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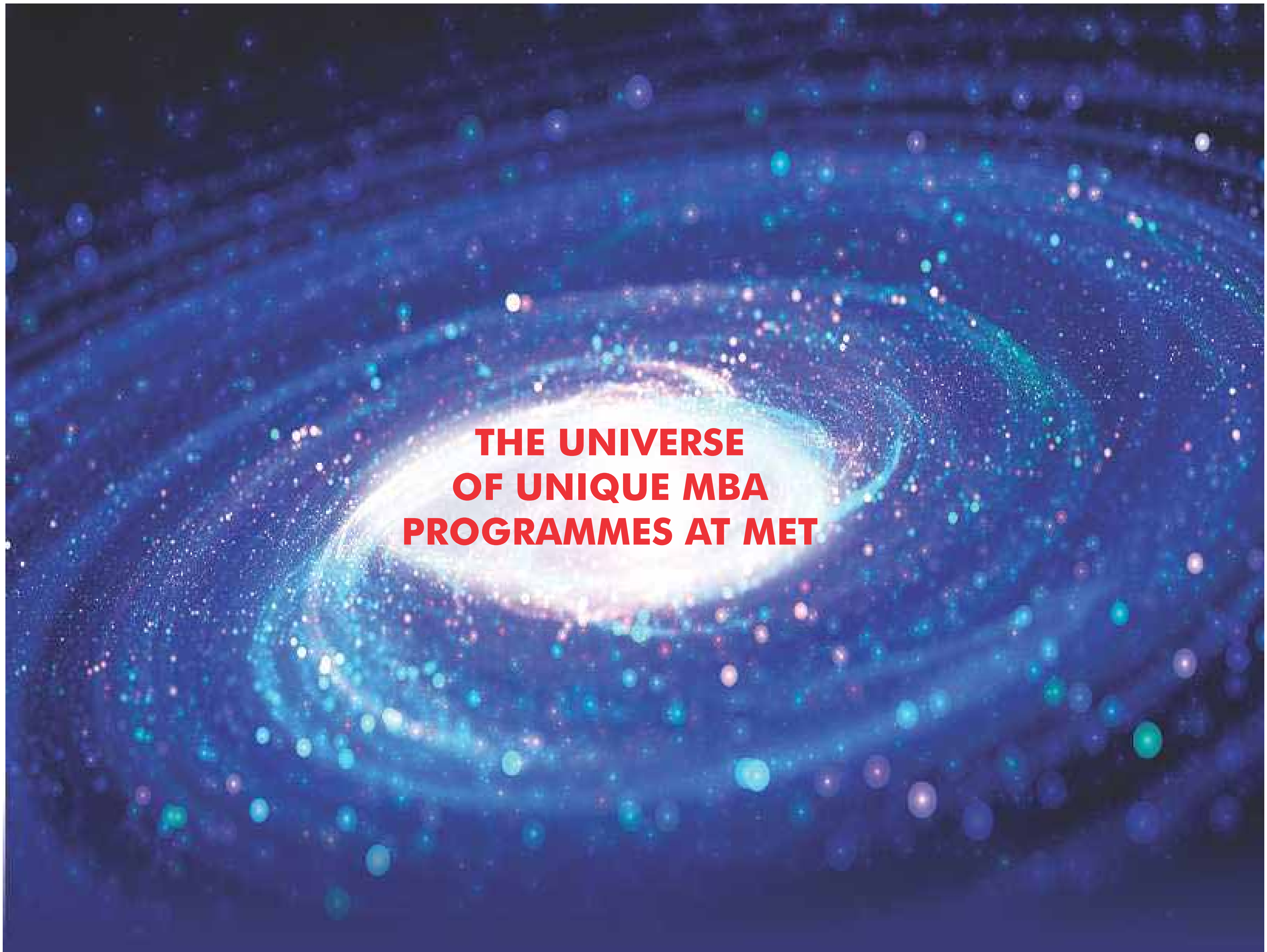

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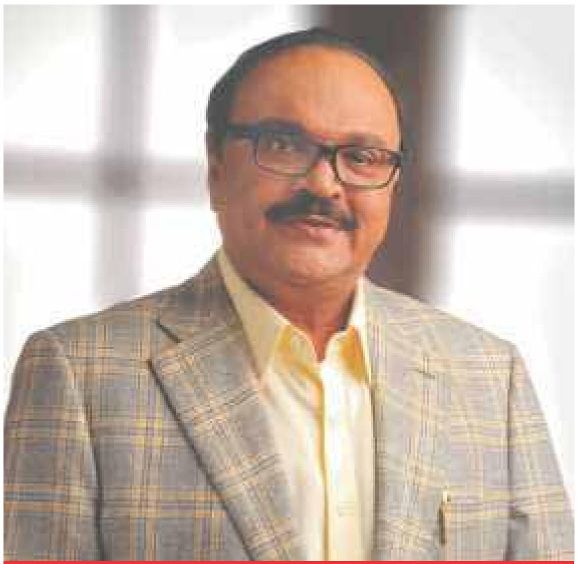
From the Chairman's Desk



Chhagan Bhujbal
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"Our future growth relies on competitiveness and innovation, skills and productivity... and these in turn rely on the education of our people."

-Julia Gillard

The second decade of the twenty first century has witnessed many changes in both expectation and delivery with interdependent economies influencing one another. India has not merely stood strong in this scenario but has also taken varied steps to prepare itself to embrace the future. One among these has been in the field of education, as only by equipping its youth with the right education can we make the most of its demographic value. Among the major changes that it has implemented in this direction is changing the approach to education from imparting knowledge to equipping learners with the desired skills that will help them tackle the professional world running.

To fulfil the demands of the time, the industry is increasingly focused on combating competition and staying a step ahead of the deadlines. For this, they expect the young professionals entering the job market to be prepared to perform not merely from day one, but from the very moment they join. The training they are willing to impart is largely only in organisational culture and the specific demands of the organisation. The rest, whether technical, analytical or soft skills, they are expected to be equipped with, in addition to knowing the subject. The challenge that educational institutions today face is to create individuals, who 'know' as well as who can 'do'.

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Chhagan Bhujbal
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Industry Academia Perspective

VUCA and Paradigm Shift in Corporate Management

Dr.Vijay Page
Director General, MET Institute of Management

"Be Prepared!"
Mantra for survival in VUCA Times

The first two decades of Indian and Global Economy have witnessed phenomenal socio-economic-political upheavals virtually in every sphere of life. The IT revolution driven by multi-dimensional expansion of digital technology tools and applications has given rise to mega corps across the globe. Today's top high-tech driven global companies have achieved multibillion dollar market caps in a decade as against the traditional auto/petroleum/health care giants which required almost half of century to attain those levels. Disruptive technological changes have wiped off, traditional mega corps like Kodak/Nokia/Ericsson/ Blackberry, since they could not keep pace with the intervention of disruptive innovation. Thus size is no longer a guarantee for survival of the mega corp., but its capacity to look far ahead beyond the horizon, spot dangers as well as opportunities and develop capabilities to ride the uncertainties to success.

Therefore Management gurus and visionary business leaders need to build a common platform and work towards the body of knowledge and applications which will facilitate training and development of far sighted organizations to ensure their survival and growth. Undoubtedly there are number of strategic and economic solutions which have been developed to meet the challenges of the VUCA (Volatility Uncertainty Complexity Ambiguity) market forces. But the business dynamics have so drastically changed that yesterday's solutions may not help to tackle current and future problems.

