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EP Journal Of Entrepreneurship Development

Aims and Scope

The aim of Ep Journal of Entrepreneurship Development is to publish articles in general management, general business research, business and economics education, production/operations management, case studies, total quality management, business environment, business ethics and corporate governance, strategic management, economics, accounting, commerce, organizational behaviour, industrial psychology, enterprise systems, technology management, sustainable development, business intelligence and information system management. We enhance the professional development of scholars, practitioners and doctoral students.

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Monjin: An Innovative Disruptive Technological Start-up

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ABSTRACT

Monjin happens to be first of its kind 'An Innovative Digital Interviewing and Assessment Platform'. Monjin is world's first vetted professionals' as well as interviewers' video network. Monjin facilitates students to upload their video one-way interviews to Monjin's Portal. Corporate can screen the candidates' videos, interview them through the portal & so forth. Interview discussion can be auto scheduled, virtual events can be hold. Rejection and selection can be analysed or reneged. Process shortens the hiring time extensively.

As against traditional (status quo) recruitments, Monjin proposition enables Neutral Expert Assessment, reduces dependence on agencies/ vendors. Monjin provides granular search on assessment parameters for talent search through quick access. Monjin has on its portal 'indexing feature' for video interviews for which Monjin is awaiting patent registration. Monjin carries out virtual technical and functional interviews with credentials, has interviewers' network, has indexed and tagged videos with meta data, has cloud based scalable platform with enhance security and access control, has analytics and reporting, digital encryption on video and so on. Monjin simultaneously does technical, behavioural and skills assessment of each candidate, optimises viewing time, provides question bank for each JD and maintains database of vetted interviews. Undoubtedly Monjin is world's first interviewers' network.

Purpose of Research:

This Paper is a Case Study of a Disruptive Technological Initiative started in Pune, India two years before by the Name "Monjin" that stands for "My Online Job Interview". Just is a short span of time Monjin has its presences in more than 4 countries: Malta, USA, UK and India with hundreds of hardcore technical personnel with Masters in Business Administration to make Monjin reach where it is today.

Purpose of this paper is to bring to the notice of researchers, candidates, corporate and business houses the New Innovative Recruitment Platform: "Monjin" through "International Conference on Disruptive Technologies: Path Ahead 2013"

Objectives of Research Paper:

- To make the researchers know of disruptive technology.
- To make the candidates know about an innovative platform that is available in India
- To make recruiters know that there is such platform available that provides ease in recruiting and saves numerous resources.

Research Methodology:

The Paper in entirely based on the discussion and interview with the Innovator of "Monjin": Mr Abhijit Kashyape. Most of the information from the viewpoint of presentation in the paper is taken from Monjin's website www.monjin.com

Full Paper:

Monjin: An Innovative Disruptive Technological Start-up

Monjin: An Innovative Digital Interviewing and Assessment Platform. Monjin happens to be World's first vetted professional's video network and World's first Interviewers network.

Through the this world's first vetted platform of interviewing candidates, corporate can view, see, decide and hire quality talent. Through this platform of Monjin, following are the possibilities:

- Meet candidate live and record the discussion
- Screen candidates using asynchronous videos
- Index, rate and tag videos
- View video discussions across web, mobile and other media devices
- Auto schedule the interview discussions
- Hold virtual weekend and weekday events
- See the industry experts in action
- Analyze rejection, selection, or renege
- Contain costs across hiring pyramid – campus, Lateral & Executive
- Shorten time to hire

Difference between Traditional and Monjin Proposition:

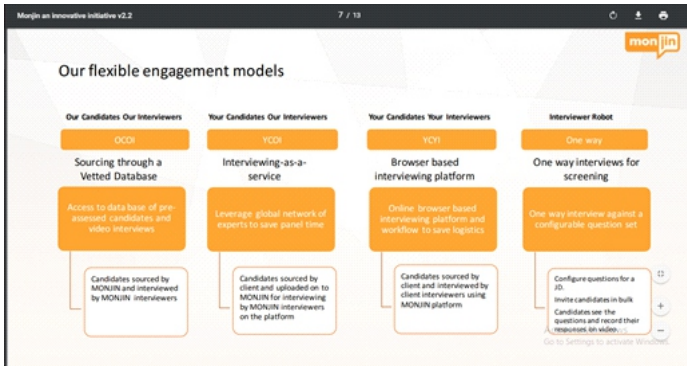
- Traditional (Status quo) recruitment platforms Resume is scanned by a system/ software or recruiter phone screens against which with Monjin Neutral Expert assessment available at a click of a button
- In Traditional (Status quo) recruitment platforms Channel mix is skewed towards agency recruiting against which Monjin reduces dependence on Agencies / Vendors
- Traditional (Status quo) recruitment platforms involve higher logistic costs and time for in-person interviews against which Monjin has videos recorded those can be reused. The videos have indexing feature for which Monjin has patent pending
- In Traditional (Status quo) recruitment platforms productive time loss of iring Managers in discovery process is a major disadvantage against which Monjin has facilitated quick access to talent through granular search on assessment parameters

Mpnjin's Key Features:

- Monjin has recorded Virtual Technical, Functional Interviews with
- Interviewer credentials
- Monjin facilitates Recorded Live Interviews on demand, so also
- Background check of Candidates and Interviewers and Interviewers network /SME
- Evaluation and Flexible business models with interviewing services and Indexed is possible with Monjin
- Monjjin has tagged videos with meta data
- Monjin has 'Monjin Recommends' feature
- Monjin can provide 2 way Interviewing with Interviewer network and
- Grooming for Candidates & Interviewers and Executive lounge
- Monjin has Cloud Based Scalable Platform with Enhanced Security and Access Controls
- Monjin facilitates Auto Scheduling of interviews
- Monjin provides rigorous Analytics and Reporting, Email Links , Share, Feedback Mechanism from clients
- Monjin provides Interviewer promotion, Bidding and Executive, Campus, Lateral specialized service, so also
- Digital Encryption on video and Pre-screened candidates
- Vetted candidates and Play/ Pause/ Skip Interviews and Take Opinions – 2nd , 3rd, 4th
- Monjin helps Invite independent reviewers and Multi-party interviews

Different Modes of Engagement available with Monjin:

Figure I



I. OCOI: Our Candidates Our Interviews: Under this option, candidates can remain engaged with Monjin. This has sourcing through Vetted Database. Candidates are sourced by Monjin and interviewed by Monjin interviewers. Corporate can have access to the data base of pre-assessed candidates and through video interviews.

II. YCOI: Your Candidates Our Interviews: Under this option, candidates can remain engaged with Monjin. This source provides interviewing as a service. In this option candidates are sourced by the client and uploaded onto Monjin's platform for interviewing by Monjin interviewers.

III. YCYI: Your Candidates Your Interviews: Under this option, candidates can remain engaged with Monjin. This source has a browser based interviewing platform. This Online browser based interviewing platform and workflow saves logistics. In this option Candidates are sourced by client and interviewed by client interviewers using MONJIN platform.

IV. Interviewer's Robot: Under this option, candidates can remain enga ged with Monjin. This source has one way interviews for screening. Questions sets based on Job Descriptions are configured in this source. The candidates can be invited in bulk. Candidates can see the questions and record their responses on video.

Some UIs of Monjin:

UIs of Monjin look as below (These UIs are just as examples; different engagement options have different UIs):

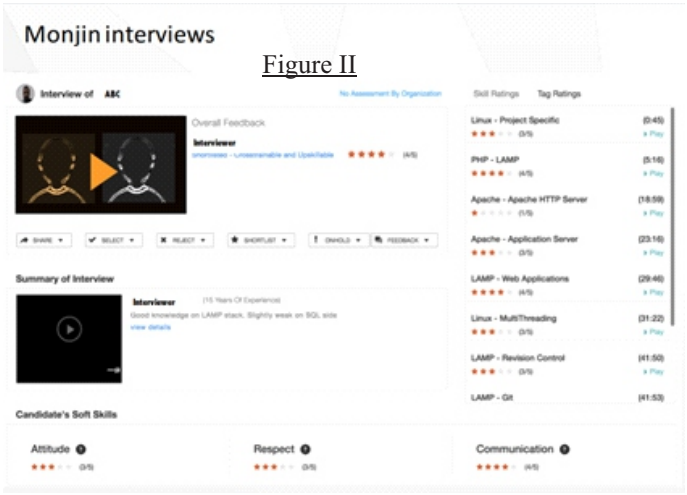
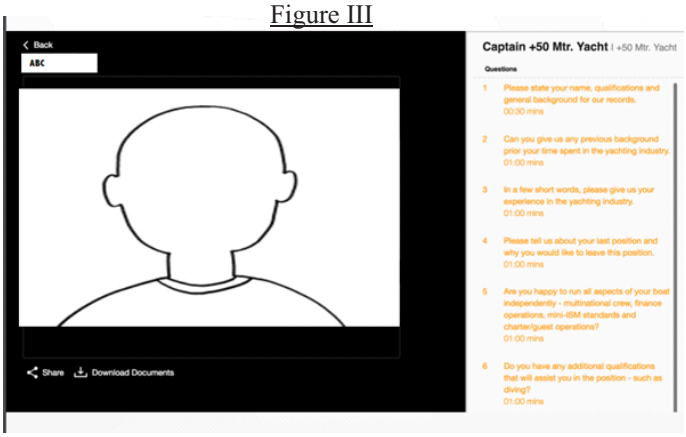


Figure II

Figure III



Disruptiveness of Monjin:

Following distinctions of Monjin makes it Disruptive Professional Platform:

- Monjin Platform is a Browser Based Two-way Video Platform
- Monjin Platform does the detailed technical and behavioral assessment of each candidate
- Videos are Indexed and tagged to optimize viewing time on Monjin Platform
- Monjin Platform provides 60 sec interview summary for quick overview of the candidate
- Monjin Platform provides skill/ sub skill level assessment
- Monjin Platform has Integrated Workflow to capture feedback and track approvals
- Monjin platform is an Asynchronous Video Interview platform
- Monjin gives randomized questions from question bank for each job description
- Monjin platform also bulk invites for each JD and then
- Candidates can

o records videos as per convenience
o view as per convenience, and
o share within the organization and Integrated workflow
o capture feedback and
o track approvals

The list above is just illustrative. Monjin has many more reasons to be disruptive professional platform.

Advantages of Monjin for Corporate/ Recruiters:

Using Monjin platform for Corporate/ Recruiters is advantageous in many ways. Following are the typical acquisition challenges for which Monjin has concrete proposition.

- **Traditional acquisitions have following challenges:**

o High per hire costs due to vendor payouts, travel, and logistics costs

o High employee turnover

o Inconsistent talent acquisition processes across the business units/ locations/ functions

o High hit ratios upwards of 10:1

o Longer hiring cycles

o Multiple hiring sources – vendors, internal recruitment team, walk-ins

- **Against these traditional challenges, Monjin has following propositions:**

o Monjin platform can be integrated with corporate/ recruiters ATS/ HR systems for efficient talent acquisition process

o Monjin skills taxonomy can be used and customized to suit the needs of corporate/ recruiters

o Monjin platform can be used for One Way Interview for screening of field-force, junior resources and campus hires

o Monjin platform can be used for Two Way Interview platform for lateral and experienced hires

o Monjin platform can be used for interviewers as needed to supplement technical interviewers

o Monjin platform can be Subscribed for Monjin database of vetted interviews to ease the sourcing process

Monjin value propositions listed above are illustrative and depend on the business needs and fitment of Monjin.

Benefits of using Monjin Platform (with some testimonials):

- Reduced/ Shortened Time to Hire: A large IT services firm was able to reduce time to hire from 12 weeks to 6 weeks by using Monjin's interviewing service (YCOI: Your Candidates Our Interviews) and subscription to the database (OCOI: Our Candidates Our Interviews).
- Reduced Cost of Hire: A large IT consulting firm was able to reduce average cost of hire from USD 1,200 to USD 700 by using Monjin's interviewing service (YCOI: Your Candidates Our Interviews) and subscription to the database (OCOI: Our Candidates Our Interviews).
- Improved Candidate Experience: A multi-national management consulting firm was able to significant improve candidate experience and reduce reneges by integrating Monjin platform (YCYI: Your Candidates Your Interviews) with legacy systems, using Monjin auto scheduling system and creating seamless experience for candidate and interviewer alike.
- Monjin Platform can make it possible to have better utilization of internal recruitment team's time
- Increased focus on business can be possible with Monjin platform.
- Screening/ shortlisting of candidates can be done even offline during non-peak hours using Monjin platform
- Monjin ensures consistency in hiring decisions and
- Makes possible evidence retention (videos) for future decision making
- Monjin can reduce travel, logistics, administration and panel time costs
- Monjin can improved ability to conduct interviews on demand anywhere anytime

Some of the FAQs about Monjin:

- **What is Monjin?**

o Monjin uses the secure Microsoft Azure Platform to record, manage, process and store the video interviews and related information.

o Monjin is an end-to-end digital video platform with first-of-its kind capabilities to view, select, screen, assess and automate your talent-attraction and acquisition processes. Monjin provides pre-assessed database of candidates across skills, has a worldwide network of expert skill-interviewers for your assessment needs and enhances candidate screening process with the state-of-art Robotic interviews.

- **What personal information is captured by Monjin?**

o Name, phone number, demographics, gender and email address

o Depending on client configuration – skills, employment history

o Video profile and video interview, which may include your bodily image and voice, as well as your surroundings

- **Where these data are stored?**

o All of Monjin data is stored in European West cloud data centers of Microsoft Azure.

o Monjin India team processes some of the Personal Information to support our client needs on a case to case basis.

- **What does Monjin do to protect candidate's personal information?**

o Monjin uses secure cloud infrastructure platform of Microsoft Azure. Monjin itself is a ISO 27001: 2013 – information security certified company and Monjin only uses security certified companies to support in delivering services to our clients. Few specific controls that Monjin has implemented to protect candidate's Personal Information are:

- Segregated client cloud instances reducing intrusion risks
- Tenant data isolation
- Encryption for sensitive data
- Shared access signature
- Row level security within the database
- Role based access control
- Microsoft Azure Active Directory
- Continuous control monitoring (vulnerability assessment and penetration testing at each stage of SDLC)

- **How does Monjin comply with privacy regulations?**

o **Governance and management -**

▪ Monjin has in place data transfer agreements, based on EU model clauses across its global entities that govern the data transfer, processing and control.

▪ Monjin has appointed data privacy officer to oversee privacy framework, operations, compliance and monitoring.

▪ Monjin's privacy policy is based on EU GDPR and other global regulations that govern Monjin's operations.

