTRODUCTION

Historically, information and communication technology (ICT) sector relate to technological progress or changes. Solow and other neo-classical economists in 1950's and 1960's first explained that beside capital and labour, the rate of technological change has a permanent effect on economy and treated it as exogenous factor (Cortright, 2001). However, the development economist such as Romer disagreed with neo-classical economists and treated technological change as endogenous factor in 1980. This means that technological changes generates within the system and is a product of economic activity. This is characterized by increasing output, productivity growth and employment generation that drives the process of growth. The information and communication technology role became more evident from mid-1980s and 1990s onwards as a result of technological change and placed in third industrial revolution (Daniel, 2009). This sector is argued as a key to competitiveness and economic growth which have the greatest influence on global economy through increasing productivity and efficiency of industries and services sector (Morandi & Kebryaee, 2005). Information and communication sector provides a good quality explanation for the growth achieved by developing countries since 1990s like India, which has much higher in recent period than the earlier.

India's ICT sector emerged as a 'growth engine' with its rising contribution in the economy. It is not only contributing to services but also enhancing the productivity of manufacturing industry with increasing demand of electronic components and devices. This sector has a strategic importance in India due to its export intensive nature and externalities or spill over characteristics. There has been continuous debate on its direct contribution and indirect linkages with other sectors of the economy. The available literature shows that intense

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debate is in progress—both in the developed and developing worlds—on the contribution of ICT towards productivity and growth on one hand and human welfare on the other. The contribution of ICT viewed at two different but interrelated levels—ICT growth and ICT diffusion. The former refers to the contribution to output, employment, export earning etc. resulting from the production of ICT-related goods and services (Dedrick & Kraemer, 2003). The latter refers to IT-induced development through enhanced productivity, competitiveness, growth and human welfare resulting from the use of this technology in different sectors of the economy and society. The available studies showed positive and significant impact of ICT investment and infrastructure on output, total factor productivity, technical efficiency, foreign exchange earnings, revenue and employment generation in developing countries including India (Roller & Waverman, 2005; Kathuria *et al.*, 2009; Sharma & Sehgal, 2010; Mitra *et al.*, 2011; Dasgupta & Singh, 2005; Kumar 2001; Joseph & Harilal, 2001; Joseph & Harilal, 2005; Basan & Rani, 2004; Biradar, 2005; Abraham, 2007; Mehta 2012; Sarkar & Mehta 2010; Mehta, 2016; Mehta, 2017; Joshi, 2010; Verma, 1990, 1998; Verma and Awasthi, 2010). These studies discussed about various quality aspects of growth pattern, economic contribution and employment pattern in the sector. However, these studies largely concentrated in services part of ICT sector and there is no systematic study available in recent years on this topic. In this backdrop, the motivation of the study lies in the quest to understand the contribution and impact of ICT sector on economic output and employment creation in India. In this context, the focus of the present study is to examine the contribution and impact of India's ICT sector on output and employment generation.

## **METHODOLOGY**

The definition of ICT sector has evolved over the period after a lot of debates and discussions. Different definitions have been used for ICT sector by various countries and organisations (MOSPI, 2011). The Organisation for Economic Cooperation Development (OECD) has taken a leading role in standardising the definition of the ICT sector, which provides a statistical basis for measurement of ICT in an internationally comparable manner and adopted by its member countries. In this paper, OECD definition, 2008 that classified ICT sector into three broad category viz. manufacturing, trade and services (MOSPI, 2011) has been adopted. These data and information for the paper have been collected from different sources such as GDP, GDP per capita from Central Statistical Organisation (CSO); output, revenue and export from Department of Electronics and Information Technology (DEIT) and NASSCOM; and employment data from National Sample Survey Organisation (NSSO) and Labour Bureau, government of India. In this paper, the quality of employment have been examined on the basis of the available information pertaining to various factors such as the nature or type of jobs (regular, contract, self-employment and casual), average salary and social security, contract period and paid leave, among other things. Further, a comparison of the (IT and non-ICT sector has also been undertaken to understand the traditional and modern sectors.

## **DISCUSSION**

The findings are discussed in four sections; first includes overall economic contribution and ICT sector and employment situation, second section focuses on quality of employment and third section looks into geographical spread of the sector and final section concludes with policy suggestions.

## ECONOMIC CONTRIBUTION

The most important aspect of ICT sector is its contribution to GDP & foreign direct investment, revenue earnings from exports and the domestic market. India placed among the most favoured sourcing destinations for ICT services in the world with a share of 55 per cent of the global outsourcing business in 2016-17 (KPMG, 2016). This was due to availability of a large pool of skilled English speaking, technically qualified graduates in the country. India is now the fourth largest start-up hub in the world, with more than 4,750 start-ups and ranks third in total foreign direct investment (FDI) among all the sectors and accounts for around 37 per cent of total private equity and venture investment in the country. The ICT sector attracted cumulative FDI inflows worth US\$ 27.7 billion between April 2000 and September 2017, according to data released by the department of Industrial policy and promotion (IBEF, 2018).

