

ABSTRACT

“The present position of cyber infrastructure in India and its influence on the digital economy” is presented with paper deals in the cyber space. Cyber infrastructure aims at extensively examining the true state and analyses notable instances in the recent past along with highlighting present situation whether India is ready to take up the digital or the cashless economy with specific references.

In India the Demonetization policy brought a wide change on 8th November 2016, since past many years India has been planning for a digital economy. The nation emphasis was laid more on avoiding cash transactions and emphasized on cashless /digital economy. A substantial question pertains, without going much into whether the move was right or not, whether the nation is even ready for digital economy or not?

India faced over 80,000 cyber-attacks between 9th December 2016 to 12th December 2016 that is revealed by statistics after the note ban policy. SBI blocked over 6 LAKH ATM CARDS itself in October 2016 to avoid one of the biggest and most destructive cyber attacks on the Indian economy. The qualitative extensive research lays down the background of the subject, its meaning and its relevance in the present time.

In the present research paper analysis whether the laws need to be alerted or the present laws need to be executed more stringently to find the true reasons behind such scenario.

The problem being faced by the cyber infrastructure and digital economy lays down viz. what exactly amounts to a good and defensive cyber infrastructure to save the economy from cyber threats.

In the end the paper briefly deals with upcoming problems and its implications in the present time. The paper suggested solutions also for the better understanding on this topic, along with some suggestions to ensure that the digital economy keeps working smoothly and without any flaws.

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INTRODUCTION

The Flagship programme is a programme which is known as The Digital India programme of the government of India with a vision to transform India into a digitally empowered society and knowledge economy.

In the mid 1990s for the wider sectoral applications with emphasis on the citizen-centric services which took a broader dimension in India initiatives by E-governance. The major ICT initiatives of the

Government², include major projects like land record computerization, railway computerization etc. which is focused specially on the development of information systems. After a while, so many states aimed at providing electronic services to all the citizens.

The projects of e-governance were citizen-centric, due to the limited features they could not make more than the desired impact. The isolated and less interactive systems revealed the major gaps. The point is quite clear that they need more comprehensive planning and implementation for the infrastructure required to establish a more connected government.

In 2006, the national level e-governance programme called National e-Governance Plan. As a total there were 31 missions mode projects under this National e-Governance Plan which covers a wide range ex. Land records, agriculture, health, education, police, passports, courts, taxes, municipalities, treasuries and so on. But out of them 24 missions mode projects have been implemented and started delivering either full or half range of all the services.

The National e-Governance Plan have some considerable imperfections which includes lack of integration amongst government applications and database, low degree of government process reengineering, scope for leveraging emerging technologies like cloud and mobile etc, then the e-Kranti programme was launched with the vision of “Transforming e-Governance for Transforming Governance” by the Government of India.

² <http://digitalindia.gov.in/di-initiatives>

The key principles of e-Kranti which are being revamped and should follow are as follow , ‘Transformation and not Translation’ , ‘Integrated Services and not Individual Services’ , ‘Government Process Reengineering (GPR) to be mandatory in every MMP’ , ‘ICT Infrastructure on Demand’ , ‘Cloud by default’ ‘ Mobile First’ , ‘Fast Tracking Approvals’ , Mandating Standards and Protocols’ , ‘Language Localization’ , ‘National GIS (Geo-spatial Information System)’ , Security and Electronic Data Presentation’ these are all the new and on-going e-Governance projects as well as the existing projects.

Mission Mode Project’s portfolios has increased from 31 to 44 MMPS. So many new social sector projects have been added as new MMPs under e-Kranti namely Women and Child Development , Social Benefits , Financial Inclusion , Urban Governance , eBhasha etc .

THE JOURNEY

There are list of challenges in the implementation of digital India where almost everyone on face book changing their profile pictures to support digital India and to make it real. To change the mentality of government officers in every sector challenges are given right from policy making to change the work flow. It is technological change within the most diversified nation. The list is given below:

HIGH LEVEL OF DIGITAL ILLITERACY: In India most of the towns and villages are unaware of digital technology. Digitalization has been adopted by the cities but in limited extent. To get the government certificates cashless transaction should be done on daily basis by using internet services to fully fledged digitalization. This requires administration changes, taxation changes and change in public mentality. To support the new system it’s requires team work and citizen’s responsibility.

CONNECTIVITY TO REMOTE AREAS: To connect with each and every village, town, city it’s a very big task to do in itself. Every state has different laws pertaining to its executive because of this only the connectivity is a problem and it’s a complex problem too. On the other hand, it’s a challenging task for the central authorities to make a database where such a large amount of information can be stored.

COMPATIBILITY WITH CENTER STATE DATABASES: Every state is diversified due to that every state has different internet protocols. Diversified not only in the sense of religion but also in language. The compatibility of the software with the center is a crucial issue and the information shall be saved carefully.

CYBER CRIME: Digital India is a major threat to cyber and its a threat all over the globe. We need to maintain the database and protects it round the clock for that we need a strong anti cyber crime team.

INTER DEPARTMENTAL CO ORDINATION: There are various departments which should be integrated within the government. Integration has technical as well as corporate issues. The staff of our government services are hurdle in the change and corporate in the sense of self ego of the officers.

FINANCE: India have resources with them but it need a huge amount of capital cost too which is to be invested and the results or the profit of the investment will be received later on.