- Further, Monjin has put in place a program to conduct risk assessment, identify and adhere to privacy requirements whenever it enters a new territory.

o Notice - Monjin displays adequate notices to users while accessing Monjin website and platform making them aware of what data is captured and where it is processed, how it is processed and what are the user's rights.

o Choice and consent - Monjin obtains explicit consent of users before capturing and processing their personal information. User always has a choice to out out of Monjin services.

o Collection, use, retention and disposal - Monjin has adequate processes to ensure that Monjin only collects information relevant to Monjin and Monjin's client's business and use it only for that purpose. Monjin has appropriate data retention and disposal program in place.

o Access - The access to the user's personal information is restricted by role based access control on need to know basis. User has a portal access to modify, confirm and delete his profile information.

o Disclosure to third parties - User's personal information is disclosed only to those third parties that Monjin uses for processing of personal information and user is made aware of these third parties during the notice display.

o Security for privacy - Monjin is ISO27001 certified organization and has adequate measures to prevent or detect data breach or misuse.

o Quality - Monjin always maintains current and accurate information of the users and every single user has an ability to access and modify his data as per his need.

o Monitoring and enforcement - Monjin data privacy officer continuously assesses the program effectiveness and on a periodic basis uses professional services organizations to assess compliance levels and takes corrective actions.

o Monjin can be reached out to Data Privacy Officer at

privacy @monjin.com.

Few More UIs on www.monjin.com:

Figure IV

The 'Mongenius' way of recognition

Already doing interviews, Assessing people, Reviewing and Hiring talent?

Connect with Monjin

Looking for new roles? We can help with that too!

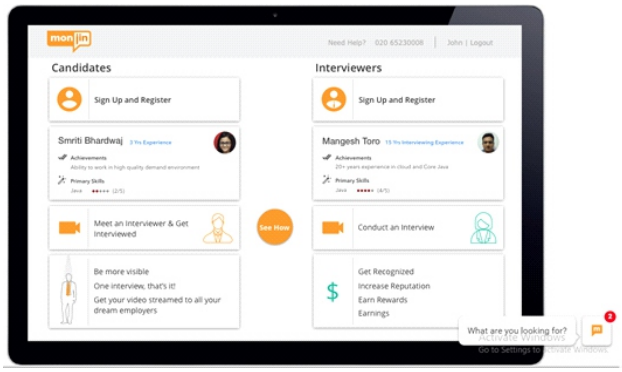


Figure V

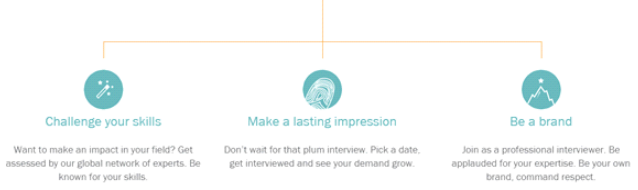


Figure VI

For Employers

Find and view people you need, assessed by people you trust

Hire right, don't firefight.

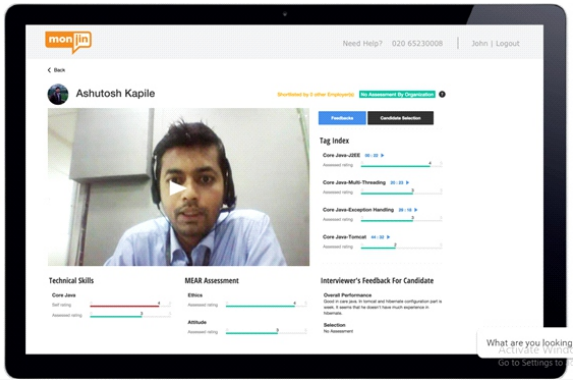
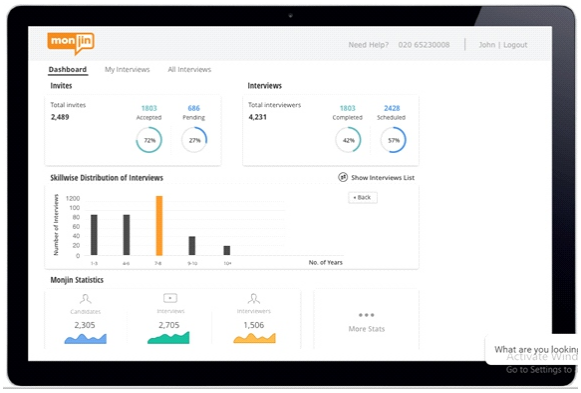


Figure VII



Concluding Remark:

Monjin platform is an exclusive, one of its kinds uniquely thought over recruitment solutions which helps candidate to get exposed to recruiters across the globe. Corporate and Business Houses can save lot of money, resources, time through Monjin platform. Using technology, Monjin can prove to do wonders. For the details, Monjn's website www.monjin.com may be referred. Monjin has its Registered Office at Survey No. 286/1B/2, Pallod Farms 3, Baner, Pune 411045, India. It has branches in Malta, USA and UK, too.

Reference:

www.monjin.com viewed on 29.12.2017 and from 19.02.2018 to 25.02.2018

Brief Autobiographical Sketch of Authors:

Dr Ashutosh Misal is a COEPian Engineer with Ph D in Human Resources from University of Pune (UoP). He currently holds the position of UoP approved Director of Dr D Y Patil Institute of Management Studies (DYPIMS); an MBA Institute. He possesses 24 years of Academic and 3.5 years of Industry Experience. He has 6 Ph D candidates awarded and 7 pursuing. He has travelled more than 10 countries for sessions, international conferences and seminars etc. He has got distinguished paper award in Hongkong amongst 54 countries and more than 300 papers.

Dr Meena Sharma is a Commerce Post Graduate. She holds Masters in Business Studies with M Phil and Ph D in Human Resources. Dr Meena possesses 17 years of Industry and 7.5 years of Academic and Research Experience. Currently she holds position of Associate Professor with Dnyansagar Institute of Management and Research under Savitribai Phule Pune University (Formerly University of Pune-UoP). She has written and published research papers in National and International ISSN Journals and Conferences. She has guided number of research and internship project. She is under the process of being a Ph D guide under UoP.

India As A Major Manufacturing Hub Using Michael Poreter Diamond Model

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A B S T R A C T

The new initiative started by our prime minister "MAKE IN INDIA" has been just a dream for hundreds of millions, that are struggling to fulfil their basic needs and amenities for their well –being. When any policy is announced, Do we really check the basic fundamentals that needs to be ensure that changes to make it happen? A book was published in 1990's "THE COMPETITIVE ADVANTAGES OF THE NATIONS" by Michael E. Porter that popularized the diamond model through which a particular industry or a nation outpace others? The reason simply lies in a fact that in spite of all discrepancies, they achieved success by channelizing their energy into a particular direction. On the basis of that they superseded others. This is the time to warm up for India , if it has a strong desire to be a developed nation. The most crucial time to reorganised their resources to gain expertise in a desired area ,in which we have enough stamina and capability . Although problems are everywhere, but significant time to re-energise their perspective only then dreams of "MAKE IN INDIA" make to happen.

KEY WORDS: COMPETITIVENESS, INDIAN MANUFACTURING SECTOR, PRODUCTIVITY,

INTRODUCTION

The term'comparative advantage' propounded by the famous economist Ricardo in 18th century that describes why does a nation trade with another ? The reason given by Ricardo that a nation trade in the production of those goods in which they have comparative advantage and import that ones they have comparatively disadvantage.

He explained it in terms of opportunity cost ,reasoned that the goods that have less opportunity cost should be produced extensively for exports and visa a versa. The doctrine was popularised in 18th century . later on ,the various new trade theories cropped up as H-O theory ,reciprocal demand theory etc, gave explanations in different context, until the 1980s when modern trade theory propounded by paul krugman with a fresh idea under the conditions of increasing returns to scale .

Michael porter ,professor of Harvard University ,presented a model i.e diamond model , he took up the idea of Ricardo ,reformulated and redefined it in the area of marketing and international business, this model basically, was designed to assess the competitiveness of manufacturing sector. It was a case study based upon nine trading nations . "The national prosperity is not inherited ,but created" The term 'comparative advantage is a part of competitiveness. Here the term means ,the ability of the particular firms to fetch the world market share in exports. Basically ,it relies upon the productivity, and advantage in the form of low cost or other. How do companies excel in a particular area ,for instance swiss firms in the area of chocolates, Italian firms in ceramic tiles, Japanese firms in robotics and electrical items etc, porter solved it puzzle by determinants of competitiveness .

RESEARCH METHODOLOGY

The present paper is review based. On the basis of that wc can apply this model in Indian manufacturing sector to find out the area of concerns and recommendations, so that our economy can strengthen . we can find out the major strengths and weaknesses.

DETERMINANTS OF COMPETITIVENESS

FACTOR CONDITIONS –It refers to the factor conditions available in the particular country that conducive for the production of particular product. We can analyse that what are general and advanced factors available for manufacturing sector. Research institutes, R&D , higher educational institutions, poly techniques , availability of skilled labour and raw materials, linking of research institutes with industries . These are the major areas of concern

DEMAND CONDITIONS – It describes the demand conditions available in that country. Are the consumers are enough sophisticated to stress upon the firms to further innovate and modify the product design accordingly?

SUPPORTING INDUSTRIES- The availability of supporting industries provide economies of scale and scope through forward and backward linkages , that can help to interconnected firms in the same area.

FIRMS STRUCTURE ,STRATEGY AND RIVALRY- It means how demanding rivals are present in the relevant industry? What type of strategy they are adopting to segregate them from their competitors? The structure of firms are crucial that can enhance the compatibility of firms ,

Last but not the least, there are government and chance factor ,that provide conducive environment for the same. The manufacturing sector can find out ,that what are their strength and weaknesses? On the basis of that, we can say that it is a theoretical model ,designed for firm specific ,stressed upon micro factors but neglected macro level factors.

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A Study of Factors Influencing the Investment Decision of Individual Investor

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A B S T R A C T

Individuals often view financial planning and investing as overwhelming, frightening and creepy, especially when they do these tasks at their own. People are fearful to do pricey mistakes that could influence both their present and future well-being. Their apprehension often stems from a lack of surroundings, knowledge or experience to help them effectively in managing financial side of living. The world of financial planning and investing is highly complex and difficult. Further, the behaviour of investors converts their investment planning into a riddle. Humans are social animals, affected by their surroundings, society and many more factors. Society is a major factor which influences individual's living standard, thought process and objectives of living. It affects their decision making procedure, whether these decisions can be a personal or financial investment. Financial decisions are not discussed in common platform even though the effect of society is inevitable. It may sound odd, but it is true. The influence of society on decision process can be evident from many paradigms. Apart from the society, demographic traits of individual investors are the other influential factor in the construction of investment decision. These factors are correlated and also influence each other, as age influences choice of instrument, society influences the extent of holding period of investment instrument etc. This research paper is an explicit effort to understand the effect of society and demographic traits on investment decision of an individual. It is an empirical study to analyse the effects of society and demography on investment decisions.

Key Words: Investment Decision, Demographic Control, Society Influence.

Introduction

Before discussing investment decisions of individual investor, lets answer a simple question, how do people accumulate wealth but feel many difficulties in doing so? If we try to get the answer, we find that unorganized behaviour of investor and unplanned efforts are responsible for these difficulties. Intuitively, most people know that saving money is a good thing, but their desire for material goods and spending on services often overrides this good instinct. The changing economic and sociological phenomena make the life of an individual more complicated, their standard of living is improving and in a similar manner the cost of living is also increasing. An individual now lives in a nuclear family, enjoys freedom, therefore he has lost his risk sharing partner. It urges an individual to become more financially independent and secure. That is why an individual takes investment decisions. But the parameters of financial security in such volatile and developing economy are different in different cases.

According to *Frank K. Reilly and Keith C. Brown,* an investment is the current commitment of dollars for a period of time in order to derive future payments that will compensate the investor for (1) the time the funds are committed, (2) the expected rate of inflation during this time period, and (3) the uncertainty of the future payments. In this statement we find that, Frank and Keith elucidated a traditional concept of investment and keep silence for psychological need of investment. Individuals are willing to invest for number of needs irrespective of financial one. These are related to their dreams, desires and social need, dream to have a big house, or desired to visit world tour or joining some social club etc to fulfill the social need.

Humans are not rational, although they are more emotional, they are influenced by a number of factors around them. These factors are responsible to generate behavioural biasness in their decisions. In this research paper, we have tried to identify few of these factors, which influence the investment decision process of an individual investor. This researcher paper also throws light on the relationship among the society, demographic control and investment decision of individual investors.

Review of Literature

The literature has been reviewed to understand the concept of investment decision and to find out the factors influencing investment decision.

Economic utility theory views the individual's investment decision as a tradeoff between immediate consumption and deferred consumption. The individual investor counts the benefits of consuming today against the benefits that may be gained by investing unconsumed funds in order to enjoy greater consumption at some point in the future. If an individual chooses to defer consumption, he/she will, according to theory, select the portfolio that maximizes long-term satisfaction. The literature on utility theory does not typically address individual investment decision processes. Rather, it focuses on the development and refinement of macro models that explain aggregate market behaviour. However, some empirical studies of individual's investment behaviour have examined utility theory and construct focusing on individual rather than aggregate investor profiles.

Baker and Haslem (1974) found that dividends, expected returns and the firm's financial stability are critical considerations for individual investors. *Baker, Hargrove, and Haslem (1977)* in their empirical study on risk/ return preferences of investors found that investors behave rationally, taking into account the investment's risk/return tradeoff.

Shilpa, Y.S.L (2000) found in her study that friends play an influential role in decision making, whether it is the decision of marriage, purchase of a house or it is the investment. Further *Rao, C.J. (2010),* has also the same opinion and he stressed that friends are the main introducer towards investment.

Bodie, Merton, and Samulson (1992) found that younger workers should have more equity in their portfolio. But on the other hand, Benzoni, Collin- Dufresne, and Goldstein (2007) emphasized, that there is a negative relationship between age and equity exposure (Risk Exposures) in portfolio construction.

Sita, L.Y. (2001) found that low-income group people also like to invest because they believe in getting rich quickly. Income is an important variable, for determining the investor's corpus and assets.

Cunningham and Green (1975) suggest that the Families decide about the buying, managing and investing. It is affecting buying behaviour of individuals.

Academic literature has largely suggested that women are more risk-averse than men in investment risk-taking. This can be seen not only in terms of the investment choices they make but also in terms of the proportion of funds they put in risky securities. Harlow and Brown (1990) found that women preferred lower risk bets when asked to make choices in an experimental marketing environment involving auctions and lotteries. Mc Donald(1997) emphasised that women are less interested in risky investments in comparison to men. Investment Company Institute (1996) and S R I International (1997) conducted a large-scale one-on-one attitude survey and found that women intended to prefer lower risk assets than men. Olsen and Cox (2001) found that women are more risk-averse than men when confronted with social and technological hazards, even when both genders have the same expertise and experience. Also, during portfolio decisions, women tend to emphasize risk reduction more than men.

