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Information Technology

4 G- A NEW ERA IN WIRELESS COMMUNICATION

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ABSTRACT

4G – "connect anytime, anywhere, anyhow "promising ubiquitous network access at high speed to the end users, has been a topic of great interest especially for the wireless telecom industry. 4G seems to be the solution for the growing user requirements of wireless broadband access and the limitations of the existing wireless communication system. The purpose of this paper is to provide an overview of the different aspects of 4G which includes its features, its proposed architecture and key technological nablers. It also elaborates on the roadblocks in its plemantations. A special consideration has been given to the security concerns of 4G by discussing a security threat analysis model proposed by International Telecommunication Union (ITU). By applying this model, a detailed analysis of threats to 4G and the corresponding measures to counter them can be performed.

1. INTRODUCTION

The fourth generation (4G) of wireless cellular systems has been a topic of interest for quite a long time, probably since the formal definition of third generation (3G) systems was officially completed by the International Telecommunications Union Radio communication Sector (ITU-R) in 1997. A set of requirements was specified by the ITU-R regarding minimum peak user data rates in different environments through what is known as the International Mobile Telecommunications 2000 project (IMT-2000). The requirements included 2048 kbps for an indoor office, 384 kbps for outdoor to indoor pedestrian environments, 144 kbps for vehicular connections, and 9.6 kbps for satellite connections. With the target of creating a collaboration entity among different telecommunication associations, the 3rd Generation Partnership Project (3GPP) was established in 1998. It started working on the radio, core network, and service architecture of a globally applicable 3G technology specification. Even though 3G data rates were already real in theory, initial systems like Universal Mobile Telecommunication System (umts) did not immediately meet the IMT-2000 requirements in their practical deployments. Hence, the standards needed to be improved to meet or even exceed them. The combination of High Speed Downlink Packet Access (HSDPA) and the subsequent addition of an Enhanced Dedicated Channel, also known as High Speed Uplink Packet Access (HSUPA), led to the development of the technology referred to as High Speed Packet Access (HSPA) or, more informally , 3.5g Motivated by the increasing demand for mobile broadband services with higher data rates and Quality of Services(QoS),

3GPP started working on two parallel projects, Long Term Evolution (SAE), which are intended to define both the radio access networks (RAN) and the network core of the system … LTE/SAE, also known as Evolved Packet System (EPS) , represents a radical step forward for the wireless industry that aims to provide a highly efficient, low-latency, packet-optimized and more secure service. The main radio access design parameters of this new system include OFDM (Orthogonal Frequency Division Multiplexing) waveforms in order to avoid the inter-symbol interference that typically limits the performance of high-speed systems, and MIMO (Multiple-Input Multiple-Output) techniques of boost the data rates. At the network layer, an all-IP flat architecture supporting Qos has been defined. The world's first publically available LTE service was opened by TeliSonera in two Sandinavian capitals Stockholm and Oslo on December 14, 2009, and the first test measurement are currently being carried out. However, by the time the standard development started, the ITU-R framework for 4G systems was not in place, and later research and measurements confirmed that the system did not fully comply with ITU-4G requirements. For this reason, the term 3.9G has been widely used with the expectation of their evolving towards official 4G status in due course. Before 3GPP started working in the real 4G wireless technology, minor changes were introduced in LTE through Release 9. In particular, fem to cell and dual-layer beam forming, predecessors of future LTE-Advanced technologies, have been added to the standard. The formal definition of the fourth generation wireless, known as the International Mobile

Telecommunication Advanced (IMT Advanced) project, was finally published by ITU-R through a Circular Letter in July 2008 with a call for candidate radio interface technologies In October 2009, six technologies were submitted seeking for approval as international 4G communications standard 3GPP's candidate inlet-Advanced, the backward-compatible enhancement of LTE Released 8 that will be fully specified in 3GPP Release 10. BY backward compatibility, it is meant that it should be possible to deploy LTE terminals. Other candidate technologies are IEEE 802.16m and China's Ministry of Industry and Information Technology TD-LTE-Advanced. The set of IMT-Advanced high-level requirements by the ITU-R in is as follows.

.   A high degree of commonality of functionality worldwide while retaining the flexibility to support a wide range of services and applications in a cost-efficient manner.

- Compatibility of services within IMT and with fixed networks
- Compatibility of internetworking with other radio access systems.
- High-quality mobile devices.
- User equipment suitable for worldwide use.
- User-friendly application, services, and equipment.
- Worldwide roaming capability.
- Enhanced peak rates to support advanced services and applications (100 Mbit/ s for high mobility and 1 Gbit/ s for low mobility were established as targets of research) .

All the above requirements, except for the last one, are high level, i.e. they do not quantify the performance requirements; besides, they have largely been pursued by the industry already. When it comes to a detailed description of the IMT-Advanced requirements, explicit targets have been set for average and cell-edge performance in addition to the usual peak data rates. This was a necessary issue to be addressed since they define the experience for the typical user. The requirements for LTE-Advanced were accordingly set to achieve or even enhance IMT-Advanced. Stated the target for average spectrum efficiency and cell-edge user throughput efficiency should be given a higher priority that the target for peak spectrum efficiency and Voice-over-IP capacity. Therefore, the solution proposals of LTE-Advanced, the main once of which are covered by this paper, focus on the challenge of raising the average and cell-edge performance. The relationship among the requirements of LTE-Advanced, LTE and IMT-Advanced other important requirements are already mentioned backward compatibility of LTE-Advanced with LTE and the spectrum flexibility, i.e., the capacity of LTE-Advanced to be deployed in different allocated spectrum since each region or country has different regulations. The main issue now is to develop the appropriate technologies that allow LTE-Advanced to meet the purpose targets. From a link performance perspective, LTE already achieves data rates very close to the Shannon limit, which means that the main effort must be made in the direction of improving the Signal-to-Interference-and-Noise Ratio (SINR), experience by the users and hence provide data rates over a larger portion of the cell.

2. EVOLUTION OF 4G:

The development and augmentation of 4G networks and related technologies in today's scenario is imperative indicator of advancement in the field of wireless communication and technology.

This progress started back from 1970's when the expertise just learnt how to crawl on the path of development with the evolution basic first generation networks. 1G or the first generation wireless networks were based on analog technology, designed in 1970s. This generation used the basic cellular structures and architecture or the purpose of mobile communications. After the first step of 1G in the path of progress, the second step was of the 2Gor second generation networks which marked a transformation from the analog technology to the digital technology using digital signals. 2G networks made digital communication possible at low speeds with the introduction of GSM (Global Mobile System), YDMA, PDC (Personal digital cellular) and CDMA (Code division multiple access). Then came 2.5Gand 3G in the 1990s with higher qualities of services and better communications speed 2.5G acted as an interim between the 2G and the 3G services. After the facility of 3G of providing higher data rates for fulfilling the data demanding needs of users, the new leap in the telecommunications industry is that of 4G. The first operating 4G Network was established by Clearwire and Intel in Portland, Oregon in January 2009, making the beginning of new era. 4G has much promises and expectations to keep

3. CHALLENGES

3.1) Security

The first step in analysing cellular wireless security is to identify the security objectives. These are the goals that the security policy and corresponding technology should achieve. Howard, Walker, and Wright, of the British company Vodafone, created objectives for 3G wireless that are applicable to 4G as well:

- To ensure that information generated by or relating to a user is adequately protected against misuse or misappropriation.
- To ensure that the security features are compatible with the world-wide availability.
- To ensure that the security features and adequately standardized to ensure world-wide interoperability (Interoperability is the ability of making systems and organizations to work together) and roaming between different providers.
- To ensure that the level of protection afforded to users and providers of services is considered to be better than that provided in contemporary fixed and mobile networks.
- To ensure that the implementation of security features and mechanisms can be extended and enhanced as required by new threats and services
- To ensure that security features enable new 'e-commerce' services and other advanced Applications (Howard, Walker, and Wright 2001, 22)

These goals will help to direct security efforts, especially when the system is faced with specific threats, in 4G Networks, security measures must be established such that they enable data transmission to be as safe and secure as possible. The nature of the 4G network, gives an increased likelihood of security attacks due to vast facilities. Hence, multiple levels of security, including authentication, will be necessary to protect the data that gets transmitted across the network. Wireless systems face a number of security challenges, one of which comes from interference. As more wireless devices begin to use the same section of electromagnetic spectrum, the possibility of interference increases. This can result in a loss of signal for users. Moreover, an abuser can intentionally mount a denial-of-service attack (lowering availability) by jamming the frequencies used.

3.2) Integration of IP Devices

To provide better facilities with high data rates and higher bandwidths, 4G technologies provide integration of Non IP devices and IP devices. This feature makes it easier to integrate the infrastructure of all current networks and consequently it will be easier for users to access services and applications regardless of the environment. By this, one can easily access different mobile and wireless networks simultaneously. Multimode software is the best solution to this problem. This is software that allows the user device to adapt itself to various wireless interfaces networks in order to provide constant net access with high data rate. This is all packet based. Unfortunately, to use packet, all cellular hardware will need to be upgraded or

replaced. Consumers will be required to purchase new phones, and providers will need to install new equipment in towers.

3.3) Cost Affordability and Managing User Accounts

With 4G networks, maintaining user accounts has become complicated. Due to heterogeneity of 4G networks and the frequent interaction of service providers, the billing system is not able to be figured out and managed. In terms of 4G Network cost and affordability, there are a number of issues to consider that reflect some degree of risk, as well as opportunity, so that these networks are successful once rolled out to the general public, and in general, 4G Networks are designed in order to create an environment that supports high-speed data transmission and increased profit margins for organizations that utilize these capabilities. Developing a successful 4G Networks platform is a positive step towards the creation of a wireless and broadband environment that possesses rapid transmission speeds, data integrity modules, and other related events that encourage users to take additional risks in promoting successful utilization of these 4G tools.

3.4) Meeting Consumer Expectation

With the appropriate combination of resources, it is possible for 4G Networks to create alternatives that exceed consumer and industry expectations. Another key feature of 4G networks is high level of user-level customization. That is, each user can choose the preferred level of quality of service, radio environment, etc. Accessing 4G Networks will be possible virtually by using any wireless device such as PDAs, cell phones, and laptops. In general, the possibilities associated with 4G Networks are endless, as high-speed data transmission and associated capabilities are more feasible than ever. This supports the notion that the demand for more complex networks and related capabilities are stronger than ever, as a greater number of consumers continue to buy into the potential that exists with advanced networks, such as 4G.

4. Opportunities in 4G

- 4G is being designed in order to facilitate the development of a superior alternative to all existing strategy (i.e. 1G, 2G and 3G).
- 4G provides with the service at 100 megabits per second (Mbit/s) for high mobility communication (such as form trains and cars) and 1 gigabit per second (Gbit/s) for low mobility communication (such as pedestrians and stationary users) since the other older version doesn't support such a speed.
- Be based on an all-Ip packet switched network. Unlike 3G, which is based on two parallel infrastructures consisting of circuit switched and packet switched network nodes, 4G will be based on packet switching only. This will require low-latency data transmission.
- Be able to dynamically share and use the network resources to support more simultaneously users per cell.
- Smooth handovers across heterogeneous networks. The ability to offer high quality of service for next generation multimedia support.

- The other important advantage of the above-mentioned access techniques is that they require less complexity for equalization at the receiver

5. Conclusion

4G wireless networks not only enable more efficient, scalable, and reliable wireless services but also provides wider variety of services. These opportunities come with a need for rethinking our security, privacy, architect and billing technologies have been used for previous generations. We believe, however, that future research will overcome these challenges and integrate newly developed services to 4G networks making them available to everyone, anytime and everywhere.

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ANDROID   APP (Talk – On)

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Abstract:

Human being are keen to comfortable things in their life, so as in the app world, people want their cells phones to be a mini robots which do all their stuff on their instruction, his research is all about turning their wishes into reality, Research is about a App of Loudspeaker, the function of this app is to turn on the loudspeaker whenever the person don't wish to hold their cell phones in their hand but still wanted to us it. The app can turn on the loudspeaker when a particular word is being said by the person, the word can be dynamic ("Uservoice") or can be static as well ("Device inbuilt")

Keywords: Speech Recognizer, Expert System, SQL Lite, Dynamic Knowledge representation.

Brief introduction:-

Speech is one of the most common, effective methods of communication, and speech recognition has many fields of application numerous methods of speech recognition have been developed, such as templates matching methods, statistical methods, neural methods, based approaches, and so on. However, most of the approaches have not been able to achieve the final goals of speech recognition that is speaker independent continuous speech recognition.

Most of the approaches still depend on heuristic knowledge in addition of their own methodology. If we can simulate the knowledge of spectrogram reading expert effectively, we will be able to get recognitions performance close to that of human experts. The main goal of our system is to provide the most effective way of extracting knowledge of human experts and to achieve recognition performance as high as that of human experts in computer science; SPEECH RECOGNITION (SR) is the translation of spoken words in to text. It is also known as "automatic speech recognition (ASR)" "Computer Speech Recognition", "Speech-to-text", or just "SIT ". Some SR system use "Training where the individual speaker reads section of the text in to SR system. This system analyses the person's speech, resulting in more accurate transcription. Systems that do not use training are called "Speaker Independent System". Systems that use training are called "Speaker Dependent System".

Speech recognition application include voice user interface such as voice dialling (E.g. Call Home"), call routing (E.g. "I would like to make a collect call"),demotic appliance control, search(E.g. Find a podcast where particular word were spoken), simple data entry (E.g. Entering a credit card number),preparation of structured documents (E.g. A radiology report),speech-to-text processing (E.G.

Word processor or emails),and aircraft (E.g. Usually termed Direct voice Input)

This application is use to activate the loudspeaker services of the mobile devices. This can be also used by the handicap people who don't have the upper forelimbs. It's just requires a voice input for a command to run in the coding part of the application which turns on the loudspeaker services for the devices within fractions of seconds.

REASONS FOR IMPLEMENTATION

This application is an android based application, as the android market is an open source, we have try to implement the Talk-on application, which has facilitate a person to attend the call after turning on the loudspeaker when he doesn't wish to hold the device, or in case when the person is unable to hold the device while perform some other work, have their hands busy in it. A person may be waiting or washing utensils, during which a call may receive to the user to person can't waste time is washing hands and attend the call and want to attend the call at instance, so the person need to say a word which turn on the loudspeaker and a person call continue with his work and also talk on the cell phone simultaneously.

Now a day's differently able people are facilitated with many kind of application in smart phones devices, which help them to use the device same as normal human being does. The Samsung has recently invented features in its new handheld devices for answering the call by saying "ANSWER" and the call receiving services of the device. Similarly this device can help the handicaps to use the device without touching it. The person needs to say answer and/or e.g. turn on the loudspeaker to answer and/or turning on the loudspeaker.

FLOW STRUCTURE

In the above diagram it shows, when a person receives a call, the caller's number and name is being showed on the device and with that the loudspeakers icon is also showed on the GUI of the device. When a person receives a call the Talk-On application gets turned on at the backend of the device, and it waits for the person to say the command to perform particular action allocated to the coding part of the Talk-On application. If the person doesn't want to attend the call he says (E.g.disconnent), the allocated action is performed and the call get disconnect.

If the person wants to attend the call his hands are busy with other stuff like washing utensils or writing, person need to say command to attend the call and turn on the loudspeaker services of the device. This app get runs the coding part of the loudspeaker which is inbuilt in the cell phone on a particular trigger being fired by the user end.

EXAMPLE:

Suppose a user is busy in doing any stuff and don't wish to pick up the cell phone but still wanted to receive the call, he just need to say ("turn on the loudspeaker") when a call is being received on his cell, the moment he says that line, the app fires a trigger which has and action of turning on the loudspeaker, this way the loudspeaker gets started and the user can use the cell phone with touching it.

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If in case the person who is holding the cell phone wants to leave urgently but want to handover the call to someone whose hands are not free to hold the cell phone, the person can give him the cell phone having loudspeaker turned on ,this is a natural human tendency.

The loudspeaker cannot turned on by recording the same line ("Turn on the loudspeaker ") in between of a call, because the app cannot records each and every words when the call is going on, which needs a temporary memory for storing and initializing all the words spoken by the user and check whether it matches the line which may run the trigger, as this can be happen done in start only.

There is e feature in Samsung galaxy S3 for answering the call by saying ("ANSWER") which receives the call without swiping the green circle to the other end of the screen.

ACHITECTURE

In the above diagram, architecture consist of 5 layers, when the command said by the user the Talk –On layer receives the sound signal and send it to the Speech Recognizing layer, where sentences said by the user is fragmented into isolated words and send forward to Export System further the selected actions gets triggered as per the command being passed by the user, then expert system check with SQL Lite.

SQL Lite check within in the database whether the word said by the user existing within it based on that the action is performed whether it should disconnect

the call or it should turn on the loudspeaker.

If the command passed by the user get verified from SQL Lite and has an action of turning on the loudspeaker of the device then the SQL Lite interact with the Device Loudspeaker Services layer and turn the speaker ON so that a person can hear the voice of the caller without receiving the call using hands.

Components

TALK-ON:- Receives the sound signal from the user & pass on the below layer for verification.

SPEECH RECOGNIZER:-Convert spoken input into grammatically correct format. When the sound signal enters this layer the sentence is fragmented into isolated words and the meaning of each and every word is scanned by this layer. Then the isolated words are send to the below expert layer to perform the action according to the word (command).

Expert System: - Select desired action to be performed when genuine data being received for the SR layer.

SQL Lite: - Trigger the query to match the sound signal for user with the existing one stored in database.

Device Loudspeaker Services: - The loudspeaker services of the device.

Key Feature of this app:

1) It turns on the loudspeaker in the starting of the call only.

2) Cannot record all the words by the user while the communication is going on, (if

user says the same word or some around him/her says the same word which may fire a trigger so, the app don't want to record the stuff after the communication has start, if yes then it also needs to store and scan all the words spoken by the user, which is against the privacy of the user).

3) Loudspeaker is turned off automatically when the call is disconnected and if the person wants to turn off the loudspeaker, it's obvious he/she has her hands free to hold it so that she can manually turn off the loudspeaker.

4) If it is set to be:

a) Dynamic: Loudspeaker won't get turn on by someone else if the same word is spoken by someone else in a nearby location, and also it can be used by that person only whose voice is being recorded in the database (Security proposes).

b) Static: (Stored at once in the starting) the loudspeaker can be turned on by that person only, and by no one else.

Advantages

- Person can attend and disconnect the call without touching the device interface or when his hands are busy for some other work.
- Even the Differently able (handicap) person can also attend the by saying the command to the application.

Research

It can be dynamic and can be linked to Google speech database where the person can keep his own set of command to perform the action on the device of attending and disconnecting the call.

BIG DATA

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Abstract-

The amount of data in our world has been exploding, and analysing large data sets. The use of big data will become a key basis of competition and growth for individual firms. Big data management is the organisation administration and governance of large volumes of both structured and unstructured data. Analysis is where companies begin to extract value from big data. Distinct from business intelligence big data analysis involves development of application and using those apps to gain insight into massive data sets.

Keyword- big data, data analysis, data management data use, big data Vs cloud computing

1. INTRODUCTION

The amount of data in our world has been exploding, and analysing large data sets-so called big data-will become a key basis of competition, underpinning new waves of growth innovation and consumer surplus according to research by MGI and mcKinsey business technology office leaders in every sector will have to grapple with the implications of big data, not just a few data- oriented managers. Theincreasing volume and detail of information captured by enterprise, the rise of multimedia social media, and the internet of thing fuel exponential growth in data for the foreseeable future.

Big data is studied in five domains – healthcare in the United States, the public sector in Europe, retail in the United States and manufacturing and personal-location data globally big data can generate value in each. For example, a retailer using big data to the full cloud increase its operating margin by more than 60 present.

2. WHAT IS BIG DATA?

Big data is general term used to describe the voluminous amount of unstructured and semi- structured data a company creates—data that would take too much time and cost too much many to load into a relational database for analysis. Although big data doesn't refer to any specific quantity, the term is often used when speaking about petabytes and Exabyte's of data.

A primary goal for looking at big data is to discover repeatable business patterns. It's generally accepted that unstructured data, most of it located in text files, accounts for at least 80% of an organisation's data. If left unmanaged, the sheer volume of unstructured data that's generated each year within an enterprise can be costly in terms of storage. Unmanaged data can also pose a liability if information cannot be located in the event of a compliance audit or lawsuit.

Big data analytics is often associated with cloud computing because the analysis of large data sets in real-time requires a

framework like map reduce to distribute the work among tens, hundreds or even thousands of computers.

3. ELEMENTS OF BIG DATA

At the highest level, big data presents three top-level elements:

- Data management – data storage infrastructure, and resources to manipulate it
- Data analysis – technologies and tools to analyse the data and glean insight from it
- Data use – putting big data insight to work in business intelligence and end-user applications

Underlying and pervading these high-level categories are the data (legacy and new, structured and unstructured) and the IT infrastructure that supports managing and operating upon it.

4. DATA MANAGEMENT

Data management is the logical starting place in exploring big data. It is the logical starting place in exploring big data. It is where the data "lives" and where analytics upon it.

A .Legacy system

For the last two decades, data management has built upon three related primary technologies:

- Relational data base management systems – to store and manipulate structured data
- MPP systems – to crunch increasingly massive data sets and scale with growth
- Data warehousing – to subset and host data for subsequent reporting

Limitation in legacy systems

While these technologies continue as important within big data, their role is more circumscribed due to limitations from:

- Scalability: as data sets on RDBMSs grow, performance slows, requiring major (not incremental) investments in compute capacity. These investments are today outstripping the budgets of organizations, especially as data grows exponentially.
- Representative data: with declining ability to process whole data sets, information in data warehouses is no longer statistically representative of the data from which it is derived. As such, business intelligence derived from it is less reliable.
- Unstructured data: RDBMS and data warehousing are definitively structured data entities. However, data growth is focused on unstructured data by a factor of 20:1

RDBMS, MPP and DW are not going away any time soon. Rather, they are taking on new rolls in support of big data management, most importantly to process and host the output of paradigms such as map reduce and to continue to provide input to BI software and to applications.

B. THE DATA

The "data" in big data originates from a wide variety of sources and can be organized into two broad categories:

Structured data:

Structured data by definition already resides in formal data stores, typically in an RDBMS, a data warehouse or an MPP

system, and accounts for approximately 5% of the total data deluge9 (the rest is unstructured). It is often categorized as "legacy data" carried forward from before big data had currency, but can also be recently derived data stored in pre big data paradigms (RDBMS, DW, MPP, etc.). The "structure" typically refers to formal data groupings into database records with named fields and/or row and column organization; with establish associations among the data elements.