NET NEUTRALITY: Digital India³ have a lot of issues and still we follow it blindly. To make it a great blow to entrepreneurs and citizens of india we should make sure that digital india should be without net neutrality.

CHANGING THE MINDSET: The thing will be more clear when you have allocated the required resources and material but when it comes to implementing them , most of them will be hesitant to change. People are practicing same since from a long time and they are not ready to change it at any cost.

EXCHANGE OF INFORMATION: Other government officers should also use the stored information. For ex, police and other security issues can be easily resolved with digital india but its co ordination is a very tough task to do. It is not only a technological question, but the question of “privacy and security” is also dealed.

CASHLESS ECONOMY IN INDIA

³ <https://www.mygov.in/group/digital-india/>



The financial technology industry would be unwise to ignore the rise of mobile transaction services , person to person networks and the whole range of digital disruption in the payments arena from the likes of Bitcoin , ApplePay , PayPal that undoubtedly is putting pressure on cash.

Its a challenge to survive without the cash because its a basic necessity like water. Around 85% of all the global payments still made using cash. The biggest and most important feature of notes and coins is that there is nothing more flexible then this cash.

The digital era is something to embrace , new methods of payments will continue to be introduced. But Indians need to recognize the risks and benefits of different payment instruments , the risks associated with electronic payment instruments are far more diverse and severe. The debit card data were stolen by hackers almost every second day , the most important reason why people favour cash is because the ability of Indian financial institutions to protect currency comes into a very big question mark.

In a courageous move to combat black money and counterfeit currency, Narendra Modi's government scrapped currency noter of INR 500 and INR 1000 denominations , which is seen as an unprecedented measure , though a giant leap towards curbing corruption and forged currency. The declaration created confusion across the spectrum , as these high-values notes form around 86% of total legal tender. After the whole this thing , cash-driven economy turns into cashless economy and it is done to unearth the black money. Prime Minister informed in his programmes on radios that the transition to cashless economy is challenging and make the society to less-cash.

A report by Boston Consulting Group (BCG) and Google , they revealed the nations like US , Japan , France , Germany etc only 20-25 % transactions was based on cash , whereas India was around 75% of transactions was cash based. The depletion in cash due to demonetisation has pushed digital and e-transactions to the forefront.

WHY IS CASH REQUIRED ?

The magnificence of cash is that – it just works, even in the isolated areas of india⁴ , where the government might not be present physically , its injunction runs in the form of legal tender that public uses for business on an everyday basis. A large informal economy that supports a major part of Indian population and their livelihoods also runs in cash. This is why CASH is yet KING.

The reality is that a majority of transactions in Kirana stores in India are based on cash transactions⁵. The owners and the customers feel more easy and comfortable in dealing with cash for small transactions. The government drive to incentivise consumers and merchants alike to move to electronic modes of payments has not found many takers because our cash driven economy is fuelled through rampant corruption in society and black money. The thing which is beyond imagination is that paying a corrupt official through e-wallet.

One more point to see on it is why India has such less tax payers in a population of over 1.2 billion people. Earning below 2.5 lakhs a year is the majority of the population like 98% is earning less. This is one of the issues that needs to be addressed and hopefully with many more transactions moving electronic & records of the same being made available many more people should fall under the tax net be it small merchants , professionals etc.

Will this segment of society adapt to electronic modes of payment so that the nation can benefit from a higher tax collection leading to better benefits to society at large ? This question still arises.

THE CHALLENGE TO GO DIGITAL

The major obstacle for the adoption of alternate mode of payments is mobile internet penetration , which is crucial because point-of-sale (PoS) terminal works over mobile internet connections , while banks have been changing money on card based transaction , which is seen as a hurdle. Things are extremely difficult for people to adopt e-transaction route because of low literacy rates in rural India and along with the lack of infrastructure like internet access and power.

⁴ <http://www.digitalpolicy.org/>

⁵ <http://digitalindia.gov.in/ecosystem/Agencies-Enabling-DI-Initiatives>



The financial safety over the digital payment channels is important for pushing the cashless economy idea. Imagine losing your credit cards or being victim of digital hackers can lead to a whole host of issues like denied payments , identify theft , account takers , data breaches , fraudulent transactions. More than 1 billion personal records were compromised in 2014 , according to the digital security company Gemalto.

CASH IS HERE TO STAY

India has always been driven by cash , despite of all the other practices , while electronic payments are seen restricted to a small size of the population as compared to cash transactions. Two third of the population live in rural areas , where farmers and poor people are still struggling to get their hands on their own money. As per data , 92% were cash withdrawals from ATMs and Pos , from 881 million transactions which were made y debit cards. Changing this mind set will be an uphill task. It's the ATM which will help government fullfill its ambition of financial inclusions as the ATM will play a key role towards customers fulfilment which is self service 24*7 which even a Business Correspondent or Micro Atm cannot do.

Across the country , there is a mix of cash and cashless transactions currently. Some of them are turning to cashless which is like a dream come true situation. Rushing the economy into a cashless state without proper planning and infrastructure will be disastrous ans its consequences will be everlasting. A gradual move towards less cash society as said by the Prime Minister is the right way forward.

If people start flocking to alternate currencies , government could wind up losing much of their power to influence economic issues sech as inflation and unemployment , this is thing that should be noted.