ICT's contribution to national income (GDP) has been steadily increasing over the last decade. In 1997-98, ICT's share of GDP was just 1.2 per cent; by 2016-17, this had increased nearly seven-fold to 8.3 per cent (DEIT, 2018). The per capita GDP contribution of ICT services is over 80 times that of agriculture sector. Studies indicate that of the total revenue of the industry, around 45 per cent is spent in the domestic economy through non-wage operating expenses, capital expenditures and consumption spending by professionals. This spending, in turn, generates additional output via its direct and indirect backward linkages with other sectors and the induced effect of wages and salaries. The sectors most affected by this multiplier effect include housing/construction, transport services, communications, consumer durables, food items and clothing (NASSCOM, 2018).

Revenue in the ICT sector increased substantially during the 2000s. In 2016-17, ICT revenues were estimated at US \$154 billion. This was twice the level of US \$74 billion in 2010-11 and 15 times the amount of US \$10.2 billion in 2001-02. During the past six years, the compound annual growth rate of India's ICT sector's revenue was about 10 per cent, three to four times higher than the global ICT growth rate. Exports contributed more than three-quarters (76 per cent) of total revenue in 2016-17, leaving the share from domestic sales at 24 per cent. In 2016-17, the value of exports in the ICT sector was estimated at US \$117 billion; this was almost twice the value of US \$59 billion in 2010-11, representing a compound annual growth rate of 12.1 per cent (DEIT, 2018). The gain in export revenues was driven largely by an increase in the use of services pertaining to the so-called SMAC technologies, that is, social media, mobility, analytics and cloud technologies, as well as artificial intelligence, embedded systems, and so on.

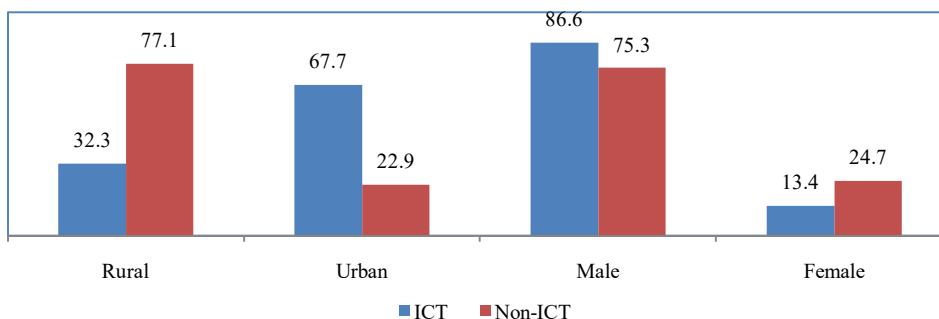
SMAC technologies create a significant impact on software exports, as opportunities have grown for mobile applications, enterprise products, governance, cloud and cloud ready products. The United States, United Kingdom and European Union still remain the major overseas markets for ICT services, accounting for nearly 90 per cent of total ICT exports. The domain-specific solutions playing a significant role in driving the growth of R & D and software products are those focusing on convergence, customization, efficiencies and localization, machine-to-machine technology and newer technologies around SMAC. In 2016-17, ICT revenues from domestic markets were estimated at US \$37 billion, up substantially from just US \$2.6 billion in 2001-02 and US \$29 billion in 2010-11 (NASSCOM,

2018). However, during the last six years, domestic revenues have increased at an annual compound growth rate of only 4.1 per cent, although this pace is expected to rise.

The growth of the ICT sector has a considerable multiplier effect on output. Every dollar spent by the ICT sector (on domestically sourced goods and services) translates into a total output of about two dollars in the economy. This output is driven by derived demand from firm-level spending (capital expenditures as well as operating expenditures) and a high level of consumption spending by professionals employed in the sector (Mehta, 2017).

## EMPLOYMENT GENERATION

The other important aspect is direct and indirect employment generation. ***The ICT sector is the largest private sector employer in India at present***, creating both direct and indirect employment. It creates direct employment particularly for educated and skilled youth in urban areas, and indirect jobs in several associated sectors, such as transportation, real estate and catering, security and housekeeping, and so on. In India, employment in the ICT sector made up about 1 per cent of total 15 years and above workforce (423 million) in 2015-16. Direct employment in ICT sector was around 4.2 million in 2015-16, which increased almost four times from 1.09 million in 1999-2000. Employment in the ICT sector was concentrated in urban areas (67.7 per cent) compared to Non-ICT (22.9 per cent) sector (Figure 1). Overwhelmingly male-dominated, one out of every seven workers in ICT sector was female compared to one out of every 4 workers in the Non-ICT sector. It is also estimated that the creation of one job in the ICT sector provides four indirect additional jobs in the rest of the economy, mostly to less educated people (Mehta, 2017).