Terrence Hallahan et al. (2003) examined the relationship between a psychometrically derived measure of subjective financial risk tolerance and a range of demographic characteristics that are widely used as a basis for heuristically derived estimates of investors' attitudes towards financial risk. The validity of widely used demographics such as gender, age, income and wealth as determinants of risk tolerance is supported, although the relationships found are not as simple as implied by the demographic heuristics. In particular, risk tolerance exhibits concavity with respect to income across all age groups and irrespective of gender. In this study, however, education, marital status, and dependents are not found to be significant determinants of an individual's attitude towards risk.

How investor gives importance to investment, ultimately affect the continuity and commitment of investors, as defined by Shefrin, Hersh M (2002). He further explained that the people who do investment for fun, not as serious activity ultimately made losses. Thaler Richered (1999) explained that the investor who put a high value on their investment always takes many measures.

The studies of Blume, M.E., and I, Friend (1978) stated that employees working in listed companies are more aware of stock market than the employees of unlisted companies and more intended to invest in equity. Cohn, R.A., W.G. Lewellen, R., (1975) stated that teachers and the people who are working in fewer adventurous profession believe to invest in less risky instrument. It is clear that working place environment affects investor's choice and attitude of investment.

Tapia and Yemo (2007) found that there is a positive correlation between professional advice and investment in an equity fund. It can be inferred from his study that investor's decision for investment can be influenced by professional advice. Investors are either risk taker or risk averse. They deviate according to age, gender and situation of investors, as explained by Clark and Strauss (2008). Further Fink and Huston (2003) explained risk taking ability is depending on some more variables such as wealth, income, age, marital status and level of education. Ajmi Jasim (2008) investigated the determinants of risk tolerance of individual investors in Bahrain. He concluded that men with a higher level of education, wealth and less financial commitment are more likely to seek risk.

On the basis of literature review many factors have been identified which influence the investment decision of an individual investor, they are as follows:

Friends	Working place	Family	Professional Advice
Age	Income	Gender	Value
Educational Qualification		Investment Decision	

Research Methodology:

As we have found many factors which influence the investment decision of an individual investor, to evaluate these factors, a well-structured questionnaire was designed consist of two part containing demographic profile in one part and behavioural profile in other part. In behavioural profile, a set of 5 point statements were used to measure each of the factors identified. Total three questions were asked for each variable and therefore there were total 30 questions in the behavioural profile for testing the above identified factors. For the attainment of research objective, following hypothesis were framed.

- H1: Society influences significantly investment decision of the individual.
- H2: Demographic control significantly influences investment decision.

Further, the reliability of questionnaire was checked by Cronbach's Alpha test. The result of test is stated below:

Reliability Statistics

Cronbach's Alpha	N of Items
0.954	12

From the reliability statistics the value of Cronbach's Alpha is found to be 0.954 which confirms the reliability of the questionnaire.

The sample unit taken for the study was individual investor. Total six hundred fifty questionnaires were sent and got filled, out of which 524 questionnaires were found appropriate for the study and the remaining questionnaires were rejected. The questionnaire was executed in digital and printed version both. Digital version was filled up with the help of Google Forms, whereas printed version were got filled through a personal visits.

Data analysis and Interpretation:

To understand the relation among the variables and for constructing the model, exploratory factor analysis is chosen and 'Kaiser-Mayer-Olkin and Bartlett's Test' was conducted for measuring the sample adequacy. The result of the test is as follows:

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.941
Bartlett's Test of Sphericity	Approx. Chi-Square	10986.743
	Df	66
	Sig.	0.000

It is being believed that KMO should be higher than 0.5 for factor analysis and it is observed from the table that the score is 0.941, which is excellent. Therefore, the factor analysis can be performed with this data set.

Reliability of the variable was further confirmed by the 'Principal Component Analysis Test'. This test was performed to identify the reliability of the exogenous variables. The result of the test is stated below:

Communalities

	Initial	Extraction
Friends	1.000	0.989
Working Place	1.000	0.988
Family	1.000	0.989
Professional Advice	1.000	0.983
Age	1.000	0.901
Income	1.000	0.916
Gender	1.000	0.880
Value	1.000	0.930
Education	1.000	0.919
Inv_Deci1	1.000	0.742
Inv_Deci2	1.000	0.694
Inv_Deci3	1.000	0.756

Extraction Method: Principal Component Analysis.

From the above table communalities confirm the reliability of variables which can be kept or not. It can be inferred from the table that all variables can be kept for the factor analysis, as the extraction value of all variable is above 0.06.

The Principal Component Analysis gave us a list of factor loadings through Varimax Rotation. A component matrix was prepared through which the latent variables were identified and grouped as per their loading. The following table shows loading of the factors and only those variables were considered which has the value above 0.5.

Factor Analysis

Rotated Component Matrix

	Component		
	1	2	3
Age	0.848		
Value	0.833		
Income	0.820		
Gender	0.820		
Education	0.812		
Professional Advice		0.878	
Family		0.871	
Working Place		0.866	
Friends		0.862	
Inv_Deci1			0.827
Inv_Deci3			0.823
Inv_Deci2			0.810

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 6 iterations.

It can be inferred from the above table that all variables are loaded on three different factors. These factors are considered as new latent variables (unobserved). Based on nature they are being named as demographic control, society and investment decision.

Demographic Control	Age, Value, Income, Gender, Education
Society influence	Professional Advice, Family, Working Place, Friends
Investment Decision	Inv_Deci1, Inv_Deci2, Inv_Deci3

After that again, Cronbach's Alpha test was used for reliability test of the above latent variables. The Cronbach's alpha of the above latent variables is as follows:

Reliability Statistics of latent variables

Latent Variables	Cronbach's Alpha	Number of Items
Society	**0.996**	**4**
Demographic control	**0.974**	**5**
Investment Decision	**0.809**	**3**

The relation between investment decision and other Latent Variables:

Before establishing any relation between motive for investment and another variable, it is important to check the normality of the variables. The normality of the variable was checked through 'Skewness and Kurtosis'. Descriptive statistics of these variables are as follows.

Descriptive Statistics

	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Society	524	35.6947	14.81945	.036	.107	-.201	.213
Demo_Ctrl	524	45.0630	17.90152	.009	.107	-.092	.213
Invest_Deci	524	26.2290	9.55937	.075	.107	-.612	.213
Valid N (listwise)	524						

From the above table, it can be verified that Skewness and Kurtosis value of all variable fell between the ranges from -1 to +1. Even if the value of the standard error is considered, then the value of skewness and kurtosis must be less than 3 times of their respective standard error. So it was stated that all the variables were normal.

Hypotheses Testing:

H1: Society influences significantly investment decision of individual

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	16.545	0.990		16.715	0.000
	Society	0.271	0.026	0.421	10.592	0.000

a. Dependent Variable: Investment _Decision

From the above table of regression analysis, it can be inferred that society significantly influences the investment decision. Thus the hypothesis 1 is not rejected.

H2: Demographic control significantly influences investment

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	14.644	0.993		14.744	0.000
	Demo_Ctrl	0.257	0.020	0.481	12.550	0.000

a. Dependent Variable: Investment _Decision

From the above table of regression analysis, it can be inferred that demographic control significantly influences the investment decision. Thus the hypothesis 2 is not rejected.

On the basis of data analysis it can be concluded that society and demography significantly influence the investment decision process.

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Concocting for Impending Disruptive Technologies in Indian Educational Set-up: A Strategic Headway

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ABSTRACT

Information and Communication Technology (ICT) has already started frolicking a central role in transforming teaching, learning and assessment practices for teachers as well as students, in the contemporary education system. Given the rapid embedding of this disruptive technology into the education system (at all levels) in India, an essential component which should not be left out in this process of up-gradation is - How to make teaching-learning more effectively than before? To answer this, the current paper makes a strategic headway for meaningful and effective ICT integration into the current educational setup, falling in line, and within the framework of the latest UNESCO ICT Competency Framework for Teachers. Broadly segmented into three major sections, the paper attempts to - (a) provide a synoptic overview of what actually is meant by ICT integration in the domain of education as per the said framework? (b) throw light on the changes which are solicited to make this global framework more worthy in Indian conditions, especially given the large socio-economic rift and range of learners in the country, and (c) bring forth the support mechanism and services required by educational administrators as well as teachers in embedding ICT, in the coming times. In the concluding segment of the paper, the authors critically ponder upon the anticipated outcomes of adoption of this disruptive technology and propose a few policy-level suggestive measures for its effective deployment in India, in the impending times.

Keywords : UNESCO -ICT Competency Framework for Teachers, Digital Education in India, Disruptive Technology in Education, Teaching-Learning Techniques

Introduction:

The role of ICT has been reckoned by all the interested parties of Education worldwide. It took precedence over teaching strategies by covering all aspects of teaching and learning to provide better learning outcomes. New technologies are providing quantum changes in education domain where opportunities for the learner in the world of competition are proliferated. Teachers are also taking evinced interest in inlaying knowledge by making ICT enabled teaching in the classrooms. All in all, this is not surprising since the windows of opportunity that ICT offers for the development of knowledge economies and societies are open also for education.

The Role of ICT in Teaching, Learning and Assessment

ICT is now widespread in society and it continues to metamorphose our daily life. "It has the potential to support transformation in teaching, learning and assessment practices in schools and it can connect educational policy with economic and social development (Butler et al., 2013)". There is growing evidence that "digital technologies change the way students learn, the way teachers teach, and where and when learning takes place". It renders the scope to the teachers and learners to entail more than knowledge acquisition; there needs to be an equally strong emphasis on skill-development, particularly 21st century skills or Key Skills. Learners need "more open-ended learning experiences that develop the learners' higher-order thinking, creativity, independence, collaborating and ownership of learning". When ICT is used effectively, it can render opportunities for all teachers, students and parents/guardians to develop these Key Skills. Embedding ICT in teaching, learning and assessment is a complex endeavour and the mere presence of ICT in a school does not equate to its effective use. ICT has often taken the place of older technologies, such as books or whiteboards, and the role of the teacher and the learner remains unchanged. Major challenges identified in various researches include rethinking are the role of teachers and scaling teaching innovations.

The Paper Envisions:

In educational context, ICT has the potential to increase access to education and improve its relevance and quality. Tinio (2002) asserted that ICT has a tremendous impact on education in terms of acquisition and absorption of knowledge to both teachers and students. To conjure up with ICT enabled education system, following are the key points related with the stake holder of education world.

Students:

- Sharing new ideas by using ICT to entail new forms of learning and collaboration to support different styles of learning.
- Experiencing joy, satisfaction, passion and success in their education and lifelong learning.
- Actively engaged in learning – both in and out of school.
- Accepting ownership of their learning – involving the ability to be self-directed, a decision maker, and a manager of priorities in and out of school.
- Using technology to achieve personal learning goals and to succeed in various learning activities.
- Using ICT critically and ethically.

Teachers:

- Taking a more facilitative role, providing student-centred guidance and feedback, and engaging more frequently in exploratory and team-building activities with students.
- Using ICT to "support an enquiry process and enable their students to work on solving complex real-world problems" by engaging in "collaborative project-based learning activities that go beyond the classroom".

- Supporting students to create and innovate so that they are engaged in managing their own learning goals and activities.
- Accepting ownership of their own professional learning and, where appropriate, designing and participating in learning communities that make extensive use of technology.

Schools:

- Taking a lead role in planning how they will effectively embed ICT in teaching, learning and assessment practices. This means involving the entire school community in developing an e-Learning plan that takes into account the needs of teachers, and the views and insights of students and parents/guardians.
- Developing policies and practices for the safe and ethical use of ICT by all members of the school community.
- Strengthening their existing relationships with the wider community, both local and global, and in particular, connecting more with parents/guardians and students in their homes through the use of digital technology.

Parents/Guardians:

- Engage with their children's learning through the use of digital technologies.
- Collaborate with and participate in school activities and programmes using ICT.

Curriculum:

- All future curricula will include clear statements that focus on the development of digital learning skills and the use of ICT as a resource in achieving specific outcomes across the curriculum.
- Curriculum specifications will support in-depth study of ICT and specialised application of ICT tools as appropriate.

ICT in World Education

The accessibility of abundant information, progressive technology, a rapidly changing society, greater convenience in daily lives and keener international competition are affecting on education systems and what kind of education we are providing to our young people and learners of all ages to live and work in this digitally connected world. To accommodate for this dynamic world, many countries, such as Australia, Singapore and New Zealand are transforming their education systems so that progressive ICT use is embedded into teaching, learning and assessment activities in schools. There is also an understanding in the world of business that ICT is changing "job profiles and skills, while offering possibilities for accelerated learning" (The World Bank Group, 2011; p.7) and that all countries are now facing challenges in order to prepare young people "for the world of work and the jobs available in today's 21st century society" (Ibid; p.38). These developments are driving the need for a comprehensive Strategy around the integration of ICT into our school system.

Effective Use of ICT:

The umpteen issues may hinder schools and teachers in their efforts to fully benefit from these windows of opportunity. They may not be able to afford the equipment, they may lack access to the Internet, or suitable materials might not be available in their own language. However, a fundamental issue is whether teachers are skilful in integration ICT with the subject matter of teaching. Clearly, the way ICT is used will depend on the nature of learner , subject being taught and the learning objectives. Nonetheless, it is important to set out the requirement of basic training which should guide the use of ICT in teaching. ICT can transmute education in many ways. ICT offers engaging environment for formal as well as non-formal setting of education to develop new ways of teaching and enabling students to learn. The ubiquitous role of ICT requires education solidarity to re-think about the expected skills and competencies from students to make them active citizens and members of the liveware in a knowledge society.

Stipulated Educational Reforms:

The emergence of new technologies in education implies desideratum change in teacher roles and their pedagogical approaches to teacher education. The integration of ICT into the classroom will depend on the competencies of teachers to structure the learning environment in new ways, to merge new technology with a new pedagogy, to develop socially active classrooms, encouraging co-operative interaction, collaborative learning and group work. Classroom management skills are required to make teacher and learner enable to utilise their capabilities with reference to the new technologies. The technology literacy and knowledge creation through information and communication technological skills will help to inculcate positive attitude among teachers and learners to develop innovative ways to enhance the learning environment.Teacher professional learning will be a crucial component of this educational improvement. However, professional learning has an impact only if it is focused on specific changes in teaching.