While most big data discussions see structured data as an input, big data management drives structured data sets as an output as well (operational data).

Unstructured data

Unstructured data, by contrast, comprises data collected during other activities and stored in amorphous logs or other files in a file system. Unstructured data can include raw text or binary and contain a rich mix of lexical information and/or numerical values, with or without delimitation, punctuation or metadata.

c. Data management structure

The most salient characteristics of big data deal with "what" and "how," but "where" can be equally important. While big data is mostly "agnostic" or orthogonal to infrastructure, the underlying platforms present implications for cost, scalability and performance.

Physical and virtual

Internal projects at companies like Google and yahoo that needed to scale massively with low incremental cost. They were designed to take advantage of "standard" hardware – primarily Intel architecture

blades – running the FOSS Linux and open application platforms like java, in local, and later, remote data centres.

Rapidly maturing, big data infrastructure proved a perfect candidate for public and private cloud hosting. And so big data users frequently leverage PAAS (platform as a service) instead of actual data centres. Leading this trend is Amazon, whose web services and elastic map reduce (EMR) greatly simplify companies first forays into big data and also provides for tremendous scalability throughout the lifetime of big data projects.

Hosting trends

The hadoop project website stats "GNU/linux is supported as a development and production platform" and indeed most hadoop installation, physical and virtual, build on linux infrastructure. While most code in hadoop and related projects can migrate to other UNIX-type platforms (solarise, etc.), Microsoft windows hosting is more challenging. Hadoop core code exhibits dependencies primarily on java, but traditionally needs support from UNIX shells, SSH and other utilities. As such, windows hosting, predicted upon availability and stability of the Cygwin emulation environment, is not supported as a production environment.

Big data developers and analysts, however, make extensive use of other development hosts. Data collected by karma sphere studio community edition and professional products shows developer host distribution of 45% from windows, 34% from linux and 22% from macOs.

5. Data analysis

Analysis is where companies begin to extract value from big data. Distinct from business intelligence (see data consumption below), big data analysis involves development of applications and using those apps to gain insight into massive data sets.

A. Development

Big data developers resemble other enterprise IT software engineers in many aspects: in particular, they

- Use the same programming languages, starting with java, augmented with higher-level language like pig Latin and hive
- Develop in the same environments, especially the eclipse and netbeans IDEs
- Build applications that manipulate data stores, in some cases using SQL

  However, today's big data developers diverge from traditional enterprise IT programmers in key aspects of their trade

- Their audience is more specialized – not average enterprise end users, but data analysis
- The software they create must manipulate orders of magnitude larger data sets, increasingly with seemingly exotic programming constructs like map reduce
- They rely on batched execution, with unique and complex job execution sequences (most resembling high performance computing)

Hadoop programming

While a tutorial on hadoop is beyond the scope this white paper, it is useful to understand the core

Programming tasks faced by big data developers. To gain insight from big data with hadoop, developers must bootstrap hadoop file system create code of implement the elements of map reduce (mappers, practitioners, comparators, combiners, reducers, etc.), successfully build, deploy and run those jobs, and dispose of output to intermediate data stores or structured data storage (RDBMSs, etc.) for subsequent analysis. Big data developers, especially ones new to the hadoop framework, need to focus their energies on optimizing map reduce, not on dealing with the intricacies of hadoop implementation. Karma sphere and other companies offer a range of products to simplify the hadoop development process. In particular, karma sphere studio provides a graphical environment to develop, debug, deploy and monitor map reduce jobs, cutting time, cost and effort to get results from hadoop.

A. Analysis

Building and executing jobs for hadoop is only half the challenge of big data analysis. The outcome of hadoop job execution, while greatly condensed and more structured, does not automatically yield insight to guide business decisions. Ideally, big data analysis should be able to uses familiar tools to characterize, query and visualize data sets coming out of hadoop.

Karma sphere and other suppliers offer big data analysis software platforms and

tools to simplify and streamline interaction with hadoop clusters, extract data sets and glean insight from that data. In particular Karma sphere

Analyst provides big data analyst with quick, efficient SQL access and insight to big data to any hadoop cluster from within a graphical desktop environment. Working with structured and unstructured data, automatically discovering its schema, it let analysts, SQL programmers, developers and DBAs develop and debug SQL with any hadoop cluster.

6. DATA USE

If big analytics is about mining big data for insight, data use [consumption] is about acting upon those discoveries. Data use falls into two rough categories;

Business intelligence and visualization-feeding into traditional BI suites and into OLAP, the output of big data provides business analysts with comprehensive data sets, not just statistically-selected sub- sets that fit into

Legacy data bases and schemas

By improving the scope and quality of data, big data greatly enhances the reliability of conclusion drawn from and improves BI outcomes. Big data application – using big data outcomes to drive applications in web commerce, social gaming, and data visualization, search, etc. Businesses in these and other areas are drawing upon big data not just for high-level business insights, but to provide concrete input to user-facing applications.

7. BIG DATA VS. CLOUD COMPUTING

The attributes of our lives and the new requirements for all of the software we use on our computers and mobile devices. Undergirding all that is the cloud. Cloud computing is where data and information come from and they host to our modern communication infrastructure. The cloud has been around in one form or another for more than a dozen years and it is now making huge commercial in-roads. So, the era of big data and cloud computing and all the rest is upon us and for many people it is all confusing. They're the lucky ones because they are questioning the paradigm. The unlucky ones are not formulating questions at all, assuming that things will be fine. Surprisingly, the cloud computing options available today are already well matched to the major themes of need, though some of us might not see it. Big data forms a framework for discussing cloud computing options. Depending on your need you can go into the marketplace and buy infrastructure services from providers like Google and Amazon, software as a services (SAAS) from a whole crew of companies starting at sales force and proceeding through net suite, cloud9, job science and zuora – a list that is almost never ending. Infrastructure vendors provide hardware and a software stack including your favourite operating system, database, middleware and perhaps your favourite single backup and keep all the green lights on but this is really just about moving your data centre to another location. You have a great deal of responsibility for managing the system so you need some expertise. I recently had an interesting conversation with an infrastructure company about the cost of

API calls and how to manage them to save money. That seems a little too down in the weeds for me and while i like saving money, I think my IT deployment ought to be helping me make it and hiding from me the complexities of API calls. One of the great benefits of cloud solutions is elasticity, the ability to add users and additional applications as your needs change and to reverse course if your demand slows. In a conventional situation you buy capacity based on maximum demand and then sit on the investment when demand slows. Cloud computing is better for that, today, most vendors have a "have it your way" strategy. They support several forms of cloud computing including single instance solutions that are not much more than your data centre in the cloud (affectionately called your mess elsewhere) all the way to multitenant cloud computing practiced by the major innovators of the space such as sales force, zuora and net suite to name just three. Despite what anyone might think of the single instance cloud deployment, there are reasons for it and people buy it. I'd advise you to investigate carefully ask some hard questions of the vendors, as well as yourself before selecting a solution. Very often you can find what you are looking for from one of the established cloud vendors and there is little reason for building your own private cloud, but that doesn't mean you shouldn't. Regulations and corporate policies can rule out some kinds of cloud computing which is why so many approaches thrive.

8. Conclusion

We have entered an era of big data. Through better analysis of the large volumes of data that are becoming available, there is the potential for making faster advances in many scientific disciplines and improving the profitability and success of many enterprises. However, many technical challenges include not just the obvious issues of scale, but also heterogeneity, lack of structure, error-handling, privacy, timelines, provenance, and visualization at all stages of the analysis pipeline from data acquisition to result interpretation. These technical challenges are common across a large variety of application domains, and therefore not cost-effective to address in the context of one domain alone. Furthermore, these challenges will require transformative solutions, and will not be addressed naturally by the next generation of industrial products. We must support and encourage fundamental research towards addressing these technical challenges if we are to achieve the promised benefits of big data.

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Computer Interaction with Human Emotions

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Abstract

Could computer ever have the power to predict our emotions and change them? We through this paper have tried to highlight that it is possible to co-relate the conversation between the human being and computers. We tried to show that it is possible not only to co-relate logical intelligence but also emotional intelligence like being happy, being sad, being loving, getting angry. This paper tries to explain this interaction with computers using a few existing techniques.

Introduction

Emotional intelligence simply consists 7 basic human emotions namely joy, angry, sad disgust, surprise and fear. A computer has to detect these human emotions accurately like if a child cannot cope up with learning Maths, the system could detect when the child is frustrated, bored or interested and could help them to better handle their feelings, even the system could help a smoker who is willing to quit smoking by understanding his stress and reason for the same.

One way of achieving this is by enabling the computer to understand human emotions. This is not done by taking input from traditional devices such as keyboard, mouse or even a touch-screen but instead using sensors, speech and face recognition. Understanding and achieving all this at a complex level is a necessary form of artificial intelligence.

Emotions: The key features of humans

According to the definition

a) Emotions is a reaction to events deemed relevant to the needs, goals, or concerns of an individual, and,

b) Emotion encompasses physiological, affective, behavioural and cognitive components.

For example "fear" shows strong negative mind state where as "joy" is a reaction to a goals being fulfilled and shows the strong positive mind state. The model which can understand human brain functions—how it creates and classifies thoughts. This model is helping to drive progress as computer learning and thinking can be programmed to copy the human mind's methods.

A simplified view of work neuropsychology is shown in fig.
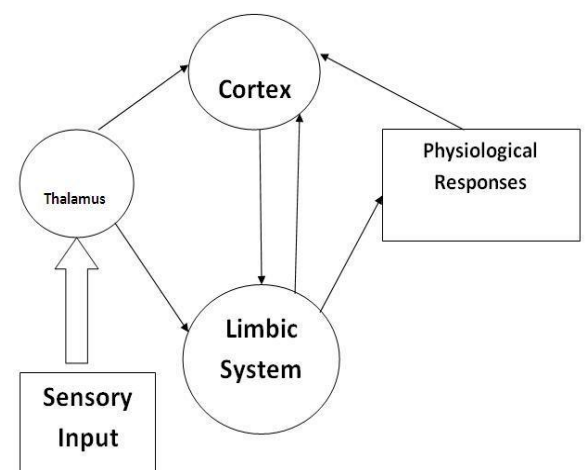
There are three key regions of the brain in this model:

a) The thalamus,
b) The limbic system, and
c) The cortex.

All the external emotional input is first received by 'Thalamus' which work as a 'basic signal processor' after processing basic signals it sends to both 'cortex' and 'limbic system' for 'higher processing'

Limbic system continuously assesses the need pertinence of its input. According to that it creates physiological/emotional response.

Emotions and Computers

The literature on emotions and computers has also grown dramatically in the past few years, driven primarily by advances in technology. There will be technologies that effectively enable computers to assess the physiological correlation of emotions combined with dramatic improvements in speed and quality of signals processing. Multimodal interfaces which include voices, faces, and bodies can now manifest a much wider and more nuanced range of emotions than was possible in purely textual interfaces. Finding emotional information starts with passive "sensors", which senses the user's physical state or behaviour. The captured data is analogous. The devices such as camera, video camera might capture facial expression, body posture and gestures, while a microphone might capture speech. There are many sensors which sense the skin temperature, heart rate etc.

Different ways of emotion Detection

a) **By Facial Recognition:**

Emotions are mainly predicted by the person's face. Hence face becomes an important tool for recognition the person's feelings. So by using face recognition we can predict the person's feelings. So by using face recognition we can predict the person's feelings. This can be done by simply using webcams for taking pictures and then analysing them by their gestures, lip movements, eye movements and facial expressions.

A simple example is illustrated below:

If a person is described as "smiling, but his eyes do not reflect the smile, then it is likely that the person is faking the smile. But how can one tell a real smile from a fake one?

A few software's are able to perform this task by using a simple digital camera, this software can analyse a human face and determine whether that person is feeling joy, sadness, surprise, anger, fear, disgust, contempt or any combination of those seven emotions.

Sometimes there is quite difference between what people say and what they do and corresponding their thinking. There are software's which detect the persons face by taking a picture from webcam and give the results by reconnecting the dots which are generated from the persons emotions. This webcam image is then converted to a big binary image having white pixels and black pixels. The database consists of images having seven basic emotions in the form of dotted images of eye structure, lip pattern, eye brow movement and forehead lines. Then after analysing the dots and joining them, checking from the database we get the results. These connected dots accurately

read the emotions registered on a person's face in a single photograph or video frame. All it needs is a resolution of at least 40 by 40 pixels.

Another example:

Emotions are a crucial part of human communications. It is quite interesting in the way that we use facial expressions to convey these signals. There are people who cannot express their feelings and emotions and they are with autism spectrum conditions. Computers don't recognize these facial signals. So, the computer carries on blithely saying whatever it wants to say or doing whatever it wants to do, and it doesn't look at the expression on your face, or the tone of your voice as you interact with it. One goal is to build a better learning environment for learners of all ages and so, we will look at ways that we can give computers some sort of emotional awareness. It becomes very difficult to build a algorithm which requires large amount of maths.

This conversion to big binary is done using MATLAB for eg

%#convert rgb to grayscale

I=rgb2gray(X,map);

%#compute an appropriate threshold level = grayscale(I);

%# convert grayscale to binary

BW im2bw(I,level);

And here is what original image and result BW look like. Resizing of the image is done with the image processing toolbox function present in MATLAB IMRESIZE like,

%# Resize the image to 10-by10 pixels smallBW= imresize(BW, {10 10});

Face emotions through eye and lip features by using particle swarm optimization [14]

First try to find the forehead from the binary image we start scan from the middle of the image, then want to find a continuous white pixels after a continuous black pixel. Then we want to find the maximum width of the white pixel by searching vertical both left and right hand side.

For eyes detection, consider the face width by W. Scan from the W/4 to (W-W/4) to find the middle position of the two eyes. The highest white continuous pixel along the height between the ranges is the middle position of the two eyes. For left eyes, search W/8 to mid and for right eye search mid to w-w/8. Here w is the width of the image and mid is the middle position of the two eyes.

Then we find the lower position of the tow eyes by searching black pixels vertically. The left side of the left eye is the starting width of the image and the right side of the eye is the ending width of the image.

For lip detection, we consider that lip must be inside the lip box. There is windows software which detects the human emotions by taking a picture by webcam. It creates a left eye structure right eye structure and a lip pattern checks it in the database and gives the result of the persons feels. Here is the image

One of the attribute for detecting emotion using face recognition technique is by lip pattern.

A computer is being taught to interpret human emotions based on lip pattern. The system could improve the way we interact with computers and perhaps allow disabled people to use computer-based communication devices, such as voice synthesizers, more effectively and more efficiently.

There is a system developed using a genetic algorithm that gets better with each iteration to match irregular ellipse fitting equations to the shape of the human mouth displaying different emotions. They have used photos of individuals South-East Asia and Japan to train a computer to recognize the six commonly accepted human emotions—happiness, sadness, fear, anger, disgust, surprise—and a neutral expression. The upper and lower lip is each analyzed as two separate ellipses by the algorithm

Earlier researchers have developed an understanding that allows emotion to be recreated by manipulating a representation of the human face on a computer screen. Such research is currently informing the development of more realistic animated actors and even the behaviour of robots. It is well known that many deeper emotions are betrayed by more than movements of the mouth. A genuine smile for instance involves flexing of muscles around the eyes and eyebrow movements are almost universally essential to the subconscious interpretation of a person's feelings. However, the lips remain a crucial part of the outward expression of emotion. The algorithms can successfully classify the seven emotions and a neutral expression as described.

Detection of emotions by neurons

Neural networks are actually not that great at facial detection. They become almost too specific to be able to detect faces. Generally to detect a face which is pointing at any degree towards the camera, a 180 degree variation in the possibilities of each face is needed. Since no one's faces really looks too similar it becomes an incredibly complex problem.

Actually a lot of facial detection relies on the person to be moving so that it can determine things like symmetry, eye blinking, and mouth movement. If you see half a face, the subject turns, then you see the other half, you can conclude that the object you are looking at is most likely a face.

This can be done by systematically dragging a box that represents all the inputs in and detecting things like nose, an eye, a mouth of the persons face. Then pinpointing the pixel location of the facial figures you could maybe detect emotion. Overall it's not the neurons which completely detect the emotions but till dome extent they contribute to this detection.

Above figure shows the BCI process. It includes following steps:

a) **Signal acquisition:**

It can be done with the help of EEG i.e. Electroencephalogram.

The electroencephalogram (EEG) is a measure of brain waves and used in the evaluation of brain disorders. EEG signals are the effect of superimposition of diverse processes that takes place at a point in the

brain. It uses the electrical activity of the neurons inside the brain.

b) Signal pre-processing:

Before processing a signal noisy, unwanted data is removed from the signals. It reconstructs the original brain activity signal.

c) Classification:

It is divided into two sub-steps:

Feature selection: Feature selection is a process of selecting useful features of emotions.

Feature classification: It is used to classify desired emotions into different classes. It is able to make a relationship between features and emotions.

The output of this process can be one between four different kinds of emotions:

Positive/Excited

Positive/Calm

Negative/Excited

Negative/calm

As compare to individual technique. If we combine face & neuron detection techniques it will result into effective emotion detection.

d) Detection by voice Inflexions

The system has been developed which can recognize the emotions of an individual. The feelings he has, depending on his voice inflexions. The computer can detect anger, anxiety or impatience of an individual. The human emotion recognition system developed. The system analyses 60 vocal parameters of the speaker, among of which voice, speed, the

pause made between configured the system to detect mostly the negative emotions of the individual.

Applications:

1. There is an application which analyses the sound measurements of a conversation, output is provided by another program which is specially built for that purpose. Then, based on the rules decided, it is able to identify the emotions hidden in an expression and determine whether the speaker is sad, happy or nervous. Even if the emotion is unclear, the application is able to specify how close the speaker is to each emotion in percentage terms. The application was presented by Susana Munoz Hernandez at the first international conference on fuzzy computation, held in Madeira, Portugal in 2009.

The application is based on a new tool called RFuzzy, implemented in the prolong programming language, prolong is able to represented and operate with what is known as fuzzy logic. Prolong is used primarily in artificial intelligence and expert systems applications.

Rfuzzy is a programming support, which stands out for its ease and its expressivity. It is able to represented, handle and reason with subjective concepts like high, low, fast, slow,, etc.

Apart from being applied to detect emotions in human conversations, RFuzzy has been used to enhance robot intelligence.

Being based on fuzzy logic, RFuzzy ha important benefits for conversation analysis. Its logical mechanism is flexible and it leaves some margin of interpretation to the computer. The computer will then

make the decision depending on a series of logical rules that take measurable parameters (volume, speech pitch and rate, position, seed or distance of the robot from the ball, etc.) as a reference.

2. It is said by Kay Stanney, design interactive owner, "that a lot of information about a user's mental and physiological state can be measured and that this data can help computers cater to that user's needs."

According to Columbus cars, the computers in some cars are somewhat emotionally attentive in an attempt to help keep drives safe. Although Volvo has "heartbeat sensors," it's more likely meant for detecting erratic heartbeat such as if an intruder suddenly pops up from hiding in the back seat. But Ferrari is working on mind-reading car, so that biometric and psychometric in-cockpit sensors will be able to "monitor a driver's heart rate, blood pressure, facial reactions and brain activity." Besides helping to monitor Ferrari drivers' fatigue level, it may also "forensically measure driver reactions in the moments before a road-rage incident or high-speed crash."

3. An older technology called layered voice analysis (VLA) supposedly detects and measures emotions in voice, the Israelis have used VLA tech in the war against terrorism to expose hidden hatred and malicious intent in the voices and hearts of terrorist suspects. This security tool is also allegedly a tool for love, meant to check for fluctuations in the voice that may betray real emotions. This was marked as "the love detector." The civilian love detector version measures only 5 of the 129 parameters of emotion that the security version measures while detecting

if the speaker is lying or telling the truth. The big blue marble reported that the security version "is being licensed to government and intelligence agencies by the Israeli company Nemesyco." Yet when two Swedish scientists published a paper claiming VLA was not an accurate security tool, Nemesysco Limited threatened to sue them and the electronic version of the paper was taken down.

Although it might prove to be wonderful. I'm not too excited about the prospect of my computer reading, reacting, or storing my emotions, I don't want to worry if the touchy-feely personal data would be shared with marketers or anyone not of my choosing. How often is the tone in chat or email misunderstood based upon personal state of mind at the time of reading the massage? Even people face-to-face can misread other people's emotions, so what if the computer misunderstood? It would not be cool if the computer started closing applications because it judged the user was too tired, too frustrated, or too excited to continue.

On the other hand, it might be nice if airport security could simply ask people if they intended to hijack the plane and lie-detector glasses, a voice analyser, or a computer at the TSA station could quickly verify a person was not a terrorist or any kind of theat. It would however be very bad news if the analysis was wrong. Are you ready for your own personal "HAL" to get touchy-feely, interpreting and reacting to your emotions?

4. Recognizing other people's emotions based on their facial expressions is a challenge for many people who have an autism spectrum disorder, particularly children.

Using an earlier version of Facet's software, for example, Bartlett and her colleagues created a game in which players are asked to minic the facial expressions of a cartoonish character on the screen. Using Emotient's software, the game assesses the player's success in recreating that expression, and returns a score. This game helps children with autism recognize other people's emotions through their facial expressions, as well as teaches them how to make facial expressions that express their own feelings.

"facial-expression recognition and facial-movement recognition are very closely intertwined," said Bartlett." That's the way the brain works. It's not that you have one brain that does the recognition and one that does movement." Building that facial muscle memory also helps players recognize their own emotions, and creates a sort of emotional memory, Bartlett added." If you move your face into a happy configuration, you tend to feel happier." Bartlett said." People can manipulate this by putting a pencil in their mouth. It makes you smile, and you get autonomous nerve system memory. It helps with empathy. You see it, you do it and you feel it, and it helps jump-start the whole social empathy system."

Other types of games could benefit from emotion recognition as well. Imagine a pet simulator, in which a virtual dog or cat reacts to the players expressions: is happy when that player is happy, sad when the player is sad, upset when the player is angry. Even if it's not built into the game itself, emotion recognition could help designer's play-test their games. If players are getting too angry at a certain level of the game, the designer might want to make

that part easier. If players feel confusion-an emotion recently added to facet's detection capabilities- the designers might need to add a tutorial.