In the articles of MMR - 2017, attempt has been made to focus on risks which endanger and challenge the very existence of the organization. These are based on studies conducted by the faculty, professionals and students, which may throw some light on approaches to risk mitigation. There is also an attempt to focus on legal environmental issues attempting to examine the values and laws which protect the rights of the individual as also made applicable to the governing principles of Eco conservation.

The research papers covered various topics on the risk identification in power generation projects, green finance, bond market, smart growth in creating smart cities, payment banks a way for financial inclusion, behavioral finance with respect to investment decisions, environmental issues, employability of graduates, agricultural advances and its impact and rural marketing with a social cause.

Undoubtedly the current market realities are also affected by major developments like remonetisation, Brexit, as well as the arrival of new presidency in US triggering global socio-economic-political upheavals. Obviously this will be the subject that we would examine in the next MMR. Till then we request the students to look at these articles as a reflection of the immediate past which will eventually affect the future. We hope and pray that the offering of MMR – 17 will lead to further debate on the subjects raised and hopefully give rise to further research for development and management thoughts and practice.

Dr. Vijay Page
Director General
MET Institute of Management

Risk Identification in Power Generation Projects Due to Trip-Down Instances in Pre-Work Phase

Abstract

This research analyses the modes by which multiple risks could impact the performance of projects executed by the client company - a leading power generation company in India. It probes the case of load isolation experienced by one of the client's power generation units. It traces the instances to similar phenomenon observed in past research and analyses a wider spectrum of factors influencing the load mismatch of such a project. It also elaborates the multi-layered impact of factors including forecast of business decisions likely to be taken in the course of execution, as being done for IT projects. It generates possible scenarios that could be traced to the likely risk factors, based on analysis through established research models for project risk assessment. Based on this, it indicates the directions the client must investigate to construct a comprehensive risk framework for such projects.

Keywords

Power generation failures, Multi-layered risks, business risk mitigation, risk assessment models.

Introduction

The client company Tata Power Limited has a recently emerging concern in the operation of its Jamshedpur division. The frequent occurrence of load isolation of sale and non-sale bus islands due to system tripping is having an impact on its group operations, as it is a captive source for the Tata Steel unit and is also impacting its sale revenue vide export to the Damodar Valley Corporation (DVC) grid. This division is having total power generation capacity of 667.5 MW (Sale Island generating 240 MW and a Non-sale island with an estimated load of 530-560 MW).

Sale Island (bus) load is categorized as follows:

- Export to Damodar Valley Corporation (DVC) grid 50-60 MW
- Auxiliary power of 20 MW.
- Tata Steel consumption of 140 MW (with 60 MW load pulsating type).

Non-Sale Island (Bus) load is categorized as follows:

- Four units of Jojebara (Units 1,2,4& 5) - Load of 370-380 MW
- Tata Steel captive power requirement of 100-110 MW.
- DVC import of 50-60 MW

Sale and Non-Sale Bus Isolation logic has been provided in the system to maintain Tata

- Steel - Tata Power system frequency when the lines from Tata Steel to DVC trip

For captive power generation plants like the Jamshedpur plant, such load isolation impacts the operations of the recipient industry. Captive power generation is the functional backbone of heavy industry units like Iron & Steel sector, chemicals and refineries, having a demand of more than 1 MW. It accounts for 19509 MW of installed power generation capacity in India (11.67% of total capacity, as per Central Electricity Authority, 2013).

Both power generation units and their customers, especially large organizations are increasingly becoming aware of the sensitivity of power failures and load isolation. Industries worldwide have begun to analyze the impact of intermittent power failure on their operations and facility, and capturing these risk scenarios in their Business Continuity Management strategies, as pointed by Bruch (2014).

The client company has identified a probable area where the root cause for the tripping could be lying, based on controlled experimentation in its grid, by installing a cut-off system in the logic. Its observations point that frequency variation of operating load is observed in instances of load isolation, indicating that there is a load-to-generated power mismatch in those instances.

The consultant group is able to deduce that beyond the technical design risks, strategic planning and decision risks could also be involved in the performance of a system. In this case, the anticipation of future load increase in sale to the DVC grid and the housing expansion in Jojebara, in the planning phase, also has implications to the robustness of the system in responding to the load requirement. An analysis by this consultant group on the symptoms shows that this is not an isolated symptom –research by Barkans and Zalostiba (2007) identified a similar concern in generation units as a factor for black-outs. This is also echoed in the findings of Chandrakar et al (2012), which highlighted that impact of gradual increase in load demands for generation units in the load isolation phenomenon (islanding).

Context

The performance of a power generation unit is quite sensitive to the robustness of variation assessment done during the design phase (Om Prakash et al, 2011). For the design framework, this marks the importance of a pre-assessment of possible tripping modes that could occur. This would assist in predicting the failure instances. An example highlighting the importance of this concern would be that if this behavior is not predicted accurately, the system will have unplanned load isolation. When the sale bus is isolated, the immediate impact by load shedding is a cut of 50 MW which is part of the Export quota to the Damodar Valley Corporation (DVC) grid and a cut of 60 MW pulsating load due for the Tata Steel plant. When the non-sale bus is isolated, there is an immediate drop in the DVC import of 50-60 MW and Town load shedding of 40-50 MW, due to the load-cut of Jojobera units. As an aftermath, when one or more units get tripped, it hits a significant portion of the revenue generation of Tata Power business and its supply to the captive Tata Steel units.

There is also an impact on housing localities being served by these units, for instance the Jojebara housing complexes. Such tripping driven load isolation is of late, emerging as a bigger concern for the client company, in the recent wake of the power black-out in Mumbai. These black-outs are now being weighed upon the client company as not just operational issues, but in a larger perspective of utility disparity to societal sections. The peak electricity consumption load in India was observed to be around 143967 MW as per year 2011-12 census and is expected to grow to 174200 MW in 2014-15 (against the installed generation capacity of 167077 MW, as per Central Electricity Authority, 2013). With this growing demand, it will soon be comparable to equate this concern to disparity in distribution of essential public services like water and medical facilities. Research by Paul (2012) indicates that such disparity in urban utility-facilities across different wards of the same city (Burdwan in West Bengal) causes a feeling of neglect from the government and sense of poor living standards amongst the affected population.

The implications of failure risk identification in projects are not only limited to Tata Power application alone. Jaskowski and Biruk (2011) have highlighted that on a general framework, all capital projects like construction projects have multiple risk factors which can affect the execution or cost of the project. The research conducted by them also presented a framework to assess the risks and simulate the impact on performance in terms of instances of failure.

Recent trends

Project owners across sectors have identified the need to identify risks in the pre-work phase, so as to plan for mitigation against possible fallout. A lot of progress in risk assessment is observed in the software industry – Kop et al (2011) proposed a multi-pronged risk assessment model which was used to assess Technical, Executive and decision-making risks in an ERP implementation project. Brandas et al (2012) took this a step further by developing a general framework for IT development projects with multiple methodologies to analyze risk for a project. This has had successful improvement in new software projects from 2011, especially in SQL (Structured Query Language) application developers and Industrial Automation Systems, as identified by Biffl et al, 2011. Such a holistic risk assessment in the planning phase of these development projects has shown a consistent improvement in success rate of project execution.

Approach to problem / problem definition

It can be deducted from the symptomatic observations of the issue that the problem lies in the prediction of factors that could affect the future load demand for the project like strategic business decisions, expanding township loads, etc., in the design phase. This has helped narrow down the following models to approach the problem.