Technology literacy:

The policy goal of the technology literacy approach is to enable learners, citizens and the workforce to use ICT to support social development and improve economic productivity. Policy goals delimitated by *UNESCO's ICT Competency Framework for Teachers,* include increasing enrolments, making high-quality resources available to all, and improving literacy skills. Teachers should be aware of these goals and be able to identify the components of education reform programmes that correspond to these policy goals. Corresponding changes in the curriculum entailed by this approach might include improving basic literacy skills through technology and adding the development of ICT skills into relevant curriculum contexts. This will involve setting aside time within the traditional curricula of other subjects for the incorporation of a range of relevant productivity tools and technology resources. Changes in pedagogical practice involve the use of various ICT tools and digital content as part of whole class, group and individual student activities. Changes in teacher practice involve knowing where and when (as well as when not) to use technology for classroom activities and presentations, for management tasks, and for acquisition of additional subject matter and pedagogical knowledge in support of the teachers' own professional learning. Little change in social structure of the class occurs in this approach, other than perhaps the placement and integration of technology resources in the classroom or in labs to ensure equitable access. The technologies involved may include computers along with productivity software; drill and practice software, tutorials, and web content; and the use of networks for management purposes. In the early stages of development, teacher competences related to the technology literacy approach include basic digital literacy skills and digital citizenship, along with the ability to select and use appropriate off –the shelf educational tutorials, games, drill-and-practice software, and web content in computer laboratories or with limited classroom facilities to complement standard curriculum objectives, assessment approaches, unit plans, and didactic teaching methods. Teachers must also be able to use ICT to manage classroom data and support their own professional learning.

Development Goals :

By integrating ICT with education, our ultimate aim to render service to the society should be kept in the top priorities. For the attainment of this goal, we need to create citizens who are:

1. Able to manoeuvre information and instigate knowledge by the use of ICT tools
2. Ruminative ,creative, synergetic and problem-solving (which is required to instigate knowledge)
3. Participate and give contribution to the society and utilise decision making skills.
4. Management of life skills and resourceful
5. Nurture cross-cultural understanding and the amicable to resolve dissension
6. Contribute effectively to the economy of the country so it can compete on an international level

ICT in the classroom would encourage teachers to examine the problems and to find out the solutions after analysing the possible outcomes. The use of ICT helps to understand the systematic approach to solve any problem even beyond the walls of the classroom or school. By realizing the potential of digital technologies in the field of education, it is not only required to make teachers skilful in use of ICT but there is requirement of modernising the curriculum to render enough scope for ICT integration with school subjects. It also help to enhance teaching, learning and assessment so that India's young people become engaged thinkers, active learners, knowledge constructors and global citizens to participate fully in society and the economy.

Teaching, Learning and Assessment Using ICT

Geoffrey Crisp (2011) in the Teacher's Handbook on e-Assessment stated that "The ICT based assessment can be undertaken with many devices, such as traditional desktop computers or laptops, with portable communication devices such as smart mobile phones, with digital devices such as iPads or through the use of electronic gaming devices. ICT based assessment can use a multitude of formats, including text documents or portable document formats, multimedia formats such as sound, video or images; it can involve complex simulations or games; it can also be undertaken by students in groups or individually and it can occur with large numbers of students in a synchronous or asynchronous manner".

The concept of teaching and learning through the use of ICT is highly complex. The introduction of ICT into a learning environment does not in and of itself bring about change in pedagogical practice. ICT has a key role to play in enhancing teaching, learning and assessment practices for teachers and students in primary and post-primary schools. However, schools find it difficult to effectively integrate ICT into their everyday practice. Constructivist teaching approaches aim to foster critical thinking and to create motivated and independent learners. While teachers hold these views, traditional teacher-directed practices were found to be the dominant pedagogical orientation in most schools.

Goal: Teaching, Learning and Assessment Using ICT– Indicators Of Success

- New curriculum must specify Inclusion of specific statements regarding digital skills and learning outcomes.
- UNESCO Competency Framework adaptation.
- LMS resource for schools to be updated.
- Provision of training for teachers and schools including examples of good practice on the use of ICT for teaching, learning and assessment.
- High-quality digital resources to support learning and teaching.

ICT Competency Framework for Teachers

UNESCO ICT Competency Framework for Teachers (ICT CFT) (2008, 2008a and 2011) should be used to guide schools in the implementation and review of the Strategy at school level over the next five years. The framework is comprised of six aspects of a learning system, and it "provides a lens to conceptualise what being digital in learning can look like". The UNESCO ICT Competency Framework provides a lens for monitoring how ICT can support such transformation in schools. The framework identifies three complementary and overlapping approaches connecting education policy with economic and social development through the use of ICT. These approaches are defined as technology literacy, knowledge deepening and knowledge creation. The three approaches are described as follows:

- Increasing the extent to which new technology is used by students, citizens and the workforce by incorporating technology skills into the school curriculum — the Technology Literacy approach.
- Increasing the ability of students, citizens, and the workforce to use knowledge to add value to society and the economy by applying it to solve complex, real-world problems — the Knowledge Deepening approach.
- Increasing the ability of students, citizens, and the workforce to innovate, produce new knowledge, and benefit from this new knowledge — the Knowledge Creation approach.

Viewed in this way, ICT can help transform all aspects of education, particularly at primary and post-primary level.

ICT and Constructivist Pedagogical Orientation

A constructivist pedagogical orientation reinforces teachers in effectively using ICT with their students i.e. learners are actively involved in a process of determining meaning and knowledge for themselves. Research studies indicate that a teacher's pedagogical orientation is a principal factor in how he/she uses digital technology in the classroom. Effective use of digital technology is associated primarily with constructivist approaches to teaching. Following features must be included in constructivist teaching approaches to make learning experiences more relevant:

- Association with the learner's prior understanding.
- Learner as the active participant of learning process.
- Scope for development of decision making temperament
- A high level of interaction and exchange of ideas between learners.

Constructivist teaching approaches are advocated in the curricula and syllabi used in primary and post-primary schools in India.

Digital Literacy in the Curriculum

While the concept of 'ICT integration' is at the core, the concept of developing 'discrete' ICT skills also needs to be explored. Development of students' digital literacy by including coding and programming in the Indian primary and post-primary curriculum so that every learner has an opportunity to learn skills such as computational thinking, logic, critical thinking and strategic thinking to solve problems is the need of the hour.

Assessment Reform

Globally there is a general move to reform how student learning is assessed across all levels of education using a range of assessment modes. The concept of technology-supported assessment is a new, respected study domain and it is apparent that ICT is already playing a significant part in assessment reform.

Through ICT, schools now have access to a range of technologies that can be used for formative (developing student learning) as well as summative (evaluating student learning) assessment. Today, teachers and learners can access learner performance data in context by deploying simulations, digital games, virtual worlds, virtual labs and e-Portfolios. When used in this way, ICT has the potential to evaluate Key Skills, such as Critical and Creative Thinking and Working with Others, which are challenging to measure using traditional or computer-based tests. Thus, ICT can help schools to gather information about students' learning from multiple sources and teachers can use this data to design more appropriate student learning activities. The Department has already explored the use of digital portfolios (ePortfolios) through the European funded EUfolio project (2013-2015) and there is potential to extend their use for primary and post-primary students.

Inclusion

ICT has the potential to support inclusion in a number of ways across the system by providing opportunities for students to learn outside the normal school setting or to enable learners with special educational needs to participate more fully in their education.

The educational experience is inclusive of all students and contributes to equality of opportunity, participation and outcomes for all. In adopting ICT for teaching and learning, we need to ensure that information will be accessible to all learners in line with requirements under the UN Convention on the Rights of Persons with Disabilities. The Convention emphasises;

- The obligation to 'provide accessible information to persons with disabilities' (Article.4);
- The need for 'the design, development, production and distribution of accessible ICT' (Article.9);
- The right to education 'without discrimination and on the basis of equal opportunity' for persons with disabilities (Article.24).

ICT has the potential to support learners, whose first language is not English, to enhance their oral and written literacy. In general, there is a recognition that digital technology has the potential to create a more inclusive education system for all learners. ICT is a principal enabler for children at risk of educational disadvantage, with low levels of achievement in the formal education system. When it is appropriately embedded into an educational setting, ICT can enable students to learn in new and exciting ways, encouraging their engagement and making communication easier. Furthermore, there is evidence to indicate that the creative application of ICT in education can allow students at risk of early school leaving to connect with learning in new ways, resulting in improved motivation, attendance and application across subject areas.

Digital Content and ICT Infrastructure

There is now an opportunity for teachers, students and parents/guardians to reduce reliance on textbooks and move in a planned way towards alternative forms of content that may include teacher or student-generated resources. These may include student subscriptions to online maths or reading programmes, school site licences or app downloads.Referring to ICT integration, infrastructure includes resources such as computer hardware, data and networks, information resources, interoperable software and technical support. The schools require a robust, reliable ICT infrastructure in order to effectively integrate ICT into all aspects of school life.

Recommendations:

Schools require external technical support in relation to their ICT equipment, infrastructure and systems so that they can support teaching, learning and assessment as well as the school's administration and planning systems. The issue of technical support cannot be considered as an isolated issue and should be considered as part of each school's eLearning plan. There is no international consensus on any one model of best practice for technical support provision. Models of technical support include specific ICT related grants, the provision of regional technical support services including technicians (either in school or shared between schools), and provision of fully managed technical support services (remotely or onsite). A centralised national system of support is not viable and would not meet schools' needs because the variation in school location, size and ICT infrastructure makes such provision impractical. The issue of providing technical support to all schools is complex and requires further consideration. We need to evaluate a number of technical support options with a view to providing guidance on the best technical support solutions for schools. For effective implementation, the Ministry of HRD shall:

- consider expert advice from national and international experts on successful implementation of ICT.
- regular supervision of implementation plan covering actions;
- annual assessment of progress towards achieving pre-defined targets
- involve all stake holders in decision making process in planning development and implementation through regular meetings.
- Feedback analysis and suggestions for further improvement for successful attainment of educational goals.

Conclusion:

ICT enabled education system can bring revolutionary change in proactive teaching learning environment. In line with the current digital era, teachers are required to integrate ICT in their daily teaching and replace their traditional methods with modern tools and facilities for the successful realization of attainment of goals. ICT encourages interaction and cooperation among students, teachers regardless of distance which is between them. It also provides students the chance to work with people from different cultures and working together in groups, hence help students to enhance their communicative skills as well as their global awareness.

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Kunzum Travel Café, Delhi: Achieving Business Sustainability through Trust

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ABSTRACT

Traveling, we are convinced, is good for all. Through traveling, we connect with nature and cultures. We get to note and appreciate different slices of culture. It is only through meeting people that we understand that there are others sharing this world with us. It undoubtedly, opens one up to different cultures and traditions and of course, people themselves, for it is people who make our experience vital. Fortunately, with the rise in the living standards, and thus growing wealth and increased affordability, people are on the move. Domestic tourism is flourishing today even more than International tourism. The youth wishes to explore the lesser known and unconventional destinations which are equipped with a huge cultural heritage. They are also on a look out for discovering adventure in the regions nearby these places. According to Google India, "From tropical destinations like Andaman and Nicobar Islands and Goa to the wildlife sanctuaries of Uttarakhand, the search trends capture the top summer travel destinations this year." The stats from Google search trends say that more and more Indians wish to travel domestic and mostly to nearby locations.

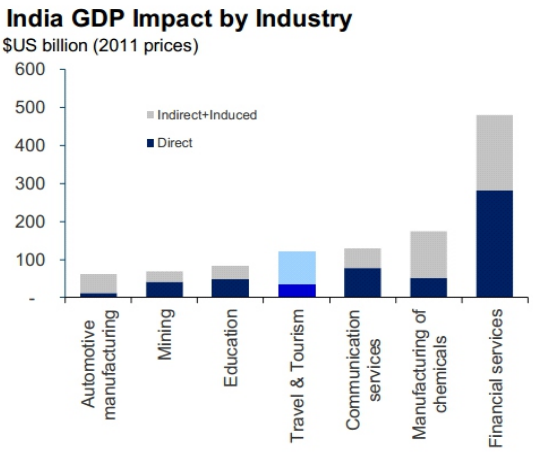
Travel and Tourism is an economic activity – it is one, which is taking place not only in India but in the remotest destination throughout the world. It is a huge economic sector, which contributes immensely to the global economy. According to the World Travel and Tourism Council's (WTTC) year 2011 report, almost 260 million plus jobs are being supported by this industry globally, contributing around US$ 6 trillion, around 9% of the Global GDP. The industry provides for livelihood and upliftment of the communities in the host countries and regions in various ways. The Travel and Tourism industry has come out as the largest employer globally, providing with approximately 25 million jobs in India itself. The industry helps the tourists engage with the communities and the communities collaborate for the businesses.

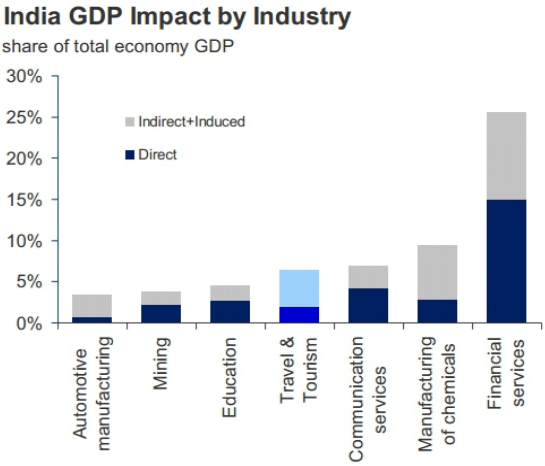
GDP Size

- Travel & Tourism generated, either directly or indirectly, $121 million of India's GDP in 2011.
- Travel & Tourism GDP is larger than that of the education and mining sectors
- In terms of its direct GDP, Travel & Tourism is nearly the same size as that of the communication services sector.

GDP Share

- Travel & Tourism generated, either directly or indirectly, 6.4% of India's GDP in 2011.
- This is nearly 50% greater than the size of education's GDP impact at 4.4%.





World Travel & Tourism Council

http://www.wttc.org/site_media/uploads/downloads/India_sector_release_study.pdf

Employment Size

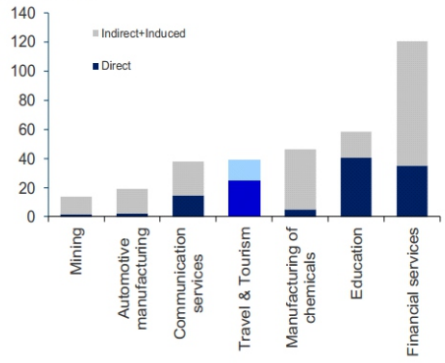
- Travel & Tourism sustained, either directly or indirectly, 39.3 million jobs in India in 2011.
- Travel & Tourism in India directly employs more people than the communication services, automotive manufacturing, and mining sectors.
- Of note, Travel & Tourism directly supports 70% more jobs than communication services in India.