Conclusion

- Nowadays the search is not keyword based but beyond that still there are billion pages which are not accessed.
- There is a prediction that by 2029 which will be not only based on just logical intelligence but also on emotional intelligence being funny, getting the joke, being sexy, being loving, understanding human emotion. That is what separates computers and human today.
- We believe that gap will close by 2029.

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Li-Fi (Light Fidelity)

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Abstract: LI-FI means "data through illumination" taking the fibber out of fiber by sending data through an LED light bulb that varies in intensity faster than the human eye can follow. It's the same idea brand behind infrared remote controls but far more powerful. Haas says his invention, which he calls D-LIGHT, can produce data rates faster than 10megabits per second, which is speedier than your average broadband connection.

Keywords: LED (Light emitting diode), D –LIGHT

1. INTRODUCTION

Li-Fi is transaction of data through illumination by taking the fiber out of fiber optics by sending data through a LED light bulb that varies in intensity faster than the human eye can follow. Li-Fi is the term some have used to label the fast and cheap wireless-communication. "At the heart of this technology is a new generation of high brightness light emitting diodes", says Harald Haas from the university of Edinburgh, UK ,"very simply , if the LED is on, you transmit a digital1,If it's off your transmit a 0," Haas says, " They can be switched on and off very quickly, which gives nice opportunities for transmitted data. " It is possible to encode data in the light by varying the rate at which the LEDs flicker on and off to give different strings of 1s and 0s. The LED intensity is modulated so rapidly that human eye cannot notice. So the output appears constant. More sophisticated techniques could dramatically increase VLC data rate. Terms at the University of Oxford and the University of Edinburg are focusing on parallel data transmission using array of LEDs, where each LED transmits a different data stream. Other group are using mixture of red, green, and blue LEDs to alter the light frequency encoding a different data channel. Li-Fi, as it has been dubbed, has already achieved blisteringly high speed in the lab. Research at the Heinrich Hertz Institute in Berlin, Germany, have reached data rates of over 500 megabytes per second using a standards white-light LED. The technology was demonstrated at the 2012 consumer Electronics Show in Las Vegas using a pair of Casio smart phones to exchange data using light of varying intensity given off from their screens , detectable at a distance of up to ten meters.

In October 2011 a number of companies and industry groups formed the Li-Fi consortium, to promote high speed optical wireless systems and to overcome the limited amount of radio based wireless spectrum available by exploiting a completely different part of the electromagnetic spectrum. The consortium believes it is possible to achieve more than 10 Gpbs, theoretically allowing a high-definition film to be downloaded in 30seconds.

2. WORKING TECHNOLOGY

This brilliant idea was first showcased by Harald Haas from University of Edinburg, UK in his TED Global talk on VLC. He explained," Very simple, if the LED is on, you transmit a digital1, if it's off very quickly, which gives nice opportunities for transmitting data." So what you require at all are some LEDs and a controller that code data into those LEDs. We have to just vary the rate at which the LEDs flicker depending upon the data we want to encode. Further enhancement can be made in this method, like using an array of LEDs for parallel data transmission, or using mixtures of red, green and blue LEDs to alter the lights frequency with each frequency encoding a different data channel. Such advancements promise a theoretical speed of 10 Gbps- meaning you can download full high-definition film in just 30 seconds. Simply awesome! But blazingly fast data rates and depleting bandwidths worldwide are not the only reasons that give this technology an upper hand. Since Li-Fi uses just the light , it can be used safely in aircrafts and hospitals that are prone to interference from radio waves. This can even work underwater where Wi-Fi fails completely, thereby throwing open endless opportunities for military operations. Imagine only needing to hover under a street lamp to get public internet access, or downloading a movie from the movie from the lamp on your desk. There's a new technology on the block which could, quite literally as well as metaphorically, throw light on how to meet the ever increasing demand for high speed wireless connectivity. Radios waves are replaced by light waves in a new method of data transmission which is being called Li-Fi. Light –emitting diodes can be switched on and off faster than the human eye can detect, causing the light source to appear to be on continuously. A flickering light can be incredibly annoying, but has turned out to have its upside, being precisely what makes it possible to use for wireless data transmission. Light-emitting diodes (commonly referred to as LEDs and found in traffic and street lights , cars brake light, remote control units and countless other applications) can be switched on and off faster than the human eye can detect, causing the light source to appear to be continuously, even though it is in fact flickering. This invisible on-off activity enables a kind of data transmission using binary codes: switching on an Led is a logical 1, switching it off is a logical 0 . Information can therefore be encoded in the light by varying the rate at which the LEDs flicker on and off to give different strings of 1s and 0s.This method of using rapid pulses of light to transmit information wirelessly is technically referred to as visible light communication (VLC), though its potential to compete with conventional Wi-Fi has inspired the popular characterisation Li-Fi.

3. VISIBLE LIGHT COMMUNICATION (VLC)

LiFi is a fast and cheap optical version of Wi-Fi, the technology of which is based on visible light communication. VLC is a data communication medium, which uses visible light between 400 THz (780nm) and 800 THz (375nm) as optical carrier for data transmission and illumination. Its uses fast pulses of light to transmit information wirelessly. The main components of this communication system are 1) a high brightness white LED, Which acts as a communication source and 2) a silicon

photodiode which shows good response to visible wavelength region serving as the receiving element? LED can be switched on and off to generate digital strings of 1s and 0s. Data can be encoded in the light to generate new data stream by varying the flickering rate of the LED.

To be clearer, by modulating the LED light which the data signal, the LED illumination can be used as a communication source. As the flickering rate is so fast, the LED output appears constant to the human eye. A data rate of greater than 100mbps is possible by using high speed LEDs with appropriate multiplexing techniques. VLC data rate can be increased by parallel data transmits a different data stream. There are reasons to prefer LED as the lights source in VLC while a lot of other illumination devices like fluorescent lamp, incandescent bulb etc. are available.

4. COMPARISION BETWEEN Li-Fi & Wi-Fi

Li-Fi is a term of one used to describe visible light communication technology applied to high speed wireless communication. It acquired this name due to the similarity to WI-FI, only using light instead of radio. WIFI is great for general wireless coverage within buildings, and li-fi is ideal for relieving radio interference issues, so the two technologies can be considered complimentary.

The table also contains the current wireless technologies that can be used for transferring data between devices today, i.e. Wi-Fi , Bluetooth and IrDA . Only Wi-Fi currently offers very high data rates. The IEEE 802.11.n in most implementation provides up to 150mbit/s (in theory the standard can go to 600Mbit/s).

5. HOW IT IS DIFFERENT?

Li-Fi technology is based on LEDs for the transfer of data. The transfer of the data can be with the help of all kinds of light, no matter the part of the spectrum that they belong. That is, the light can belong to the invisible, ultraviolet or the visible part of the spectrum. Also, the speed of the internet is incredibly high an you can download movies, games, music etc in just a few minutes with the help of this technology. Also, the technology removes limitations that have been put on the user by the Wi-Fi. You no more need to be in a region that is Wi-Fi enabled to have access to the internet. You can simply stand under any form of light and surf the internet as the connection is made in case of any light presence. There cannot be anything better than this technology.

6. APLLICATION OF LI-FI

For a long time, medical technology has lagged behind the rest of the wireless world. Operating rooms do not allow Wi-Fi over radiation concerns, and there is also that whole lack of dedication spectrum. While Wi-Fi is in place in many hospitals, interference from cell phones and computers can block signals from monitoring equipment. Li-Fi solves both problems: Light are not only allowed in operating rooms, but tend to be most glaring (pun intended) fixtures in the room. And, as Haas mentions in his TED Talk, Li-Fi has 10000 times the spectrum of Wi-fi , so maybe we can, I don't know, delegate red light to priority medical data. Code Red!

A. Smarter Power Plants

Wi-Fi and many other radiation types are bad for sensitive areas. Like those surrounding power plants. But power plants need fast, inter-connected data systems to monitor things like demand, grid integrity and (in nuclear plants) core temperature. The savings from proper monitoring at a single power plant can add up to hundreds of thousands of dollars. Li-Fi could offer safe, abundant connectivity for all areas of these sensitive locations. Not only would this save money related to currently implemented solutions, but the draw on a power plants own reserves could be lessened if they haven't yet converted to LED lighting.

B. Undersea Awesomeness

Under ROVs, those favourite toys of treasure seekers and James Cameron operate from large cables that supply their power and allow them to receive signals from their pilots above. ROVs work great, expect when the tether isn't long enough to explore an area, or when it gets stuck on something. If their wires were cut and replaced with light say from a submerged, high-powered lamp then they would be much freer to explore. They could also use their headlamps to communicate with each other, processing data autonomously and referring findings periodically back to the surface, all the while obtaining their next batch or orders.

C. It could keep you informed and save lives if there's an earthquake in New York. Or a hurricane. Take your pick it's a wacky city. The average New Yorker may not know what the protocols are for those kinds of disasters. Until they pass under a street light, that is Remember, which Li-Fi,

if there lights, your online. Subway stations and tunnels, common dead zones for most emergency communications, pose no obstructions. Plus, in times less stressing cities could opt to provide cheap high speed Web access to every street corner.

7. FUNCTION OF THE BULB

At the heart of LIFI is the bulb sub-assembly where a sealed bulb is embedded in a dielectric material. This design is more reliable than conventional light sources that insert degradable electrodes into the bulb. The dielectric material serves two purposes, first as a waveguide for the RF energy transmitted by the PA and seconds as an electronic field concentrator that focuses energy in the bulb. The energy from the electronic field rapidly heats the material in the bulb to a plasma state that emits light of high intensity and full spectrum.

8.THE LI-FI CONSORTIUM

The Li-Fi consortium is a non – profit organization, devoted to introduce optical wireless technology .The Li-Fi consortiums charter members are a leading group of international technology companies and research institutions in optical communication technology. The group is based on a collectively developed concept and roadmap to establish a new wireless technology in the market, which exceeds the abilities and qualities of wireless Rf technology.

The Li-Fi consortium has several purposes:

Promote optical wireless communication up to the multigigabit range in all their implementation.

Inform potential implementers of the companies and resources available to help them achieve their products goals.

Create whole solution in anticipated of consumer needs .Coordinate with standardization groups and other industry organisation to provide OEM customers with a complete ensemble of technical and marketing support.

9. ADVANTAGES

Every LiFi light unit can convey up to 10 times more information than a Wi-Fi spot

A frequencies band completely free and unlicensed worldwide. No interference with radio waves and electromagnetic fields combined to LED lighting you can save energy up to 80% compared to a traditional lighting

Geolocation information: You can target information to reply accurately depending on the lighting device exchange your files safely: As light does not cross walls, you have an increased security on your wireless

Ability of multi-user communication

Adapted of multi –user communication

Adapted to building r infrastructure where GSM and Wi-Fi re forbidden or cannot pass.

10. USES IN VARIOUS AREAS

Can be used in the place where it is difficult to lay the optical fiber like hospitals. In operation theatre Li-Fi can be used which will communicate with the LED lights the cars and accident numbers can be decreased. Thousand and millions of street lamps can be used for data transmission. It can be used which will communicate with the Led lights of the car and accident numbers can be decreased. Thousand and millions of street lamps can be transferred to Li-Fi lamps to transfer data. In can be in petroleum or chemicals plants where other transmission or frequencies could be hazardous.

11.CONCLUSION

The possibility is numerous and can be explored further. If his technology can put into practical use, every bulb can used something like a Wi-Fi hotspot to transmit wireless data and we will proceed toward the cleaner , greener, safer, and brighter future. The concept of Li-Fi is currently attracting a great deal of interest, not least because it may offer a genuine and very efficient alternative to radio based wireless. As a growing number of people and their many devices access wireless internet, the airwaves are becoming increasingly clogged, making it more and more difficult to get reliable, high – speed signal. This may solve issues such as the shortage of radio-frequency bandwidth and also allow internet where traditional radio based wireless isn't allowed such as aircraft or hospitals. One of the shortcomings however is that it only work in direct line of sight.

12. SUMMERY

The design and construction of the LIFI light source enable efficiency, long stable life, and full spectrum intensity that is digitally controlled and easy to use.

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SAMM's MAC Spoofing Solution

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Abstract – For communication on the physical network segment, a media access control address (MAC address) is a unique identifier that is given to network interface. MAC address is used as a network address, for most IEEE 802 network technologies and Ethernet. It is possible to change the MAC address on modern hardware although it is intended to be a permanent and globally unique identification. Changing MAC address is mandatory in network virtualization. It can also be made use of in procedure of exploiting security vulnerabilities which is known as MAC spoofing. It can be done by either using third party software or internally by editing the network setting. In this paper we are going to implement the solution for preventing MAC spoofing for ISP's server (PPPoE).

INTRODUCTION

MAC addresses are most often allocated by the engineer on a network interface controller (NIC) and are stored in its hardware, such as the card's read-only memory or other firmware apparatus. A network node might have multiple NIC's and each must have at least one distinct MAC address per NIC. The original IEEE 802 MAC address comes from the genuine Xerox Ethernet addressing scheme. This 48-bits address space contains potentially 2^{48} or 281,474,976,710,656 possible MAC addresses.

Addresses can either be ubiquitous (universally) administrated address or provincial (locally) administrated addresses. Universally administrated address is uniquely assigns to a device by its manufacturer. Universally administrated addresses are distinguished by setting the second-least-significant bit of the address. This bit is also referred to as the U/L bit, short for universal/local, which identifies how the address is regulated.

A host cannot determine from the MAC address o another host whether that host is on the same link (network segment) as the sending, or on a network segment bridged to that network segment. In IP networks, the MAC address of an interface can be queried given the IP address using the address resolution protocol (ARP) for internet protocol version 4(IPV4) or the neighbor discovery protocol(NDP) for IPV6.

In this way, ARP or NDP is used to translate IP address (OSI layer 3) into Ethernet MAC addresses (OSI layer 2). On broadcast networks, like Ethernet, the MAC address uniquely identifies each node on that segment and allows frames to be marked for specific hosts. It thus forms the basis of most of the link layer (OSI layer2) networking upon which upper layer protocols relay to produce complex, functioning networks.

METHODS FOR MAC SPOOFING

MAC spoofing can be done by either using third party software or internally by editing the network setting.

Internal MAC cloning:-

1. Right click on network adaptor symbol.

2. Select "open network and sharing centre".

3. Select "change adaptor setting".

4. Right click on Ethernet card symbol.

5. Select "properties" – select "configure".

6. Go to "advance".

7. Select "network address".

 8. Click on the "value" tab(radio button)

9. Enter the MAC address of your choice (12 hexadecimal digits)

10. Click on "OK".

11. Then, disable Ethernet LAN card and enable it again.

This process will spoof your MAC address temporary, which changes your identify in the network.

Third party software:-

1. Execute "third party software". Like (ether change) technetium.exe, etherchange.exe (changer)

2. Enter the MAC address of your choice in the respective field.

3. Then click on option given below: "change your MAC".

4. Click on OK

After during this process it will create 'network address file' which contains clone MAC address in the registry file.

ANALYSIS

MAC spoofing changes the original identity of that client in that particular network. MAC spoofing makes network vulnerable if the intentions of the client are not good. So that it can perform many illegal activities without disclosing its own identity. It can bring a innocent person into limelight for the work which he has not done.

So we are implementing the method called "SAMM's MAC spoofing solution" which will help to overcome the above disadvantages up to some extents.

Stage 1:-

1. Client will dial from dialler.
2. The dialler will send username and password which is allocated by ISP (internet service provider) to the server. It will also receive the MAC address of client machine whether it is cloned or not.
3. As soon as client's request hits on server the server will check for the combination of username, password and MAC address in its client's database.

Stage 2:-

The server will check the following conditions for the client request:-

1. If the entry of username, password (ISP provided) and MAC address is found in the client's database then go to stage 3.

2. If the entry is found with the temporary field of client's database then server will allow login access to internet connection.
3. If login details not matched with above 2 cases then server will send the login error to the client.

Stage 3:-

1. Server will generate temporary username and password which is different from the ISP provided details (original one).
2. Then the file generator on the server's end generates manipulator; LAN reset enable-disable command. And temporary username, password with auto-dialler and validity of the whole binary executable file to the client's machine its IP address.

Stage 4:-

1. And on that client file will be executed automatically, the file execution is like below:-
   First that file will delete the path of registry string which is located at:
   - Computer
   - HKEY_LOCAL_MACHINE
   - SYSTEM
   - CURRENT CONTROL SET
   - CONTROL
   - CLASS
   - -{4D36E972-E325-11CE-BFC1-08002BE10318}

   - {0000

   --------- properties}

NETWORK ADDRESS "STRING"

And it deletes that string. Now your cloned MAC address file is deleted and now we will proceed to the next step i.e. 2nd step

2. Now after the deletion of that string immediately we will RESET the LAN card/LAN adapter.
3. Then that adapter is set to original MAC and that binary file will wait till the adapter is taking the identification (once enabled we are waiting for the IP address to be assigned dynamically). As soon as the binary file gets stable then the binary file will go to the third step for further execution.
4. Now this third step is dial up connection process now it will dial that particular temporary user-name, password and the original MAC.

On server side:-

The server will check the following conditions for client request:-

1. If the entry of user name ,password(ISP provided) and MAC address is found in the client's database then go to step3
2. If the entry is found with the temporary field of client's database then server will give login access to the internet connection
3. If login details not matched with above 2 cases then server will send the login error to the client.

Now in this request server will get temporary details if the details and MAC address is matched with the client's database then server will not send the

binary file again to the client and server will pass the internet connection.

If anyone of the username, password (ISP provided) and MAC address does not match with the first 2 conditions then server will display "login error".

BUNKINEER

Author-Mangesh Toraskar Co-Authors-Aakash Makkar, Deep Haria, Ural Nath.

Abstract—this is a mobile application for the young generation to keep a track of their attendance and avoid the defaulters.

Index Terms—

- Bunkineer
- Bunk
- Attendance Tracker
- Defaulters

I. INTRODUCTION

Every college faces one common problem in his college life, The Defaulters List. Because of low attendance, student's parents are called or the student is not allowed to attend the end semester exam. This harms student's future and we being students have faced this problem many times. Thus in order to sort out this problem, we came up with a simple yet brilliant idea of designing an application which will track our attendance and will let us know how to avoid the defaulters list, the 'BUNKINEERS'

II. HOW WE CAME UP WITH THE IDEA

Many students don't want to attend lectures but at the same time don't want to be in the defaulters list. We being college student feel the same way. So as to know if we are in the defaulters list or not, we came up with this amazing application which keeps us safe from being in the defaulters list. A student has lots of stress related to studies, completing assignments, attending lectures, managing his social life on top of that if a child's parents are called he will face lot of difficulties in his life. So this app will make his life smoother and at least reduce his tension regarding attendance.

III. APPLICATION-BUNKINEER

Our product is a simple application which will help the user to avoid the defaulter's list.

3.1 This is the design of the app that we have made with the help of software like Eclipse, Pencil, Snipping Tool and Paint.

3.2 Working

Our product is a simple application which will provide the user with an integrated calendar, in which he/she will input the weekly time table along with the start and the end time of every lecture. Also the user must provide with the minimum attendance required to avoid the defaulters. This application will automatically set reminders for every lecture, and ask whether the specific lecture was attended or bunked, after the end of the lecture. The application will also automatically alert the student before each lecture that he/she needs to sit for the lecture or his attendance has reached above the minimum level of required attendance and he can bunk if he wants. Based on these inputs the application calculates the attendance, and notifies the user at the end

of the week whether they are in the defaulters or not.

3.3 Usage/Availability

It will be uploaded on Google Play Store after which Google will have a look at our app and send for various tests. After it has passed the tests Google will approve it and it will then be available for the students worldwide.

IV.   UPSCALING

4.1 Up scaling

Depending on the positive feedback, we will launch our application for any particular university or college, which will have the weekly lecture time table already synced in the application and the students would just have to choose their divisions.

4.2 Stages of Growth

Our application is specifically designed for the college and school students. And as the technology progresses the use of smart phones would also increase, and the major age group using these smart phones are students, we can definitely assume that our product will grow on the large scale in the future

V.   SALEABILITY

Today's youth generation is very tech savvy and the major population using smartphones are students. We think that our idea is a one of a kind idea, which is not very common in the developer's field. Also we have studied the play store and we haven't found any app like ours. We try to be simple and precise with our application. The major advantage would be that our application is designed specifically for students, so we realize how important this application could turn out eventually. This application can go viral easily which will make it famous and a must-want-app for every student. In short, it is a complete package for all the college students.

VI.   CONCLUSION

Now a gist of our application, it is an application which allows a student to keep track of his/her attendance and also store the timetable and receive reminder of the lecture before it starts and after the lecture is over. It will ask the student if the lecture was attended or no, depending on these inputs by the user the weekly defaulters is made and the student knows if he/she is in the defaulters or no. Therefore to end it on a good note we would like to tell all the students Bunk Wisely.

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Commerce And Management

EFFECT OF RUPEE DEVALUATION ON INDIAN ECONOMY

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BAF, VSIT   BAF, VSIT   BMS, VSIT

ABSTRACT

Devaluation in modern monetary policy is reduction in the value of a currency with respect to those goods, services with which currency can be exchanged. 'Devaluation' means official lowering of the value of a country's currency within a fixed exchange rate system. In contrast, depreciation is used to describe a decrease in a currency's value due to market forces not government or central bank policy actions. Under the second system central banks maintain the rates up or down by buying or selling foreign currency, usually but not always USD. The opposite of devaluation is called revaluation. Present day currencies are usually fiat currencies with variable market value. Some countries hold floating exchange rates while others maintain fixed exchange rate policies against the USD or other major currencies. We are studying the effects of rupee devaluation on Indian economy in this project. The Indian economy is affected in a number of ways; these are described in this project in detail. It will help the readers to understand the reason of Indian rupee devaluation and also its effect on various sectors.

INTRODUCTION

At the time of Independence when India had no foreign borrowings the rupee was at par with the dollar. With the introduction of the 5 years plan and the subsequent requirements for foreign investments the dollar slowly rose. In 1985, after the BOFORS scam, which toppled the Rajiv Gandhi Government, the dollar was equal to Rs. 12.35 and since the economic liberalization in 1991, there was a sharp devaluation of rupee and the rupee had dropped to Rs. 24.5 against a dollar. The dawn of the third millennium gave a further worsened the condition rupee against dollar and the rupee has hit an all-time low of Rs. 65.42 against a dollar on 22nd August 2013. With increased demand of dollar, the prices of dollar in the global markets rose and the prices of all other currencies weakened against the dollar, among which rupee was one. But because of the already existing current account deficit and reduced growth the Indian currency was badly hit. The rupee touched

its historic low of below 65(intraday) against dollar. A sharp declining in rupee triggers inflation, broaden the current deficit, hits investor sentiment and creates burdens for organization with high exposure to foreign debt. The Government and the Reserve Bank of India have taken several reform initiatives to resist the downturn, but their success stories are looking gloomy.