Cascaded approach to collective risk contribution

Research by Barkans and Zalostiba (2007) identified large over-loads of system cross-sections & tripping of lines, voltage avalanches, ground faults due to sagging of wires and frequency avalanches as the major causes of power system failure. Isolation logics were thus introduced into the system as a short term restoration against unloading of cross-sections. They proposed that an ideal self-restoration mechanism should facilitate auto-synchronization along with automatic re-closing of tripped lines. One of the viable approaches to construct a risk assessment map would be to take a cascaded model including the above stated multiple factors.

System behavior model

The lag in generator responsiveness to the change in load (as a shortcoming of the system design) was identified as another key cause for such system tripping by Om Prakash et al (2010). A model including multi-layered risk factors i.e., both at the design level and at the operating level, as proposed by Sanchez and Rios (2011) would prove to be effective.

Stochastic framework to identify combined impact

This model will proceed to identify the likely factors at play which might result in tripping of the system and load isolation. Such a framework could assess the combined impact of these multiple factors towards possible system failure through a stochastic model, similar to the one used by Adegun et al (2011). This would allow the organizations to identify and mitigate likely system failures during the design phase of such projects.

Utility distribution model

Research by Paul (2012) indicates that an urban planning model should accommodate for uniform distribution of services. Load sharing of utility services should follow equity load-shedding in the face of short-fall and system design must be modeled to ensure this.

Multi-layered business risk model

Business risks are to be factored in the planning phase including multiple layers like execution, strategic decision-making risks into the performance of a project (Kop et al, 2011). This is quite relevant for capital projects also as in this case, considering that the impact of business decisions of catering to expanding customer segments must be considered in the pre-plan phase of a project.

Contract outsourcing model for mitigation of business risk

An established method of project risk mitigation in IT projects, especially in public service providers is by segmental outsourcing. Research by Cox et al (2011) on IT outsourcing in public services by the local governments in UK explored 2 different approaches to outsourcing of contracts namely a sector wise division of utility provision and a scope-wise outsourcing approach for de-risking project load.

Considering the relevance of the above stated models in approaching the problem with respect to the application at hand, the consultant group opines that the following approaches are to be pursued further in addressing this problem:

1. **Hybrid approach:** Combination of the Multi-layered business risk model with the equity distribution model for utilities.
2. **Client - Satellite agency model:** Business risk mitigation model based on the Client - outsourced contract agency model.

The above 2 approaches will be probed in detail in relevance to the specific case faced by the client, for deducing the methodology to construct a risk framework for this application.

Literature review

The Hybrid approach (Approach 1) offers the advantage of planning for multiple future decisions that would influence the system from meeting demand while also identifying a structured mitigation process for a service shortfall. Academic research on the avalanche impact of multiple factors leading to execution issues in a project indicates the different combinations of factors could result in varying fallouts than that would result in isolation. The model developed by Adegun et al (2011) to analyze industrial accidents in oil and gas industries, due to combinations worker-related factors and their different impacts, offers a perspective into the system behavior that could be forecasted during the planning phase. The multi-layered approach proposed by Kop et al (2011) is significant considering that business opportunities are continuously expanding and there is a perpetual expansion of scope for such utility projects. Hence the impact of future strategic decisions also needs to be factored in risk mapping for such a project.

The second part of the Hybrid approach explores the mitigation decision for a service shortfall. Utility disparity in various areas of a locality could cause a negative perception of the service provider among consumers as highlighted by Paul (2012). Research on public utility distribution models, considering growth in consumption and rise in population, by Yao et al (2012) points that a shortage factor for utility load is to be considered in the model. In this research work, they analyzed the water shortage in the public utility network of Beijing and proposed that in face of shortage, there is a need for industrial structure adjustment to balance the load on the distribution system, considering widespread disruption of consumers' daily life, if there is a shortfall in essential services. iegis and Štreimikien (2005) predicted on similar lines that energy distribution patterns would be a key factor in sustainable national development indicators.

Taking a clue from the work of Kipyegen et al (2012), where the risk scenarios for a software development project were identified on different layers in the plan phase, the client can envision similar risk scenarios during the plan phase of such power projects by the Hybrid approach like the impact of future power sale deals during execution or expansion on the system success rate, unit islanding during service distribution on account of shortfall, etc.

The second approach namely the Client- Satellite agency model gives the advantage of mapping the risks of each division into mapping the risk of the entire system. Going beyond outsourcing of segmental contracts in utility services as a method of de-risking, Cox et al (2011) proposed sector wise division of utility provision in which the scope would be within the core competency i.e. Utility quota sharing for different wards amongst individual units to be factored in planning phase and a scope-wise approach for de-risking namely the main unit retaining the core competency and distributing services that provide competitive advantage or efficiency improvement to satellite units. Wan et al (2010) proposed that such a demarcation of scope between the main entity and satellite entities (similar to a Client- Contract agency model) in software projects would require such inter-unit transfer risks also to be captured in the risk framework of the whole project.

Parallel deductions from the above mentioned case of risk assessment in Public utility services in the London local government body (Cox et al, 2011) to the context of the client's problem can be made. It can be inferred that taking a Client-Satellite agency model for risk mapping would identify scenarios like likelihood of division-wise performance against rising demand and the extent of meeting demand for the Sales and Non-sale buses, when the load is demarcated to the respective divisions.

The secondary research indicates that the context of the underlying problem would require an investigation guided by a combination of the above stated frameworks is required for identifying the potential risks for a project. This would enable the client organization to construct a Risk framework that would be applicable for risk mitigation in the pre-work phase for similar projects.

Discussion

The consultant group has analyzed the issue faced by the client namely the load isolation of its sale and non-sale units during tripping instances of its division. The inference of the client based on symptoms of the occurrences namely frequency mismatches point towards a load-to-generated power mismatch. Secondary research by the consultant group indicated that load isolation of generation units could be due to a gradual rise in load demand for the unit (Chandrakar et al, 2011) and that it is not an isolated phenomenon of the client company. Jaskowski and Biruk (2011) recognized the impact of such performance risks of capital projects and proposed a framework for assessing the impact of these risks in the planning phase of construction projects.

This consultant group has analyzed the problem using a broader approach based on the research of Kop et al (2011) on IT projects, to follow a multi-layered approach considering the impact of strategic risks like potential business decisions during the execution of the project which could cause scope expansion, along with technical risks. This is done in conjunction with the Utility distribution model (Paul, 2012 and Yao et al, 2012) which traces impact on load shedding for utility distribution in the face of load shortfall. Another approach identified by the consultant group is a Client-satellite agency framework used by Cox et al, 2011 for business risk mitigation in Public utility services for the London local body government. An investigation using the above approaches highlight that the load mismatches (performance failures) could be caused by multiple risks which have to be captured in the pre-work phase of such a project.

Managerial implications

The consultant group opines that further investigation by the client, in the direction indicated above would indicate the multiple levels of risk that would impact the performance of the project in course of its execution. This will show the client multiple areas of impact of business decision driven risks on the project like scope expansion for saleable load to DVC, load to the Jojebara units. Thus the client would be able to trace and map such risks for projects and ultimately control them as was demonstrated by Biffl et al (2012) in Industrial Automation Systems projects and Kop et al (2011) in an ERP implementation project.

On the other hand, an investigation of the project progress in the perspective of the Client-Satellite agency model would highlight sub-division wise risks and their implications on the whole system in terms of load sharing and identify areas of control. This would help the client to isolate the risks that need to be mitigated from each sub-division of the project, similar to the approach used by Cox et al (2011).