Source: EUS, Labour Bureau, Government of India, 2015-16

The ICT sector broadly divided into three segments—manufacturing, trade and communication & information technology and IT enabled services (IT-ITeS). Across, these segments, majority of ICT workers were involved in IT-ITeS (80.2 per cent) industry followed by trade (12.2 per cent) and manufacturing (7.6 per cent) in 2015-16. Among these IT-TeS is most gender friendly whose share of female employment was 15.8 per cent.

## EMPLOYMENT PROFILE

### AGE-PROFILE

The age profile of ICT and Non-ICT sector clearly reflects that the ICT sector is still dominated by youth and middle aged compared to Non-ICT sector (Table 1). The youth workers

(46.4 per cent) in ICT sector were significantly higher than Non-ICT sector (26.9 per cent). However, the increasing proportion of middle age workers in ICT sector reveals that the sector is now maturing and not new in the India. The young female proportion was significantly more than their male counterpart indicating their increasing participation in ICT sector in recent years.

**Table 1: Age-Profile of ICT and Non-ICT Workers**

Age-Group	ICT			Non-ICT		
	Male	Female	Persons	Male	Female	Persons
15-29	43.7	63.4	46.4	27.1	26.4	26.9
30-44	41.2	28.6	39.5	37.6	41.5	38.6
45-59	13.2	6.3	12.3	27.1	25.3	26.7
60+	1.9	1.7	1.8	8.2	6.8	7.8
Total	100	100	100	100	100	100

Source: EUS, Labour Bureau, Government of India, 2015-16

### SOCIAL GROUP

ICT sector's employee profile across social groups indicates historically prevailing social division in India, where SCs and STs excluded from social and economically development. In ICT sector, Upper caste (45.4 per cent) and OBC (40.9 per cent) dominates, while in Non-ICT sectors significantly higher proportion of SCs (21.1 per cent) and STs (11.2 per cent) were also working (Table 2). In ICT sector, male and female workers had almost similar profile across social groups.

**Table 2: Social Group of ICT and Non-ICT Workers**

Social Groups	ICT			Non-ICT		
	Male	Female	Persons	Male	Female	Persons
Scheduled castes (SC)	10.4	6.4	9.8	20.4	23.4	21.1
Scheduled tribes(ST)	3.8	4.8	3.9	10.0	15.1	11.2
Other backward classes (OBC)	40.0	46.0	40.9	40.3	39.8	40.1
Upper caste (UC)	45.8	42.9	45.4	29.4	21.7	27.5
Total	100	100	100	100	100	100

Source: EUS, Labour Bureau, Government of India, 2015-16

### EDUCATIONAL/SKILL LEVEL

More than half (57.5 per cent) of workers in ICT sector had a graduate-level or above education, as compared to just 9.9 per cent in the Non-ICT sector (Table 3.1), where the majority were educated up to secondary school or had lower level educational qualifications. Similarly, the education levels of both female and male ICT workers were significantly higher than their counterparts in the Non-ICT sector. Around 74 per cent of female and 55.5 per cent of male workers had a graduate-level or above qualification compared to only 6.7 per cent of female and 11 per cent of male workers in the Non-ICT sector. Interestingly, in both ICT and Non-ICT sectors, female workers were better educated than male workers, i.e., the proportion of female graduates was higher than male graduates. However, in the Non-ICT sector, three-fourth of females educated only up to the primary level compared to one-half of males.

**Table 3.1: Education Levels of ICT and Non-ICT Workers**

	ICT			Non-ICT		
	Male	Female	Persons	Male	Female	Persons
Illiterate	0.5	1.9	0.7	14.5	36.1	19.8
Upto Middle	7.7	5.4	7.4	42.4	40.0	41.8
Secondary	12.1	4.3	11.1	17.2	10.0	15.4
Higher Secondary	24.2	18.0	23.4	14.9	7.2	13.0
Graduate & above	55.5	70.4	57.5	11.0	6.7	9.9
Total	100	100	100	100	100	100

Source: EUS, Labour Bureau, Government of India, 2015-16

Further, the stream wise distribution shows that worker from engineering, technology & management studies (43.9 per cent) in ICT sector were significantly higher than in Non-ICT (7.3 per cent) sector (Table 3.2). On the other hand, workers from others streams such as arts & humanities and natural science, mathematics & statistics were in similar proportion in both ICT and Non-ICT sector. The proportion of females workers (53.5 per cent) from engineering, technology & management studies in ICT sector were more than their male (42.1 per cent) counterparts.