DEFINITION

Depreciation and devaluation are sometimes incorrectly used interchangeably, but they always refer to values in terms of other currencies. Inflation, on the other hand, refers to the value of the currency in goods and services (related to its purchasing power). Altering the face value of a currency without reducing its exchange rate it is a redenomination, not a currency, relative to another currency, group of currencies or standard. Devaluation is a monetary policy tool of countries that have a fixed exchange rate or semi fixed exchange rate.

OBJECTIVE OF THE STUDY

The study is being conducted with the following objectives in mind:

1. To understand the concept of Rupee devaluation.
2. To find out the cause of rupee devaluation on Indian economy.
3. To find out the effect of rupee devaluation on Indian economy

REVIEW OF LITERATURE

The topic was earlier studied by **Prof Shital Nishank Patil** Shailendra Degree College and **Prof Madhu Menon** of G.H. Raisoni College of engineering. In this study the circumstances under which rupee is devalued and also factors are described in detail. The impact of rupee devaluation and the measure which need to be taken are explained in detail. The current account deficit and how does it prove to be an important factor in rupee devaluation. The Indian rupee is among the worst performing currencies in Asia last year, losing as much as a quarter of its value from the peak this year. The fall has been attributed to the fed tapering its $85 Billion-a-month bond purchases that had flooded global markets with liquidity.

RESEARCH METHODOLOGY

In this research, the researcher has used both primary and secondary data. The primary data has been collected through personal interview, telephonic interview and questionnaire with 10 officers of banks, 10 importers and exporters, 10 from real estate, 10 students, 10 from travel industry, 10 from brokers. Secondary data is being collected from various books, journals, websites as well as newspapers.

LIMITATIONS TO THE STUDY

1. The study is restricted to Mumbai city only(Primary data collection)
2. The number of people interviewed is limited to 70 only.
3. The study is restricted to find out effects on Indian economy.
4. To find out steps taken by the government to improve Indian rupee.

CAUSES OF RUPEE DEVALUATION

The rupee has plunged to an all-time low against the dollar and its fall has become a subject for debate. The fall of rupee bring up macroeconomics matters such as slow

economic growth, huge current account deficit, rising imports, etc. Also going forward it appears that losses will extent. In the absence of major news from domestic markets, international forces will likely drive the path of the rupee.

The major reasons for plunging fate of the rupee are:

Policy inaction: Perception of lack of clarity on the policy front is also fanning speculative demand wherein the RBI on one day said it will tighten liquidity and on yet another day said it will inject $1 billion in the market.

Low forex reserves: India's foreign exchange reserves are enough to cover imports of only seven months. The forex reserves have declined in recent months. Due to low reserves, the RBI can't intervene aggressively in the current markets.

Growth Slowdown: India's gross domestic product growth fell to a decade low of 5% in 2012-13. This situation is unlikely to improve this year. Foreign investors are pulling money out of Indian markets because of this slow growth.

Dependence on foreign money: India's current account deficit was financed by foreign money for the past many years. Withdrawal of money by overseas investors is leading to the weakness in the rupee.

Recovery in US: Slow but steady recovery in the US is making the greenback against other currencies.

Stimulus withdrawals: Indications that US may withdraw or ease the fiscal stimulus package could potentially put the brakes on funds for developing economy.

Capital control: The decisions by reserve bank and the government to impose temporary restrictions on capital flows has not go down well with the markets, as it will not discourage India companies from investing abroad, but also foreign firms from pumping money in India.

Fundamental laws of economies: If the demand for dollar in India is more than its supply the dollar appreciates and the rupee depreciates. Demand for dollars may be created by importers requiring more dollars to pay for their imports or by FII's withdrawing their investments and taking the dollar outside India, thus creating a shortage of dollar supply, which in turn can also increase the demand for the dollar.

Price of Crude Oil: The crude oil price puts tremendous stress on the Indian rupee. India has to import a bulk of her oil requirements to satisfy local demand, which is rising year-on-year. Globally, the price of oil is quoted in dollars. Therefore, as the domestic demand for oil increases or the price of oil increases in the domestic market, the demand for dollars also increases to pay our suppliers from whom we import oil. This increased demand for dollar weakens rupee further.

Volatility in the equity market: The equity markets in India have been volatile for a certain period of time. This has put FII's in dilemma as to whether they should be investing in India or not. In recent times their investment has touched an unprecedented level and so if they pull out then the inflow will go down as well.

Poor current account deficit: One of the main reasons behind the Indian Government's inability to arrest fall of the national currency is the critical current account deficit. In the 2012-13 fiscal India's CAD was measured at 4.8% of GDP. The Government has been unable to come up with any destinations for exporting its products and this has also hampered the economic growth.

EFFECTS

Usual discussions on the fall in the rupee bring up macro-economic matters such as slowing economic growth, corporate earnings and market volatility. However, the woes aren't restricted to corporate corridors or the Dalal Street. For the common man, the falling rupee is going hit where it hurts most- the pocket. The rupee devaluation has affected majorly to:

Grocery Bill: High inflation has been pinching you for more than a year now. Now, the weakening rupee has made crude oil, fertilizers, medicines and iron ore, which India imports in large quantities, costlier. Though these items are not for your daily consumption, they impact your finances indirectly.

Foreign Education: The cost is in foreign currency while borrowing is in rupee. So the students may fall short of funds as the loan would have been taken according to the initial requirements. In such a scenario either the student's personal contribution will have to increase or he will have to ask the bank to increase loan amount.

Jobs and Remuneration: Not only is the rupee falling, for some, the pay cheque may shrink as well. Every industry which is dependent on imports will have to face an increase in cost of production and operations. In order to nullify the increase, these companies will have to rationalize costs within their control. One of this will be human resources. So, either lesser number of people will be hired or the salary bill will be kept constant or reduced.

Vacations: The rupee falling is bad news for itinerant Indians and vacationers to a foreign country. Air fares are going up due to an increase in fuel surcharge. The stay will be costlier by at least 3-5%. Also shopping can become expensive by 5%. Eating out will also be costlier by same percentage.

Importers/Exporters: Importers will strongly feel the pinch of falling rupee as they will be forced to pay more rupees on importing product. Conversely a feeble rupee will bring delight to the exporters as goods exported abroad will fetch dollars which in return will translate into more rupees. Also a weak rupee will make Indian products more competitive in global markets which will be fruitful for India's exports.

Imported Goods: Buying imported stuff will become a very costly affair. You will have to shell out extra on imported goods. For instance, if you bought a product valued USD1 you paid around 54 rupees (months ago). But now you have to shell out close to 68 rupees for the same product.

Fuel Price: A weak rupee will increase the burden of oil marketing companies (OMC) and this will surely be passed on to the consumers as the companies are allowed to do so following deregulation of petrol and partial deregulation of diesel. If the OMCs increase fuel prices, there will be

substantial increase in overall cost of transportation which will stoke up inflation.

RBI's monetary policy: If the depreciation in rupee continues, it will further increase inflation. In such a situation RBI has less room to cut policy rates. No cut in policy rates will add to borrower's woes who are eagerly waiting to get rid of the high loan regime.

The above graph indicates the devaluation of Indian rupee. Government has tried several things to control downward going rupee but those steps are too little, too late and many are pointed in wrong directions; like curbing import of gold. A Government should not be telling people what to buy and what not to buy. Demand of gold in India is culture induced. Also, demand of gold increases when economic uncertainty increases. Trying to micromanage people's behaviour will have undesirable impact in long term. There are not many options in short term, but in long term government needs to bring reforms pending for many decades. Those reforms need strong political will and I seriously doubt it can be affected without another crises.

ANALYSIS OF DATA

	YES	NO
Is corruption a cause of rupee depreciation(import and export)	64%	36%
Rupee depreciation affects brand image(importer and exporter)	54%	46%
Repo rate affects rupee depreciation(banking)	76%	24%
Investor confidence decreased(banking	65%	35%

industry)		
Monetary policy change improves rupee value	35%	65%
Momentum of markets decreased(real estate)	77%	23%
Demand supply a cause	66%	34%
Government norms, slow process responsible (real estate)	81%	19%

	HIGH	MODERATE	LOW
Affects importers and exporter	99%	1%	0%
Affects banking sector	96%	2%	2%
Affects real estate	94%	3%	3%
Affects income of importer and exporter	98%	1%	1%
Foreign investment in India has decreased(importer and exporter)	78%	18%	4%
RBI policies responsible(banking)	98%	2%	0%
Gold import restrictions noteworthy	77%	17%	6%
Fiscal policy change scenario	45%	45%	10%

MEASURES:

1. Using Forex Reserves

RBI can sell forex reserves and buy Indian rupees leading to demand for rupee. But using forex reserves poses risk also, as using them up in large quantities to prevent depreciation may result in a deterioration of confidence in the economy's ability to meet even its short-term external obligations. And not using reserves to prevent currency depreciation poses the risk that the exchange rate will spiral out of control. Since both the outcomes are undesirable, the appropriate policy response is to find a balance. Recent data shows that RBI had indeed intervened by selling for reserves selectively to support rupee. Source: RBI

2. Raising Interest Rates:

The rationale is to prevent sudden capital outflows and ultimately lead to higher capital inflows. But India's interest rates are already higher than most countries. This was done to tame inflationary expectations. So further raising interest rates would lead to lower growth levels.

3. Make investments attractive:

Easing Capital Controls: RBI can take steps to increase supply of foreign currency by expanding market participation to support rupee. RBI can increase the FII limit on investment in government and corporate debt instruments. It can invite long term FDI debt funds in infrastructure sector. The ceiling for External Commercial Borrowings can be enhanced to allow more ECB borrowings.

4. Measures by the Government:

Government should take some measures to bring FDI and create healthy environment for economic growth. Key policy reforms that should be initiated includes rolling of Goods and Services Tax (GST), Direct Tax Code (DTC), FDI in aviation and retail, Companies Bill and diesel decontrol. Efforts should be made to invite FDI but much more needs to be done especially after the holdback of retail FDI and recent criticisms of policy paralysis. The Government took steps recently to loosen rules for portfolio investment in the Indian market indicating its desire to sustain external inflows. The measure to increase ECB to $10bn will help in borrowing in dollar at a less cost. It may take similar steps to increase steps to encourage FDI as well, helping sustain external funding.

FINDINGS

The rupee has been depreciated because of low forex reserves, slow economic growth because of which foreign investors are withdrawing money, fundamental laws of economies because demand for dollar is more than rupee which depreciates rupee further, crude oil prices because India imports crude oil more so we have to pay more money, etc. There is a need for new policies and new reforms to be implemented by government in concern with rupee devaluation. There are also political reasons for devaluation of rupee. At present Indian Government at the centre is running a coalition Government. Being in a coalition Government has many restrictions of its own. Rupee has been depreciating over the years now from Rs. 43.6 in 2004 to Rs. 62.3 in 2014. It has effected immensely to our Indian economy. It has effected common man who have to pay more for FMCG goods, industrialists who have to pay more for raw materials, stock market in which

because of volatile market FIIs has been withdrawing money, fuel prices are rising day by day because of rupee depreciation, importers have to pay more for goods and services which are imported and exporters are the ones who are benefitted in this scenario because they will be earning more.

SUGGESTIONS AND RECOMMENDATIONS

- Indian government must make more industrial friendly policies.
- India must increase its foreign commerce.
- The government of India must increase import duty.
- Increase exports to help foreign currency earnings.
- Encourage domestic goods instead of foreign goods.
- Further cut in SLR to ease the liquidity.
- RBI can buy bonds to ease liquidity in the market.
- Encourage foreign institutional investments.

CONCLUSION:

The initial success story of India was clearly based on factor driven economy based on labour arbitrage that is providing low cost labour in comparison to another country. At this stage development insensitive to global business cycle and exchange rate fluctuation. We need to move towards being investment driven economy that is efficiency driven in the form of infrastructure development, improving skill of work force and make that investment which translate into tangible productivity across the board. Final stage which can make India to be

developed economy is to be innovation driven economy that can create unique value of India at global economy level. We need to accelerate reform process that would make economy resistant to external shocks and changes in economy cycles and currency fluctuations. The bottom line is our policy should concentrate on enhancing our capability in manufacturing, promote entrepreneurship and provide incentive for innovations. We need to remember that the challenge which we are facing is not only about currency risk but also moving to growth and development. The Indian rupee has depreciated significantly against the US dollar marking a new risk for Indian economy. Grim global economic outlook along with high inflation, widening current account deficit dandify outflows have contributed to this fall. RBI has responded with timely interventions by selling dollars intermittently. But in times of global uncertainty, investors prefer USD as a safe haven. To attract investments, RBI can ease capital controls by increasing the FII limit on investment in government and corporate debt instruments and introduces higher ceilings in ECB's. Government can create a stable political and economic environment. However, a lot depends on the Global economic outlook and the future of Euro zone which will determine future of INR.

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Corporate Social Responsibility-A case study on the Tata Group

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Abstract:

With diminishing reputational value of companies due to several high-profile governance failures-such as Enron-and with relatively less financial success by the global recession, corporate social responsibility (CSR) is gaining more popularity to build a sustainable, long-term brand value. By engaging in CSR activities, companies can not only generate favourable stakeholder - company relationships. In this paper, a case study of Tata group is used for understanding the topic. The methods used by Tata and its implications are analysed in a detailed manner.

Introduction to Corporate Social Responsibility:

Social responsibility of a business enterprise refers to what a company does over and above the statutory requirements for the benefit of the society. The word "responsibility" emphasizes that the business has some moral obligation of the business towards the society. It implies that like individual, corporate are also the part of the society and their behaviour shall be guided by the social norms.

Social responsibility has been defined by Davis as follows

"Social responsibilities refer to businessman's decision and action taken to reason at least partially beyond the firm's direct economic or technical interest."

H. S. Singhania classifies CSR into two categories

1) The manner in which a business carries out its own business activity.

2)The welfare activity that is takes upon itself as an additional function.

Objectives of research paper

a) To understand the concept of CSR and its relevance to business houses.

b) To study the CSR practices adopted by Indian business houses

Concept of CSR

The concept of CSR originated in the 1950's in the U.S.A and the concept came into prominence in public debate during the 1960's and 1970's. Social responsibility became a matter of at most importance for divers groups demanding change in the way business was being

done. During 1980-2000, Corporations generally recognized a responsibility towards society and weighed against the demands of being competitive in a rapidly changing economy.

Responsibilities of a corporate firm:

Corporate social responsibility recognized that business firms have not one but many different kinds of responsibilities, including economic and legal obligations.
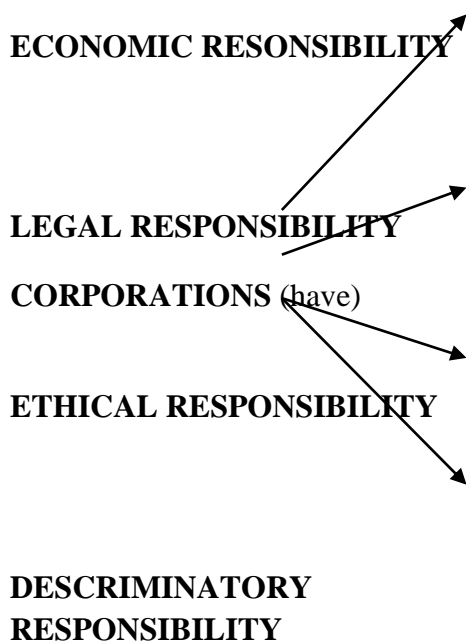
ECONOMIC RESONSIBILITY

LEGAL RESPONSIBILITY

CORPORATIONS (have)

ETHICAL RESPONSIBILITY

DESCRIMINATORY RESPONSIBILITY

Fig no. 1: Corporate social responsibilities of corporate firms

1. Economic responsibilities include:

- To produce goods and services and to provide jobs and good wages to the work firms while earning a profit
- Obligation to seek out the suppliers of the row materials, to discover new resources, technological improvements and to develop new products.

2. Legal responsibilities include:

- To act as fiduciary, managing the assets of a corporation in the interest of shareholders.
- Numerous responsibilities to employees, customers, suppliers and others legally.

The concept of CSR is expressed as a voluntary assumption of a responsibilities the go beyond the economic and legal responsibilities of business firms.

The exercise of social responsibility must be in consistent with the corporate objective earning a satisfactory level of profit. It implies a willingness to forego a certain measure of profit in order to achieve non-economic aids.

3. Ethical responsibilities:

- Additional behaviours and activities that are not necessarily codified into law but nevertheless are expected of business by society members such as environmental concerns, charity etc.

4. Discriminatory responsibilities:

- Not legally required or even demanded by ethics.
- Corporations accept them in order to meet society's expectations.

Defining CSR in the present context

There is no accepted definition of Corporate Social Responsibility. However we have two extreme views on this subject

a) A company that complies with the law of land in which it operates is being socially responsible

b) A socially responsible company is one that is; purely philanthropic, in that it gives without expecting a return or a benefit.

The new companies act called the Indian companies act, 2013 text into account the right as well as the bestowed on a company according to the new act every company has to set aside 2% of its revenue/average net profit for CSR purposes.

Section **135** of the **Indian Companies Act, 2013** defines CSR as,"CSR is the process by which an organization thinks about and evolves its relationship with stakeholder for the common good, and demonstrates its commitment in this regard by adoption of appropriate business processes

And strategies." ***Thus CSR is not charity or mere donations.***

CSR Practices of the Tata Group

"A Tata Company shall be committed to be a good corporate citizen not only in compliance with all relevant laws and regulations but also by actively assisting in the improvement of the quality of life of the people in the communities in which it operates with the objective of making them self-reliant. Such social responsibility would comprises, to initiate and support communities initiatives in the field of community health and family welfare, water management, vocational training, education and literacy and encourage application of modern scientific and managerial techniques and expertise. This will be reviewed periodically in consonance with national and regional priorities. The company would also not

treat these activities as optional ones but would strive to incorporate them as integral part of its business plan. The company would also encourage volunteering amongst its employees and helps them to work in the communities. Tata companies are encouraged to develop social accounting system and to carry out social of their operations."

Benchmarking corporate social responsibility:

A study on 'Benchmarking Corporate Social Responsibility activities ', by the Gas Authority of India Limited (GAIL), finds Tata steel creating a benchmark incorporate social responsibility (CSR). Study is based on '**Organizational dynamics** '. The purpose of the study was to identify the best practices in CSR activities available in Tata steel and enable GAIL to undertake the interventions more effectively and in a more focused manner. The company has received a no. of awards in recognition of its CSR efforts. Tata steel is the only Indian company to have a pledged to translate the Global Compact principals on human rights, labor and environment into practice and was conferred the Global Business Coalition Award For Business Excellence In The Community HIV/AIDS.

<u>Tata Corps of Volunteers: Giving Out the Best from Tata</u>

Employees Mission Statement

"We continue to evolve a common direction to enrich the Tata way on social-responsibility in order to strengthen our belief in serving the society, through all Tata Employees in all our companies, by working as volunteers, while also learning

from the community. We constantly strive together to improve processes, to stretch capabilities, to share skills, expertise and talents, in order to build strong and self-reliant communities. We believe this enriches our personalities, improves our attitude towards life and makes us better citizens; and accordingly, better employees of our respective companies."

Tata Steel's CSR Policy:

On unveiling Tata Steel's Corporate Social Responsibility Policy, its former Managing Director,

MR. B. Muthuraman, said;" Tata Steel believes that the primary purpose of a business is to improve the quality of life of people. Tata Steel will volunteer its resources, to the extent it can reasonably afford, to sustain and improve the quality of life a people of the areas in which it operates. "Tata steel spends 5%-7% of its profit after tax on several CSR initiatives. Broadly speaking, the company's CSR initiatives are spread across three core areas – employee welfare, the environment and the welfare of the community at large. It covers environment management , economic development , employee relations , civic amenities and community services , healthcare , sports and adventure , relief during natural calamities , education , arts & culture and social welfare .

(a) **Supports social welfare organizations :**

To achieve its desired objectives in this regard, Tata Steel supports various social worker organization. They include the Tata Steel Rural Development Society , Tribal Culture Society , Tata Steel Foundation

For Family Initiatives , National Association For The Blind , Shishu Niketan , School Of Hope , Center For Hearing Impaired Children And The Indian Red Cross Society , East Singhbhum . It has served over 50,000 people.

(b) **Self – Help groups (SHG's):**

The national horticulture mission program that has been taken up in collaboration with the government of Jharkhand has already benefited more than a thousand households. Over 500 self –help groups are currently operating under various poverty alleviation programs. Of these, over 200 are engaged in activities of income generation through micro enterprises. Women's empowerment programs through self -help groups have been extended 700 villages.

(c) **Healthcare Projects**:

Other CSR activities of Tata Steel include facilitation of child education, immunization and childcare, plantation activities, creation of awareness of AIDS, healthcare projects and promotion of sporting activities such as football and archery. In its 100th year, the Tata Steel Centenary Project has just been announced.

(d) **Economic Empowerment**:

A program aimed at economic empowerment through improvised agriculture will be taken up in three backward tribal blocks in Jharkhand, Orissa and Chhattisgarh. A corpus of RS 100 caror has been earmarked for the purpose and the program is expected to

benefit 40,000 tribal living in over 400 villages in these three States.

Low key and Profile

For Tata Steel, discharging its CSR mandate is something that is generally kept low key. And that is how company's visionary founder wanted it to be, when he said that" we do not claim to be more unselfish, more generous and more philanthropic than other people. But we think started on sound and straightforward business principles, considering the interests of the shareholder , our own , and the health and welfare of the employees , the sure foundation of our prosperity ".

Conclusion

It is important to note that though corporate social responsibility is synonymously and interchangeably used with a either corporate philanthropy or corporate citizenship. In theoretical senses corporate philanthropy has to with business societal contribution that may or may not bring it direct returns where as corporate social responsibility is all about fulfilling the basic responsibility of beneficial virtuous cycle. It would be a challenge to find a recent annual report of any big international company that justifies the firm's existence merely in term of profit, rather than service to the community. such reports often talk proudly of efforts to improve society and safeguard the environment-by restricting emission of greenhouse gases from the staff kitchen , say , or recycling office stationary –before turning hesitantly to less important matters , such as profits .