Research limitations/scope for future research

The consultant group would like to acknowledge that only 2 approaches which were identified closest to the client's project model. Also, the scope of this consultancy project is only the definition of the problem faced by the client.

Hence the required solution for the client, namely the risk mapping framework, (for use in planning of such power projects) will have to be traced by the client by further investigation using one of the above suggested models. Hence further research must be focused on choosing the most suited approach and investigating the risks that would have implications on the performance of the project. This would help the organization construct a generic risk framework for similar projects.

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A Study of Corporate Bond Market Reforms and its Effect on Change in Capital Structure with Special Reference to Resources Mobilized from Initial Public Offerings by the Indian Corporate

Abstract

Capital Markets are the important source of fund generation for Corporate. Various instruments have been used by the corporate for the capital structure of the Organizations. Most popular of capital market instruments being Equity Public Issues, Rights Issue, Qualified Institutional Placements, Corporate Bonds Public Issues and Private placement of Corporate Bonds. When it comes to the Primary Market and fund generation through Initial Public issues, over the years it has been seen that Equity is the most preferred instrument when it comes to fund generation for Corporate, and has been the major component of Capital structure when it comes to funds generated from Initial Public Offerings or Private Placement. But the biggest change in traditional trends of fund generation can be seen with the introduction of Non-convertible Debentures since 2008. The NCD public issues have replaced equity public issues in capital structure of Indian Corporate. Further it has been a significant contributor in overall fund generation as well, increasing the overall resources mobilized by the corporate.

The Introduction of Non-Convertible Debentures in the Capital market has been a significant reform, which has shown its effects in the last few years. The Instrument has become the most favorite instrument of the Corporate for Fund Generation through Public Issues replacing Equity issues. Equity was the most preferred source till 2003-2004 with nearly 25% contribution in overall Fund Generation. But since 2008, after the introduction of NCD's there has been a gradual replacement and in the year 2013-14 the NCD's have contributed nearly 25% in overall Fund generation with Equity contributing just 2% including Private Issues. When it comes to fund generation only through Public Issues, Corporate Bonds have crossed 90% out of Total funds generated through Public Issues.

To analyze and to assess this significant change Correlation between Total Resources mobilized and resources mobilized though Equity Public Issues and through Corporate Bond Public Issues between 2004-05 to 2008-09 and 2009-10 to 2013-14 has been calculated and further Regression tool has been used to prove the reliability of the statement and to prove that it has been a significant contributor in overall fund generation as well, increasing the overall resources mobilized by the corporate.

Key Words

Corporate Bond, Non-convertible Debentures, Primary Market, Initial Public Issue.

Introduction

Capital markets are the financial markets in which corporate equity and long term debt are issued and traded. It is a center where the demand and supply of long term debt and equity capital meet together. It is a channel to direct the scattered small savings of the investors are directed towards the corporate for its productive application. It is the medium through which corporate can mobilize the resources required and so capital markets are the barometer of the health of the economy. Capital markets work as a facilitator for the sustainable development of the economy, as it does a dual job of providing long term funds to the corporate and an opportunity to invest in financial assets to investors. It is necessary that it should be well organized and regulated.

One of the important segments of Capital markets is Primary Market. It deals with issuance of new securities. The major function of the segment is it helps corporate, public sector institutions as well as the government raise resources (through issuance of debt or equity based securities).

To serve the economy better it is necessary for the capital markets to develop continuously. Indian capital market, though one of the oldest and largest capital markets in the world has seen a rapid growth and transformation in last few years. Major of the transformations are deregulation and economic reforms, disintermediation and financial sector reforms, institutionalization of capital markets, investors' preference for better disclosures and corporate governance measures on similar grounds to developed markets, globalization and tax reforms etc.

Market Segments

The securities market has two important segments, namely, the primary market dealing with new issues and the secondary or stock market facilitating the trading of the issued securities.

Another segmentation of Capital/ securities market can be done based on the instruments issued i. e. Stock or Equity Market and Debt (Bond) Market.

Debt or Bond Market: The bond or fixed income securities market where participants issue, buy and sell debt securities, usually in the form of bonds.

Introduction of non-convertible debentures

One of the big Developments in the primary Capital Market was Introduction of Non-convertible Corporate debentures (bonds).

Corporate Bonds

In broader terms Corporate bonds are fixed income securities issued by the corporates i.e. entities other than Government. In general Bonds are also known as debentures. And is defined in Section 2(12) in The Companies Act, 1956 as "Debenture" includes debenture stock, bonds and any other securities of a company, whether constituting a charge on the assets of the company or not.

These are securities issued by private or public sector companies to borrow funds from the market. As per the companies act there is no specific distinction given between Corporate Bonds and Debentures. The term Debentures has been defined in Companies Act 1956 as follows "debenture includes debenture stock, bonds and any other securities of a company, whether constituting a charge on the assets of the company".

Corporate Bond Market in India

The Corporate Bond Market in India is in existence since quite a long time but in real sense it is in existence since December 2003. With the amendment in disclosure norms to make listing of companies made mandatory and with an initiative to provide a similar trading system for the bond market as like equity market. The objective being to provide a platform for corporate and investors to exchange and fulfill their needs, i. e. mobilizing the funds at affordable rate in case of corporate and for investors, a good investment with good long term returns at less risk.

Need for a well-developed Corporate Bond Market

Supplement and a substitute to the banking system for funding- It is the need of the economy today to have a well-developed bond market to supplement and can even work as a substitute for the banking system for meeting the requirements of the corporate sector for long term capital investment.

Necessity for Infrastructure Funding- Corporate bonds are the most necessary market for generating funds for infrastructure projects. Banking industry fails to do so because of the long term nature of the infrastructure funds which cause an asset liability mismatch for banks.

Bank Funding Regulations- The banking industry faces several lending restrictions such as maximum position exposure, sector exposure etc. which play a role in the lending decisions. Debt market allows the corporate to raise funds directly from the public bypassing the intermediaries.

Mopping Public Savings- Corporate bonds can work as an attractive investment instrument for investors seeking higher but secured returns as compared to time deposits; this would help in accelerating the mobilization of funds to savings which again can be used in the investment by the companies concerned.

Need of the Study

To achieve the expected GDP growth of Indian Economy, Development of Corporate Bond Market has been on the top list of agenda of the Government this being the highly untapped market. Many such reforms are taking place since 2007 in full force. It is important to assess if the reforms are in a right direction by checking the contribution of Debt public issues in to the Total resources generated and also by comparing it with the equity issue market, the most favored market of corporates in case of public issues.

Review of Literature

One of the major function and very reason for existence of SEBI is to promote the capital market and protect investor interests. Various major far reaching reforms have taken place before the initiation of SEBI as well, but with the availability of a specific dedicated authority the process has speeded up **Developments in Capital Market Since 1991.**

Various reforms have taken place post SEBI reforms. It has helped the capital market reach new highs. Some of the important measures are:

- Securities and Exchange Board of India (SEBI) becoming operationalized
- Setting of National Stock Exchange (NSE)
- Dematerialization Of Shares
- Screen Based Trading
- Investor Protection
- Rolling Settlement, Introduction of Clearing Corporation Of India Limited (CCIL) and National Securities Clearing Corporation Limited (NSCL)
- Trading In Central Government Securities
- Credit Rating Agencies
- Accessing Global Funds Market
- Internet Trading
- Derivatives Trading

Since 1991/92 many initiatives in the capital market mainly primary markets of equity and debt were taken by the new authority along with removal of restrictions imposed by the Capital Issues Control Act. To activate the corporate debt market in India the interest rate ceiling on corporate debentures was abolished giving way to market-based pricing of corporate debt issues. The rating was made mandatory In order to improve the quality of debt issues. The role of trustees in case of bond and debenture issues was strengthened over the years. It was made compulsory to list all privately placed debt issues on the stock exchanges and follow the disclosure requirements.

