

Smart Village – An e-Governance Initiative

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Abstract—Two thirds of India’s population resides in the villages. Conversion of villages from traditional to smart ones is an attempt to turn India truly smart. Use of electronic means of governance may lead to better administration and transparency at all levels. Government of India from the past several years has made E-governance initiatives to transform the lives of people living in villages. The villagers are the least privileged and whose knowledge and skills do not enable them to make use of IT applications. While there may be many positive aspects of E-governance initiatives, there are also some challenges that arise from administrative, legal, institutional and technological point of view. This paper attempts to present both of these aspects by citing some project case studies and offer suggestions for improvements.

Index Terms— Good governance, Digital Divide, IT, Smart Governance, ROI, e-governance, Aadhar, CARD, NTR bharosa, ePDS, Smart City, Smart Village

I. INTRODUCTION

E-governance is the technology to enhance the access and delivery of government services for the benefit of citizens. It allows the administrative authority to manage all schemes, monitor progress through connectivity and use data for decision making and analysis. It is through the electronic means we are taking the government schemes to the door steps of the real beneficiary.

SMART Governance is the application of technology to facilitate and to support better planning and decision-making. It strengthens the democratic processes and transforming the ways for the delivery of public services. It includes the efficiency and agenda by which the government functions with lower operational cost and higher return on investment (ROI). No governance can be smart, if it is limited to the officials of the government. E-Governance should facilitate interface between government and the citizens. The Digital India agenda has created a platform for many ministries and departments of the government to come together and develop integrated solutions. It is unfortunate that many technology providers, and indeed even some policy planners, have begun to consider Digital India opportunity as a synonymous to the development of smart cities and the “Internet of Everything”.

Smart governance should not end up with a website and statistical data. The real dream of the smart governance will come true when common man participate in the governance and decision making and appreciate all government policies and decisions using information technology. More than half of population may not be benefit from eGovernance, as the existing conditions in rural area are not conducive for the implementation of smart city model.

Rural areas can be developed using a concept of “Smart Village”. Smart Village concept is based on the local conditions, infrastructure, available resources in rural areas and local demand as

well as potential to connect rural areas to urban areas. A “Smart Village” can provide long - term socio-economic and environmental welfare activity for the village community.

General Objectives of e-Governance

- a) Improvements in delivery of essential services to the citizens;
- b) Empowerment of people through the dissemination of information;
- c) Ensuring transparency in government business and transactions;
- d) Elimination of deliberate delays, harassment and bogus document
- e) Public awareness and participation in key areas of development
- f) To ensure that government benefits reach the real beneficiaries &
- g) To ensure that the digital divide is reduced

Challenges

It is clear that, the situations and challenges in developing urban and rural areas are different due to the constraints and opportunities. Many researchers believe that the existing technologies developed for the smart city may be useful for the smart village concept but in practical, this is not possible because every society has different needs and priorities. There is no single model and universal standard for e-governance. Each society’s and government’s readiness for e-governance will depend on the objectives and specific sectors it chooses as priorities, as well as the resources available at a given point of time.

Trust and Digital divide

The main disadvantage of an electronic government is moving of government services into an electronic based system. This system prevents the person-to-person interaction. It demands computer literacy of the users and assistance of customer care services to those who are not exposed to computer education for example rural folks and elderly. People below poverty line may not afford a computer and deprived from the benefits of e-government and other online services. As the digital divide narrows, broader adoption of e-government in the public domain becomes imperative. Awareness can only help to bring users to that service delivery channel once but cannot guarantee sustained use of the system. The system should be designed in such a way that it delivers satisfactorily and encourage their use by the actual end users and reduce their dependence on middlemen / intermediaries.

Resistance to change

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 interface with the government. Education about the value of the new systems is one-step forward in reducing some of the existing resistance. It can also be particularly useful to the leader or manager, to be familiar to the new system at an early stage of the adoption process.

Improper implementation of e-governance

A major handicap in mass application of e-governance in rural areas is that the information content is generally not directly relevant to the people for whom it is developed. The contents are written or designed by the people who are not from rural areas and not familiar to the conditions of rural areas. As a result, these systems are user friendly to urban people. Such systems, therefore, have limited utility and are commercially unviable. This problem is solved by developing relevant content in the local languages. Already in some States all official forms, village maps, land records and job opportunities, can be accessed on the internet. And lot of this content is available in local languages. This has to spread to more and more States.