**Table 3.2: Educational Stream of ICT and Non-ICT Workers**

Stream	ICT			Non-ICT		
	Male	Female	Persons	Male	Female	Persons
Arts and humanities	31.5	19.8	29.6	59.7	61.4	60.0
Natural sciences, mathematics and statistics	14.6	15.1	14.7	14.6	16.0	14.8
Engineering, technology and management studies	42.1	53.5	43.9	7.7	5.7	7.3
Others*	11.8	11.6	11.8	18.0	16.9	17.8
Total	100	100	100	100	100	100

\*medical, agriculture and accounting etc

Source: EUS, Labour Bureau, Government of India, 2015-16

## QUALITY OF EMPLOYMENT

Further analysis is mainly focusing on comparison of quality of employment in ICT and non-ICT through various parameters. These parameters include status of employment, type of jobs, contract type and social security benefits.

## STATUS OF EMPLOYMENT

The status of employment indicates the quality of jobs, as regular (those who received salaries on regular basis) employment is considered to be of better quality compared to self-employment and casual (those who received salaries under periodic contract or on daily basis) employment due to the nature of the job, duration of contract and social security benefits. Casual work is purely temporary and does not offer any social security benefits (Mehta, 2017).

Regular employees (60 per cent) dominated in ICT sector followed by employed (27 per cent), contact workers (8.7 per cent) and casual (4.1 per cent) workers (Table 4). In contrast,

regular employment was at just 15.7 per cent in the Non-ICT sector, while the self-employed made up 47.4 per cent, casual workers made up 33.4 per cent and contract workers about 3.5 per cent of the workforce. Female and male workers were predominantly regular workers in ICT sector whereas substantial presence of self-employed was found among both in Non-ICT sector.

**Table 4: Employment Status of ICT and Non-ICT Workers**

	ICT			Non-ICT		
	Male	Female	Persons	Male	Female	Persons
Self employed	30.3	6.3	27.1	48.8	43.1	47.4
Regular employed	56.6	82.8	60.0	16.9	12.1	15.7
Contract employed	8.8	8.7	8.7	3.7	2.7	3.5
Casual labour	4.4	2.2	4.1	30.5	42.1	33.4
Total	100	100	100	100	100	100

Source: EUS, Labour Bureau, Government of India, 2015-16

### AVERAGE MONTHLY SALARY

The average monthly income of ICT sector workers concentrated above Rs. 20,000/- per month, while for Non-ICT workers up to Rs. 10,000/- per month (Table 5). Almost half of the ICT workers' compared to just 14.7 per cent of Non-ICT workers average monthly salary was above Rs. 20,000/-. On the other hand, 62.6 per cent of Non-ICT workers' average monthly salary was below Rs. 10,000 compared to 23 per cent of ICT works belong to the same category. This pattern is similar across gender both in ICT and Non-ICT sector.

**Table 5: Average Monthly Income (in Rs.) of ICT and Non-ICT Workers**

Average Income	ICT			Non-ICT		
	Male	Female	Persons	Male	Female	Persons
Upto 5000	2.7	1.5	2.6	15.4	18.0	16.0
5001-10000	20.6	19.1	20.4	46.0	48.3	46.6
10001-20000	28.2	23.1	27.5	23.1	21.2	22.6
20001-50000	33.6	33.3	33.5	13.1	10.0	12.3
50000+	14.9	23.0	16.0	2.4	2.4	2.4
Total	100	100	100	100	100	100

Source: EUS, Labour Bureau, Government of India, 2015-16

### PERIOD OF JOB CONTRACTS AND ELIGIBLE FOR PAID LEAVE

The higher number of workers in regular jobs does not necessarily mean that quality of jobs is concomitantly high. The nature of job contracts offered and the eligibility of workers for paid leave are two important aspects that indicate job quality. Analysing the nature of job contracts seems to indicate a dualistic pattern in the ICT sector: Around 67 per cent of the workers in the ICT sector had no written contract compared to 80.5 per cent of workers in Non-ICT sector reporting the same (Table 6). A little more than 18 per cent of ICT workers had contract duration of more than 3 years, which was relatively higher than 12.3 per cent of Non-ICT sector. Around 4.6 per cent workers in ICT sector had upto 1 year and 8 per cent between 1 and 3 years compared to 2.4 per cent and 1.6 per cent in Non-ICT sector. In terms of a gender disparity, the proportion of female workers 'with any job contract' was slightly



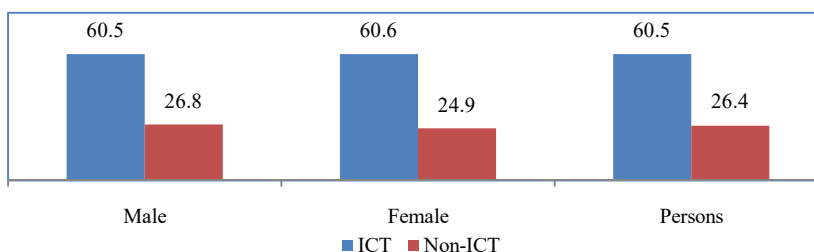
higher in the both ICT and non-ICT sector. In the dynamic ICT sector, which boasts a high proportion of skilled workers and a high turnover rate, contract periods are not a major issue. However, contracts of shorter duration are not welcomed by the large proportion of workers who are involved in low-skill jobs in the ICT sector. This indicate that the belief of high degree of permanent jobs in the ICT sector may be a fallacy as previous studies had also indicate workers in the sector are largely appointed on projects to be executed rather than on a permanent basis (Babu, 2004; Upadhyay, 2007).