Employment Share

- Travel & Tourism generated, either directly or indirectly, 7.9% of employment in India in 2011.
- For every job directly in the Tourism sector, another job is created on an indirect or induced basis, making its linkages stronger than in the communications and education sectors.

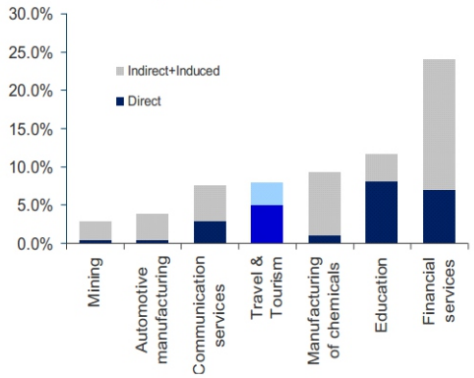
India Employment Impact by Industry

2011, millions



India Employment Impact by Industry

share of total economy employment



World Travel & Tourism Council

http://www.wttc.org/site_media/uploads/downloads/India_sector_release_study.pdf

Growth Trends

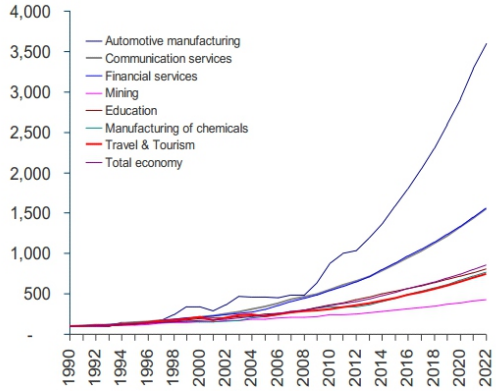
- Travel & Tourism direct industry GDP expanded 229% between 1990 and 2011 while the total economy expanded 279%.
- The mining industry grew just 140% over this 21-year period.
- The education industry grew 279% over this 21-year period.

Growth Forecasts

- The Oxford Economics global industry model predicts annual average growth of 7.7% for Travel & Tourism GDP over the next decade.
- In comparison, the total economy is expected to expand 7.8% per annum while education is forecast to grow 6.6% per annum in real, inflation-adjusted terms.

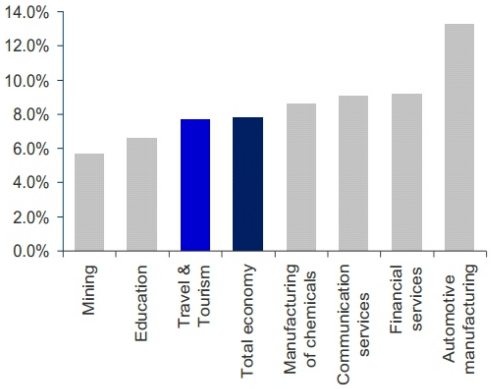
India GDP Growth by Sector

1990=100



India GDP Forecast by Industry

CAGR 2012-2022



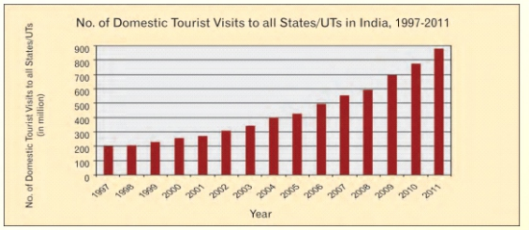
World Travel & Tourism Council

http://www.wttc.org/site_media/uploads/downloads/India_sector_release_study.pdf

TABLE 9
Number of Domestic Tourist Visits to all States/UTs in India, 1997-2011

Year	No. of Domestic Tourist Visits (in million) to States/UTs	Percentage (%)change over the previous year
1997	159.88	14.1
1998	168.20	5.2
1999	190.67	13.4
2000	220.11	15.4
2001	236.47	7.4
2002	269.60	14.0
2003	309.04	14.6
2004	366.27	18.5
2005	392.01	7.0
2006	462.32	17.9
2007	526.56	13.9
2008	563.03	6.9
2009	668.80	18.8
2010	747.70	11.8
2011(P)	850.86	13.8

P: Provisional
Source: State/ UT Tourism Departments
Note:(i) Figures for Chhattisgarh and Delhi have been estimated on the basis of All India Growth Rate.
(ii) For some States data adjusted using the information available with Ministry of Tourism.



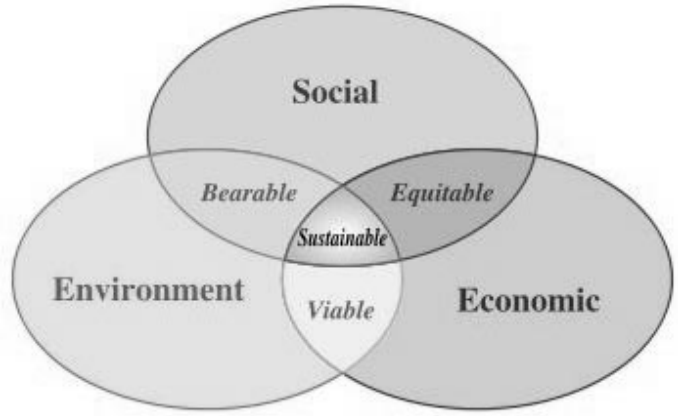
http://tourism.gov.in/writereaddata/CMSPagePicture/file/marketresearch/INDIATOURISMSTATICS%28ENGLISH%29.pdf

Interestingly, the pace with which the Tourism industry grew, it failed to keep a check over the fulfillment of essential needs of the local communities in the host destinations.

Emergence of the concept of Sustainability in Tourism:

Tourism is a source of benefit to the environment.Tourism has helped preserve cultural heritage in India. Renovation and preservation of the historical monuments by the Indian Government is now attracting more and more of Indian tourists to such destinations. The revenues generated through tourism have contributed to the preservation of protected environmental areas, like forests and coastal areas. However, Tourism has also contributed to certain negative, irreparable and long lasting impacts on the environment. Tourism has contributed to the water balance disorder and biodiversity loss because of waste produced by the tourists. The environmentally rich destinations have also being impacted with polluted air owing to carbon dioxide emissions of airplanes. Infact in some cases the environmental degradation at visiting spots has led the tour operators to abandon those destinations completely. On the other hand, insensible tourists have caused harm to the local social environment of the host destinations by interfering in the local communities and disturbing their social practices thus causing cultural disruption. These negative environmental impacts had to be controlled and that's where the thoughtful deliberations on the issue suggested the concept of sustainable tourism (Budeanu, 2005; Spenceley, 2005) to be brought to the fore.

To understand Sustainable Tourism we will first make an effort to understand Sustainable Development. The term 'Sustainable Development' has been defined by the World Commission on Environment and Development (the Brundtland Report, "Our Common Future", 1987) as, "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Sustainable development based itself on three aspects viz., economic & socio-cultural development along with environmental protection. Sustainable development takes into account the basic human needs for food, shelter, air, water, education, employment and peace.Focus on the involvement of the local people is integral.



The focus of Sustainable Tourism, given by Middleton, 1998:ix, is on the lines of managing natural resources in such a manner that not only the present but also the future generation can use and enjoy them. Therefore, the Sustainable Tourism's concern is with the numbers and types of tourists. The idea is to filter the tourists' activities in such a manner that it does not damage the quality of the natural environment, wildlife and local population in these host destinations.

Thus, implementation of sustainable tourism principles requires:

- Making optimal use of environmental resources that constitute a key element in tourism development, maintaining essential ecological processes and helping to conserve natural heritage and biodiversity.
- Respecting the socio-cultural authenticity of host commtmities, conserve their built and living cultural heritage and traditional values, and contribute to inter-cultural understanding and tolerance.
- Ensuring viable, long-term economic operations, providing socio-economic benefits to all stakeholders that are fairly distributed, including stable employment and income-eaming opportunities and social services to host communities, and contributing to poverty alleviation (UNEP, 2004).

The United Nations Environmental Programme (UNEP) initiative was mainly for the tour operators. With the 1992 United Nations Conference on Environment and Development and thereafter, South Africa's 1996 White Paper 'Development and Promotion of Tourism in South Africa', the concept of 'Responsible Tourism' emerged. The Responsible Tourism was elaborately defined in the 'Cape Town Declaration'. It referred to tourism development at the host destinations while paying attention to improving the quality of life of the local communities, improved natural environment management and improving the holiday experience for the tourists. It also talked about creating greater and better opportunities for business in these areas thus leading to increased socio-economic benefits. As per Spencekey et al., 2002, the emphasis was made on ensuring the involvement of local communities in the development of tourism in these areas and promoting the sustainable usage of local natural resources.

Responsible Tourism is a form of behaviour, a little more than tourism itself, propagating the approach that a tourist or any other tourism stakeholder should take while engaging in tourism at a destination. The end-motive of the entire Responsible Tourism approach is improving the tourism. 'a]s the tourism industry matures there is an increasing demand for unique, authentic and meaningful holidays' (Frey & George, 2008:113) and the tourists are willing to learn more of the place, culture and people they are visiting. This will result in creation of goodwill and a better relationship development between the two, alongside improving safety-security issues. The report by Tearfund (2002) has laid down suggestions towards the tourists sensitivity towards the host community.

"I take very seriously the sense of our living these days in a global neighborhood. And the first sensible thing to do in such circumstances, as well as one of the most rewarding things, is to go and meet the neighbors, find out who they are, and what they think and feel. So travel for me is an act of discovery and of responsibility as well as a grand adventure and a constant liberation."

—Pico Iyer, Renowned Travel Writer

Responsible tourism arranges to make available relevant and deep information of the places that the visitors may choose to go. These visitors are understood to come from diverse backgrounds. Therefore, making available ample information on the tourist places in advance will help them decide on their "best" destinations based on their interests and expectations. It calls the travelers to treat the other, different from self, with the same respect as you would demand for your own community. This way negative impacts may be minimized to some extent. The Government, local communities and the tour guides in India have already been instructed to make efforts in this direction. A prominent example for this is 'Incredible India' website.

Responsible tourism is defined in the 2002 Capetown Declaration as tourism which…

- minimizes negative economic, environmental, and social impacts;
- generates greater economic benefits for local people and enhances the well-being of host communities, improves working conditions and access to the industry;
- involves local people in decisions that affect their lives and life chances;
- makes positive contributions to the conservation of natural and cultural heritage, to the maintenance of the world's diversity;
- provides more enjoyable experiences for tourists through more meaningful connections with local people, and a greater understanding of local cultural, social and environmental issues;
- provides access for physically challenged people; and
- is culturally sensitive, engenders respect between tourists and hosts, and builds local pride and confidence.

Responsible tourism is all about Trust. The travelers, the tour guides, the host communities; every one of them work on trust factor as a part of Responsible Tourism. Trust is based on different beliefs. These include belief in the innate goodness of people; that the resources are available in sufficient amount, all we need to do is use them more wisely. The very idea of trust is abstract in nature. But it appears to be directly propotional to speed and inversely propotional to the costs.

Trust has a major role to play in achieving business sustainability and more so in meeting 'triple-bottom line'. At the macro level, trust forms social capital. Social capital adds to income and growth. Several studies and the growing literature on social capital have suggested that 'trust' has been a major differentiator in the growth of US business. Trust is created when one entity expects another entity to do something. For example, a customer expects the company to deliver right goods which he has paid for. If the customer does not get what he expects than we have a case of 'trust deficit'. Creation of trust builds reputation. Reputation is a situation when one entity believes the other entity to be something. Trust and reputation is the cornerstone of sustainable business, more so in meeting 'triple bottom line'.

The Case of Kunzum Travel Café:

1. Lot of secondary data from the Kunzum websites.
2. Conducted two visits at Kunzum Travel Café, Hauz Khas, Delhi
3. Spoke with Mr Harsh (employee @ Kunzum)
4. Spoke elaborately with Mr Apurbo Bannerjee, GM, Kunzum
5. Spoke with the owner @ Kunzum, Mr Ajay Jain

Introduction:

Kunzum Travel Café (kunzum.com/travelcafe) is located in Hauz Khas area of South Delhi. The Kunzum café has come out with a unique business model which is not only sustainable but in many ways presents a case for understanding the role 'trust and reputation' can play in business. Kunzum has built long term trust in his fans and consumers by listening to customers, ensuring ethical business practices like going to the extent of not billing the customers, contributing towards the protection of the environment by the travel talks and travel meets; and at last, investing in the local host communities. With its ethnic surrounding, music, books, and solitude the Kunzum café tends to be a wonderful place to spend quality time, away from the fast paced life of Delhi. Travelers meet in café and share experiences; discuss travel plans over a cup of coffee. This is all happening at no price string attached to anything, including coffee. If you don't want to pay—its okay. If you want to pay—pay whatever you feel like paying!

The relation of trust can be mutual and it induces each party to contribute positively in one form or the other. Trust, undoubtedly is therefore a source of business sustainability at Kunzum Travel cafe through:

- Speed and Success in terms of growth
- More minds, positive contribution, better collaboration
- Smooth going
- Reciprocal trust, loyalty from all stakeholders

The Kunzum café presents a case for trust which business has put in customer with its unique approach towards value delivery. Customer in turn responded by reposing trust in business which created reputation for the business. The combination of trust and reputation generated a unique milieu of business situation which is sustainable, unique, and caring (for people, planet, and profit).

Kunzum Travel Café is one such bricks and mortar place, informal and non-Governmental platform which inspires and motivates the travelers to travel thoughtfully and consume responsibly during their travels. Kunzum is a café for the traveling hearts to come together as a community, a sort of Face-to-Facebook network in Hauz Khas Village, New Delhi, India. A café by nature, Kunzum, is open for all to sit and sip cup/s of coffee or tea with cookies and talk about the travel experiences. The absence of the focus from food enables more interaction. A most unique kind of concept that kunzum follows is that these people never bills the customer for their tea or coffee. Kunzum follows pay-as-you-like proposition. This literally means, that consumers may pay as per their wish while leaving. Since its inception in the year 2007, Kunzum has invariably served as a valuable guide for travellers planning their journeys in India, the subcontinent and some international destinations

too. The café supports the travelers with all the insights possible, including few books on traveling and few others travel books written by the owner of Kunzum Café, Mr Ajay Jain himself. Mr Ajay jain is a travel writer and his books have the capability of transporting the reader to exotic destinations. These books are full of more-than-real photographs of the remotest destinations. Photography is his second passion after traveling.