Towards Development of Smart Villages

A large percentage of our population lives in cities. Hence, the researchers as well as the governments concentrate their efforts towards the development of smart cities which are self-sustaining and technologically advanced. These cities adopt the technology fast.

In the Indian context, villages are the heart of the nation. Hence, for the development to percolate to the grass root level, focus must be devoted to the development of villages and to smartening the rural population using ICT(integrated computer technology) solutions to achieve self sustainability.

Imbalanced growth between rural and urban landscapes leads to the rapid urbanization. One of the main consequences of uncontrolled urbanization is lack of livelihoods, good standard of living and amenities in the villages of India. Smart village concept may play crucial role in maintaining the balance between the development of rural and urban areas and help to reduce the migration of rural population to urban areas.

The concept of “Smart Village” will also address the multiple challenges such as unplanned urbanization, under development of villages, migration of rural people for economic pursuits, better standard of living etc.

There is an urgent need for designing and developing “Smart Village”, which are autonomous in providing the services and employment and yet well connected to the rest of the world. Based on various programs undertaken taken by Central and State governments along with further technological initiatives, the Smart Village can achieve SMART infrastructure, SMART service delivery, SMART technology and innovation, SMART institutions along with optimal mobilization and utilization of available resources, leading to faster and more inclusive growth. A ‘Smart Village’ will encompass a sustainable and inclusive development of all sections of the village community, so they can enjoy a high standard of living.

Rural population comprises a good portion of the total population of a farming-based economy in India. The life of people in villages is also tougher compared to their city counter-parts. There is a dire need to work towards the development of the villages along with improving the life in cities. There are certain ideas in smart cities that can be directly implemented in villages. Best example is the use of

CC cameras and sensors in streets for surveillance, sensors for healthcare etc. On the other hand, there are certain sectors like agriculture, cattle / livestock rearing etc., which need some improvised ideas for smart working.

The basic eGovernance areas to be covered in the rural india are :

- Assured electricity supply,
- Affordable housing, especially for the poor,
- Robust IT connectivity and digitalization,
- Sustainable environment,
- Safety and security of citizens, particularly women, children and the elderly, and
- Health and education.
- Skill Development and self employment
- Food security

The critics of IT have often said that computers can only provide information, transmit it from one place to another and with the advent of the internet, make communication instant. But it cannot provide drinking water to people, it can not cure their diseases and it cannot give them employment. But the critics forget that villagers also have their own information needs. They need to know about their village, their districts, natural resources around them, about seasons and monsoons, about market rates of different commodities and about government schemes. They also need to know how much money is being allocated for rural development in their areas and how much is being spent. And all these so-called bits of information are related intensely to their lives and livelihood. A connected PC is an effective tool to do all this and much more.

Information Technology has the potential of improving the access of the people to information stored and reserved by the government and use of the information in administrative processes and development and welfare activities. IT provides the cheapest, quickest and easiest way of accessing government information. Moreover, IT helps in using the information maintained by the government again and again in different application settings without any substantial additional cost. It 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 increasing the reach of government – both geographically and demographically.

The Idea of Smart Village

A Smart Village	
Networking	Direct marketing for farmers
Agmarknet	Accessible Cold storages for Fruits and vegetables
E-commerce for weavers and other small scale industry	Continuous Power supplies
Monitoring Govt. scheme implementations	Data storage for review and analysis
Connectivity across different modular implementation schemes	

Failure to utilize Information Technology tools for rural development is because of lack of strategy, unfocused planning and above all monitoring and execution of the activities. All these activities need to be addressed based on the varying rural situations. A specially designed suitable framework for rural areas on the grounds of Science & Technology, Engineering, Regulations and Management

will play important role to build next generation smart villages. Each village is a unique example and having diverse set of problems and situations. It may be difficult to implement the same model of village development for all the villages. A country where farmers still commit suicide, lack of quality education, unutilized demographic dividend and various menace of Indian society – tells a disappointing story that despite the presence of development schemes, India is far behind in creating a harmonious and prosperous society. The reasons can be attributed to mainly two factors; firstly, inefficiency of government in implementation and secondly, lack of awareness among people.