**Table 6: Period of Job Contract of ICT and Non-ICT Workers**

	ICT			Non-ICT		
	Male	Female	Persons	Male	Female	Persons
No written job contract	67.1	68.7	67.3	80.3	81.4	80.5
Written job contract: upto 1 year	4.4	5.4	4.6	2.3	3.0	2.4
More than 1 year to 3 years	6.0	8.5	6.4	1.6	1.6	1.6
More than 3 years	18.8	15.6	18.2	12.6	11.0	12.3
Not known	3.7	1.8	3.4	3.2	3.0	3.1
Total	100	100	100	100	100	100

Source: EUS, Labour Bureau, Government of India, 2015-16

Eligibility for paid leave is another indicator of job quality in the labour market. ICT companies were substantially more likely to offer paid leave than Non-ICT companies. Almost 61 per cent of the workers were eligible for paid leave in ICT sector compared to 26.4 per cent in Non-ICT sector (Figure 2). There was not much difference between male and female employees eligible for paid leave in ICT sector and Non-ICT sector.



**Fig. 2: Eligible for Paid Leave - ICT and Non-ICT Workers**

Source: EUS, Labour Bureau, Government of India, 2015-16

## **SOCIAL SECURITY<sup>2</sup> BENEFITS**

The coverage of social security benefits is one of the important indicators of quality employment. The prevalence of social security measures in the ICT services sector was significantly higher than in the Non-ICT sector and much higher proportion of female in

<sup>2</sup>Social Security schemes in India include provident fund, pension, health care service, maternity benefits, and gratuity (Mehta, 2012).

Non-ICT had social security compared to male. In the ICT sector gender difference was far less but it was in favour of female workers. Around half (49.5 per cent) of ICT workers were covered under any social security scheme with 16.1 per cent covered by full gamut of social security benefits and 33.4 per cent benefited by at least one (Table 7). On the other hand, only around one fifth (21.1 per cent) workers in Non-ICT sector were covered under the social security benefits with 10.5 per cent covered by full gamut of social security benefits and 10.6 per cent benefited by at least one. There is slight difference between male and female with former were covered more under the social security benefits compared to the later.

**Table 7: Social Security Benefits - ICT and Non-ICT Workers**

	ICT			Non-ICT		
	Male	Female	Persons	Male	Female	Persons
Any one benefit	33.1	35.0	33.4	10.6	10.1	10.5
All the benefits	16.7	13.5	16.1	11.0	9.2	10.6
Not eligible	43.3	44.5	43.5	71.0	74.5	71.7
Not known	6.9	7.0	6.9	7.5	6.3	7.2
Total	100	100	100	100	100	100

Source: EUS, Labour Bureau, Government of India, 2015-16

## JOB TYPE OR OCCUPATIONS

The NCO 2004 occupational codes have been used to identify broadly employees' occupations and skill level. The broad distribution of job profile across skill level shows that 46 per cent of the employees in ICT sector had medium level skills involved in clerks, service workers and shop and market sales workers, agricultural and fishery workers craft and related trades workers, plant and machine operators and assemblers jobs, followed by 39.8 per cent in very high skilled jobs of managers and professional, 11.8 per cent in high skilled jobs of technicians and associate professional and least 2.4 per cent in low skilled elementary occupations (Table 8). Contrary to ICT, medium (54 per cent) and low skilled (32.6 per cent) dominate in Non-ICT sector jobs. There is not much difference observed in job profile of male-female in ICT sector, while females involved in elementary or low skilled job significantly higher than males in Non-ICT sector. This reflects the less gender bias in ICT sector compared to other sectors of the economy.

**Table 8: Social Security Benefits - ICT and Non-ICT Workers**

	ICT			Non-ICT		
	Male	Female	Persons	Male	Female	Persons
Manager and Professional	39.5	41.6	39.8	10.9	4.7	9.4
Associate Professional	11.1	16.4	11.8	3.7	5.1	4.0
Medium Skills	46.9	40.2	46.0	55.8	48.4	54.0
Low or Elementary Skills	2.5	1.9	2.4	29.6	41.8	32.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: EUS, Labour Bureau, Government of India, 2015-16

Note:

1. Legislators, Senior Officials and Managers Skill and Professionals: Manager and Profession (Very High Skilled)
2. Technicians and Associate Professionals: Associate Professional (High Skilled)