As a result tremendous growth was seen in the primary market the funds raised amount increased to Rs. 276.21 billion in 1994/95 in comparison to Rs. 62.15 billion in year 1991/92. Year 1995-96 saw another set of reforms where tighter entry barriers introduced by SEBI for investor protection as a result in 1995/1996 smaller amounts were raised due to the overall downtrend in the market. The number of new capital issues by private sector in 1991/92 was only 364 with 4,312 crores generated from it. It increased to 1,678 in 1994-95 and the amount rose increased to 26,418 crores. Since 1995 the capital market was sluggish and the resources raised saw a negative turn and fell to 10,409 crores in 1996-97. In 2003-04, the amount raised from primary equity market was 18,900 crores with only 51 issues. And then the primary equity market saw a steady increase in funds mobilized till the year 2007-08 with around 20% increase ever year.

During the same period the debt market was losing its shine. The proportion of resources mobilized through Debentures (bonds) went down to -1.2% in 2001-02 to 2003-04 from 11% in the year 1985-90 even after many above mentioned reforms taking place.

With a view to develop Corporate Bonds Market in India many reforms have been suggested and implemented. Many such changes were made since 2003 onwards to make the Corporate Bond Market more vibrant, both primary and secondary market.

But all these did not give the effect required. The biggest boost came in the form of **SEBI (Public Offer and Listing of Securitized Debt Instruments) Regulations, 2008. These were notified in the Official Gazette dated May 26, 2008.** The major features of these regulations include rationalization of disclosure requirements, increasing the role and responsibilities of merchant bankers for exercising due diligence and the most important being mandatory listing of private placement of debt issued as per exemption under S.67(3) of the Companies Act.

The regulation made provisions for e-issuances of corporate debt and introduction of rationalized listing requirements for debt of a listed issuer. Few of the reforms following these regulations are as follows:

- **Simplified listing agreement for debt securities were put in place by SEBI in May 2009**
- SEBI directed exchanges to present **issuer-related information on exchange websites in a uniform format in March 2010**
- Amendments were made in the Regulations for Mutual Funds, permitting Mutual Funds to set up **Infrastructure Debt Funds under the Mutual Funds Framework in August 2011**
- SEBI gave the directions that **no person connected with the issue shall offer any incentive, whether direct or indirect,** in any manner, whether in cash or kind or services or otherwise to any person making an application for allotment of such securities - **December 2011**
- Amendments were made in the SEBI (Disclosure and Investor Protection) Guidelines, 2000 in 2007 which included the following:
  1. Requirement of Credit Rating:
  2. Issuance of below Investment Grade debt instruments
  3. Removal of Structural Restrictions:
  4. Compulsory clearance of trades through (NSCCL) or (ICCL) with effect from 1st December, 2009.

Along with SEBI, RBI also took some important measures. Those being creating a reporting platform at FIMMDA, allowing Repo in corporate Bonds, increasing the FII investment limits and the most recent being, in January, 2013 permitted credit Default Swap, an insurance against default, on unlisted but rated corporate bonds even for issues other than infrastructure companies.

Recent Developments in Corporate Bond Market In India

- ***Finance Bill 2012:*** Qualified Foreign Investors (QFIs) are allowed to access Indian Corporate Bond market; A separate sub-limit of USD 1 billion has been created for QFIs investment in corporate bonds and mutual fund debt schemes.
- ***Finance Bill 2013:*** FIIs will be permitted to use their investment in corporate bonds and Government securities as collateral to meet their margin requirements.
- ***A separate bond-trading platform at NSE*** will be made operational soon.
- The Securities and Exchange Board of India (SEBI) has taken the initiative to collect all the important data of corporate bonds issued domestically and then create a comprehensive database of all corporate bonds issued in the country.

Capital Structure of Indian Corporates in Primary Market

Primary market has been the major source of funds for corporate Year 2013-14 saw an increase of 16.0% in the resource mobilization by corporates in the primary market i. e. to `4,033 billion (US $67 billion). This was the result of an increase in resources mobilized through private placement route; capital raised through private placement saw an increase by 18.1% to `3,899 billion (US $65 billion). But, resources mobilized through public issues went down by 4.4% to `133 billion (US $2 billion), accounting for a mere 1% of the total resources mobilized domestically.

Objectives of the study

- To study the meaning of Corporate Bonds, the need of a well-developed corporate bond market and the policy developments related to Corporate Bond Market.
- The study the fund generation pattern of Indian Capital Market and the study of trends and shift in trends in fund generation through IPO's pre and post 2008-09 periods.

Scope and Limitations of the Study

In this paper the researcher has concentrated on the specific part of the Capital Structure only, i.e. the proportion of Equity and Debt public issues in the Capital Structure of the Corporate and the impact of Corporate Bond Markets

reforms (Introduction of Non-Convertible Debentures) on the same.
The study is limited for the period of 10 years (2004 to 2014) and is limited to the comparison of public issue trends and the contribution of debt public issues in to total fund generation.

Hypotheses

H1: Corporate Bond Market reforms have resulted in change in preference of instruments for Capital with special reference to resources mobilized from Initial Public offerings by the Indian Corporate

H2: The corporate bond market reforms increased the fund generation for the corporate sector in India.

Research Methodology

For the purpose of this research paper the secondary data source was applied for the collection of the data. The sources mainly being SEBI guidelines on issue of Debt Securities, RBI Handbook and SEBI statistics and ISMR statistics, for the period of 10 years i. e. from 2004 to 2014. Data collected are edited and coded by using the excel bars. This helps in converting the gathered data into a tabulated grouped data.

For the purpose of analysis the data is grouped in to two groups' i. e. 2004-05 to 2008-09 and 2009-10 to 2013-14.

The data analysis methods used are as follows:

- Percentage Analysis is applied to represent the collected data for better understanding.
- Correlation coefficient analysis is used to measure the strength of the linear relationship between two attributes of debt market investments.
- Regression and R square analysis is used to show the significance of relationship between the variables.

T test (sample for two means) is used to do the critical analysis.

Analysis of Data and its Interpretation

Capital structure is the combination of debt and equity that funds an organization's strategic plan. Capital Structure management has been impacted by a number of the developments like operational reforms in the area of credit assessment and delivery, interest rate deregulation, changes in the competitive structure of the banking and credit systems, and the emergence of money and debt markets. Based on these factors the components of Capital structure and their proportion vary. The following table gives us the glimpse of the Resource mobilization by Indian companies divided in Corporate Securities and Government Securities

Issues	2011-12 (₹ bn)	2012-13 (₹ bn)	2013-14 (₹ bn)	2011-12 (US $ bn)	2012-13 (US $ bn)	2013-14 (US $ bn)
Corporate Securities	**2,336**	**3,451**	**4,033**	**46**	**63**	**67**
Domestic Issues	2,308	3,441	4,032	45	63	67
Public Issues*	129	139	133	3	3	2
Non-Govt. Public Companies	-	-	-	-	-	-
PSU Bonds	-	-	-	-	-	-
Govt. Companies	-	-	-	-	-	-
Banks & FIs	-	-	-	-	-	-
Private Placement	2,180	3,302	3,899	43	61	65
Euro Issues	27	10	1	0.5	0.1	0.02
Government Securities*¹	**7,590**	**8,658**	**8,971**	**148**	**159**	**150**
Central Government #	6,004	6,885	7,005	117	126.7	117
State Governments	1,586	1,773	1,967	31	33	33
Total	**9,926**	**12,109**	**13,004**	**194**	**223**	**217**

** This is equity public issue only.*
**¹ These are gross market borrowings of Central and State Governments.*
 # only includes amount raised through dated securities.
Source: RBI

The data above clearly shows a steady increase in amount collected by corporate through public Issues in last few years.