Inefficiency or lack of strategy

Indian government's intention to provide assistance to poor and their upliftment is clear, but at the implementation, part government fails. The reason of inefficiency can be attributed to improper monitoring, lack of accountability, corruption and misalignment of incentives. There are more than hundreds of schemes if we include both Centre and State sponsored programs which are designed to target rural poverty as the prevalence of the poverty is high in rural areas. Also targeting of the poverty is challenging in rural areas due to various geographic and infrastructure limitations. The programmes can be mainly grouped into 1) Wage employment programmes, 2) Self-employment programmes, 3) Food security programmes, 4) Social security programmes and 5) Urban poverty alleviation programmes. But despite having so many farmer-centered schemes, the agriculture is the last option anyone will choose for employment. Indian government has shown tremendous success when the goal is collectively shared. India's elections which are sometimes termed as "an undocumented wonder" (a term coined by former Chief Election Commissioner S.Y. Quarishi) – largely error free collective action with much less political interference and coordinated administration, makes this grand democratic event a success. India also adequately dealt with natural catastrophes in the past. The government also adequately tackled several diseases such as polio, malaria and HIV when the target was well publicized and clear.

Therefore, the question arises why India can deal with natural catastrophes, elections and diseases so successfully but fails to implement a scheme. Almost 72% of the rural households in a survey held in 2011 for 7 states (carried out by Pratham/ASER in partnership with UNDP), were not aware about the India's largest flagship program MGNREGS. It clearly shows that the government fails in creating an aware atmosphere where people know what the government is doing for them.

NEGP & NIC

There is no proper definition for rural development. However, logically, it means development for rural areas, to empower the voiceless, reduce exploitation. One of the major driving forces for rural development is communication. In recent times, ICT is playing a role of catalyst in rural development. In every aspect of information, management and governance of development ICT is used. For the success of e-governance, government launched National e-governance plan and with the help of National Informatics Centre set up a central repository for all e-governance initiatives. NeGP (National e-Governance Plan) was launched with the following vision: "Make all public 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." NeGP came up on May 18, 2006 by Department of Electronics and Information Technology (DEIT) and Department of Administrative Reforms and Public Grievances (DAR&PG). NeGP was started with 27 Mission Mode Projects (MMPs) and 8 components. It was specially designed

for rural areas and for the easy access of the services provided by NeGP, State Wide Area Network (SWAN) and Common Service Centre (CSC) was set up. NIC Under Ministry of Electronics and Information Technology is the pioneer of governments digital India initiatives. NIC has developed number of e-governance initiatives which have been successfully implemented and have reached the last mile changing the life of rural India

Successful e-governance projects for Rural India

Government has undertaken many projects for the benefit of rural India. Many of these projects have been successful. Some of these projects are outlined- below:

Smart Farming:

As Agriculture is, the backbone of India and digitization dream of India will fulfill only when it reaches the last level and benefit rural India. The whole chain of activities can be monitored and improved using data from sensors and other sources. The people involved in the process are the growers, processors and packers, storage and transport service providers, distributors, wholesalers and retailers. Sensors deployed in the fields can help the farmers with information regarding selecting the crop to sow, yield prediction of crops based on the type of soil or climate, watering requirements using smart drip-based irrigation systems, application of fertilizers according to the nutrient content of the soil etc. The crop diseases and pesticides can also be predicted using data from sensors and crop leaf pictures taken by remote satellites.

Agricultural Marketing Information Network (AGMARK-NET)"

This project is the first successful E-governance project for rural and urban India. Agricultural Marketing is an area for the "**second generation**" of green revolution. Market information is an important aspect of Agricultural Marketing. The importance of sound agricultural marketing policies for ensuring fair returns to the farmers can hardly be over-emphasized. It is therefore, becomes necessary on the part of **regulatory agencies** to ensure remunerative prices to the farmers for the sale of their produce, to boost up their efforts for increasing and sustaining the agricultural production. A number of measures had been taken but **the benefits were not percolating down to the farmers**, as they were unable to plan their strategies for sale of their produce at remunerative prices, **in the absence of** correct and timely market information and advice about arrivals, prices, market trend, etc. In view of this importance, the Department of Agriculture & Cooperation, in the Union Ministry of Agriculture has sanctioned a Central Sector Scheme "**NICNET Based Agricultural Marketing Information Network (AGMARK-NET)**". Which links all agricultural produce wholesale markets in the States and Union Territories, and the State agricultural marketing boards and State directorates of agricultural marketing, with the directorate of marketing & inspection of the Ministry of Agriculture, for effective and efficient information exchange?