Not many people know that Kunzum La is a pass in the high altitude region of Lahaul piti in the Indian Himalayan state of Himachal Pradesh. In the neighbourhood of the most trendiest of the restaurants serving Italian pizzas and pastas, at Kunzum, guests can hang around, read travel books, use free Wi-Fi, participate in events, exchange stories, enjoy music, buy photographic art, post travelogues and make travel plans. They can even order tea, coffee and cookies - and pay what they like.

At kunzum, travelers, photographers and adventure-freaks talk about their experiences. The experienced travelers voluntarily share their knowledge, in an organized or informal fashion so that the budding one can do their homework before they set out on their journey. Kunzum, has for long, spoken of traveling with an open mind, of nourishing a wish to connect with the people and respecting the culture of the local community. While planning new trips, every individual is encouraged to make an attempt towards leaving a positive impact to the community by participating with them.

Kunzum's fans and visitors freelance for them in terms of designing of the website, offering traveling tips, organizing travel meets, travel talks, photography workshops, heritage walks and many more.

Kunzum.com

Mr Ajay Jain, the owner at Kunzum travel café, runs a website too by the name of Kunzum.com, which offers an independent, objective and trusted travel information to its viewers. Mr Jain has a unique style of writing which is peppered with anecdotes and illustrated with high quality photographs and videos. Starting his writing career in 2001, he has been covering business, technology and youth affairs before deciding to focus wholly on travel writing. He pursues his passion by being on the road as much as he can. Kunzum has "already received 60 million reviews and opinions on traveling", as told by Mr Apurbo Bannerjee, GM, Kunzum. (Source: Kunzum.com)

Club Kunzum

A membership program for travellers looking for those special experiences and privileges not available to all. Perks include discounts and add-ons when members book trips, photographic workshops, heritage walks, forums, offline meets, travel talks and more. (Source: Kunzum.com)

The Kunzum Travel Mag

A unique product, it is a monthly e-magazine available as a PDF, flooded with information on traveling alongwith sharing traveling experiences. The e-magazine elaborately mentions tips especially to maintain the socio-cultural harmony at the local host destinations. The respect for the target communities emerges out beautifully through every nook and corner of the magazines. (Source: Kunzum.com)

Publishing:

Three books to his credit, the latest being Postcards from Ladakh (www.kunzum.com/postcardsfromladakh), a pictorial travelogue on Ladakh. His first, Let's Connect: Using LinkedIn to Get Ahead at Work, is a management book on professional networking using the world's most popular professional networking site LinkedIn.com. It was published in early 2008. His other book, and his first travel book, Peep Peep Don't Sleep (www.peeppeepdontsleep.com), is a collection of funny road signs and advertisements. Kunzum sells only that stuff which it produces. (Source: Kunzum.com, verified at kunzum café)

Bio:

Prior to taking up writing, he worked in the Information Technology and Sports Management Sectors. He is a Mechanical Engineer from Delhi College of Engineering, 1992 and a Management Graduate from Fore School of Management, 1994 and he did his Journalism from Cardiff University, UK, 2002.
(Source: Kunzum.com)

Kunzum is a self-managed venture. The Photography workshops conducted by Mr Ajay Jain gets him reasonable amount of money to normally run his travel cafe. Another source of income is his publishing house – his books and his photographs. Kunzum café is a big enough space for small evening programmes such as short movie screenings or literary activities. A part of the café is available for such purposes for a not-so-handsome amount.

Other than a small interview with Mr Apurbo Banerjee, GM, Kunzum, I managed to collect some of the reviews by the Kunzum visitors:

1. About his experience, Rahul Kapoor says, "Kunzum makes you feel welcomed and at home. Travel books and portraits all around lend an air of adventure and thrill. Many of my afternoons were spent in Kunzum sipping their black coffee and nibbling on their delectable cookies whilst I flipped page after page of an adventurous crime thriller or devouring information in a 'Lonely Planet' book…"

2. Chetan Soni looks at Kunzum as, "If a place has a rating of 3.8 after having only coffee and tea in the menu it must be doing something else right..Its the first travel cafe of India...which is dedicated to travellers..Follows the model of "pay as you like"...the cookies are good, and so is the service..."

3. A lady by the username of Tequila Mockingbird says, "…People can be seen here watching movies on their tablets, working on their laptops, travelers can be seen sharing stories or enjoying a book whilst taking sips from their coffee mugs every couple of minutes."Source : http://www.zomato.com/ncr/kunzum-travel-cafe-hauz-khas-village-delhi

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Author's Profile

Dr. Niva Bhandari

Dr. Niva Bhandari is currently serving as the Area Chair – Business Communication, Pan Jaipuria Campuses (Lucknow, Noida, Jaipur, Indore) stationed at Jaipuria Institute of Management, Noida. Dr Bhandari has been 9 years of teaching experience. Her previous working stations were ICFAI, Indian Institute of Management (IIM), Ahmedabad and Central University of Rajasthan. She has published and presented research papers at various National and International conferences in India and abroad including the one at Academy of Marketing Conference, 2010 at Coventry – UK , King's College, London – UK, 6th Asian Business Research Conference, Thailand. Dr Niva Bhandari has completed her Doctorate in Australian Literature and a Human Resource Diploma further to that. Her Research areas include Sustainability initiatives in Management, Corporate and Crisis Communication, Brand promotion through Social Media, and Interdisciplinary studies. Her interest lies specifically in teaching Written Analysis and Communication (WAC) to Management students. She has also done some translation and transcription related projects on oral histories of Rajasthan, India

Identity Management for Social Development in India

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ABSTRACT

In India, inability to prove identity is one of biggest barriers preventing the poor from accessing benefits and subsidies. Existing identity databases in India are fraught with problems of fraud and duplicate/ghost beneficiaries. New Ideas for social security, environment, public health etc are required to secure India's future. With these objectives, the Unique Identification Authority of India will provide Aadhaar (Unique Identification Number) to confirm the identity of every individual in India. Aadhaar will be providing a formal identity proof to millions of residents. This identity proof will be a gateway to different access services provided by the government and non-government agencies. It will enroll residents into its database with proper verification of their demographic and biometric information. This will ensure that data is perfect at the beginning of the program. This paper illustrates the way unique identity is used to develop the applications like direct cash transfer and micro payment solutions for social development purposes. The work on unique identity for individuals in India started since 2009. The paper addresses different administrative, technology and legal challenges, which the initiative will face during its implementation. The paper describes expected benefits of Aadhaar and the way it will be used for democratic services in India. It also describes Aadhaar authentication with role of different key factors and Aadhaar authentication offerings. A case study of Aadhaar implementation in Maharashtra has been presented, the state has received national award for rolling out maximum UID enrolment centers in 2011.

Keywords: Unique Identification Authority of India, Unique Identification Number, Aadhaar.

1. INTRODUCTION

In the human society, people group themselves into different categories such as organizational membership, religion, gender and age. This leads to activities which are agreeing with the identity, support for institutions that embody the identity, stereotypical perceptions of self & others, outcomes that traditionally are associated with group formation and reinforces the antecedents of identification. This concept is applied to organizational socialization, role conflict and intergroup relations [1]. R. Brown has identified five problematic issues for social identity i.e. the relationship between group identification and in-group bias; the self esteem hypothesis; positive-negative asymmetry in intergroup discrimination; the effects of intergroup similarity and the choice of identity strategies by low status groups. Also future research agenda is sketched out i.e. expanding the concept of social identity; predicting comparison choice in intergroup settings; incorporating affect into the theory; managing social identities in multicultural settings and integrating implicit and explicit processes [2]. In today's world, digital identity is a psychological identity that prevails in the domains of cyberspace, and is defined as a set of data that uniquely describes a person or a thing (sometimes referred to as subject or entity) and contains information about the subject's relationships to other entities. The social identity that an internet user establishes through digital identities in cyberspace is referred to as online identity [3]. With use of digital authentication systems like automated face recognition, tagging and location tracking a person is easily associated with an identity, which sometimes leads to privacy loss and security is subverted. An identity system that builds on confirmed pseudonyms can provide privacy and enhance security for digital services and transactions. Cyberspace creates opportunities for identity theft. Exact copies of everything sent over a digital communications channel can be recorded. Thus, cyberspace needs a system that allows individuals to verify their identities to others without revealing to them the digital representation of their identities [4]. This requires new ideas for social security, environment, public health etc to secure Individual identity. Requirements of this identity have lead to establishment of unique identities throughout the world. This is implemented in countries like USA, UK, Emirates and South Africa. In the United States of America, a Social Security number (SSN) is a nine-digit number issued to U.S. citizens, permanent residents, and temporary (working) residents. The number is issued to an individual by the Social Security Administration, an independent agency of the United States government. Its primary purpose is to track individuals for Social Security purposes. Over the time, this number has been used for more diverse purposes than simply taxes, essentially making it a de facto national identification number [5]. In the United Kingdom, residents are provided with National Identity Cards, a personal identification document and European Union travel document, linked to a database known as the National Identity Register (NIR). In the Republic of South Africa, personal identification number is a 13-digit number containing only numeric characters, and no whitespace, punctuation, or alpha characters. This identity document is not used for international travel purposes (a separate passport is issued) but usually is acceptable photographic identification for internal flights, and mainly serves as proof of identification. Emirates Identity Authority does the task of registration of personal data for whole population in the country and saving the same at electronic data bases. It issues ID cards consisting of the unified number, readable data and the data saved on the electronic chip. It also has a provision of individuals' identity confirmation and identification services before all federal and local government authorities. India has also started the project on Unique Identification of individual where Unique Identification Authority of India on behalf of Government of India will issue Aadhaar, a 12 digit individual identification number. This number will serve as a proof of identity and address, anywhere in country. Any individual, irrespective of age and gender, who is a resident in India and satisfies the verification process laid down by the UIDAI can enroll for Aadhaar.

2.UID PROJECT IN INDIA

The Unique Identification Authority of India will provide a unique number to every Indian resident so that they can easily verify their identity to public and private agencies in the whole country. This will open door to a variety of applications like micropayments solution etc which require reliable authentication using UID infrastructure. Implementing this require collaboration with different stakeholders such as banks, the regulators and the government. Advancements

in technology such as core banking, ATMs, and mobile connectivity have also had enormous impact on banking. Mobile phones in particular present an enormous opportunity in spreading financial services across India. These technologies have reduced the need for banks to be physically close to their customers, and banks have been consequently able to experiment with providing services through internet as well as mobile banking. These options, in addition to ATMs, have made banking accessible and affordable for many urban non-poor residents across the country. The Aadhaar can help poor residents easily establish their identity to banks. As a result, banks will be able to scale up their branch-less banking deployments and reach out to a wider population at lower cost [6]. By providing a clear proof of identity, Aadhaar will empower poor and underprivileged residents in accessing services such as the formal banking system and give them the opportunity to easily avail various other services provided by the Government and the private sector. One of the major applications using UID is Direct Cash Transfer which has worked well in countries like Brazil and Mexico [7]. In India, subsidies from Government reach to poor and needy people via three main ways i.e. Public Distribution System (PDS) / Ration Shop for distribution of grains, rice, kerosene oil etc, Central Government Health Scheme (CGHS) / Public Health Dispensaries for health related matters, distribution of vaccines, medicines etc and Cooperatives/ Companies for distribution of fertilizers, seeds etc as shown in figure 1. Government pays out 42 subsidies schemes which include Rs 4,519/- crore scholarships, Rs 5,110/- crore pensions, Rs 1,600/- crore Janani Suraksha Yojana and Rs 877 crore ASHA [7]. It was observed by Mr. Rajiv Gandhi in 1990s that only 15% of the total subsidies sent by the government reach to the needed persons. In 2007 his son Mr. Rahul Gandhi observed that ratio has further decreased and has reached to only 5% of the total subsidies sent by the government to needed persons [7]. This present system needs to be majorly improved as government is spending Rs. 3.25 lakh crore worth subsidies for welfare measures which reaches intended poor people with pilferage [8]. To overcome this government in December, 2012 has planned to roll out Direct cash Transfer (DCT) under the slogan *'aapka paisa, aapke haath'* to the poor in 51 district and later nationally. 20 per cent of these 51 districts are in the politically sensitive states of Maharashtra and Andhra Pradesh [9] – [10]. Direct cash

Transfer will help in doing the following tasks efficiently :

- Lower administrative and delivery cost,
- Cuts leakages by eliminating fake beneficiaries and duplication,
- Rules out middlemen, reduces government subsidy bill,
- More convenient for migrant labour and easier to monitor,
- Government claims pilot projects show that subsidies have come down.

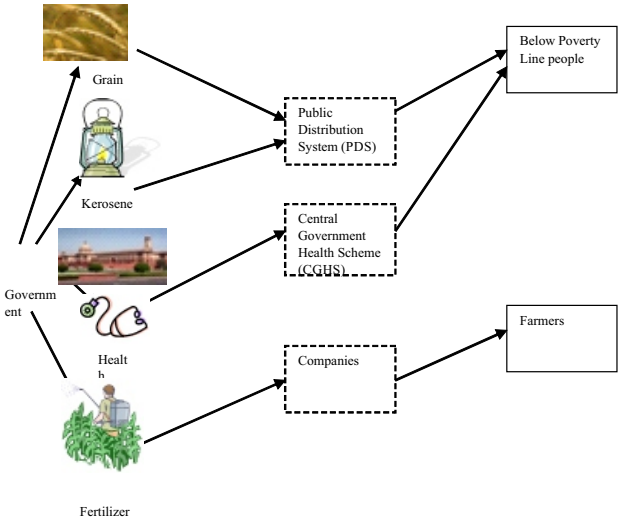

Figure 1 Subsidies from Government reach to people and farmers

DCT will be implemented in the way as shown in figure 2, where government will transfer its cash subsidies for pension, scholarship (Grain, kerosene, health and fertilizer will be taken later). Aadhaar card holder will be authenticated for its true identity and targeted poor people will get its subsidies directly transferred to their bank accounts.