In this paper the researcher has concentrated on this part of the Capital Structure only, i.e. the proportion of Equity and Debt public issues in the Capital Structure of the Corporate and the impact of Corporate Bond Markets reforms on the same.

The study of literature and the developments made in the Capital market in India and specifically Corporate Bond Market in India are with a view to increase the resources mobilized by the corporates and make the Debt Market a strong debt market. And it can be seen that a major step towards it was taken in the year 2008 with the introduction of Non-convertible Debentures. Despite the policy initiatives, the corporate debt constitutes a small segment of the debt market in India. While the primary market for debt securities is dominated by the private placement market, the secondary market for corporate debt is characterized by poor liquidity, although this has improved just slightly in recent years.

One of the reasons for the un-favored treatment towards Public issues is Private Placements market. Due to the advantages the Private placement brings with it, it became the most favored source of funding for corporates even taking over the Equity Market Issues and amount generated.

The researcher here aims to analyze the impact of the policy initiatives, especially introduction of Non-convertible debentures on the funds generated through Capital markets in India through the comparison of the situation in pre-introduction period that is before the year 2009 when the first public issue of NCDs hit the market and the post introduction period, till date.

For the Analysis the data for 10 years has been collected i. e. since 2003- 04 and divided in to two i.e. 2004-05 to 2008-09 and 2009-10 to 2013-14.

Table No. 1 - Proportion of Equity and Debt IPO's to funds generated through IPO's and Total Resources Mobilized

Rs. In Bn

Year	Equity Public Issues	Debt Public issues	Total Public issues	% of EPI to TPI	% DPI to TPI	TRM	% EPI to TRM	% DPI to TRM
2004-05	245	39	284	86.27	13.73	838	29.24	4.65
2005-06	274	0	274	100.00	0.00	1092	25.09	0.00
2006-07	329	4	333	98.80	1.20	1322	24.89	0.30
2007-08	797	16	813	98.03	1.97	1968.58	40.49	0.81
2008-09	142	15	157	90.45	9.55	1900.02	7.47	0.79
2009-10	549	25	574	95.64	4.36	2901.28	18.92	0.86
2010-11	607	95	702	86.47	13.53	2882.49	21.06	3.30
2011-12	129	356	485	26.60	73.40	3032.62	4.25	11.74
2012-13	154	170	324	47.53	52.47	4001.97	3.85	4.25
2013-14	137	424	561	24.42	75.58	3394.99	4.04	12.49

Source: SEBI Handbook of Statistics 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013 ISMR 2004 to 2013

The above table shows the data related to the Resources generated by corporates through Equity and Debt Public Issues, Total resources mobilized through Public Issues and Total Resources mobilized by the corporate overall and

Proportions. It clearly show the preferences by corporates when it comes to fund generation.

Chart No. 1: Resource Mobilization through Public Issues (Rs.)

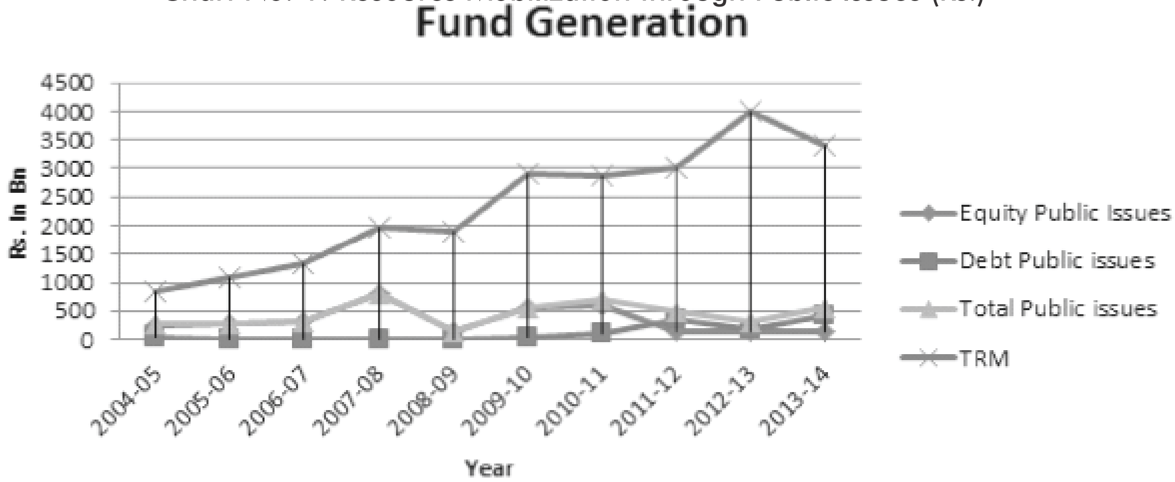
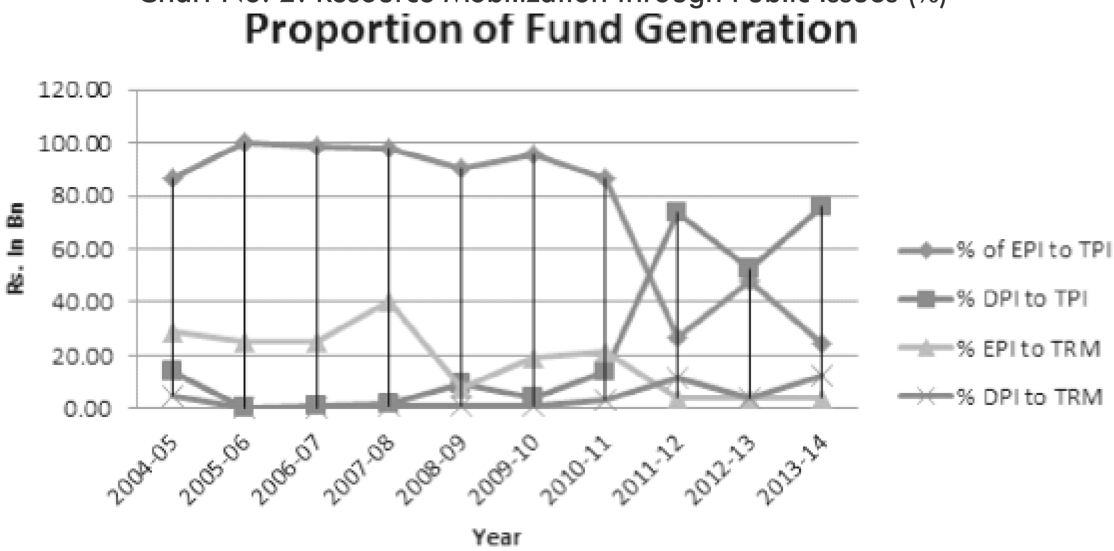


Chart No. 2: Resource Mobilization through Public Issues (%)



The reforms implemented in Corporate Bond Market specially the **Regulations on Issue and Listing of Debt Securities** gave a new instrument to generate funds for Indian Corporate, Non-Convertible Debentures.