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Effects of Globalization

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Introduction

The polarized debate over the effects of economic globalization-the international Integration of markets for goods, services and capital- resembles a giant Rorschach test .Intelligent analysts have access to the same information but conclude they are witnessing completely different realities playing out. Supporters not only claim that globalization is good for

International business; they also consider it the best way to enrich and empower poor people and Poor countries. But for critics, globalization only lines the pockets of a small global elite at the Expense of labour, developing countries and the planet- and there is little eviscerated national

Government can do about it.

Why is the debate so polarized? The age old push and pull of distributive and partisan politics over the spoils of the market is at least partially responsible. But the scholarly

Community has not helped- and not because of lack of effort. Studying the effects of globalization on the economy and on politics is a growth industry across the social sciences. The problem is that no consensus has yet emerged from all this

research for two reasons. Measuring globalization is notoriously difficult and contested. So, too, is the drawing of inferences about

1http://www.aflicio.org/publ/speech2000/sp0404.htm

2 Los Angeles Times, July 8, 20001, page1.

1cause and effect between economic integration and other notional "outcome" varia bles, all of which often tend to tend together. In this essay, we try to make sen

Definition

"An unprecedented compression of time and space reflected in the tremendous intensification of social, political, and cultural Interconnections and interdepencies on a global scale Stegler,p.ix

MEASURING GLOBALIZATION

International economy flow

Figure 1 present the most basic facts about globalization in the 1980s and 1990s,

Normalized so that 1980=100. International trade (export and import) grew over four times as Quickly as global Gross Domestic Product (GDP), increasing about 280% over the two decades

To reach over $16 trillion (in 1995 dollars) – fully half GDP. Capital flow across national borders- inflows and outflows of both foreign direct investment (FDI) and exchange 4transaction that are estimated at almost two trillion dollars a day)- grew by almost 600% to Roughly $ 10 trillion per year, or 30% of global GDP.

GLOBLIZATION AND DIFFERENCES IN PER CAPITA INCOMES BETWEEN COUNTRIES

The most frequently debated effect of globalization concerns "inequality." But least four important measurement issues have been raised in discussions of income distribution trends around the world:

1. Should inequality be measures among countries or within them?

2. Should inequality be measures globally or disaggregating into nation experiences?

3. Should incomes be compared in terms of market exchange rates or adjusted for purchasing power parity? Should the experiences of countries we counted equally or weighting by national population?

This section concentrates on the latter three questions with respect to international differences in incomes. We then explore inequality within countries in section

4. Greater freedom of movement of goods, services, capital, peoplGlobal citizens

GLOBAL GINI COEFFICIENTS

Economists have long debated whether cross-country comparisons of per capita income should be computed using the rates at which currencies are actually exchanged (determined either by market forces or government fiat) or those that are adjusted according to purchasing Power parity (ppp, determined by adjusting per capita income according to the prices of the Same "basket of goods and services "in different countries). Traded exchange rates, in theory, Should converge over time on those adjusted by ppp. But in practice, market exchange rates have consistently "undervalued" the currencies (and hence income) of developing countries in recent Years, often by a factor of two or more. Globalization is here to Stay.

Globalization does have problems and negative effects, but it is not going to disappear. So we need to learn how to reap its benefits and minimize its costs. To do that, we must: Understand its impacts, Work to remedy the problems, Work to spread the benefits as widely as possible

DIFFERENCES IN NATIONAL GROWTH RATES

Even if one were confident that a single measure (such as a global gini) can capture the amount of inter-country inequality in the world, problem of causal inference with respect to the impact of globalization on it would still abound. The simplest analytic move would be first to note that the world has globalized in recent decades, and them to assume that this has had a causal effect on the changes in inter-country inequality that have been observed. But other phenomena such as

democratization, privatization and recent past.

GLOBALIZATION AND INEQUALITY WITHIN COUNTRIES

Two stylized facts are frequently bandied about with respect to the impact of globalization on inequality within countries. First, globalization is deemed to have undercut manufacturing employment in the industrialized countries in a generalized "giant sucking sound" of jobs lost to the developing world. Second, the resulting new jobs in the developing world are in "sweatshops" that pay workers much less than for similar work done in developed countries.

As result of the twin dynamics, so goes the popular wisdom, workers around the world are losing out from globalization – increasing inequality with countries all around the world.

As we indicated in the introduction, the very influential HOS perspective supports the first stylized fact with respect to a prediction of increasing income inequality in the first world. But it contradicts the second by arguing that less skilled workers newly employed in 16 manufacturing should differentially benefit from globalization in developing countries- Lowering inequality within these nations loss of National sovereignty off shoring and the flight of jobs effect on the natural environment, effect on the national culture

GLOBALIZATIO AND GOVERNMENT SPENDING

Let us now turn to the impact of globalization on the ability of governments to use the policy tools of the state to redistribute wealth and risk within their

countries. There are two very different positions in the literature. But they share the presumption (the veracity of which we explored in the previous section) that globalization adversely affects lower socioeconomic strata in society. The "compensation "argument suggests that government has grown precisely in order to cushion globalization's dislocations on those who have been harmed by it. Some go further to suggest that "smart" government interventions-for example, in education, in securing property rights and in research and development- actually increase national competitiveness in global markets. The "competition" thesis, in contrast, contends that competitive pressures in international goods and services markets, as well as mobile capital in search of higher rates of return, have placed substantial downward pressure on interventionist government policies that the markets view as inefficient

CONCLUSION

In this essay we have reviewed the voluminous literature on the effects of globalization on inequality among and within countries and on the size and scope of government. Neither the Optimistic vision of the Washington consensus nor the inveterate pessimism of its critics is vindicated. Rather, both sides can point to studies that support their positions. This lack of consensus is the product both of substantial measurement issues with respect to globalization and to inequality and of the difficulties in drawing strong causal inferences among factors that tend strongly to cover. Globalization is potentially positive, but needs better management: well-designed rules important to position e-trade in a broader

context of economic development, socio-economic culture in the country, and engineering growth.

The immediate international environment also plays a role (in terms of partnerships) consequently, look for the right partnerships from a distance too. It would be wrong, however, to suggest that we have not made any progress towards better understanding globalization and its impact. With respect to measuring globalization, studies that focus more on changes than levels of international economic activity, and on policy constraints rather than on flows themselves, seem better designed to generate insight into the 25 causal relationship – particularly with respect to the roles governments have played and macausal relationship-- particularly with respect to the roles governments have played and may play in the future in accentuating or curtailing market trends. With respect to international inequality, scholars now understand the enormous impact of the individual experiences of china and India on global distributional outcomes. With respect to inequality within countries, we now know that the large differences between national levels of inequality have been remarkable resilient to change in recent decades. And where they have changed appreciably, technological innovation Seems to have at least as important as globalization.

TECHNIQUE EFFECT

How much a country emits per unit of a particular good produced or consumed depends on the techniques of production or consumption. To the extent that globalization changes these techniques,

either through policy channels or technological changes, globalization impacts the environment itself. Most attention to technique effects has focused on changes in environmental policy associated with income gains from trade. Accordingly, I allocate much of my discussion to empirical estimates of income effects. However I will also discuss evidence concerning additional channels through which globalization impact techniques, such as changes in the political environment shaping regulation, regulators' ability to assess abatement potential, and producers 'ability to abate in the first place

GLOBALIZATION AND THE ENVIRONMENT – DIRECT EFFECTS.

The scale, composition and technique effects considered above are best described as the indirect effects of globalization . They all stem from changes in relative prices that stem from integration with the global economy. Surprisingly, much of the economics literature has ignored the direct effects of increased trade, specifically increases in emissions and other externalities from the transport sector responsible for moving goods and embodied services (personnel and tourist)between countries . The following section provides a very brief overview of environmental damages and other spill overs from the transport sector.

EMERGING ROLE OF FINANCIAL CORPORATIONS IN INDIA

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ABSTRACT

My research paper is based on the following primary and secondary data which I have collected in hand by conducting a nano survey of 20 people. Among these 20 people 5 are college students, next 5 are office going people and other 10 are people of the age 40-50. My secondary data is collected through searches like CII. In the main body I have reviewed in Indian financial system which consists of financial institutions (corporations) which have two sides (1) Banking financial institutions- public as well as of private sector& (2) Non-banking financial institutions- are only private sector. In the following paper I have identified that there is an increasing trend of financial institutions mainly in private sector. My analysis is based on a survey which reviews the views of various age-group people. My view or the result is that there is an increasing trend of private financial corporations like HDFC, ICICI, etc. and also whether these financial corporations have a rural reach or not. Thereby, I conclude that surely there is an increase in these financial corporations in India, they are successfully ongoing and also public is satisfied by the services provided by them.

INTRODUCTION

The Indian economy, the third largest economy in the world in terms of purchasing power, is going to touch new heights in coming years. As predicted by Goldman Sachs, the Global Investment Bank, by 2035 India would be the 3rd

largest economy of the world just after US and China. It will grow 60% of size of the US economy. This booming economy of today has to pass through many phases before it can achieve the current milestone of 9% G.D.P.

GDP estimate

According to economic historian Angus Maddison in his book Contours of the world economy, India had the world's largest economy during the years 1AD and 1000AD. This is a chart of trend of GDP of India at market prices estimated by Ministry of Statistics and Programme Implementation with figures in millions of Indian rupees.

The financial system is a set of complex and closely connected or intermixed institutions, agents, practices, markets, transaction, claims and liabilities in the economy. It consists of specialized and non-specialized institutions. Procedures and practices adopted in the financial market are also a part of the financial system. A well-developed financial system can contribute to the economic development of the country. Thus, the role of financial system is to accelerate the rate of the economic development and thereby improve the general standard of living and increase the social welfare. This can be achieved through the mobilization of saving and investment. The function of a financial system is to establish a bridge between the savers and the investors and thereby help the mobilization of saving and investments. The Indian financial system was fairly well developed on the eve of planning. The following are the constituents of Indian financial system.

Financial Institution: Financial Institutions are business organizations that act as mobilizers and depositories of savings. They also provide the various financial services to the society. Financial institutions are divided in two banking and non-banking institutions. The banking institutions participate in the country's payment mechanism i.e. to provide transactions services, create deposits or credit. The banking system in India comprises of commercial banks, co-operative banks. Non-banking financial intermediaries also include investment trusts, Nidhis, Mutual Funds, Merchant bankers, hire purchase and leasing companies.

Financial markets: The financial system deals in financial services and claims which are known as financial instruments, or financial assets or securities. Financial instruments can be classified as primary and secondary instruments. The primary instrument are issued by ultimate investors directly to the ultimate savers as in case of ordinary shares, debentures, bonds where the companies are ultimate investors and the people who buy these instruments. The important characteristics of the financial instruments are transferability, liquidity, marketability, maturity and tax exemption. These are treasury bills, commercial bills, commercial papers, public deposits, certificate of deposits.

Financial services: Indian financial system has a strong group of financial institutions, which are different in nature; they are financial intermediaries who provide variety of financial services to the business and community. They are specialized financial institutions in the field of insurance, hire purchases and leasing. New

services have also started like credit cards, stock trading, depositories, etc. Financial institutions have also grown over a period of time.

LITERATURE REVIEW

The process of financial liberalization in India

Over the past twenty-five years, India's economy has undergone a gradual yet consistent liberalization process. Having witness acceleration in annual GDP growth at around 4-5% per annum during the 1980's and 1990's, the Indian economy has continued to grow during the past decade at a rate of 8.5% since 2005. With the implementation of various reforms aiming to increase access and competition, the Indian financial sector has been broadening and plays a key role in ensuring economic stability and maintaining this growth momentum. However, the efficiency with which the financial markets behave remains to be seen as the overall development of the sector has been uneven and the role of the government is still quite high, This article aims to briefly describe the reasons behind financial institutions behind financial liberalization in India, the evolution of the its financial sector, and how it has been affected by the recent financial crisis.

The Evolution of Indian Financial Sector

Following the implementation of the above reforms, the role of various financial markets and private players in the banking sector has increased in the Indian economy. The Indian stock market functions largely on two leading national indices the Bombay Stock Exchange and the National Stock Exchange, although in total there exist 22 stock exchanges in the country. The number of listed Companies on these two indices has been rising progressively and stood out at 4291 on the BSE –the highest among global indices and 1,402 on the NSE by the end of 2008.

Table 01: **DEVELOPMENT OFBSE EQUITY MARKET SINCE 1991-2002**

Table 02: **DEVELOPMENT OF BSE EQUITY MARKET SINCE 2002-2008**

Figures 1 and 2 show how the equity market in India has developed since liberalization in 1991. It can be seen that the ratio of stock market capitalization on the BSE to GDP had been quite volatile during the 1990s. With the opening up of the economy, there was a sharp increase in the share of market capitalization in GDP from 15.9% of GDP in 1990-91 to 49.4% in 1991-92; however the ratio oscillated during the rest of the decade, reflecting, for example, changes in valuation due to the Asian financial crisis in 1997 and the bursting of the information technology bubble after 2000.

It has only been since 2002 that a continued increase in the market capitalization to GDP ratio has been observed. Figure 2 shows how, as more and more households and enterprises looked to the equity market for funds or as an alternate means of saving, stock market capitalization rose from 26% of GDP in 2002 and peaked at 108% of GDP at the end of 2007. Following the global recession and the collapse of Lehmann Brothers, however, the share fell considerably to 53.56% of GDP by the end of 2008.

TABLE 03: **INDIAN FINANCIAL CRISIS IN 2007-2009**

While the Indian economy as a whole has shown considerable resilience following the recent global financial crisis, maintaining a moderate GDP growth rate of 6.7% the financial sector suffered from greater adverse shocks, principally following the collapse of Lehmann Brothers in September 2008. The various market segments displayed higher volatility as foreign investors pulled funds and net capital inflows declined. Stock prices suffered, and the BSE index, for example, witnessed substantial volatility, falling by almost 61% between January 2008 (when it peaked) and March 2009; this resulted in a corresponding 63% decrease in market capitalization during the same period. The adverse effects of these developments were felt in the form of increased pressure on the foreign exchange markets, as well as greater liquidity pressure on mutual funds and non-bank financial corps. However, as signs of a global recovery arise, interest in Indian markets has again augmented, as evident by increasing foreign investment, Thus, to ensure greater efficiency and stability as the sector becomes more integrated with global markets, its regulation and reform has once again become a top priority for the RBI, the country's central bank.

PUBLIC SECTOR SAVINGS AND INVESTMENT RATES

Public Sector Savings

Nationalized Banks / Public-sector banks

1. Allahabad Bank
2. Andhra Bank
3. Bank of Baroda
4. Bank of India
5. Bank of Maharashtra
6. Bhartiya Mahila Bank
7. Canara Bank
8. Central Bank of India
9. Corporation Bank
10. Dena Bank
11. IDBI Bank
12. Indian Bank
13. Indian Overseas Bank
14. Oriental Bank of Commerce
15. Punjab National Bank etc.

The major component of public sector savings, i.e., savings of non-departmental undertakings, has, interestingly, exhibited a steady improvement since the 1970s and this process has continued during the reforms period (Table 4). Thus public sector enterprises have exhibited continued and steady improvement in their commercial functioning since the early 1990s. Consequently, since 2003-04 onwards, total public savings have turned positive again. The savings rate of the overall public sector improved from (-) 2.0 per cent of GDP in 2001-02 to 3.2 per cent of GDP in 2006-07. Notwithstanding the striking improvement over the past few years, it may be noted that the public sector savings rate at 3.2 per cent during 2006-07 was still less than the peak of over five per cent touched in 1976-77. Nonetheless, the turnaround of 5.2 percentage points of GDP in public sector savings- from a negative 2.0 per cent of GDP in 2001-02 to a positive 3.2 percent of GDP in 2006-07 – has been a key factor that has enhanced domestic savings from 23.5 per cent to 34.8 percent over the same period. The public sector investment rate increased from 6.9 per cent of GDP in 2001-02 to 7.8 per cent in 2006-07, but

this level is still significantly lower than the public sector investment rates of the 1970s, 1980s and early 1990s. Despite this increase, this sector's saving-investment gap has narrowed down from 8.9 percent of GDP to 4.5 per cent during 2001-2007, reflecting a turnaround in the public sector savings (which rose from (-) 2.0 per cent to 3.2 per cent) enabled by the implementation of the fiscal rules.

Performance of the Private Corporate Sector

Private Sector Banks

1. Axis Bank
2. Catholic Syrian Bank
3. City Union Bank
4. Development Credit Bank
5. Dhanlaxmi Bank
6. Federal Bank
7. HDFC Bank
8. ICICI Bank
9. IndusInd Bank
10. ING Vysya Bank
11. Karnataka Bank
12. Karur Vysya Bank
13. Kotak Mahindra Bank
14. Lakshmi Vilas Bank
15. Nainital Bank

The reduced requirement by the Centre for meeting budgetary mismatches, and for overall public sector financing has improved the availability of resources for the private sector considerably. Furthermore, the corporate sector has responded to increased global competition by improving its productivity and efficiency through increase application of technology. The economic reform process has helped greatly in making the policy environment more conductive for more efficient entrepreneurial activity. The corporate tax rate was steadily reduced

from 45 per cent in 1992-93 to 30 per cent by 2005-06 and was kept stable thereafter. The peak rate of customs duty on non-agricultural goods was reduced gradually from 150 per cent in 1991-92 to 10 per cent in 2007-08. Monetary policy has contributed to the sustained moderation in inflation leading to reduction on nominal interest rates. Financial restricting of firms has also led to the reduction in overall debt equity ratios in the corporate sector. The substantial reduction in debt servicing costs has thereby added to the corporate sector's competitiveness and profitability.

Estimation of Savings and Investment

In view of the key role played by investment in growth process, it is important to have reliable and timely estimates of domestic savings and investment. In India, methodologies of estimates of savings and investment have evolved over the years in tune with the international guidelines and improvements in the domestic statistical system in India; nonetheless, there is a need to critically review the available estimates of saving and investment in the Indian economy with respect to data base, methods of estimation, reliability and interpretational significance. The compilation f savings of the household sector continues to pose a challenge in a view of the heterogeneity and residual character of this sector in the national accounts. In respect of the household financial savings, there is a need to assess whether current state of financial deepening is being accurately reflected in the data across the various financial instruments. In this regard, the timely compilation of the flow of funds accounts would go a long way in accurately reflected in the data across the

various financial instruments. In this regard, the timely compilation of the flow of funds accounts would go a long ay in accurately estimating household financial savings. The feasibility of directly estimating household savings through integrated income and expenditure surveys also merits consideration. In respect of the private corporate sector, there is a need to examine whether it would be appropriate to make their savings estimates on marked to market basis or the present value book method. In respect of the public sector, the savings and investment estimates can be further strengthened by improving the coverage to include municipalities, city corporations, gram panchayats and other local

Governments on the one hand and increased private participation in public investments on the other. In recognition of these issues, the Government has recently appointed a High Level Committee on Estimation of Savings and Investment (Chairmen: Dr. C. Rangarajan). The Committee, setup in December 2007, is expected to critically review the existing methodologies to review estimates of saving and investment for the Indian Economy.

PUBLIC AND PRIVATE INVESTMENT RATES

As a part of the financial sector reforms and in order to reduce financial repression, the required SLR was reduced to the statutory minimum of 25 per cent in 1997. The reduction in the required SLR, in the presence of an auction system for the Central Government's market borrowings, was expected to facilitate an increasing proportion of the fiscal deficit through

borrowings at market-related rates to interest

INDIA LAGS BEHIND EMERGING NATIONS OF FINANCIAL INCLUSIONS

The International Monetary Fund's financial access survey shows that although India has made strides in financial inclusion in the past few years, it still lags behind other emerging economies by a significant margin.

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DISCUSSIONS AND CONCLUSIONS

According to the survey conducted on 20 people it is found that there is an increasing trend in private corporations. People rely more on private corporate for better services and satisfactions. There is a balance between people have accounts in private and public sector despite private

sector chosen as better than public sector in terms of facilities and decision making process.

As compared between foreign and public bank people prefer going for the nationalized banks more.

It is also found that people are even aware about the R.B.I and its common roles of note issuing and controlling.

Issues and challenges in HRM

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ABSTRACTS

HRM is involved in managing the human resources with a focus on expanding customer base that gives profit to the company. The bottom line of the company is the focus of the HRM department as well as the function. Organization performance is better in the companies where there is congruency between national culture and human resources practice. The present research will investigate the overall effect of Human Resource Management on the organization as well as on the individual working in the organization. Report will also try to find out the challenges for the HR managers. The sample size of 100 has been taken from North Indian cities. The tools used for the evaluation purpose are Descriptive Statistics, Correlation, Regression, Chi square test.

INTRODUCTION

Human beings area social beings and hardly ever live and work in isolation. We always plan, develop and manage our relations both consciously and unconsciously. The relations are the outcome of our actions and depend to a great extent upon our ability to manage our actions. From childhood each and every individual acquire knowledge and experience on understanding others and how to behave in each and every situations in life. Later we carry forward this learning and understanding in carry relations at our workplace. The whole context of Human Resource Management revolves around this core matter of managing relations at work place. Since mid-1980's Human Resource Management (HRM) has gained acceptance in both academic

MAIN BODY

Human Resource Management (HRM or simply HR) is the management process of an organization's workforce, or human resources. It is responsible for the attraction, selection, training, assessment, and rewarding of employees, while also overseeing organizational leadership and culture and ensuring compliance with employment and labour laws. In circumstances where employees desire and are legally authorized to hold a collective bargaining agreement, HR will also serve as the company's primary liaison with the employees' representatives (usually a trades union).

HR is a product of the human relations movement of the early 20th century, when

researcher began documenting ways of creating business value through the strategic management of the workforce. The function was initially dominated by transactional work, such as payroll and benefits administration, HR now focuses on strategic initiative like mergers and acquisitions, talent management, succession planning, industrial and labour relations, and diversity and inclusion

HR spawned in the early 20th century and was influenced by Frederick Taylor (1856 – 1915). Taylor explored what he termed "scientific management", striving to improve economic efficiency in manufacturing jobs. HR, although human capital typically refers to a more narrow view of human resources; i.e., the knowledge the individuals embody and can contribute to an organization. Likewise, other terms sometimes used to describe the field include "organizational management", "manpower management", "talent management", "personnel management", and simply "people Management".