The availability of prompt and reliable market information about what is happening in the market, what quantities are arriving and what quoted prices are for different commodities increased the decision making capability of the farmers and strengthened their bargaining power. After designing IT solution and ensuring that all data is available online, administrative solution was provided but the real challenge was to reach the real beneficiary and see that farmers use this data. As information display on the website may not serve the purpose to reach the farmers first time a decision was taken for the information dissemination through various media like radio, newspapers, blackboard display and public address system at wholesale market yards. Further, the market intelligence

data is linked to all the important wholesale markets in the States and Union Territories, the State agricultural marketing boards, and State agricultural marketing directorates, under agricultural marketing information network, by installing computer facilities and connecting with NICNET for internet and intranet services. Regional language is used to reach people. Continuous efforts were made to see how people react and utilize the scheme. To further strengthen the system two way communication system is adopted. This project was the first to provide toll free number for the farmers to talk directly to the experts about their problems.

Food security

Food security and right to food have been a part of the public policy since inception. Whether it was attaining self reliance through green revolution or the plethora of food schemes, the objective has always been 'food for all'. But the achievements fall short of objective.

National Food Security Act (NFSA), 2013

Government has notified the National Food Security Act, 2013 with the objective to provide food and nutritional security in human life cycle approach, by ensuring access to adequate quantity of quality food at affordable prices to the people to lead a dignified life. The Act provides for coverage of up to 75% of the rural population and up to 50% of the urban population for receiving subsidized food grains under Targeted Public Distribution System (TPDS), thus covering about two-thirds of the population. The eligible persons will be entitled to receive 5 Kgs of food grains per person per month at subsidized prices of Rs. 3/2/1 per Kg for rice/wheat/coarse grains. The existing Antyodaya Anna Yojana (AAY) households, which constitute the poorest of the poor, will continue to receive 35 Kgs of food grains per household per month.

The Act also has a special focus on the nutritional support to women and children. Besides meal to pregnant women and lactating mothers during pregnancy and six months after the child birth, such women will also be entitled to receive maternity benefit of not less than Rs. 6,000. Children up to 14 years of age will be entitled to nutritious meals as per the prescribed nutritional standards. In case of non-supply of entitled food grains or meals, the beneficiaries will receive food security allowance. The Act also contains provisions for setting up of grievance-redressed mechanism at the district and State levels. Separate provisions have also been made in the Act for ensuring transparency and accountability.

The performance of these Schemes is not up to the mark and data shows that even after wide coverage these have failed in ensuring 100% elimination of hunger. The death by hunger is not a rare case in States. The lack of infrastructure, willpower of State authorities and leakage at different levels are the hindering factors. The staff inefficiency, their lack of training and under staff problems persists even after regular monitoring by supervisors and commissioners appointed by SC in every state. The State administration regularly receive complains for non availability of vehicles to reach far places and about black marketing and hoarding of stocks also pose obstacle in achieving food security in the country. One of the most important strategies to be adopted for achieving the vision of this new scheme is to undertake science-led and demand driven development of rural areas by adopting the principal of convergence, collective action and capacity building through a consortium approach, where all partners and stakeholders work together.

E-TPDS stopping leakage through electronic model

It is an electronically-enabled way to reach the intended beneficiaries with sops and reduce pilferage. Through an electronic point of sale or e-POS model, Andhra Pradesh has imparted a great amount of incremental efficiency to the state's public distribution system (PDS), and implemented in all 13 districts of the state. The State have gone a step further and was the first in the country to digitize the database of ration cards and complete the seeding of Aadhaar numbers into it. The beneficiary is identified by Aadhar authentication while availing the commodities. Public has understood their power and happy to be a part of it.

The state government has replicated the e-POS model for distribution of agricultural inputs and seeds through the Primary Agriculture Credit Societies (PACS). This is a real example of e-governance where it starts from the citizens and goes upwards where every minute monitoring of the scheme can be done by the citizens and administration. After the success of this scheme it was extended to ICDS and MDM scheme also. This project covered 3, 84, 96,397 PDS beneficiaries, 55581 Anganwadis centers and 44509 schools. The end-to-end computerization model runs from stock indent to commodity distribution, the complete process is transparent and can be tracked at any level. This project has empowered the people to avail their benefits and also resulted in saving of 577.293 crores during 2015-16. This project is a real example of smart governance equally implemented for urban and rural. To make the system transparent, transparency is provided to all stake holders through web portal, mobile app and timely SMS.