The First Issue of NCD's came in the year 2009 by Tata's. And since then there has been a tremendous growth in using this instrument for resource mobilization. Equity has always been the preferred source of funds generation for the Indian Corporates when it comes to the Primary Capital markets. But as seen in Table No. 1 the Private debt placement has taken over drastically over the Equity both in terms of number of issues and amount generated. And now with the introduction of NCD's the change in preferences can be clearly seen. It is not that no steps have been taken to develop the equity markets. In fact it has always got the preferred treatment and many reforms have taken place recently. But with all those drastic changes as well the NCD's have taken over the place of equity as a most favored instrument.

The proportion of Equity as a source of funds has gone down significantly over the years. If observed it can be seen that there has been a drastic fall in equity proportion in total resource mobilization since the year 2008-09 onwards. At the same time it can be seen that Debt public issue proportion has been growing consistently since the Issue guidelines have been put in force. The proportion of NCD's has gone up from less than 1% to more than 12% in just a span of 6 years and from less than 5% to more than 75% when compared with Total resources mobilized through Public Issues. The exactly reverse trends can be seen in equity proportion. The change can be clearly seen in the following tables. The

following tables show the change in trends pretty clearly.
The percentage change in resources mobilized clearly is a signal of change in trends. The table shows that the proportion of equity which was increasing continuously and had even reached nearly 100% mark in the years 2005 to 2007 started falling and has reached just 7% in the year 2013-14 and the newly introduced NCD's proportion has gone up drastically to reach 93% in total resources mobilized by the Corporates through public issues.

But at the same time how much this new instrument is contributing to the total resources generated by the corporate and what is the contribution of Non-convertible Debentures in to the growth of funds generated is yet to be tested.

Though the percentage analysis shows a significant increase in the proportion of resources generated through NCD's to total resources generated but if it has been because of the introduction of NCDs only is an unanswered question. For the purpose further analysis is important.

The analysis helps us state that Debt issue have been replacing Equity public Issues over a period of time. Further it also helps us state that Total resources mobilized are also on an increasing trend.

But it is important to understand the relation between the Debt Public Issues and the Total resources mobilized and Total Resources Mobilized through public Issues to find out if the Introduction of NCDs has been the reason for increase in Total resources mobilized.

The correlation table will help us understand the same.

Table No. 2: Correlation between Total Resources mobilized Resources Mobilized through Public Issues and Debt Public Issues between 2004-05 to 2008-09 and 2009-10 to 2013-14

Gáfl¶{ }		TRM	Equity	Debt	RMTPI	EPI	DPI
2004-05 to 2008-09	TRM	1.00					
	Equity	0.45	1.00				
	Debt	0.86	-0.07	1.00			
	RMTPI	0.45	0.99	-0.07	1.00		
	EPI	0.46	1.00	-0.06	1.00	1.00	
	DPI	-0.25	-0.08	-0.23	0.01	-0.04	1.00
		TRM	**Equity**	**Debt**	**RMTPI**	**EPI**	**DPI**
2009-10 to 2013-14	TRM	1.00					
	Equity	-0.80	1.00				
	Debt	0.98	-0.90	1.00			
	RMTPI	-0.30	0.05	-0.23	1.00		
	EPI	-0.80	1.00	-0.90	0.05	1.00	
	DPI	0.41	-0.74	0.54	0.64	-0.74	1.00

From the above correlation analysis we can interpret that:
1. The analysis suggests that relation between Debt Public Issues and Total Resources Mobilized has turned positive from negative post reforms.

2. The relation between Debt public Issues and resources mobilized through Public Issues has turned negative from slight positive i.e. from .0147 to -.2074 suggesting negative relation between the two.

3. The relation between Total Resources mobilized and Resources mobilized through public issues has turned negative post reforms, from somewhat positive to strong negative.

4. There is an inverse relation between the resources mobilized through Equity and Debt both for the period 2004-05

to 2008-09 and 2009-2010 to 2013-14 which is a post reforms period. In fact it can be observed that the negative relation has become stronger in Post reforms period.

5. Before the Period 2008-09, 99% of the total resources mobilized were through equity and only 1% through Debt. Post reforms period there is a complete shift in the scenario and Debt Public issues have replaced Equity Public Issues.

The debt proportion has increased to 63% whereas Equity has gone down to just 5% But if a detailed analysis is done between the Debt Public issues mainly Introduction of Non-convertible debentures in the year 2009 and other variables that is total Resources mobilized, Total resources mobilized through Debt and Resources mobilized through public issues, the relation has become positive and stronger in the post reforms period suggesting a significant contribution of Public issues of Non- Convertible Debentures.

Table No. 3: Growth in Total Resources mobilized

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Year	TRM	RMPI	Equity PI	Debt PI	Growth in TRM	Growth in RMPI	Growth in EPI	Growth in DPI
2003-04	716	232	189	43				
2004-05	838	284	245	39	0.1704	0.2241	0.2963	-0.0930
2005-06	1092	274	274	0	0.3031	-0.0352	0.1184	-1.0000
2006-07	1322	333	329	4	0.2106	0.2153	0.2007	4.0000
2007-08	1968.58	813	797	16	0.4891	1.4414	1.4225	3.0000
2008-09	1900.02	157	142	15	-0.0348	-0.8069	-0.8218	-0.0625
2008-09	1900.02	157	142	15				
2009-10	2901.28	574	549	25	0.5270	2.6561	2.8662	0.6667
2010-11	2882.49	702	607	95	-0.0065	0.2230	0.1056	2.8000
2011-12	3032.62	485	129	356	0.0521	-0.3091	-0.7875	2.7474
2012-13	4001.97	324	154	170	0.3196	-0.3320	0.1938	-0.5225
2013-14	3395.12	561	137	424	-0.1516	0.7315	-0.1104	1.4941

Table No. 4: Regression analysis Between Total resources mobilized to Debt Public Issues

Year	R Square	Significance F	P-value	
			Intercept	X Variable 1
2004 -2008	0.156110976	0.510345926	0.174572249	0.510345926
2009 -2014	0.406450393	0.247219729	0.142019686	0.247219729

Analysis:

The r-square in Table No 4 has shown an increase from .15 to .40 indicating that Debt public issues were more than the non-debt issues by Indian corporate. Further, the change in the TRM can be largely being attributed to these issues rather than no-debt issues.

But the significance F value and P value do not support the above statement. So to further check the reliability of Data Two tailed sample T test has been used for the analysis.

Table No 5: T test for sample means

G| flÎ¶ı ≠ fl	T Value	Critical Value for One tailed test	P Value for One tailed test	Critical Value for Two tailed test	P Value for Two tailed test
TRM	**17.21**	**2.13**	3.33773E-05	**2.77**	6.68E-05
DPI	2.51	2.13	0.032941084	2.77	0.065882

Total Resources Mobilized

T value (17.21) is much higher than the Critical test for a one tailed test (2.13) so we can state that there is a significant increase in Total Funds generated post 2009.

Same result can also be reached because of the p value for one tailed test is less than alpha (0.05). P value is (0.0000333773120038582)

T value is 17.21 is larger than the critical t value for the two tailed test (2.77) means it can be stated with 95% certainty that there has been a change in the means from before to after.

P value for two tail is (0.0000667546240077164) less than alpha supporting the above statement.

Debt Public Issues

T value (2.51) is greater than the critical test for a one tailed test (2.13)so we can state with 95% certainty that there has been an increase in total funds generated through Debt IPO post 2009.