3. Clerks, Service Workers and Shop and Market Sales Workers, Agricultural and Fishery Workers Craft and Related Trades Workers, Plant and Machine Operators and Assemblers: Medium Skilled
4. Elementary Occupations: Low Skilled

### LOCATION-WISE DISTRIBUTION

The ICT sector is concentrated in metros but has been gradually shifting to smaller cities and towns over the years. Around 68 per cent of employees in ICT sector were employed in urban including metros. More than half (51.6 per cent) of the ICT jobs located in the following states: Tamil Nadu (14.8 per cent), Karnataka (11.3 per cent), Maharashtra (10.0 per cent), Uttar Pradesh (8.2 per cent), Telangana (7.3 per cent) and West Bengal (5.8 per cent) in 2015-16. These states have major IT centres such as Chennai, Bangalore, Pune, Noida, Hyderabad and Kolkata.

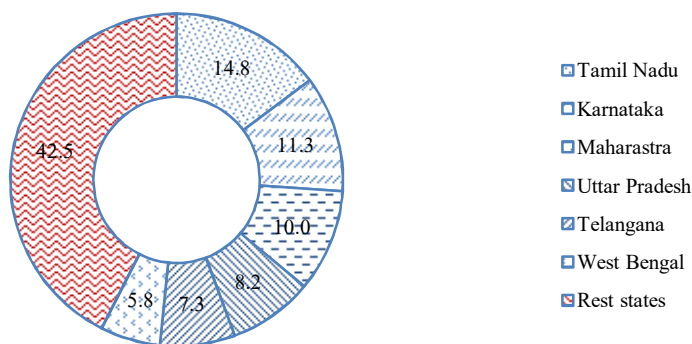


Fig. 3: Location-wise Distribution of ICT Workers

Source: EUS, Labour Bureau, Government of India, 2015-16

The ICT sector jobs predominantly covered by IT-ITes & Telecom services (80.2 per cent) segment followed by smaller proportion of Trade (12.2 per cent) and Manufacturing (7.6 per cent) segments. The jobs in IT-ITes & Telecom services segment situated mainly in seven states: Tamil Nadu (16.8 per cent), Karnataka (12.1 per cent), Maharashtra (8.9 per cent), Telangana (8.4 per cent), Uttar Pradesh (7.2 per cent), Kerala (5.3 per cent) and West Bengal (5.2 per cent), which together constituted 64 per cent of the total jobs of the segment. In the trade segment, five states: Uttar Pradesh (14.4 per cent), Maharashtra (13.3 per cent), Rajasthan (9.8 per cent), West Bengal (8.6 per cent) and Gujarat (6.0 per cent) constituted more than half of the total jobs in the segment, while states: Maharashtra (16.8 per cent), Karnataka (12.6 per cent), Tamil Nadu (11.0 per cent), Uttar Pradesh (9.1 per cent), and West Bengal (8.6 per cent) constituted more than 58 per cent of the total jobs in manufacturing segments.

### CONCLUSION

The above analysis clearly demonstrates that the ICT sector is not only contributing to the growth of the economy, but also at the same time offering regular, productive and improved employment conditions as compared to the other Non-ICT sectors. Although there has been a

dramatic transformation in this sector in terms of the working conditions and terms of employment, it has been observed that the sector is more amenable to offer employment to well-educated urban youth and has consequently been unable to engage the large masses among the country's population. The sector has not been able to include large number of educated youth from smaller towns and rural areas. Social security measures exist in the sector but only few (16 per cent) covered by all the prescribed benefits under the scheme. ICT sector is still limit to Tier-I cities such as Bengaluru, Chennai, Hyderabad, Pune and NCR Delhi.

It should go to Tier-II or III cities for further expansion and employ new pool of educated unemployed youths. The industry has to focus more on domestic market and government should provide them more tax benefits and other concessions. The government should encourage them by easing the regulations, providing tax benefits and other concessions to tap the local cheap skilled youth by providing them employment and make more profits. Extending social security benefits with more regular jobs would also improve the working conditions. It calls for creating awareness for better job conditions. There is also need to diversify employment and encourage employment of differently-abled persons. Some issues as highlighted by some recent studies, which are adversely affecting the development of ICT sector, in particular IT-ITES growth, are rising labour costs, rapid growth in demand for talented manpower/quality staff with constrained supply, high attrition rate, outsourcing backlash etc. (Joshi, 2010, Mehta, 2017).