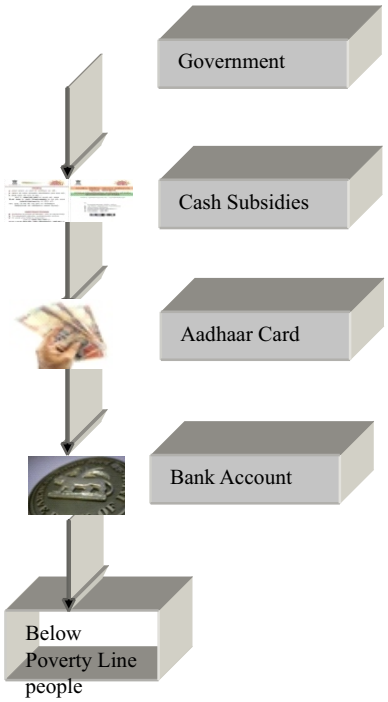

Figure 2 Direct cash transfer using Aadhar Card

2.1 The Prime Minister Council

The Unique Identification Authority of India (UIDAI) has been created. Its role is to develop and implement the necessary institutional, technical and legal infrastructure to issue unique identity numbers to Indian residents. On 25 June 2009, the Cabinet also created and approved the position of the Chairperson of the UIDAI, and appointed Mr. Nandan Nilekani as the first Chairperson in the rank and status of a Cabinet Minister. Mr. Ram Sewak Sharma has been appointed the Director General. The Council is to advise the UIDAI on Programme, methodology and implementation to ensure co-ordination between Ministries / Departments,
stakeholders and partners. The Council would meet once every quarter. The First Meeting of the Prime Minister's Council of UIDAI Authority took place on 12 August 2009. The salient decisions in the PMs council were need for legislative framework, broad endorsement of the strategy, budgetary Support to partners, setting biometric and demographic standards, UIDAI structure contours approved, flexibility in personnel and other issues, choose, deploy and repatriate officers, broad-banding of posts, hiring of professionals from market, setting up of global advisory councils of PIOs and interns and sabbatical global procurement.

2.2 Challenges in Implementation

Implementing a strategic initiative like Unique Identification for every Indian resident is likely to face challenges during implementation [11]. Some of these Administrative, Technology and Legal challenges are discussed below:

2.2.1 Administrative Challenges

Administrative challenges for implementation of UID are mainly concerned with public awareness, process of handling immigrants, dual citizenship, enrolling and tracking citizens by multitude of technologies. Some of the challenges are listed below:

- **Political Risks:** As government wants to cut out frauds who siphon billions of Rupees from its welfare schemes. A study done by National Institute of Public Finance and Policy (NIPFP) holds that integrating Aadhaar with welfare schemes is likely to yield a 52 per cent return to the government on that investment, even after all costs are accounted for.
- **Duplication:** Existing identity databases in India are fraught with problems of fraud and duplicate/ghost beneficiaries. The UID's Central Identities Data Repository (CIDR) will perform a search on key demographic fields and on the biometrics for each new enrolment, to minimise/eliminate duplicates in the database.
- **Scale of implementation:** According to Deputy Director of Technology, UIDAI, Mr. Ashok Dalwai, "*Once we have achieved this, we would be the world's largest bio metric identification system in the world"*. It was reported that in a span of one and a half years, Aadhaar had equaled the size of the world's largest biometric database that was in the US. Being such a large scale of implementation has its own limitations such as monitoring process load from the agents, automation of installation, update, and maintenance. Specific day-to-day maintenance actions to ensureperformance and availability of the monitoring solution.

2.2.2 Technology Challenges

Technological challenges faced in implementation are random number generation for UID, effective encryption and decryption schemes for handling security issues. These arise due to improperly designed architecture which leads to issues at the data capture stage, data managing stage or data reporting stage. Some of the challenges are listed below:

- **Denial of service attack:** The systems used at the data capture stage (systems / formats not standardized), data managing stage (Data Warehouse not designed for size of data / poor BI Tools) or the data reporting stage (web/offline based sharing of data) may be vulnerable to denial of service attack or performance as security vulnerability. A remote attacker could exploit this vulnerability to cause the consumption of CPU resources.
- **Online Authentication:** The Authority will offer a strong form of online authentication, where agencies can compare demographic and biometric information of the resident with the record stored in the central database. This arise a challenge for security and safety of information.
- **Post Implementation:** Ability of handle "*Big Data*", the key challenge is not to adopt systems that can handle data, but to adopt the mindset of making decisions using data. Data integration across multiple sources, as also across vendors and partners is an issue that frequently takes a long time to address.

2.2.3 Legal Challenges

Legal challenges in implementation of UID are to make amendments to existing legal system for accommodating UID cards, restricting multiple issuances of cards and access restriction. Some of the challenges are listed below:

- **Regularize benefits to citizen:** This typically arises due to a number of reasons including lack of awareness on information availability, lack of accessibility of data and lack of data relevant for citizens making sponsors lose interest.
- **Amendments to existing Privacy acts:** There are many dimensions to privacy, including the privacy of a person, privacy of communications, territorial privacy and privacy of personal data [12]. The UID scheme could also lead to providing the State and intelligence agencies information to legitimate surveillance, but in doing so would infringe on individuals privacy [13]. The risk that the UID poses to an individual's privacy is enormous as information that is now scattered in the public domain will be brought into one point of convergence through the UID.

2.3 Cost

The Unique Identification Authority of India (UIDAI) was created during 2009-10 with an expenditure of Rs 30.92 crore was made. The draft approach to creating Unique Identification Numbers to every resident in India, concept papers describing the linkages of various welfare schemes steered by different Ministries/departments of Government of India and reports of the Demographic Data Standards and Field Verification Committee and Biometrics Committee were completed. The preparatory work for the Proof of Concept Studies and the Pilots were commenced. In the year 2011 the Proof of Concept Studies and the pilots will be completed and the UID numbers will begin to be issued. Full scale enrolment of the resident and authentication services started towards the end of the year. The Managed Service Provider will be selected and the Central Data Identity Depository will be handed over on a long term contract basis. For this budget of Rs 1900.00 crores allocated during Annual Plan 2010-11. A major part of it is to be used for reimbursement of enrolment costs to the registrars as also to the residents [14]. Unique Identification of India (UIDAI) will build partnerships with various Registrars across the country to enrol residents for the number. Such Registrars may include state governments, state Public Sector Units (PSUs), banks, telecom companies, etc. These Registrars may in turn partner with enrolling agencies to enrol residents into Aadhaar. Aadhaar will ensure increased trust between public and private agencies and residents. Once residents enroll for Aadhaar, service providers will no longer face the problem of performing repeated Know Your Customer (KYC) checks before providing services. They would no longer have to deny services to residents without identification documents. Residents would also be spared the trouble of repeatedly proving identity through documents each time they wish to access services such as obtaining a bank account, passport, or driving license etc. The UIDAI will ensure that its Know Your Resident (KYR) standards do not become a barrier for enrolling the poor and has accordingly developed an Introducer system for residents who lack documentation. Through this system, authorized individuals ('Introducers') who already have an Aadhaar can introduce residents who don't have any identification documents, enabling them to receive their Aadhaar.

2.4 Privacy

UID project has taken into account the protection of the residents and is inbuilt in its design itself. To take care of privacy below mentioned steps are followed:

- A minimal and necessary data of the resident should be collected by an application to protect the privacy of every resident. The data collected by UIDAI for individuals includes name, date of birth, address, parent/guardian's name, photo, 10 fingerprints and iris scan.
- The reasons for collecting the data should also made clear to the resident and only after his/her approval such collections be done.
- UIDAI should respond with only *yes/no* response and no transaction details should be send in any communication.
- Data should be encrypted and anonymity of data should be maintained for security reasons. UIDAI has already placed security and storage protocols. There would be severe penalties in case of security violation, disclosing identity information, unauthorized access to CIDR which includes hacking and tempering with data in CIDR.
- A new data privacy law should be implemented to take care of privacy of the residents.

3. SOCIAL DEVELOPMENT USING UID

India is shifting from limited access to an open access economy using tools like Right to Information Act. The act empowers common people to raise questions with government directly and the concerned authority has to reply back within 30 days with proper explanation. RTI Act not only covers the executives rather the judiciary and legislature are also under its strict regulations. It defines the term "public authority" as the transparent government is answerable to common people. But despite these efforts access to finance remains constrained in rural India i.e. 40% of rural residents don't have access to bank accounts. This financial exclusion limits economic opportunity as many poor face difficulties in accumulating savings. Such saving protects poor people during unwanted events like illness, loss of employment, droughts and crop failure. Policy innovations like no-frill accounts, the liberalization of banking, ATM policies and branchless banking with business correspondents (BCs) is improving financial access. Also technology such as core banking, ATMs and mobile connectivity has helped drive financial access and affordability in India. Bottle neck for the success of technology and banking innovations (including online and mobile banking) still remains the lack of identity documentation. Also banks have their inability to do micropayments i.e. smaller amounts as poor people transact in small. The Unique identification Number (UID) enables a renewed approach to financial inclusion as it identifies individuals uniquely on the basis of demographic information and biometrics. The UID number coupled with authentication mechanism can provide desired micropayment solution. This can bring low-cost access to financial services to everyone at a short distance from their homes. The key features of UID enabled micropayments are that UID Know Your Residence (KYR) will be accepted as bank's Know Your Customer (KYC) which will bring down their costs. The UID's authentication process will shift people to transact electronically and large numbers of small transactions will create value for banks. An efficient, cost effective payment solution is a dire necessity for promoting financial inclusion. The Aadhaar and the accompanying authentication mechanism coupled with rudimentary technology application can provide the desired micropayment solution. This can bring low-cost access to financial services to everyone, a short distance from their homes. Some other methods for social democracy using UID are listed below:

Ubiquitous BC network and BC choice: The UIDAI's clear authentication and verification processes will allow banks to network with village-based BC's such as self-help groups and kirana stores. Customers will be able to withdraw money and make deposits at the local BC. Multiple BC's at the local level will also give customers a choice of BC's. This will make customers, particularly in villages, less vulnerable to local power structures, and lower the risk of being exploited by BC's.

- **A high-volume, low-cost revenue approach:** The UIDAI will mitigate the high customer acquisition costs, high transaction costs and fixed IT costs that we now face in bringing bank accounts to the poor.
- **Electronic transactions:** The UIDAI's authentication processes will allow banks to verify poor residents both in person and remotely. Rural residents will be able to transact electronically with each other as well as with individuals and firms outside the village. This will reduce their dependence on cash, and lower costs for transactions. Once a general purpose Aadhaar-enabled micropayments system is in place, a variety of other financial instruments such as micro-credit, micro-insurance, micro-pensions, and micro-mutual funds can be implemented on top of this payments system.The Aadhaar-enabled micropayments solution is just one of the many developmental applications of the Aadhaar.

3.1 Expected Benefits of Aadhaar Authentication

Aadhaar will be easily verifiable in an online, cost-effective way Unique and robust enough to eliminate the largenumber of duplicate and fake identities in government and private databases. A random number generated, devoid of any classification based on caste, creed, religion and geography. Other expected benefits of Aadhaar authentication are listed below:

- **Adding new beneficiaries -** Aadhaar authentication can be used as proof of identity and proof of address to extend basic social welfare programs such as PDS & RSBY to residents. It would also give residents access to social levelers such as banking & telecom which they have so far been denied for want of identity proof.
- **Confirming beneficiary -**Various programs where beneficiaries need to be confirmed before delivery of the service can use Aadhaar authentication. This will help curb leakages and ensure that the targeted beneficiary is not denied entitlement.
- **Attendance management -** Programs such as SSA and NREGA where financial outlay is linked to beneficiary attendance can use Aadhaar authentication for attendance tracking.
- **Financial transactions -**One of the biggest benefits of Aadhaar-based authentication is expected to be in financial inclusion segment. Micro-ATM devices using Aadhaar authentication have the potential of changing financial landscape of the country.
- **Access control -**Aadhaar authentication could be used to control access/entry to restricted areas such as airports, hotels, examination halls etc.
- **Track end-to-end service delivery process -**Aadhaar authentication if implemented across the service delivery process / supply chain will help curb leakages and diversions, and help identify bottlenecks in delivery.
- **Demand-driven, portable service delivery -** Since beneficiaries can authenticate their Aadhaar anywhere, delivery processes can be re-engineered to make delivery more flexible & favourable to the beneficiaries.
- **Access to relevant MIS and empowerment of beneficiary -** Aadhaar can be used to empower beneficiaries and provide self-help facilities for activities such as checking their entitlements, services delivery timeline, log grievances etc through self-service kiosks, mobile phones, call centres etc.
- **Accountability / vigilance -** Aadhaar-based authentication can also be used for authenticating officials / members responsible for service delivery, audits, vigilance etc.
- **Address verification -** Address verification, which is a key requirement for providing services like telephone connection, banking products, could be done through Aadhaar- authentication. This is expected to reduce the cost of KYC & at the same time provide a reliable verification mechanism.
- **Demographic data verification -**Demographic data like age and gender can be verified through Aadhaar authentication.

4. IDENTITY AUTHENTICATION

Aadhaar authentication is the process wherein Aadhaar number, along with other attributes (demographic /biometrics/one time password) is submitted to UIDAI's Central Identities Data Repository (CIDR) for verification; the CIDR verifies whether the data submitted matches the data available in CIDR and responds with a "yes/no". No personal identity information is returned as part of the response. The purpose of Authentication is to enable residents to prove their identity and for service providers to confirm that the residents are '*who they say they are*' in order to supply services and give access to benefits. Key actors in Aadhaar authentication and Aadhaar authentication offerings are listed below:

4.1 Key Actors in Aadhaar Authentication

The key actors in Aadhaar Authentication can engage with each other in multiple ways. For example, an AUA could choose to become its own ASA, an AUA could access Aadhaar authentication services through multiple ASAs for reasons such as business continuity planning, and an AUA transmits authentication requests for its own service delivery needs as well as on behalf of multiple Sub AUAs. Similarly, it may also be possible to use a single authentication device for servicing multiple AUAs as shown in figure 3. For example, the authentication device at a fair price shop may also be used for carrying out financial transactions for banks.

- **Unique Identification Authority of India (UIDAI):** UIDAI is the overall regulator and overseer of the Aadhaar authentication system. It owns and manages the Central Identities Data Repository (CIDR) that contains the personal identity data (PID) of all Aadhaar-holders.
- **Authentication Service Agency (ASA):** ASAs are entities that have secure leased line connectivity with the CIDR. ASAs transmit authentication requests to CIDR on behalf of one or more AUAs. An ASA enters into a formal contract with UIDAI.
- **Authentication User Agency (AUA):** An AUA is any entity that uses Aadhaar authentication to enable its services and connects to the CIDR through an ASA. An AUA enters into a formal contract with UIDAI.
- **Sub AUA:** An entity desiring to use Aadhaar authentication to enable its services through an existing AUA. Examples: (i) IT Department of a State/UT could become an AUA and other departments could become its Sub AUAs to access Aadhaar authentication services. (ii) A Hoteliers Association becomes an AUA and several hotels could access Aadhaar authentication as its Sub AUAs. UIDAI has no direct contractual relationship with Sub AUAs.
- **Authentication Devices:** These are the devices that collect PID (Personal Identity Data) from Aadhaar holders, transmit the authentication packets and receive the authentication results. Examples include PCs, kiosks, handheld devices etc. They are deployed, operated and managed by the AUA/Sub AUA.
- **Aadhaar holders:** These are holders of valid Aadhaar numbers who seek to authenticate their identity towards gaining access to the

4.2 Aadhaar Authentication Offerings

The centralised technology infrastructure of the UIDAI will enable '*anytime, anywhere, anyhow*' authentication. Aadhaar will thus give migrants mobility of identity. Aadhaar authentication can be done both offline and online, online authentication through a cell phone or land line connection will allow residents to verify their identity remotely. Remotely, online Aadhaar-linked identity verification will give poor and rural residents the same flexibility that urban non-poor residents presently have in verifying their identity and accessing services such as banking and retail.