In practice, HR is responsible for employee experience during the entire employment lifecycle. It is first charged with attracting the employees through employer branding. It then must select the right employees through the recruitment process. HR then on boards new hire and oversee their training and development during their tenure with the organization. HR assesses talent through use of performance appraisals and then rewards them accordingly. In fulfilment of the latter, HR may sometimes administer payroll and employee benefits, although such activities are more and more being outsourced, with HR playing a more

strategic role. Finally, HR is involved in employee terminations – including resignations, performance-related dismissals, and redundancies

At the macro-level, HR is in charge of overseeing organizational leadership and culture. HR also ensures compliance with employment and labour laws, which differ by geography, and often oversees health, safety, and security. In circumstances where employees desire and are legally authorized to hold a collective bargaining agreement, HR will typically also serve as the company's primary liaison with the employee's representatives (usually a labour union). Consequently, HR, usually through industry representatives, engages in lobbying efforts with governmental agencies (e.g,. in the United States, the United States Department of Labour and the National Labour Relations Board) to further its priorities on their employer's needs." Specialities, conversely, work in a specific HR function. Some practitioners will spend an entire career as either a generalist or a specialist while others will obtain experiences from each and choose a path later. The discipline may also engage in mobility management, especially pertaining to expatriates; and it is frequently involved in the merger and acquisition process. HR is generally viewed as a support function to the business, helping to minimize costs and reduce risk

Within companies, HR positions generally fall into one of two categories: Generalist and Specialist. Generalist support employees directly with their questions, grievances, and projects. They "may handle all aspects of human resources work, and thus require an extensive range

of knowledge. The responsibilities of human resources generalists can vary widely, depending Challenges

We often come across the Problems & Challenges in day to day Business operations, Execution & Implementation Process of Initiatives, Goals, and Decisions etc. We heavily depend on Brainstorming to build the solution for it. However, Albert Einstein has said "Problems cannot be solved with similar thinking that created them" Thus similar type of thinking makes it difficult to build effective solution to address problems or meet challenge

CONCLUSION

Change in mind set now it is 120 crore brain. 60% literate rate i.e 72 crore are literate who can be trained.More focus on HRD than HRM.The biggest supplier of the brain in the world. Banking, insurance, etc.

ROLE OF COMMUNICATION IN PERSONALITY DEVELOPMENT

Riya Bhangale

INTRODUCTION

Communication skills are an integral factor in personal development success. Knowledge is important but without the knowledge of effective communication skills, personal development goals cannot be achieved. Effective communication skills include among others, active listening, good comprehension, ability to collect & deliver thoughts and ideas in a way that is perceived as it is intended, understanding the circumstances & surroundings, valuing feedback, willingness and ability to continuously improve through training and practice.

The skill of communicating effectively is rarely an inherited gift. The majority of us, not blessed with instinctive flair, can nevertheless develop this ability. It's not easy and it needs hard-work. It depends partly on practical development of competence and confidence, either through on the job coaching by sensitive management or, more often, off the job.

IMPORTANCE OF COMMUNICATION

Communication helps individuals to express themselves in the most convincing way. Your thoughts, feelings and knowledge should be passed on in the most desirable manner and effective communication skills help you in the same.

People with great communication skills tend to have a better and impressive personality than those who have problems in communicating as interacting with others is not a challenge for them.

Effective communication skills strengthen the bond among individuals. It is also said to improve aura of confidence and credibility.

It enhances your capacity to lead and motivate. You can lead better if you project an aura of confidence and credibility.

Gaining Positive Perception from Others. Human as we are, we often judge others by what we see. We easily have our own perception on what is going on around us. In the same way, our perception of others can be influenced by the way

they speak and the message they are trying to relay. This is one of the reasons why speech is very important in personality development.

Putting into words our thoughts, ideas: It is without doubt; very difficult to improve our personality if we cannot even verbalize what it is we want to say. If we hesitate to speak on fear of being misjudged by others, if we are too shy and scared to open our mouth in a gathering, it will be really difficult for us to develop our personality.

COMMUNICATION & PERSONALITY DEVELOPMENT

Personality development is the development of the organized pattern of behaviors and attitudes that makes a person distinctive. Personality development occurs by the ongoing interaction of temperament, character and environment.

Personality refers to an individual's characteristics, style, behavior, mindset, attitude, his own unique way of perceiving things and seeing the world. Genetic factors, family backgrounds, varied cultures, environment, current situations play an imperative role in shaping one's personality.

Personality development is a broad field and in order for you to have a pleasing personality, it is important to address all aspects related to it. Speech is one of the many areas that should be given sufficient attention, because without it, people's perception of you and your ability to express yourself would be deeply affected.

Personality Development enhances and grooms the outer and inner self of a person

in order to bring positive change in a person's life. Each individual has a distinct personality and refined by prompting one's confidence, improving communication and speaking abilities, learning fine etiquettes and manners, adding style and grace to the way one looks, talks and walks and filling oneself with positivity, liveliness and peace. Personality cannot be built a day. This process takes place over a period of time. Though there are many crash courses that promote personality development of people, implementation of the same to bring about a positive change in one's life takes considerable amount of time. In fact, it is not even necessary to join a simple personality development course; one can develop his or her personality through simple techniques like believing in oneself, sense of dressing, time management, developing communication skills, presentation skills and making a positive attitude towards life. This book is a thorough attempt to present these concepts in simple, student-friendly language so that difficult situations can be handled in an easy way. Extensive use of pictures is made for emphatic understanding of the subject.

OBJECTIVES

- To understand the co-relation between communication and personality development.
- To understand the importance of good communication.
- To study impact of communication in day to day life.

RESEARCH METHODOLOGY

PRIMARY DATA:

- Method of collection:

- Survey

Questionnaire
- Sample size- 30

SECONDARY DATA:

Data was collected by searching the internet and referring books related to communication and personality development.

LITERATURE REVIEW

Most of the people are good technically in their respective fields, but a large part fails to communicate their ideas at the workplace and in social gatherings.

Most of the people face problems like

- Speaking in public(The fear of speaking in public-Glossophobia)
- In framing sentences that are grammatically correct.
- Lack of vocabulary.
- Inadequate presentation skills.

Perception and expression are two elements in personality development that help you to speak effectively and others to gauge you as an individual.

Another important thing for improvising your communication is the ability to listen. Listening is a source of gathering information and ideas. It is only when you listen that you are able to develop ideas and opinions of your own. Unfortunately in **communication skills** and personality development not much attention has been given to the importance of listening. One needs to ensure that listening is not ignored. When you listen well then only you are able to reply in the same context.

Speaking without listening means poor communication.

In order to groom your personality, here are some skills that you can use:

1. **Speak in an Intelligent way**

Try to speak on a slower pace to help you find the proper words and showcase thoughtfulness.

2. **Speak Politely**

It's better to start a conversation or a speech with a greeting.

3. **Speak Confidently**

Always remember that your body stance and body language can add to your communication skills, thus, you should always showcase confidence.

4. **Speak Articulately**

Use words that you are familiar with. Pronounce words clearly.

5. **Speak in a Polished way**

When answering a question, never answer with a single word. Add more words to affirm your answer. This will help in clearing your answer and getting your point across.

6. **Speak in a Sensitive way**

Observe your listeners and make sure that they are listening or responding to what you are saying in a positive way. It's up to you how you could turn the situation around. Make use of your hands and eyes to maintain interest from your listener/s.

7. **Speak with Power**

When you speak, speak as clear as you can. Never whisper or shout. It is best that you utilize declarative sentences that are short and concise. Always mean what you are saying. Delete ineffective connectors in your sentences. Say things straight to the point.

Personality development is a broad field, and in order for you to have a pleasing personality, it is important to address all aspects related to it. Speech is one of the many areas that should be given sufficient attention, because without it, people's perception of you and your ability to express yourself would be deeply affected.

INTERPRETATION OF PRIMARY DATA

The following data is on basis of the primary data collected:

Most of the people agreed that communication is a very important aspect of Personality Development. While most of the reasons cited were different, the most common reason was expression of ideas and to be confident.

The common perception remains valid: The most common language for communication is thought to be English.

Also, many people agreed that communication can be included as a core subject at primary level   for it can affect the all over all development of a person.

Another common observation is that people who have good communication skills often have a larger social circle than those who are poor at communication.

CONCLUSION

- In a nutshell, it can be said that while communication isn't one of the most preferred or focused areas by a person to improvise in; it is still the most essential part of Personality Development.
- It not only introduces a person to broader spectrums of life, but also helps provide a window to express thoughts and ideas freely without being suppressed by anyone.

RECOMMENDATIONS

- Practice is very important to enhance your communication skills. Practicing in front of a mirror or simply record what you are saying. By doing this, you can analyze and correct your mistakes.
- Once you have mastered these skills, you can definitely see that your personality is shining.
- Don't let your communication skills dictate your whole personality.

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ROLE OF SELF HELP GROUP IN EMPOWERMENT OF WOMEN

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Abstract:

Self Help Group (SHG) is the informal body of people who come together to solve their common difficulties related to their financial need. The goal of Self Help Groups (SHG) is to become effective agents of change. SHG also enables livelihood opportunities for people through micro-credit with the existing banks in the area. Women empowerment is the women challenge the existing norms and culture, to effectively promote their well-being. The participation of women in Self Help Groups (SHGs) made significant impact on their empowerment both in social and economic aspects. This study addresses women empowerment through self-help groups particularly related to Lijjat Papad in Mumbai area. For this purpose researcher used secondary data.

Introduction:

The origin of Self Help Groups (SHGs) is the brain child of Grameen Bank of Bangladesh, founded by Prof. Mohammed Yunus in 1975, who tried out a new approach to rural credit in Bangladesh.

Grameen gave loans without asking borrowers either to provide collateral or enage in paperwork. In India NABARD initiated SHGs in the year 1986-87 but the real effort was taken after 1991-92 from the linkage of SHGs with the banks. A SHG is the small economically homogenous affinity group of the rural poor voluntarily coming forward to save small amount of money regularly, which is deposited in the common fund to members " emergency needs and to provide collateral free loans decided by the group. The SHGs have been recognized as useful tool to help the poor through thrift. Women Empowerments is the process in which the women challenge challenge the existing norms and culture, to effectively promote their well-being. The participation of women in Self Help Groups (SHGs) made significant impact on their empowerment both in social and economic aspects. Women constitute around 50% of the total human resources in our economy. Yet women are more poor and under privileged than me as they are subject to many socio-economic and cultural

constraints. The situations are more severe in rural and backward areas. Women development activities must be given importance to eradicate poverty, increase the economic growth and for better standard of living.

OBJECTIVE OF THE STUDY:

The study is being conducted with the following objectives in mind:-

➤ To understand the concept of SHG.
➤ To study the role of SHG in empowerment of women.
➤ To know the impact after becoming a member of SHG.
➤ To know how SHG help for improving economic condition.

RESEARCH METHODOLOGY:

In this research, researcher used secondary data is being collected from various books, journals, magzines, websites as well as newspapers. The study is related to organize i.e Lijjat Papad.

STRUCTURE OF SELF HELP GROUP

Self-help group, nonprofessional organization formed by people with a common problem or situation, for the purpose, service of pooling resources, gathering information, and offering mutual support, service or care. A SHG in a group of about 10-20 peple from a similar class and region, who come together to form saving and credit organization.

They pooled financial resources to make small interest bearing loan to their members. This process creates an ethic that focuses on saving first. The setting of terms and conditions and accounting of the loan are done in the group by designated member.

A small group (15 to 20 members) voluntarily formed and related by affinity for specific purpose, it is a group whose member uses savings, credit and social involvement as instrument of empowerment.

SHG services are

➤ Thrift and credit activities
➤ Participatory monitoring of the groups.
➤ Group level poverty reduction plans.

The SHGs provides the benefits of economies of scale reducing costs in certain areas of the production process which the members may decide to undertake as a common action. The group also provides a cost effective credit delivery system, as the transaction costs of the lending decrease sharply both to the banks and the borrowers.

SHGs Bank Linkage Programme is emerging as a cost effective mechanism for providing financial services to the "Unreached Poor" which has been successful not only in meeting financial needs of the poor buts also strengthen collective self-help capacities of the poor, leading to their empowerment.

CHARACTERISTICS OF SHG:

• Small homogenous group for face to face interaction and relationship. The membership of a group may range from 10-20. Ideal number o members would be between 15-20.
• Has a code of conduct bye laws/ rules and regulations for effective

administration and management of the group.

- Participatory decision making process.
- Mobilizes local resources through regular savings.
- Plans own programme with own resources.

FUCTIONING OF THE SHG:

1. The group functions democratically with 2-3 office bearers elected by a consensus of the group. Two office bearers viz. the President and Secretary are essential, while a third office bearer i.e. a Treasurer is optional. Better to restrict the office bearers to just two-president and secretary.
2. Office bearers should rotate at least once in two years. Ideal rotation would be once every year, depending on availability of educated members to act as Secretary.
3. Group meets periodically at fixed intervals for the following purpose:

    a) To discuss, reflect on and find solutions to socio-economic issues / problems of members, the group and of the community.

    b) To transact business.
4. All members' attendance and active participation at meetings is essential.
5. Decisions are taken at meetings by a consensus of the group and not by the President and Secretary alone. The President and Secretary manage the administration of group as per the bye-laws and group consensus.
6. All business is transacted at meetings and not privately with the President or Secretary at their residence. The following business is transacted at meetings:

a) Collecting savings, fines, interest on loans, instalment of refund of loans, and contribution for nominal administrative expenses.

b) Decision on loan applications, and the amount to be sanctioned.

c) Decision to take up a common economic activity to build up the group's corpus government or by an NGO.

Case study – Shri Mahila Griha Udyog Lijjat Papad

Type	Worker co-operative
Industry	Papad, soaps, detergents, flour, masala, bakery products.
Founded	Mumbai, Maharashtra (15th march 1959)
Headquarter	Mumbai, India
Key people	Swati Paradkar (president)
Employees	45000 in India
websites	www.lijat.com

Introduction:

- **Shri Mahila Griha Udyog Lijjat Papad**, popularly known as **Lijjat**, is an Indian women's cooperative involved in manufacturing of various fast moving consumer goods.

- The organization's main objective is empowerment of women by providing them employment opportunities.

- Started in the year 1959 with a seed capital of Rs. 80 Lijjat has an annual

turnover of around Rs. 6.50 billion (over 100 million USD) in 2010, with Rs. 290 million in exports.

- It provides employment to around 42,000 people. Lijjat is headquartered in Mumbai and has 67 branches and 35 divisions all over India.

- Lijjat is primarily a cottage industry, urban by its origin, that has spread to the rural areas.

- It is considered as one of the most remarkable entrepreneurial initiatives by women that is identified with female empowerment in India.

History:

Lijjat was the brain child of seven Gujarati women from Bombay (now Mumbai). The women lived in Lohana Niwas, a group of five buildings in Girgaum. They wanted to start a venture to create a sustainable livelihood using the only skill they had i.e. cooking. The seven women were Jaswantiben Jamnadas Popat, Parvatiben Ramdas Thodani, Ujamben Narandas Kundalia, Banuben. N. Tanna, Laguben Amritlar Gokani, Jayaben V. Vithalani, and one more lady whose name is not known

The women borrowed Rs 80 from Chhaganlal Karamsi Parekh, a member of the Servants of India Society and a social worker. They took over a loss-making papad making venture by one Laxmidasbhai[1] and bought the necessary ingredients and the basic infrastructure required to manufacture papads. On 15 March 1959, they gathered on the terrace of their building and started with the production of 4 packets of Papads. They started selling the papads to a known merchant in Bhuleshwar. From the beginning, the women had decided that they would not approach anyone for donations or help, even if the organization incurred losses.

Organization structure and management:
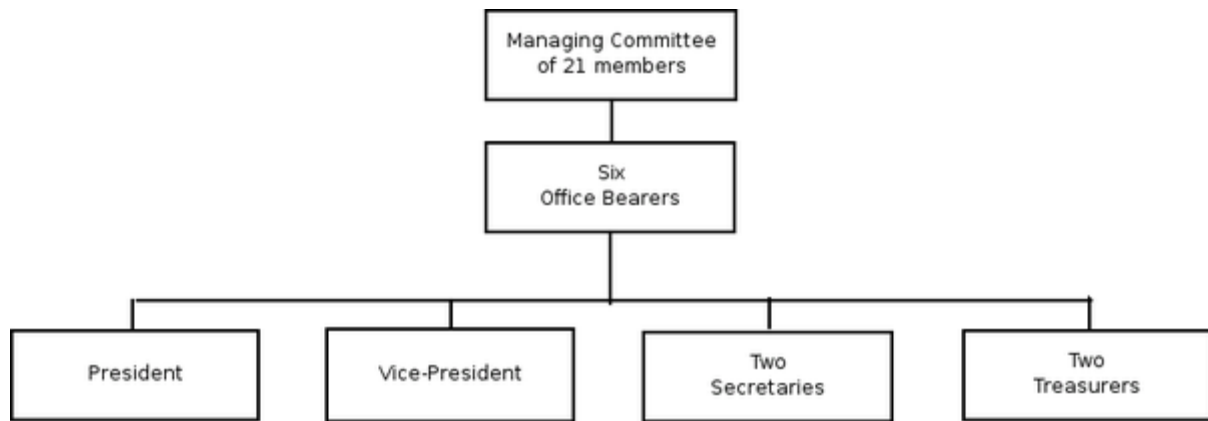
Lijjat collection flowchart
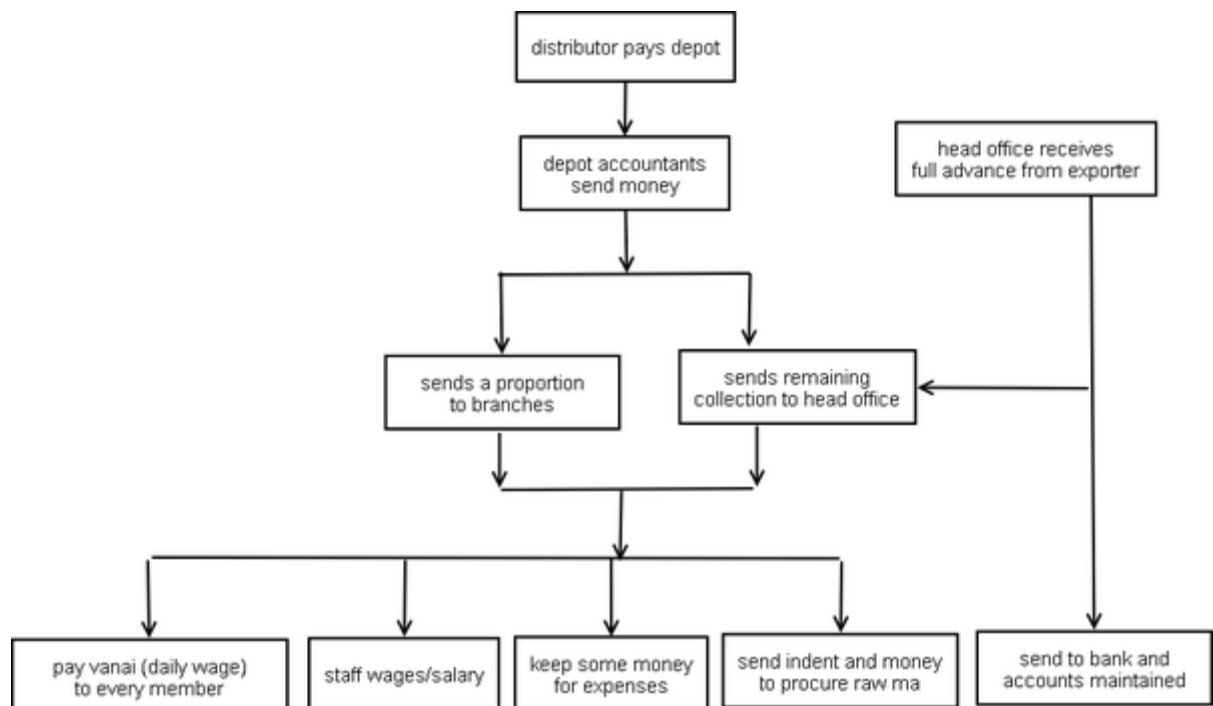
Lijjat distribution flowchart
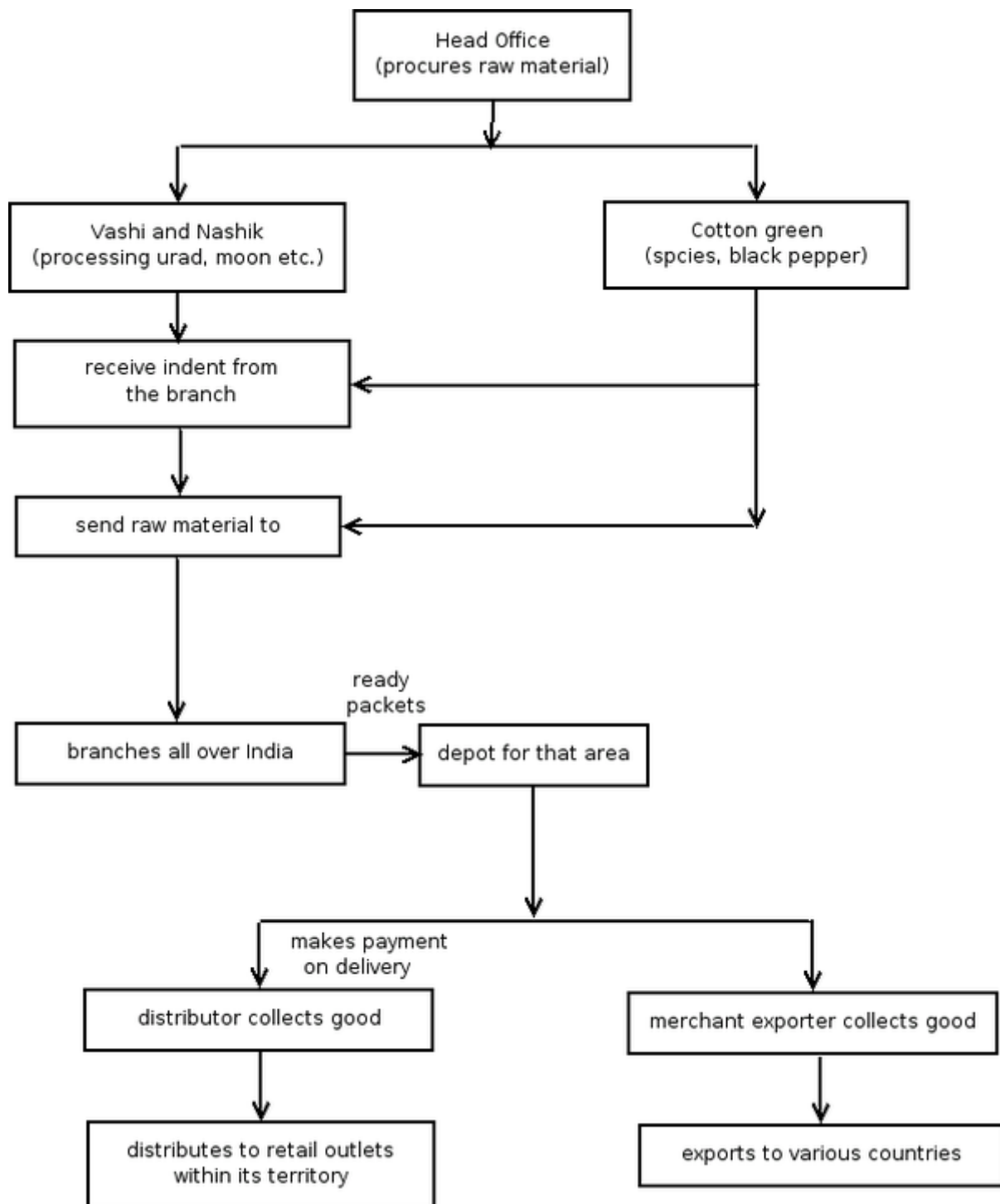
The group got considerable publicity through [word of mouth](#) and articles in vernacular newspapers. This publicity helped it increase its membership. By the second year of its formation, 100 to 150 women had joined the group, and by the end of the third year it had more than 300 members

In July 1966, Lijjat registered itself as a society under the Societies Registration Act 1860. In 1966, KVIC granted it a

working capital of Rs. 800,000 (0.8 million) and was allowed certain tax exemptions.