Accordingly to Mckinsey report, about half of the existing workforce in India need retraining of new skill sets such as cloud computing, data analytics, big data, nano-technology, 3D printing, internet of things, and artificial intelligence. Those who are unable to retrain themselves will be left behind or lost their jobs. Further, these new technology will also demand a large pool of skilled trained people. Every year about 6 million graduates are estimated to join the labour force; they can grab the opportunities in high-end ICT service segments if trained properly with these new skills sets. Further, the increasingly protectionist nature of USA and other countries like the UK, Australia and Singapore have already tightened their Visa norms and indicated that they would reduce jobs for Indian professionals and hire more local people. Share of ICT in total services exports for India declined during the recent decade (2006-2016), while the ICT share in total services exports has increased in other economies like China, Brazil, Russia, Philippines, Israel and Ukraine indicating increasing competition for India from these countries. India must look beyond the United States and United Kingdom to accelerate growth opportunities by tapping new markets in Asia, Africa, South America and Europe.

These concerns need to be addressed for the overall development of ICT sector. This shows the limitation of employment generation in the ICT sector and necessitates policy correction to facilitate the expansion of the benefits of such employment to the socially deprived and rural masses by improving their quality of education and level of skill training among them. In particular, the government and private sector particularly industry should take part in training poor and rural educated youth under their corporate responsibility services.

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# RAPPORTEUR'S REPORT

## National Seminar on Emerging Social and Economic Inequalities in India December 4-5, 2017

Md. Reyaz Ahmad and R.K. Sinha  
BBAU, Lucknow  
DSMNRU, Lucknow

**Jointly Organized by  
BBAU & ASEDS, Lucknow, India**

A two day National Seminar on contemporarily pertinent theme of “Emerging Social and Economic Inequalities in India” was organized under the aegis of Babasaheb Bhimrao Ambedkar University (A Central University), Lucknow and the Association of the Socio-Economics and Development Studies (ASEDS) during December 04-05, 2017 at the Department of Economics, School of Economics and Commerce (SCE), BBAU, Lucknow.

In accordance to the conventional, the National Seminar was inaugurated with the lightening of Lamp of enlightenment and offering flowers to Goddess Saraswati by Professor G C Saxena, former Vice-Chancellor Agra University, Professor Manoj Dixit, Vice-Chancellor Dr Ram Manohar Lohia Avadh University, Faizabad, Professor Sudhir Kumar Jain, IIT Delhi. This was followed by the welcome speech in which Professor Verma briefly elaborated the finer points of the theme of the seminar. Professor S K Jain, in his keynote address, stressed that the unavailability of the basic amenities as the core issue that bothers people and if they are having accessibility to their basic needs then they do not bother much. He elaborated the empirical facts of how economic development and inequality move & gave instances of the USA, UK, European countries with the help of Gini Coefficient and Lorenz Curve. He stressed how governance plays an effective role in countries like China and India. According to him Trickle Down Approach is the Best Approach to eradicate inequality.

The Guest of Honour Professor Manoj Dixit, Vice-chancellor Dr Ram Manohar Lohia Avadh University Faizabad in his address emphatically emphasized the approach to furnishing homogeneous solution to the heterogeneous nature of problems is inappropriate. The pyramid cal structure was, is and will be there. First we shall accept this and then we must reconcile with the fact whenever there are social

movements then there is a need for a policy. Centralized systems are no solutions to our problems of inequality. He stressed to strengthen the primary education system. According to him, there were no significant Social Movement after Bhudaan, there are of course, movement at the micro level but the area of their impact is confined.

Professor G C Saxena, the Chairman of the inaugural session, in his address pointed out the tendency to monopolize, centralize and confine power to power centers is the basic problem. Having said that he elaborated that inequality is intrinsic but if efforts to redistribute wealth and resources are effectively done then it can be reduced. Professor Saxena referred to mythological references and referenced from science to highlight the core tendency of concentration of resources & the way it can be handled by devotion to work and contentment.

There were more than 150 papers for the presentation and Five Technical Sessions. Technical Session I was chaired by Professor Alpana Srivastava from Amity University, Lucknow and the coordinator of the session was Dr Surendra Meher of the Department of Economics, School of Economics and Commerce, BBAU. There were more than twenty papers presented in this session. To name a few outstanding presentations were of Siba Shankar Sahu on Graded Inequality and process of exclusion in KBK region, Odisha: A Sectional Analysis, Atriya Dey and Rahul Ganguly's Education as Cultural Capital: A Critical Study of the Indian Education System, Dr Sarban Mishra & Nirankar Pattanaik's Socio-Economic Inequality in agriculture and rural sector and Professor Alpana Srivastava also presented her paper in this session. In all there were 23 papers presented.

Technical Session II was chaired by Professor Sanatan Nayak of the Department of Economics, School of Economics and Commerce, BBAU. Professor Nayak briefly dwelled on the theme and said that the core of the problems of inequality can be addressed with Political Economy angle. Moreover up to certain extent in the contemporary scenario and highlighted the convergent and divergent approaches. 25 papers were presented in this Technical Session.

Professor Neera Verma of the Kurushetra University chaired the Technical Session III in which Shri B N Singh, Director RMTOU, Allahabad was the coordinator.