Digital Panchayat

The Commissioner Panchayati Raj and Rural Development has initiated Digital Panchayat, a Flagship G2C project, for computerization and online issuance of citizen centric certificates. After a detailed system study by NIC, the department prioritized the applications to be automated for Gram Panchayat. The applications includes birth & death registrations, house tax demand collections, trade licenses, property valuation, mutations, water tap connection, NOC, building permission, layout permissions and MNREGA. These applications provide an end-to-end solution for the entire Gram Panchayats in the state. The software facilitates generation of certificates, payment gateway for citizens, eSign facility for Panchayat functionaries, SMS and email alerts. The computerization of all the 3-tiers of PRIs i.e. Zilla Praja Parishad, Mandal Praja Parishad(Block) and Gram Panchayats is also in place. The citizen centric functional areas are marriage registration, property valuation certificate, mutation, water tap connection, NOC for small and medium scale industries, building permission, layout permission, birth and death registration, house tax, and trade license card.

NTR Bharosa Andhra Pradesh (Successful E-Governance initiatives)

The Government of Andhra Pradesh is committed to secure dignified life to all the poor and vulnerable, particularly the old and infirm and to support their minimum needs and to bring happiness in their lives. In pursuit of this overarching goal, in spite of the challenging financial conditions, orders were issued vide G.O.Ms.No. 113 dated 19.06.2014 enhancing the NTR Bharosa Pension amount from Rs.200/- to Rs.1000/- per month to the aged, widow, weavers, toddy tappers and AIDS patients and from Rs.500/- to Rs.1000/- per month to people with disabilities (PWD) having 40% to 79% degree of disability and Rs.1500/- per month for PWDs having 80% and above

degree of disability, and that the above enhanced scale of pension came into effect from 2nd October, 2014 onwards. This scheme is now linked with Aadhar, ensuring that the benefits reached to the real people.

Pension Details	O.A.P	Widow	Disabled	Weavers	Toddy Tappers	Art Pensions	Total
Live	20860801538329	539076	72404	13378	394994	288766	
Releases	20860801538329	539076	72404	13378	394994	288766	
Disbursed This Month	19662831442498	500547	69149	12917	3949940	30893	

The Key Areas to implement egovernance (The scope of improvement)

Indian villagers are our strength. Occupation in Indian villages reflects the base of the socio-economic culture prevalent in rural areas of the country. The main occupation types in Indian villages comprises of agriculture, fishing, weaving, cottage industry, handicrafts etc. Since the ancient period, Indian villagers have been involved in various occupations out of which, agriculture is the principal one. Apart from agriculture, the villagers are also involved in other occupations like fishing, farming, cottage industry, pottery, business, various small, medium or large scale industries, carpentry, etc. In the contemporary period, the evolution and advancement in different industrial and technological sectors in India have opened new job opportunities for the Indian villagers.

Skill development and self employment

India's crafts thrive in villages, especially as cooperative ventures. Pottery, metal craft, weaving, jewellery making, wood craft, shell craft, cane craft, embroidery, ivory craft, glass craft and paper craft could be sources of income. The arts and crafts ecosystem of villages is impossible to recreate in cities. A great deal of export potential is hidden here. Senior/elderly artisans can be employed as 'trainers'. Industrialization has resulted in decline of village and cottage industry. Number of cottage and rural talents in developed and developing countries are not getting recognition due to inadequate training or exposure. Many a time the products from cottage and rural areas are taken at minimum cost and sold in the market at heavy price as market has high demand of such products. But real producers are not aware of this and even after hard work and struggle remain poor and under developed. Village industry is producer of number of important products like leather, cane goods, pottery, agarbatti, papads and jute etc. The handloom and handicraft sector products have high value in international market also. For example hand woven clothes are more costlier than machine products but weavers are not getting benefit out of it. It is required to recognise these areas as an effective instrument for creating employment opportunity by providing them adequate market skill to improve their products as per the demand and make them a part of mainstream development.

This sector with such a significance is facing a lot of challenge due to

- Illiteracy.
- Mediators
- Inadequate funds, loans and investments
- Lack of advanced skills
- Deficiency of raw material
- Limited access to markets and marketing skills

Marketing Support and Craft Tourism

A market-oriented approach is crucial for the success of the cottage and rural industries sector. To this end, the State governments should providing extensive support and facilitate in expanding marketing avenues and brand building of ethnic products. Looking to the growing popularity of handloom and handicraft products and keeping in view the steadily increasing number of domestic and foreign tourists visiting India, craft clusters should be linked with popular tourist destinations of the State, and promoted in collaboration with the State tourism department.