Products:

- Papad (Fourteen flavours, including lasan, moong, mirch, Punjabi and udad[10])
- Khakhra
- Appalam
- Masala
- Vadi
- *Gehu Atta* (Wheat flour)
- Bakery products
- Chapati
- SASA Detergent Powder
- SASA Detergent Cake (Tikia)
- SASA Nilam Detergent Powder
- SASA Liquid Detergent

Division:

- Flour Division (Vashi)
- Masala Division and Quality Control Laboratory (Cotton Green)
- Printing Division (Cotton Green)
- Advertising Division, Bandra
- Khakhra Division, (Buhari, Valod district)
- Chapati Divisions at Wadala, Borivali, Mulund and Kandivali
- Polypropylene set-up (Kashi-Mira Road)
- Vadi factory (Valod)
- Bakery Division (Valod)
- Detergent Powder and Cakes manufacturing unit (Dahisar) and office (Borivali)

Role in women empowerment:

1. EDUCATION

The growth of the Lijjat is often seen in the larger canvas of women and their empowerment. The organization has undertaken various efforts to promote literacy and computer education for member-sisters and their families.

2. CAMPAIGN

A literacy campaign for sisters began through literacy classes at Girgaum on 18 June 1999. Later, the managing committee decided to start such classes in all its branches.

3. SCHOLARSHIP:

From 1980 onwards, Lijjat started giving Chhaganbapa Smruti Scholarships to the daughters of the member-sisters.

4. FAMILY WELFARE

The member-sisters used their organisation as a medium to promote their and their families' welfare.

5. HOBBY CENTER/COURSES

In the Valod centre they set up an educational and hobby centre for the rural women. Orientation courses in typing, cooking, sewing, knitting and toy making as well as other courses like child welfare, first aid and hygiene were taught. The first ever pucca (tarred) road in Valod to be built and inaugurated in 1979 was with the help of the Lijjat, Valod branch.

6. CHILD CARE AND MOTHER WELFARE

In 1979, Lijjat teamed up with UNICEF to organise a seminar in Mumbai on "Child Care and Mother Welfare", as part of the International Year of the Child

celebrations. In October 1984, Bhadraben Bhatt represented Lijjat at the UNESCO sponsored international workshop on "The role of women in the assimilation and spread of technological innovation" held at NITIE, Powai. Alkaben Kalia represented Lijjat at the national level meeting on women convened by the National Commission on Self Employed Women.

At the behest of Mother Teresa, the member-sisters also took part in some activities of Asha Dhan, an institution to care for destitute women.

Lijjat member-sisters also tried to start a co-operative bank, but the effort was not very successful.

Contribution to social service:

- FOOD

On several occasions, the Lijjat member-sisters have undertaken social service activities such as distributing nutritious food for poor children.

- DONATION

Donating money for conducting community marriage, instituting prize-money for spread of primary education, undertaking blood donation drive, organising health camps, plantation drives and even making donations to Government bodies. In 1999, the Mumbai City felicitated Smt.Rukminiben B.Pawar, Lijjat President, as an outstanding woman in the field of social work.

- REHABILITATION

Lijjat undertook the rehabilitation of Chincholi (Jogan), the earthquake affected village in the Latur district of Maharashtra. The institution provided the finance and supervised the work of construction of fifty-eight houses for the people of the village. Member-sisters donated money from their daily *vanai* (wage). After the 2001 Gujarat earthquake, all the branches of Lijjat gave a total donation of more than Rs 4.8 million, including Rs 1 million from the central office. Lijjat built forty houses for the rehabilitation of the people of Bhujpur (Bhachau) in Kutch District.

Findings:

- ➢ The Primary focus of the shgs is to improve the standard of living of the members.
- ➢ It inculcates habit of saving and financial decision making
- ➢ SHG provides employment opportunities to the lower middle class people.
- ➢ It helps for decision making within the house hold.
- ➢ SHG helps for self confidence among members.
- ➢ SHG focus on per capita-income of people.
- ➢ It helps for increasing national income of our country.
- ➢ It improves economic condition
- ➢ It encourages investments in gold, immovable property.
- ➢ SHG people standard of living also increases.
- ➢ It improves economic standard of SHG members.

Suggestions:

- The government should allot more interest free loans to the SHGs who are doing very well
- The government should simplify the registration process so that all the SHGs can be coverd as registered entities.
- Many crporates should come forward and help the SHGs as a part of their corporate responsibility.
- Due to the space cruch faced by the SHGs, the government should try allot land to the SHGs to conduct business and also do the needful in marketing their product.
- Local banks should come forward to give loans without deposits and sureities to the SHGs.
- The facilities and various government schemes should be made easily available to the SHGs.

Conclusion:

- This study shows that the SHGs play an impotant role for earninf income so that income can be invested in saving, immovable property, gold etc.
- The performance and growth of the SHG is good

- The standard of living of women has improved.
- It also indicated that the self-help group has producing a positive impact in terms of raising economic status of lower middle class people specially women.
- At the end that SHG help in women empowerment and economic progress.

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PROJECTION OF WOMEN IN INDIN COMMERCIALS OVER A PERIOD OF TIME AND ANALYSIS

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Over the year, in various areas around the world like academics, corporate, advertising etc, the role of women as been constantly changing and most cases evolving over the years. In this paper I will deal with the questions: Has the representation or role of women advertising changed over a period of time? Or does it fall in place with some of the traditional outlooks about women and their role in the society? The first section gives a review of literature on gender role portrayals in advertising. The second section discusses the various hypotheses of the study and the theoretical foundation for the same. The third section discusses the methodology of the study and a detailed analysis of the result. Aim for the study:

(1) Examine female role portrayals in Indian Television advertising
(2) Examine the woman in television advertising and how there portrayals have changed over the years by comparing advertisements in three different time period-- 1980-1990, 1990-2000,and 2000-2010.
(3) Examine whether these gender-role portrayals varies across product categories

The last section contains general discussion, implications of the study, scope for further research and conclusion.

The role of women has been changing over the years in various fields around the world like advertising, academics, politics, etc. Today 30% of employees in the software industry are women. They are also distinguishing themselves as professionals in different walks of life. But as the representation of women advertising changed over a period of time in commercials? Or does it confirm to some of the traditional notions about women and their role in society? That is the question I wish to deal with in this paper.

The earliest study of women role portrayals was done by Courtney and Lockeretz (1971). They studied 112 ads in magazines and concluded that the ads reflected stereotypical roles like "women place is in the home, women don't make important decisions or do important things, and women are dependent and need men protection, men regard women as sex object and are not interested in women as people".

Appearance and portrayals of women of women in advertising has been an area of interest for both academicians (Das, 2000, Sui and Au, 1997) and practitioners. There has been a socio-cultural change in society over the decades which are evident from the increasing number of women pursuing careers, changing family role structure, and unfavourable female attitudes toward traditional sex-role stereotypes.

Role portrayals in advertising are different in Asia, as compared to the rest of the world.

Hofstede (1980) also identifies that the cultural values of Asian nations are significantly different from those of countries like the United States, Canada, and Britain. Therefore we can say that the role of woman will also be different in Asia when compared to the United States or United Kingdom.

Overview of the paper –This paper is divided into 5 sections. The first section gives a review of literature on gender role portrayals in advertising. The second section discusses the various hypothesis of the study. The third section discusses the methodology of the study and a detailed analysis of the result. The last section contains general discussion, implication of the study, scope for further research and conclusion.

LITERATURE REVIEW

The most frequently researched topics concerning the portrayals relating to people and products. The issue discussed is whether advertising accurately reflects current women's roles or stresses stereotypic roles for women through explicit portrayals in particular role situation.

Silverstein and Silverstein (1974) in their study on television commercial concluded that:

- Men are usually announcers, due to the attributed "voice of authority and trust."
- Women were shown in the home with greater frequency than men.

- Men were more likely to give advice to women.
- A women's occupation was rarely evident.
- Women were eight times more likely to be portraying subservient roles in their interactions with men.

Das (2000) in their study on the role of men and women in Indian advertisement concluded that the portrayal of women in Indian magazine differs from those found in other nation. Two major differences in female role portrayals were;

1. The common stereo typical portrayals seem less prevalent in Indian; women were portrayals in neutral ways and less likely as sex objects in Indian advertisement. They were also portrayed as less independent as compared to advertisement in Britain. The results of Indian advertisements were in sync with the Japanese and Korean advertisements.

2. In Indian, the trend of portrayals of woman has been non-traditional and this can be attributing to the changes in the Indian society. The literature review above, highlights that the role of women has been changing over the decades around the world be it the print advertisement and television advertisements. Further, it is also noted that the portrayals of woman in India is different from the other countries. Hence this study aims to identify the wavering nature of female appearance in Indian commercial over the decades. Therefore the present study aims to;
    (1) Examine female role portrayals in Indian Television advertisement
    (2) Examine the woman in television advertising and how there portrayals have changed over the years by comparing advertisements

in three different time period-1980-1990, 1990-2000, and 2000-2010.

(3) Examine whether these gender-role portrayals varies across product categories.

HYPOTHESIS FORMULATION

Belkaoui and belkaoui, (1976) and Sullivan and O'Connor (1988) in their study conducted in United Kingdom conclude that women in advertisements are portrayed as; being dependent, need the protection of men, home makers, sex objects, etc

Considering, the prevalence of stereo type portrayal of women in other nations, and also considering the fact the advertisers in Asia have not been as sensitized to gender-role stereo typing as those in western nations (Cutler et. Al., 1995). Hence, it is hypothesized that

H1-In all three decades, women will be portrayed more often in traditional, stereo typical ways in Indian television advertisement (i.e.in traditional feminine roles) than in neutral or non traditional ways.

According to Das (2000) the gender-role stereotypes of women may be in line with the purchase of female-oriented product, therefore it can be expected the advertisements for such products portray women in traditional ways. Hence, the second hypothesis for the study

H2- In all the three decades, the nature of portrayals of women in television advertisement will not vary depending on the type of product being advertised.

There has been a change in the way women are portrayed in advertisement. An increase in the participation of women in the workforce has led to women becoming major purchasers of several products like automobiles, insurance, and financial services. (Das, 2000)

A similar trend can be expected in India, as there has been an increase in the number of working women and their educational level in India (Das, 2000) further, liberalization of the Indian economy has also increased the exposure of woman to the western world. Based on this literature it can be hypothesized that

H3- Female role portrayals become less stereo typical over the decades. This would be reflected in the kind of advertisements and the product categories of advertisements in which women are used. Woman in television advertising in the 1980s would be more stereo typical than woman in 2010.

RESEARCH METHODOLOGY

The methodology used for the study was content analysis. It is the most extensively used technique to analyse gender roles in advertisements. (Das, 2000, Sui and Au, 1998) state that, content analysis has been the primary means of assessing gender stereotyping in advertisement in advertisements.

SAMPLE

Television commercial for the decade 1980-90, 1990-2000 and 2000-10 have been studied. 15 advertisements were reviewed for the first period, 25 for the following period, and 35 for the final decade. In India, the first television commercial was seen only in 1978 and the colour television was introduced only in 1982. Hence there was very little advertisement in the 1980-1990. In 1991,

India got it first satellite channel, Zee TV and the number of advertisements in the earlier decades is the reason for the unequal number of advertisements in each decade. Only those Television commercials were used in which the female characters in the commercials had an on camera appearance of at least three seconds and/or at least one line of dialogue OR if a female voice came in as an announcer for the product.

Camera appearance of at least three second and / or at least one line of dialogue OR if a female

Voice came in as an announcer for the product.

Table1: Variables used in analysis

Variables chosen	Application of such a variable
Product category	What is the product category being advertised? Food; snacks; beverages ; Beauty products ; Travel; Automobile; Household appliances; Alcoholic beverages; banks; pharmaceutical product; Housecleaning agents; Clothing; others
Location of ad setting	What is the setting in the advertisement? House /home ; store; occupational setting; leisure time; fantasy; sport; using transportation; religious setting ; outdoor; other

Age	What is the age of the female characters in the advertisement? Child, Young adult (18 – 35 years of age); mid adult (35 – 50 years of age); older adult 50.
Credibility	If the women in the advertisement is either, Product user or presenter; product authority; decorative; other.
Product User	Who is the product advertised used by primarily? Women, men, both, child or all.
Role	In what role is the woman portrayed? Mother, wife, girlfriend, homemaker, professional, daughter, both professional and homemaker, decorative, equal to men, superior to men, or role of men not applicable other?
Presence	If the presence of the female is implicit or explicit.
Attire / Apparel	If the attire of the female model in the advertisement is traditional or modern.

Result

Between the time periods of 1980-2010 the results indicate a big difference in the portrayal of Women. In the 1980 and the 1990s women were portrayed either as a home maker or as a professional. This

was not the case in the 2000. 13.34% of advertisements portrayed woman in the role of both a professional and home maker. There are many such changes in the television advertisement over the decades. However, some variables have not changed over the years like the portrayal of woman as a product user or presenter.

Testing Hypothesis 1:

To test Hypothesis 1, the female role categories were combined together in three categories i.e.

Traditional, neutral and non-traditional. The traditional category comprised of the following categories: Wife, daughter, mother, home maker and decorative. The neutral category comprised of the category of "other" and the non-traditional category comprised of professional, professional and homemaker, girlfriend, women superior to men or equal to men.

Table2: Women Role categories by Decades

Role	1980's	1990's	2000
Traditional	73.74	68	57.1
Neutral	-	8	11.4
Non Traditional	26.66	24	31.5

From the above table it can be said that although the percentage of woman portrayed in the non-traditional role has increased from 1980s – 2000, the stereo typical way of portraying woman in the traditional role has been domain in the television advertising, hence providing support to my first hypothesis.

Testing Hypothesis 2:

To test the second hypothesis, the advertisements were classified based on the users of the products advertised. These are our categorizations which are done, products which are used only by females, products only for children and products used by female, male and children.

Table 3: product User categories

User of product	1980s	1990s	2000
Female	6.67	20	17.14
Male	13.33	8	8.57
Both	26.67	28	25.71
Child	0	4	5.71
all	53.33	40	42.86

It is evident from Table 3 that, women were mostly used in advertisements of products which were of common use like snacks, chocolates, beverages, etc. Women were used minimal in products which are for male and for children. The reason for the same could be attributes to the usage of men and children in the advertisements. It has been seen that on an average 2.2% of the advertisements of products used by them. The above table supports our second hypothesis which states that "In all the three decades, the nature of portrayals of women in television advertisement will not vary depending on the type of product being advertised".

Testing Hypothesis 3:

To test our third hypothesis, the product categories were collapsed in three categories; household or woman dominant products, neutral products and male dominated products. This categorization has been borrowed from the work of Das (2000). The household/woman dominant

products would comprise of cleaning products, food products, home appliances, beauty products, essentials. The neutral products comprise of snacks, beverages, clothing pharmaceutical products and others. The male dominant products would comprise of travel, automobiles, banks, alcoholic beverages.

Table 4: Sorting according to categorization over the decades:

Category	1980s	1990s	2000
Women Dominated product	33.33	52	31.4
Neutral products	60	44	57.14
Male dominated products	6.66	4	11.42

The table above indicates that in 1980s here only 6.66% of advertisements which portrayed woman in a male dominant products, but 11.42% advertisements in the decade 2000 portrayed woman in a male domain product category. The number has risen over the decades. The percentage of advertisement portraying woman in a neutral product has been the highest (57.14%) in the woman domain products as compared to 33.33% in 1980 and 52% in the 1990s. This same is reflected in the above table, hence there is evidence not reject our third hypothesis.

Conclusion

The results throw some light on the changes taken over the decades. Over the decades the women in the India have been portrayed in a stereotypical manner, there is a difference in the products category advertised by them, over the decades. Advertisements in the year 2000 showcase female in male dominated product as compared to 1990s.

This study has attempted to cover as many advertisements as possible to study the changing portrayal of woman in India. However, it has not covered all the advertisements in the year 2000 showcase females in male dominated product as many compared to 1990s.

This study has attempted to cover as many advertisements as possible to study the changing portrayed of woman in television advertising in India. However, it has not covered all the advertisements and hence future researchers could more number of advertisements.

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Youth Entrepreneurship –The firepower of Indian Economy

A Study with respect to Ambernath – MIDC

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ABSTRACT: Recently, interest in youth entrepreneurship has been fuelled due to high levels of unemployment amongst young people and as a way to foster employment opportunities or to address social exclusion. Youth entrepreneurship has gained more importance in recent years in many countries, with increased interest in entrepreneurship as a way of boosting economic competitiveness and promoting regional development. Based on survey and interview of the young entrepreneurs through a structured questionnaire in Ambernath MIDC region, the researchers have made an attempt to study the factors contributing to the promotion of young entrepreneurs to start up their own enterprise, to find out the constraints that impedes and prospects that motivates the young people in starting and running a business and to assess the performance of the young entrepreneurs in Ambernath (MIDC).

1.INTRODUCTION

 The role that entrepreneurship plays in the socio-economic development of a country is well acknowledged. As a result, a large number of programmes to support entrepreneurship to fulfil its economic and societal roles designed by the governments and international organizations. However, due to the perception that the concepts of entrepreneurship and youth entrepreneurship are interchangeable, youth entrepreneurship remain somewhat unaddressed in many countries while considerable attention has been made upon entrepreneurship in general. The problems of entrepreneurship have been addressed in the same way for different groups within the population by the use of 'one size fits all' policies and programmes. Recently, interest in youth entrepreneurship has been fuelled due to high levels of unemployment amongst young people and as a way to foster employment opportunities or to address social exclusion.

Furthermore, entrepreneurship is seen as a channel for the talents of many highly educated young people in areas such as information technology, biotechnology and other modern industries. Youth entrepreneurship has gained more importance in recent years in many countries with increased interest in entrepreneurship as a way of boosting economic competitiveness and promoting regional development. While youth entrepreneurship is an under-explored field in academic and policy debates, two main factor accounts for its growing attention in developed countries. The first is the increased number of unemployed young people compared to the rest of the population; the second is the need for

greater competitiveness, and the accompanying pressures for skills development and entrepreneurship as a way of addressing the pressures of globalization.

In general terms youth unemployment is connected to: firstly, the difficult transition from school to work; secondly, the unwillingness of employers to employ inexperienced workers, and; thirdly, the frequent job changes by young people in an attempt to find a satisfactory job (United Nations, 2003). Although the literature on youth entrepreneurship is limited, there is evidence (Greene, 2005) that young people think that working for themselves as a career option since it offers them an interesting job, freedom and autonomy which other working atmosphere might not provide.

Out of 15 major states of India, Maharashtra is one of the states that has the advantage of high infrastructural facilities and favourable natural resources like vast land with, forests, water bodies and marine resources to accelerate the progress of economic growth through industrial development. Particularly since late 1960s, the state adopted a progressive industrial policy to encourage small scale industry (SSI) units and entrepreneurship among the residents of Maharashtra at the decentralized level. With education empowerment and population control gaining importance in the state there has been structural transformation of the state economy. Promotion of youth entrepreneurship in the state will not only quicken the pace of economic development but will allow the youth to utilize and make best use of their potentialities and will also solve the problem of spiralling unemployment.

Entrepreneur and Entrepreneurship has been defined by various authors in various ways. Peter Drucker defines it as one who always searches for change, respond to it and exploit it as an opportunity. Innovation is a specific tool of entrepreneur, the means by which they exploit change as an opportunity for a different business/service. According to Schumpeter, an entrepreneur is a person whom is willing and able to convert a new idea or invention into a successful innovation. Entrepreneurship employs what Schumpeter called "the gale of creative destruction" to replace in whole or in part inferior innovations across markets and industries, simultaneously creating new products including new business models. In general terms an entrepreneur is one who creates and establishes a new endeavour by analysing prospect for profit /growth, as well as endows his/her majority of time and resources to make it his/her principal source of earning. For the purpose of this paper, 'youth' has been defined as a person between 18-35 years of age and a youth entrepreneur is defined as the entrepreneur within the age group 18-35 years.

1.1 Objectives and Methodology
i. To study the factors contributing to the promotion of young entrepreneurs to start up their own enterprise.
ii. To analyse the constraints that impedes and prospects that motivates the young people from starting and running a business.
iii. To assess the performance of the young entrepreneurs in Mumbai-Ambernath.

The study is based on an exploratory research of 100 young entrepreneurs from the city of Ambernath MIDC region. For undertaking the survey, a structured questionnaire was prepared which covered different issues relating to the social and economic background of entrepreneurs, motivating factors for entrepreneurship, problems faced by entrepreneurs' and the like. Secondary data, i.e., through websites, books and journals were also referred for the preparation of the research article. The sample young entrepreneurs in this region were drawn by using a multi stage cluster sampling method. Due to shortage of time it was not possible to have an in-depth study of all the 100 sample entrepreneurs, however overall efforts were made to draw representative conclusion.