Professor D.K. Madaan, former Head of Department of Economics, Punjabi University, Punjab, chaired the Technical Session IV, Dr. Ram Bilas DSN College; Unnao & L.C. Mallaiah of the Department of Economics, School of Economics and Commerce, BBAU coordinated the session.

Professor Manoj Kumar Agrawal, Director Health Institute, University of Lucknow chaired the Technical Session V, coordinated by Professor Anupma Srivastava, Head of Department of Economics, IT College and Dr Narendra Gupta of Jhansi University. In all 26 papers were presented in this session.

The Two Day National Seminar culminated with the Valedictory Session chaired by Professor P K Sinha, Professor P K Choubey, Director IMS University Lucknow, was the Guest of Honour, Professor D K Madaan, Punjabi University, Punjab graced the stage by delivering special address. Professor D K Madaan while addressing the august gathering said that given the size of India with respect to GDP, India stands seventy in the community of nations. Growth has picked up gradually. He referred to Global Wealth Report-2017, in the mid of 2017 which make mention of the fact that there are 2 million millionaires. From 1970's till date salary has increased by 120 times. While the income of an agriculturist has gone up only by 21.7 times inter-state inequality is matter of concern.

Professor P K Choubey in his address said that the inequality is rising. He referred to Dalton, French revolution, issues before the House of Commons (1935) and sectoral issues concerned. He stressed that political democracy is not economic democracy. According to him, societal division shall not be there. He gave examples of Gautam Budhdha, Gandhi, Robin Hood and the like working for equality and rights. Issues changes from poverty to inequality-inequality to removal of poverty and the inequality, he added much talked about shared prosperity. He stressed that if the present issue is to fulfill the basic needs of clean water, infrastructure etc., then, and new liberal aspiration where more space is asked in economic sphere is expected from the government. According to him inequality up to certain extent is acceptable and that is the beauty of diversity. Institution shall be created by the society and not the government-community based institutions/organizations.

Professor P K Sinha in his address as the chairman of the session highlighted the fact that the plight of the elderly is in grave state. He talked of Dr B R Ambedkar as a torch bearer to fight against inequality. According to him Adam Smith's approach of invisible hands was to make the crown ineffective. The main challenge in the present scenario according to him is the crony capitalism.

Given the want of space following are the few among many prominent presentations during the two day academic exercise:

Shiv Shankar Sahu in his paper Graded Inequality and Process of Exclusion in KBK Region, India : A Cross Sectional Analysis emphasized on the inequality specific tribes, castes and social inequality in region. According to the presenter economic and political inequality works as stimulant in this case.

Mitima Sachdeva in her paper entitled Gender Representation in Text Books.... Focused on gender discrimination and cited UNESCO empirical facts and cited examples from textbooks to highlight the gender discrimination, according to the presenter it is the teaching community who is responsible for such discrimination based on gender. She stressed the need to make education more inclusive and text books free from such instances.



In her paper *Inequality in Agriculture* of Aparna Jha highlighted the fact that about 20 % households do not have the drinking water facility in India. Highlighting the unequal distribution of water she pointedly made caste, gender discrimination, contract practices and its provision to be the core of such an unequal distribution of drinking water.

*Socio Economic Inequality in agriculture and Rural Sector: From a Viewpoint* was the paper presented by Dr Sarban Mishra and Nirankar Pattaniak. In their paper, which is based on the primary study of Cuttack region, they found that 33 % of agrarian population does not have any agricultural land, as far as the ownership is concerned it was dominated by a specific influential caste whereas people belonging to the Scheduled Castes and Scheduled Tribes do not have the ownership of land (resources) and since they do not have possession of these resources they are subject to exploitation. Administration and the government are indifferent to the issues of their concern.

Dr R C Tyagi and Tatannum Siddiqui in their paper titled *Inequality in Private Enterprise Development: A Study of Socially Deprived Section of Indian Society* (an ICCSR sponsored project) focus on the deprived section of the society, the Scheduled Castes and Scheduled Tribes.

Parul Srivastava in her paper *Inter Caste Marriages and Social Inequality in the Province of Haryana* said that the parents suppress their children and practice gender discrimination which stems from the family, community, panchayats and in educational institutions. Women are exploited in the social system and the social system, the caste system, plays a vital role in the decision making when it comes to their education, social behavior and marriages. The caste panchayats play a very crucial role in the matters of marriage and regulate such social ceremonies.

Mudassir Fatah in his paper, *Special Status of J & K: Implications on Inequality and Exclusion*, tried to surface the core reasons because of which an atmosphere of animosity is created in J & K. He highlighted the underlining reasons in which he held local administration responsible for not letting the welfare scheme reach the needy and the down trodden in J & K.

*Poverty and Inequality: An Analysis of Indian Economy* is the title of the work of Virendra Koundal in which he stated that poverty and inequality are not related to one another. Poverty has relatively reduced but disparity has increased over time. In addition several other papers were presented in short time mentioned in seminar proceedings.

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