Development of craft circuits should enable promotion of crafts, help in generation of new markets, employment and income opportunities for the crafts persons. The State government should seek participation of private retail-chains to expand marketing avenues. Groups of artisans practicing languishing crafts should be sponsored for participation in selected international exhibitions / fairs. They should also be provided additional support through stalls provided free of cost. Artists should be provided special rebate on sales of handicrafts. New schemes providing market development assistance as incentive to Khadi artisans & institutions should be implemented. The State governments should facilitate artisans / industrial cooperatives in attaining intellectual property rights of the products. Gujarat State Handloom & Handicrafts Development Corporation (GSHHDC), provides marketing support to the artisans/weavers by selling their products through its chain of 26 Garvi-Gurjari emporia/retail outlets. The network of Garvi-Gurjari retail outlets are spread across the country. The artists should be provided space for sale of their products at shopping malls / complexes in big cities by the government without any rent.

E-Commerce is one of the most promising channels in today's marketing scenario. It facilitates easy availability of goods at global level and helps artists in establishing a direct link with the clientele. Recognizing the tremendous potential and opportunities that e-commerce can offer to the artists by bringing the market to their doorstep, the State government should provide a platform for online sales of handloom and handicraft products. An online directory of artists and products can also maintained. Capacity building programmes should be undertaken to assist and facilitate the artists groups in exhibiting and marketing their products through online platforms. This would also help in elimination of middlemen. To facilitate the direct linkages between the artists and potential buyers, markets, exporters and marketing organizations, national and international buyer-seller meets should be organized.

Skill Development

The department of Cottage and rural industries should provide training programmes of varied skill levels and duration in different technical trades. These programmes should be streamlined with focus on meeting the skill and business needs of the artisans and craftspersons. The department should focus on imparting skill training in its core area using their existing infrastructure facilities.

Modular certificate training programmes covering various aspects of the value chain such as product design & development, production processes and other technical skills should be undertaken.

Capacity building of artists in soft skills like interpersonal skills, negotiation skills, and business skills like product costing, financial management, export procedures and entrepreneurial skills that enhance their capabilities in running their own enterprises should be undertaken. The State government should actively collaborate with Export Promotion Council for Handicrafts (EPCH) to provide focused training on exports. Experts having knowledge of respective domain area may be empanelled as resource persons to conduct the training programmes.

A comprehensive system of evaluation of the training programmes conducted should be developed. This may include both structured feedback from the trainees and third party evaluation of the training programmes.

Design Development Support

Providing technologies like computerized innovative and contemporary designs to the artists for new designs and product development, enable the artisans engaged in cane and bamboo crafts, pottery and clay idol making, leather, jute and natural fiber articles, to produce contemporary and high quality products. A Design Studio should be setup to facilitate the artisans practicing these crafts by providing them training in design and product development, colour theory, packaging & branding, marketing, use of new tools and technology so as to enhance their efficiency, productivity and income levels. The design studio should have computer aided design section.

Design workshops should be conducted for artisans using the services of expert designers from institutions like Centre for Environmental Planning and Technology University (CEPT), National Institute of Fashion Technology (NIFT), National Institute of Design (NID) as well as practitioners from industry, besides design module in the regular training programmes.

CONCLUSION

Information Technology (IT) is the lifeline of e-governance. There is an interconnection between e-governance, good governance, economic development and democracy. E-governance can improve the governance and the improved governance in turn, can facilitate economic development (due to better services, better evaluation, monitoring, better implementation and easy access to information) and democracy (due to accountability transparency, efficiency, responsiveness etc.). E-governance is a ray of hope to the citizens of India to fight with the long persisting problems of poverty, corruption, regional disparity and unemployment. All of the projects in the study have proved the importance of introduction of ICT into the process of providing public services to communities living in poverty. Now Aadhar being the central identification it would be the best practice to integrate all schemes with the unique identification number.

Technology should be implemented in such a way that it is of use to the poorest and least privileged whose knowledge and skills do not obviously fit them for confident use of IT. It should not be limited to educated and urban areas but should reach and help uneducated and rural India. The future of India lies in converting each and every village into smart villages. The concept of smart village will provide the similar kind of facilities to the villages, so that the people will remain in villages and not migrate to urban areas. Future generations will contribute immensely in development process and enjoy the traditional agriculture activity with the use of modern technology.

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