1.2 MIDC-MAHARASHTRA INDUSTRIAL DEVELOPMENT CORPORATION

OVERVIEW:

A small ceremony at Wagle Estate Thane, under the chairmanship of the Chief Minister Shri. Y. B. Chavan, marked the Birthday of MIDC on August 1, 1962.

The key historical policy decisions taken by MIDC certainly changed the Socio-economic scenario of the state as its activities spread in the interior. The important policy decision of setting up "independent Filtered, portable water supplies system of adequate capacity" essential infrastructure for industrial development was the most intelligent step taken by MIDC right in the beginning. IT stabilized the population base near the industrial areas. The strategic wise decision taken simultaneously to provide

water supply system resulted in phenomenal urban growth in the nearby small towns and villages.

The growth of Kalyan complex and Pimpri- Chinchwad are result of this key policy decision taken by MIDC. Up to date 229 industrial areas are developed by MIDC in the state of Maharashtra on 53120 hectors of land. With the experience of 45 years MIDC observed that certain industries are required to be provided some specialized parks/ industrial clusters are developed with specialized infrastructural facilities. In this way IT and BT parks, Wine park, Textile park, Chemical zones, Food parks, Leather park, Florti culture park and Electronic zone, etc. are developed by MIDC. Considering the industrial areas are developed by MIDC at 9 locations in the State of Maharashtra. Considering the export potential of the various products specifically delineated duty free enclave which is to be deems to be foreign territory for the purpose of trade operations and duties, traffics special economic zones are developed by MIDC to provide hassle free environment for exporters. Maharashtra got overwhelming 74 Special Economic Zone approvals from the Government of India which is leading at No.1 position compare to other states in India.

The planned and systematic industrial development in the state of Maharashtra has continuously placed Maharashtra at No.1 position in India for the highest productivity, economic performance, business efficiency, government efficiency, infrastructures and overall competitiveness. As per the World Competitiveness Report, 2006 Maharashtra ranks 37th, ahead of South

Korea, South Africa, Philippines, Greece, Brazil, Italy, Russia and Indonesia.

2. REVIEW OF LITERATURE

Baker (2008) in the paper "Fostering a Global Spirit of Youth Enterprise" outlines the present challenge of youth unemployment and investigates the role that youth enterprise can play in tackling this challenge, before examining the opportunities for public and private sector collaboration to achieve meaningful social and economic change. The paper draws on examples of existing collaborative youth enterprise initiatives suggesting how these may be replicable and scalable.

The first report in YBI's Making Entrepreneurship Work series (2009) on "Youth entrepreneurship – Recommendations for action" suggested that Business, Governments and other sector of the society increasingly perceive that supporting young entrepreneurs can be a highly effective way to reduce youth unemployment and encourage growth in local communities.

Nancy and Thomas (2008) in their article "Entrepreneurial Orientation among the Youth of India: The Impact of Culture, Education and Environment", states that even though a combination of social configurations and cultural values within India that historically confined entrepreneurship, a number of efforts in recent years seem to have significantly recast the national mind set regarding entrepreneurship, particularly among India's youth who were found to exhibit a significantly higher level of interest in starting new ventures than their US counterparts. Above all, it investigates the role and capacity of civil society

organisations in sustaining and supplementing the government sponsored employment generation programme in India for capacitating a smooth youth transition into the world of work.

Llisterri et al. (2006), "Is Youth Entrepreneurship a Necessity or an Opportunity?" the authors examine the difference between youth who become entrepreneurs by necessity or by opportunity and also evaluate the range and quality of policies and programs that governments, development agencies and civil society are implementing to support the groups of young entrepreneurs.

3. DATA ANALYSIS
Characteristics of enterprise and entrepreneur

The characteristics of the sample enterprises are given and it was found that around 44% of the enterprises have 5 to 10 years of existence whereas 27% of the enterprises have 0-5 years of existence. The sample reveals that around 92% of the enterprises belonged to the category of small enterprises. 79% of the enterprises are selling consumer products, 15% industrial whereas only 6% are into intermediate selling. Nearly 88% of the enterprise sold their products in the local market, 11% in other districts and 1% in villages. Out of the total enterprise 87% are sole proprietors whereas 13% are into partnership form of business. 76% of the enterprise established their enterprise in market place whereas 16% and 8% established their enterprises at their home and industrial area respectively.

The characteristics of the sample entrepreneurs, as given in Annexure – II, revealed that 57% of the respondents

belonged to joint family whereas 43% belonged to nuclear family. Around 73% of the respondents hailed from business origin and 27% from non-business origin. Out of the total respondents 97% are male entrepreneurs and only 3% are female entrepreneurs. 69% respondents are married where as 31% are unmarried. Nearly 42% of the respondents are graduates, 29% under graduate, 18% matriculates and 11% post graduates. 84% belonged to middle class family, 14% upper class and 2% of the respondents are from lower class. A majority of respondents i.e. 75% are from business family, 24% service and 1% from agriculture family. 70% of the respondents have no prior working experience whereas 30% have few years of working experience.

Idea for establishing the enterprise

Table 1. Sources of Idea Establishing the Enterprise

SR. NO	SOURCES OF IDEA OF ESTABLISHING THE ENTERPRISE	SUCCESS	FAILURE	TOTAL (%)
1	Friends and relatives	20	37	57
2	Media coverage of business and business people	1	15	16
3	Ideas received from training programs	2	3	5
4	Career advisor	4	1	5
5	Others	7	11	18

Stating a new business means having a business idea translated into a concrete and structured business plan. Further entrepreneurs will first of all need to evaluate the feasibility of the entrepreneurial idea through a careful analysis of the product and of its reference market. Through the sample survey it was found that around 57% of the respondents got the idea of setting up the enterprise through their friends and relatives, 18% from other sources like market study, own idea, father and the like, followed by media i.e., 16%, training programmes and advisors 5% each.

Reason for choosing entrepreneurship as a career

Many people opt for entrepreneurship as their career because of many reasons. Some delve into the industry because they would want to run their business, answering to no one and setting all the rules and protocols by themselves. Others jump into entrepreneurship because they have seen that most successful people in the world own a successful business. There are also others that make entrepreneurship as a second career because their current jobs are not earning enough for them. From the sample research it was found that nearly half of the sample i.e., 50% of the respondents chose entrepreneurship as a

career because they have the desire to be independent while 23% want to earn more money, 14% of the respondents have to manage their family business.

Table2. Choosing Entrepreneurship as a Career

SR. NO	REASONS FOR CHOOSING ENTREPRENEURSHIP	SUCCESS	FAILURE	TOTAL (%)
1	Desire to be independent	16	34	50
2	To create jobs for others	2	5	7
3	Inability to get desired jobs	3	2	5
4	Dislike for the previous job/employer	2	3	5
5	To earn more money	9	14	23
6	To manage family business	4	10	14

Reason for the Choice of Present Location Choosing the right location for a business is very vital to its success. The location will definitely affect the target consumers of the company. According to the sample analysis it was found that 44% of the respondents chose their present location of the enterprise because of availability of market whereas 40% due to local area. Around 9%, 6%, 3% and 1% chose because of easy availability of materials, infrastructure facilities, cheap labour and to avail government incentives.

Table 3. Choice of Present Location

SR. NO	REASONS FOR CHOOSING PRESENT LOCATION OF THE UNIT	SUCCESS	FAILURE	TOTAL (%)
1	Local area	10	30	40
2	To avail government incentives	1	0	1
3	Easy availability of materials	4	5	9
4	Cheap labour	2	1	3
5	Availability of market	15	29	44
6	Availability of infrastructure facility	3	3	6

Source of Initial Capital

There are various sources of capital for a business to start up to stand viable and survive the global challenges, because enough money is required for business support, marketing, sales and distribution.

Nearly 51% of the respondents got their initial capital from family funds followed by loan from others and loan from financial institutions i.e., 17% and 16% respectively.

Table 4. Source of Initial Capital

SR. NO	SOURCES OF INITIAL CAPITAL	SUCCESS	FAILURE	TOTAL (%)
1	Own fund	8	13	21
2	Loan from others	8	9	17
3	Family fund	11	40	51
4	Loan from financial institution	8	8	16

Perception of Society about Young Entrepreneurs

Good perception of society is needed to inspire youth that entrepreneurship is a strong opportunity for young people and they must be nurtured. The sample study reveals that around 51% of the respondents felt that their society perceives it as respectable career.

Table 5. Perception of Society about Young Entrepreneurs.

SR. NO	PERCEPTION OF SOCIETY ABOUT YOUNG ENTREPRENEURS	SUCCESS	FAILURE	TOTAL (%)
1	Too risky	14	37	51
2	Respectable career	20	29	49

Obstacle in Getting Assistance

Table 6. Obstacle in getting Assistance

SR. NO	Obstacle in getting Assistance	SUCCESS	FAILURE	TOTAL (%)
1	Undue delay	7	9	16
2	Excess official formalities	13	23	36
3	Rigid procedures	10	29	39
4	Others	7	7	14

Government plays a vital role in creating a conductive atmosphere for business to thrive and drive the country towards economic prosperity. Government has taken many initiatives and has launched many programmes for the development of young entrepreneur. Young entrepreneurs

are unable to receive the incentives and face difficulties getting the assistance. It was found that 39% of the respondents felt that the procedure for getting assistance from the government was the major obstacle, 36% stated excessive official formalities were the major obstacle followed by undue delay and other i.e., 16% and 14% respectively.

Difficulty Faced in Obtaining Finance
Table 7. Difficulty Faced in Obtaining Finance

SR. NO	Difficulty Faced in Obtaining Finance	SUCCESS	FAILURE	TOTAL (%)
1	Yes	18	39	57
2	No	16	27	33

The sample survey reveals that 57% of the respondents agreed that they faced difficulty in obtaining finance whereas 43% didn't agree. They all felt that their businesses had great potential for growth and were all profitable businesses but lack of funds was setting them back and limiting their growth and sustainability.

Impediments in Getting Start up Funding
Table 8. Impediments in Getting Start up Funding

SR. NO	Impediments In Getting Start Up Funding	SUCCESS	FAILURE	TOTAL (%)
1	No collateral	8	14	22
2	Strict credit scoring	3	5	8
3	High interest rate	15	30	45
4	Complex documentation procedure	5	12	17
5	Others	3	5	8

Table 9. Barriers and Obstacles in Start-up Of Business

VARIABLES	SUCCESS OR FAILURE	RANK 1	RANK 2	RANK 3	RANK 4	RANK 5	RANK 6	TOTAL
SOCIAL/CULTURAL ATTITUDE	SUCCESS	1	7	7	8	10	1	34
	FAILURE	5	18	14	11	9	9	66
ACCESS TO FINANCE	SUCCESS	14	5	4	6	5	0	34
	FAILURE	30	4	9	16	5	2	66
GOVERNMENT REGULATIONS	SUCCESS	8	7	2	8	5	4	34
	FAILURE	21	18	8	6	12	1	66
EDUCATION, SKILLS & TRANNING	SUCCESS	0	3	11	4	1	15	34
	FAILURE	3	4	7	7	14	31	66
BUSINESSSUPPORT	SUCCESS	8	5	6	5	3	7	34
	FAILURE	7	15	17	11	9	7	66
MARKETING OF GOODS	SUCCESS	3	7	4	3	10	7	34
	FAILURE	0	7	11	15	17	16	66

One of the severe problems faced by the young entrepreneurs is non-availability of adequate finance to carry out their operations. Banks also do not lend money without adequate collateral security or guarantees and margin money which many of them are not in a position to provide. It was found that around 45% of the respondents said that the high interest rate were major impediment in getting start-up funding while 22% felt that no collaterals were the major impediment in getting start-up funding while 22% felt that no collaterals were the major impediment, 17% said it was due to complex documentation procedure and 8% said it was due to strict credit scoring methodologies and other reasons. No collaterals and high interest rates were the major impediments in getting start-up funds.

Barriers and Obstacles in Start-up Of Business

The success or failure of an enterprise is often dependent on overcoming a series of potential barriers, e.g. securing sufficient financial backing, adequate and appropriate guidance and training etc. From the sample survey it was found that a majority of 44% respondents ranked access to finance as the important area where they faced obstacle to engage in business, whereas 29% ranked government regulation as he area of obstacle to engage in business support as the major of difficulty in starts ups. Regulative Barriers

Table 10. Regulative Barriers

SR.NO	Regulative Barrier s	AVERAGE SCORE			F RATIO	PROBABILITY
		SUCCESS	FAILURE	OVERALL		
1	Tax rates	2.47	1.95	2.13	4.673	.033
2	Subsidy policy	3.56	2.68	2.98	7.664	.007
3	Trade policy	3.53	2.61	2.92	9.458	.003
4	Others	4.71	3.67	4.02	10.161	.002

As shown in the above table it was found from the sample survey that tax rates, subsidy policy, trade policy and few other taxation regulations are the regulative problems faced by the young entrepreneurs.

Important De-Motivators (Fears) To Engage In Business

Table 11. Important De-Motivators (Fears) To Engage In Business

SR.NO	FEARS/ DEMOTIVATERS	AVERAGE SCORE			F (RATIO)	PROBABILITY
		SUCCESS	FAILURE	OVERALL		
1	Financial risk	3.06	3.62	3.43	9.7740	.002
2	Access to finance	3.21	3.00	3.07	.754	.387

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3	Social risk	3.21	3.02	3.08	.969	.327
4	Lack of skills	2.82	2.97	2.92	.303	.583
5	Administrative hurdles	3.06	3.18	3.14	.278	.599
6	Stigma associated with failing	3.65	3.18	3.34	2.188	.142
7	Work load	2.85	2.912	2.89	.068	.795
8	Corruption	3.12	2.86	2.95	1.0499	.308
9	Competition	3.35	3.55	3.48	.992	.332
10	Market demand	3.50	3.92	3.78	3.438	0.67

1	Education	2.82	2.26	2.45	3.7976	0.054
2	Adventure	3.26	2.55	2.79	11.266	0.001
3	Honesty	2.15	1.80	1.92	3.585	0.061
4	Religion	2.91	2.58	2.69	1.6661	0.201
5	Innovation	2.59	2.05	2.23	2.0211	0.158
6	Learning	2.59	2.05	2.23	6.538	0.012
7	Independent	2.50	2.11	2.24	1.8477	0.177
8	Openness	2.88	2.59	2.69	1.3799	0.243
9	Doing business	2.32	2.18	2.23	0.3088	0.580
10	Hard work	2.21	1.71	1.88	3.5499	0.063

It was found that financial risk had a significant impact & is considered to be an important de-motivating factor for young entrepreneurs in setting up an enterprise.

Emphasis Laid Upon By the Family

Table.12 Emphasis Laid Upon By the Family

S R. NO	FAMILY ENVIRONMENT	AVERAGE SCORE			F RATIO	PROBABILITY
		SUCCESS	FAILURE	OVERALL		

From the sample it was found that education, adventure and learning are some factors/ areas on which the families emphasized.

4. CONCLUSION

The sample survey revealed that most of the young entrepreneurs even though had other occupational opportunities chose entrepreneurships as a career because they aspire to be independent and to earn more money. Today, youth is more daring and hardworking and career oriented, and can be easily transformed if proper training and knowledge in entrepreneurship is provided. The cultivation of the new breed

is in our hands and we have to stand-in-their requirements with their skill and entrepreneurship orientation and perception enhancement for better India. Entrepreneurship can be more acclaimed if we can capitulate the transformation process of the youth which had started in our nation and could live long and continue if more doors can be opened in their favour because they are going to be entrepreneurial citizens of tomorrow.

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CLOUD COMPUTING SERVICES RELATING TO FORENSIC INVESTIGATION

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ABSTRACT:

Cloud computing is arguably one of the most discussed information technology topics in recent times. It presents many promising technological and economic opportunities. However, many customers remain reluctant to move their business IT infrastructure completely to \the cloud\. One of the main concerns of customers is cloud security and the threat of the unknown. Cloud service providers (CSP) encourage this perception by not letting their customers see what is behind their \virtual curtain\. A seldom discussed, but in this regard highly relevant open issue is the ability to perform digital investigations. This continues to fuel insecurity on the sides of both providers and customers. In cloud forensics, the lack of physical access to servers constitutes a completely new and disruptive challenge for investigators. Due to the decentralized nature of data processing in the cloud, traditional approaches to evidence collection and recovery are no longer practical. This paper focuses on the technical aspects of digital forensics in distributed cloud environment. We contribute by assessing whether it is possible for the customer of cloud computing services to perform a traditional digital investigation from a technical stand point. Furthermore we discuss possible new methodologies helping customer to perform such investigation and discuss future issues.

INTRODUCTION

Cloud computing is a phrase used to describe a variety of computing concepts that involve a large number of computers connected through a real-time communication network such as the internet. It is very similar to the concept of utility computing. In science, cloud computing is a synonym for distributed computing over a network, and means the ability to run a program or application on many connected computers at the same time.

SECURITY

As cloud computing is achieving increased popularity, concerns are being voiced about the security issues introduced through adoption of this new model. The effectiveness and efficiency of traditional protection mechanisms are being reconsidered as the characteristics of this innovative deployment model can differ widely from those of traditional architectures an alternative perspective on the topic of cloud security is that this is but another, although quite broad, case of "applied security" and that similar security

principles that apply in shared multi-user mainframe security models apply with cloud security. The relative security of cloud computing services is a contentious issue that may be delaying its adoption. Physical control of the private cloud equipment is more secure than having the equipment off site and under someone else's control. Physical control and the ability to visually inspect data links and access ports is required in order to ensure data links are not compromised. Issues barring the adoption of cloud computing are due in large part to the private and public sectors' unease surrounding the external management of security-based services. It is the very nature of cloud computing based services private or public that promotes external management of provided services. This delivers great incentive to cloud computing service providers to prioritize building and maintaining strong management of secure services. Security issues have been categorised into sensitive data access, data segregation privacy; bug exploitation, recovery, accountability, malicious insiders, management console security, account control, and multi-tenancy issues. Solutions to various cloud securities issues vary, from cryptography, particularly public key infrastructure (PKI), to use of multiple cloud providers, standardisation of APIs, and improving virtual machine support and legal support.

Cloud computing offers many benefits; but is vulnerable to threats. As Cloud computing uses increase, it is likely that more criminal find new ways to exploit Ts system vulnerabilities. Many underlying challenges and risks in cloud computing increase the threat of data compromise. To mitigate the threat, cloud computing

stakeholders should invest heavily in risk assessment to ensure that the system encrypts to protect data, establishes trusted foundation to secure the platform and infrastructure, and builds higher assurance into auditing to strengthen compliance, security concerns must be addressed to maintain trust in cloud computing technology.

Data breach is a big concern in cloud computing a compromised server cloud significantly harms the users as well as cloud providers. A variety of information could be stolen. These include credit card and social security numbers, addresses and personal messages .the U.S. now requires cloud providers to notify customers of breaches. Once notified, customers now have to worry about identify theft and fraud while providers have to deals with federal investigations, lawsuits and bad reputation. Customer lawsuits and settlements have resulted in over $ 1 billion in losses to cloud providers.

Security

As cloud computing is achieving increased popularity, concerns are being voiced about the security issues introduced through adoption of this new model. The effectiveness and efficiency of traditional protection mechanisms are being considered as the characteristics of this innovative deployment model can differ widely from those of traditional architectures. An alternative perspective on the topic of cloud security is that this is but another, although quite broad, case of "applied security" and the similar security principles that apply in shared multi-user mainframe security models apply with cloud security.

The relative security of cloud computing services is contentious issues that may be delaying its adoption. Physical control of the private cloud equipment off site and under someone else's control. Physical control and the ability to visually inspect data links access ports is required in order to ensure data links are not compromised. Issues barring the adoption of cloud computing are due in large part to the private and public sectors' unease surrounding the external management of security-based services. It is the very nature of cloud computing based services, private or public, that promote external management of provided services. This delivers great incentive to cloud computing service providers to prioritize building and maintaining strong management to secure services. Security issues have been categorised into sensitive data access, data segregation, privacy, bug exploitation, recovery, accountability, malicious insiders, management console security, account control, and multi-tenancy issues. Solutions to various cloud security issues very, from cryptography, particularly public key infrastructure (PKI), to use of multiple cloud providers, standardisation of APIs, and improving virtual machine support and legal support.

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Data breach is a big concern in cloud computing. A compromised server could significantly harm the users as well as cloud providers. A variety of information could be stolen. These include credit card and social security numbers, addresses, and personal massages. The U.S. now requires cloud providers to notify customers of beaches. Once notified, customers now to worry about identify theft and fraud. While providers have to deal with federal investigations, lawsuits, and bad reputation. Customer lawsuits and settlements have resulted in over $ 1 billion in losses to cloud providers.

Cloud security controls

Cloud security architecture is effective only if the correct defensive implementations are in place. An efficient cloud security architecture should recognize the issues that will arise with security management. The security management addresses these issues with security controls. These controls are put in place to safeguard any weaknesses in the system and reduce the effect of an attack. While there are many types of controls behind cloud security architecture, they can usually be found in one of the following categories.

Deterrent controls: these controls are set in place to prevent any purposeful attack on a cloud system. Much like a warning sign on a fence or a property, these controls do not reduce the actual vulnerability of a system.

Preventative controls: these controls upgrade the strength of the system by managing the vulnerabilities. The preventive control will safeguard vulnerabilities of the system. If an attack were to occur, the preventive controls are in place to cover the attack and reduce the damage and violation to the system's security.

Corrective controls: corrective controls are used to reduce the effect of an attack. Unlike the preventative controls, the corrective controls take action as an attack is occurring.

Detective controls: detective controls are used to detect any attacks that may be occurring to the system. In the event of an attack, the detective control will signal the preventative or corrective controls to address the issue.

Business continuity and data recovery: cloud providers have business continuity and data recovery plans in place to ensure that service can be maintained in case of disaster or an emergency and that any data loss will be recovered. These plans are shared with and reviewed by their customers.

Logs and audit trails: in addition to producing logs and audit trails, cloud providers work with their customers to ensure that these logs and audit trails are properly secured, maintained for as long as the customer requires, and are accessible for the purposes of forensic investigation (e.g eDiscovery).

Unique compliance requirements: in addition to the requirements to which customers are subject, the data centres maintained by cloud providers may also be subject to compliance requirements. Using a cloud service provider (CSP) can lead to additional security concerns around data jurisdiction since customer or tenant data may not remain on the same system, or in the same data centre or even within the same provider's cloud.

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