- **Type 1 Authentication:** Through this offering, service delivery agencies can use Aadhaar Authentication system for matching Aadhaar number and the demographic attributes (name, address, date of birth, etc) of a resident.
- **Type 2 Authentication:** This offering allows service delivery agencies to authenticate residents through One- Time-Password (OTP) delivered to resident's mobile number and/or email address present in CIDR.
- **Type 3 Authentication:** Through this offering, service delivery agencies can authenticate residents using one of the biometric modalities, either iris or fingerprint.
- **Type 4 Authentication:** This is a 2-factor authentication offering with OTP as one factor and biometrics (either iris or fingerprint) as the second factor for authenticating residents.
- **Type 5 Authentication:** This offering allows service delivery agencies to use OTP, fingerprint & iris together for authenticating residents.

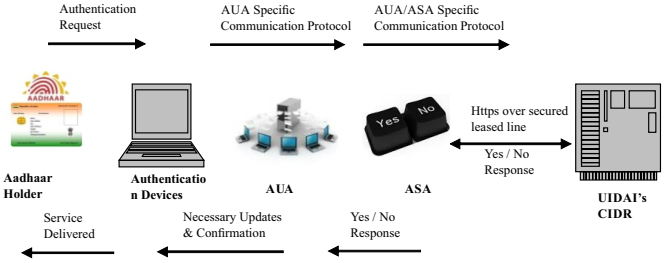

Figure 3 UIDAI Authentication Model

4.3 Aadhaar Authentication Features

Table below illustrates features offered through Aadhaar uthentication service.

S. No	Feature	Usage
1	Demographic data matching	This feature verifies demographic attributes stored in Aadhaar database with new data entered by the resident. It matches basic demographic attributes like Name, Address, Gender, Date of Birth, Age, Phone and Email Id. These attributes along with biometric attributes and One Time Password makes the authentication process very strong.
2	Transaction ID	Authentication User Agency (AUA) assigns a transaction identifier which allows request/response scheme to be synchronous or asynchronous. This can be done without concern for a particular response. For example, as a bank provides transaction ID to keep track of payment transaction across the flow.
3	Name Matching	This feature verifies resident's name stored in Aadhaar database with new data entered. It provides different matching strategies such as exact match and partial match etc. Exact match is used in passport/visa applications and partial may be bank application.
4	Date of Birth Matching	This field verifies resident's date of birth stored in Aadhaar database with new date entered. This can be used to verify either full date of birth or year of birth only depending on application.
5	Age Matching	This feature is used by applications which require age of resident to be verified not the complete date of birth. Such applications include ticket booking for senior citizens and children, school admission for children above a certain age and job applications having a minimum and maximum age limits.
6	Mobile and Email Matching	This is an optional feature captured by Aadhaar system for doing demographic authentication. This can be used by several Government and non-Government applications like online banking systems using today.
7	Address Matching	This feature verifies resident's address against one stored in central identity repository. Unique Identification Authority of India (UIDAI) in collaboration with several other ministries has established a common address structure which can be used for verification of urban and rural addresses.
8	Structured Address Matching	This feature can be used to validate structured address in full or in parts. Structured address contains two types of fields i.e. one which is provided by the resident and on that are based on master data. Residents provide details mentioning care of per name, house identifier, street identifier, landmarks and locality. Master data includes post office name, village/town/city name, sub-district name, state and pin code.
9	Unstructured Address matching	This feature matches address stored in Aadhaar database with one provided by resident as a single string. Unstructured matching allows more flexibility while structured matching allows higher matching capability.
10	Fingerprint Matching	This feature allows one of different fingers to be used for matching depending upon the application. It has two modes of operation i.e. fingerprint minutiae (FMR) mode for low bandwidth network and fingerprint image (FIR) mode for higher bandwidth applications.

11	Iris Matching	Iris matching is more accurate than fingerprint matching. It is used in Iris image (IIR) mode only.
12	One Time Pin (OTP)	Biometric authentication provides details of *who you are* while one time pin provides details of *what you have.* Aadhaar authentication can use either biometric authentication or One time pin authentication or can use both for authentication. OTP is always delivered on the resident's mobile/email and application validates it accordingly.
13	Yes/No response	Aadhaar authentication responds with only "yes/no" and with no personal information in return. There is no mechanism to get data of resident in return of query send for validation by the application.
14	Digitally Signed Response	Aadhaar authentication response is digitally signed by Unique Identification Authority of India (UIDAI). This ensures that the integrity of the response is maintained and agencies can trust that response actually came from UIDAi only.
15	Response Code	Every response is accompanied with a unique code which can be used for future references, similar to the unique authentication code used for credit card transaction.
16	Response Timestamp	The response timestamp is used to verify the time when a resident is authenticated. It also lists for how many times the Aadhaar authentication has been done for a particular resident in past.
17	Self Verifiability of Response	Aadhaar authentication is trusted by different agencies and is self-verified by 3rd party application. It does not require attested copies of documents to be collected. Attested copies believe that the copy is verified against original documents.
18	Encryption and Tamper-proofing	Aadhaar uses 2048-bit PKI to encrypt Person Identity Data (PID) of the resident. In addition HMAC (Hash-based Message Authentication Code) is used to ensure that PID is not tampered.
19	Digitally Signed Request	To establish trust all messages from AUA are digitally signed. This ensures that no malicious calls are processed.
20	License Key Usage	License Key Usage ensures that specific approved AUAs can access authentication API, specific feature usage, expiry etc. Also allows AUAs to extend features to their sub-AUAs and trust their requests.

Table 1: Aadhaar Authentication Features and their usage.

Apollo Hospitals has started a new initiative to link health records on individuals with aadhaar identification system [15]. The idea behind this project is sharing of data in government database
with third parties. A national pool of electronic health records will be created in collaboration with various industry bodies like FICCI, CII and Nasscom. They are also collaborating with mobile phone companies to prepare an application using which individuals can access health information through their mobile phones.

5. CASE STUDY OF AADHAAR IN MAHARASHTRA

In September 2010, the Aadhaar project was launched by Prime Minister Dr.Manmohan Singh and UPA Chairperson, Ms. Sonia Gandhi, in Tembhali village in Maharashtra. The First UID number was issued to Ms. Ranjana Sonawane, a resident of Tembhali village in Nandurbar district in Maharashtra. The launch signified UIDAI's core initiative of giving the poor and marginalized in India an easily verifiable and mobile identity. It was reported that the poor usually migrated in search of work from their villages and faced problems regarding their identity. The Aadhaar number was expected to give the villagers their first mobile identification. The importance of **Aadhaar was emphasized** in the context of India's increasingly mobile population and in fulfilling Government of India's commitment to inclusive growth. As per eGovReach, an initiative of NASSCOM to foster closer interaction and connect between Government and Industry, on eGovernance initiatives, Maharashtra is leading in the implementation of the Aadhar project among the states, and has provided unique identification number (UID) to some 10 lakh people upto May, 2011 [16]. The scheme was launched in the state in the second week of January, 2011. Maharashtra is the first state to start the registration simultaneously in 35 districts and 23 municipal corporation areas. Accordingly, all facilities have been made available to the 3,000 registration centres across the state, to expeditiously complete the entire process. Ward-level as well as district-level officers who complete the work on time will be rewarded. All the residents of the state will be covered under the scheme in the next one to two years. Maharashtra has received National Award for rolling out maximum UID Enrolment centers in 2011. It is also the first state to have introduced the concept of USRDH (usable and updated State Resident Data Hub) in the country to generate a repository of clean UID and demographic data. First state to implement State Resident Data Hub. First State to do pilot of Direct Cash transfer through UID Numbers. Only State to have introduced Android based application for technology enabled audit of UID Enrolment Centers [17].

5.1 SRDH (Self Resident Data Hub) Maharashtra – Web Based Self Seeding:

Maharashtra has introduced the concept of Self Seeding, which has now been adopted by UIDAI. Self seeding is one of the various applications offered by the State to empower its residents i.e. to seed his/her own data directly to the State Repository. This is a hassle-free way to directly interact with the State with no queues, no office staff, and one can update own data in the State Repository. Wardha in Maharashtra is at the fore front of UID Seeding and is the leading district in the country for overall seeding [18]. This new initiative SRDH (Self Resident Data Hub) is prepared by the Department of Information Technology, State Government of Maharashtra for all its residents who have registered for an Aadhaar (UID) [18]. This includes the KYR (Know Your Resident) information (name/gender/dob etc) which will be useful by various State Departments Delivery Applications for distributing subsidies etc. Under these scheme residents link KYR+ (Know Your Residents + information includes Liquid Petroleum Gas Consumer Number, Permanent Account Number, Driving License etc) data to the Aadhaar data already available in SRDH. This helps residents to seed their KYR+ data to SRDH database. For updating any data like name, gender, date of birth, address, PAN Card, Passport, LPG Consumer No. etc resident has to visit the site http://srdh.maharashtra.gov.in/utils/index.htm . The user can search for his data either by UID Number, Registered mobile number with Aadhaar data or by email id registered with Aadhaar data. In next step, user can update the information by using One-time password which will be send by SRDH to his/her registered mobile number/email id. Requirement for this process is that user should have provided his mobile number and email id at the time of Aadhaar registration. If a user's mobile number/email id is not registered in the SRDH database he/she will not be able to update his KYR+ data using this process. Also, if a user has registered with more than one Aadhaar number this route will not allow such person to seed KYR+ data.

5.2 Steps for updating KYR+ data to Maharashtra State Resident Data Hub

Maharashtra State resident users can follow below mentioned steps to update their KYR+ data into State Resident Data Hub.

Step 1: The State Resident Data Hub portal contains a window to search data of resident users. This has three fields which required a resident to enter his/her Aadhaar Number, Email ID or Mobile Number to do the search. After entering either of the fields, resident has to click the search button.

Step 2: In next step, system sends a one-time password to resident's Email ID or Mobile Number or both. Resident is required to enter the password in the required window and click the Submit button. This one-time password is available for a short time as per message delivered.

Step 3: Next window which opens on the portal contains fields for resident to date his/her KYR+ data. This corresponds to the data like PAN Card, Passport, LPG Number, Ration Card etc and other than Name/ Date of Birth/ Gender and Address.

Step 4: On successful submitting one of the data, system displays a message mentioning '*Successfully linked*'. After entering all the details and display of "*Successfully linked*" message by the system, resident is required to click on the Save button. This will update KYR+ data entered by the resident into the State Resident Data Hub.

S. No.	Department	Fields	Validation
1	Liquid Petroleum Gas	Oil Company and Consumer Number	Oil Marketing Company (OMC) Code would be put to upper case. This code would be validated for IOCL/ HPCL/ BPCL. Will accept alphanumeric, / and -.
2	Income Tax (IT)	PAN Card Number field	All upper case letters will be entered. Format will be validated for 5 characters, 4 numbers and followed by 1 character.
3	Public Distribution System (PDS)	Ration Card Number field	Spaces are allowed within characters. Accepts alphanumeric , / and -.
4	Regional Transport Officer (RTO)	Driving License Number field	All upper case letters with spaces in between the license. Accepts alphanumeric, / and -.
5	External Affairs (EA)	Passport Number field	All upper case letters with no spaces in between. Accepts alphanumeric, / and -.
6	Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)	Jab Card Number field	All upper case letters with no spaces in between the Jab Card Number. Accepts alphanumeric, / and -.

Table 2: Details of KYR+ data with Department, Fields and Validatio

On successful update, system will display "Successfully Linked" message and in case of invalid number entered, system will not update and will display appropriate message.

5.3 Dilasa (Social Security Pension distribution in Auran-gabad):

This project was started in August 2011 for electronic distribution of pension to people of Auragabad. Initially it included three Government schemes i.e. Indira Gandhi Niradhar Yojana, Sanjay Gandhi Niradhar Yojana and Shravan Bal Niradhar Yojana. Multiple stakeholders collaborated together for achieving this purpose. These stakeholders include Collector Office, UIDAI, Bank of India, TCS and TranServ Private Limited. Steps to send money from collector's office to beneficiary account are listed below:

Step 1: Customer opens account with Aadhaar number and Aadhaar card as identity proof. They also provide their beneficiary number with BC (Business Correspondent) Agent.

Step 2: Validation of beneficiary data is done at collector's office.

Step 3: Collector office disburses beneficiary's amount to Bank of India

Step 4: Bank of India uploads same amount to their CBS (Central Banking System).

Step 5: Bank transfers this amount to beneficiary's accounts.

Step 6: Beneficiaries visit TranServ Outlet, the corporate business correspondents company.

Step 7: Customer uses biometric and aadhaar number for authentication.

Step 8: Aadhaar authenticates customer biometric.

Step 9: Distribution of amount to customer after authentication from UIDAI.

Step 10: TranServ sends MIS to bank and collector's office.

Step 11: Bank of India also sends MIS to collector's office..

UID Enrollment of beneficiaries started in April 2011. The process of data cleaning and converting to electronic format started in August 2011. Bank of India's account opening process started in October 2011. In March 2012, first batch of funds was transferred for 1936 beneficiaries to Bank of India. In April 2012, funds were transferred to beneficiary's account. In the process total of bank accounts sourced were 20,221. Out of these only 10,500 accounts were verified [18].

CONCLUSION

Over the last decade, India has seen a transformation in financial access using ATM, internet and mobile banking. These policies have not addressed the challenges poor face in financial access. The UID enabled micropayments solution and direct cash transfers addressed in this paper will be a boost for social democracy and policy making decisions. It will surely stop black money laundering and corruption by suggested ways and government would be helped to verify whether the intended beneficiaries actually receive funds/subsidies. This will potentially save thousands of crores of tax payers' money. Also, it will help the government efforts to account for residents during emergencies and security threats. As the society move towards an open access, UID as a soft infrastructure for connectivity, financial inclusion and identity will ultimately, empower the individuals in India. When capturing data of residents concerns should be made for their privacy also. For this reason a minimal and only necessary data should be collected for different applications. The collection of data should also be done with concerns of the residents and only after their approval. Aadhaar authentication allows application to verify a resident's identity and protect their data privacy. Aadhaar has some issues of privacy, security of personal data which must be addressed in the future course of implementation.

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