Same result can also be reached because of the p value for one tailed test is less than alpha.

T value is 2.51 is lesser than the critical t value for the two tailed test (2.77) means it can be stated with 95% certainty that there hasn't been a change in the means from before to after.

P value is greater than alpha supporting the above statement

Analysis

From the results of Regression Test and T test it can be said that

H1: Corporate Bond Market reforms have resulted in change in preference of instruments for Capital with special reference to resources mobilized from Initial Public offerings by the Indian Corporate.

H2: The corporate bond market reforms increased the fund generation for the corporate sector in India.

Conclusion

Capital markets are the backbone of the economy of a country because of the major role it plays to generate funds the Corporates. Over the years it was seen that equity was the most favored instrument when it comes to fund generation through public issue. With the introduction of Non-convertible Debentures there has been a shift in preference by the Corporates. NCDs have now become the most favored source of fund generation through public issue. And further are contributing significantly to the total resources mobilized by the corporate. But at the same time the relation between Debt public issues and resources mobilized through public issues has turned negative post reforms. So it can be said to be a start of new era as far as Total resource generation is concerned. And it can also be said that the efforts are put in a right direction as they are generating expected results. Still the regulatory authorities need to introduce few more corporate and investor friendly reforms to continue the trend by making the issues more corporate friendly so that to end up contributing more to the fund generation.

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Green Finance in India

Abstract

"Green Bonds" have emerged as a new and fast growing form of environmental financing since 2007 globally. While it is still viewed as a niche product globally; green bonds have started growing rapidly in India too. This paper briefly talks about all the aspects of green bonds such as, types of "green" projects that may be included in green bonds, the extent of the impact that these investments should create, and even what investment areas may count as green. This short overview of the green bonds in India throws light on their importance and the duality of the instrument.

Keywords

Green Indices, Renewable Resources, Green Investment, Green Bonds, Indian Green Bonds, Bond Market, Low Carbon Infrastructure, Energy

Introduction

Green bonds are an increasingly attractive mechanism for both private and public sector organizations to raise capital for projects, assets or other activities that benefit the economy, environment and society. The global green bond market is growing rapidly. Perhaps inevitably in a fast-growing market, challenges and confusion can arise as organizations assess whether issuing a green bond is the right course of action for them and seek to understand the process involved. While the bond market potential is vast, it is important to keep in mind that green bonds aren't suitable for every type of environmental project, especially if institutional investors are the primary buyer of the debt. In fact, the Organization for Economic Co-operation and Development (OECD) has estimated that less than 1% of global pension fund assets are allocated directly to infrastructure investment. Investments into unproven markets are more suited to investors with higher risk tolerances, such as venture capitalists.

The Government of India's focus on India's renewable energy potential and target of 175 GW of additional capacity installation by 2022, it is estimated that the renewable energy sector will require significant structured financing. Currently, there are a number of challenges in the existing financing mechanisms including sector limits, high interest rates and asset liability mismatch, and therefore there is a need to evolve innovative financing mechanisms to finance projects in the renewable energy and energy efficiency space. Green Infrastructure Bonds are on such specialized avenue to allow for financing to flow to vital green energy projects.

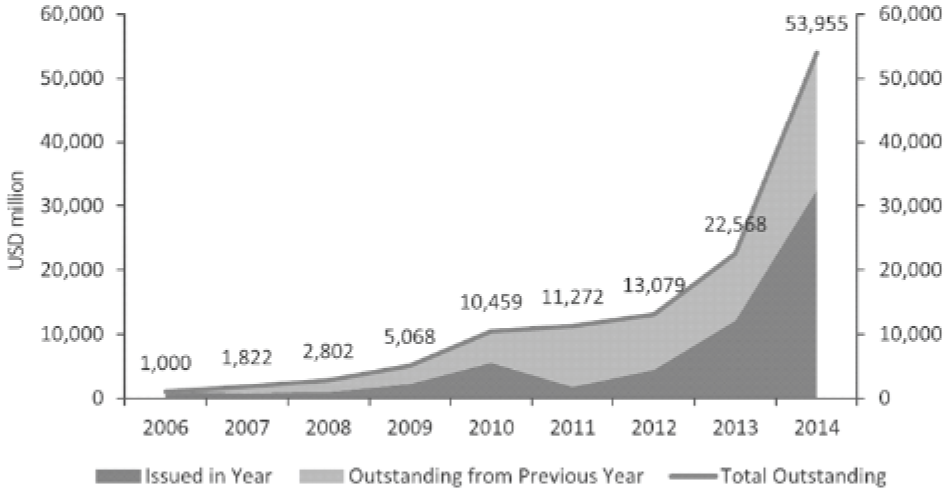
What Is Green Bonds?

"A green bond, like any other bond, is a fixed-income financial instrument for raising capital through the debt capital market. In its simplest form, the bond issuer raises a fixed amount of capital from investors over a set period of time, repaying the capital when the bond matures and paying an agreed amount of interest (coupons) along the way." The key difference between a 'green' bond and a regular bond is that the issuer publicly states it is raising capital to fund 'green' projects, assets or business activities with an environmental benefit, such as renewable energy, low carbon transport or forestry projects.

Bonds can also be used to fund projects with a social or community benefit such as improving healthcare or social services, and these are typically known as 'social' or 'social impact' bonds. They are typically tax-exempt bonds, which are issued by Government organizations and target institutional and retail investors. Therefore, they help raise additional funds from consumers and the private sector rather than general taxation. Green bonds could be related to specified technologies or projects to ensure that the money raised is invested in a particular set of projects.

The labeled green bond market tripled in size between 2013 and 2014, with US $37 billion issued in 2014. Historically, supranational organizations such as the European Investment Bank and the World Bank, along with governments, have been the most prolific issuers of green bonds, accounting for all labeled issues between 2006 and 2012. However, there has since been a sharp rise in the number of corporate green bonds issued. In 2014, bonds issued by corporations in the energy and utilities, consumer goods, and real estate sectors accounted for one third of the market. As seen in the figures below.

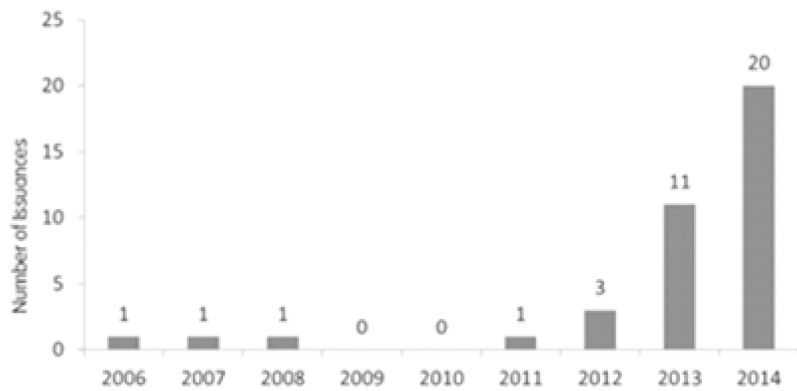
Figure 1 – Historical Issuance of Green Bonds



Source: Credit Agricole: report on Green Bond Market

The above graph shows total outstanding investments in Green Bonds in 2014 is USD 54 billion that includes USD 32.5 billion of fresh issuances, more than cumulative issuance of Green Bonds from 2006 to 2013.

Figure 2 – Green Bond Issuances: Minimum Size USD 500m



Source: Credit Agricole: report on Green Bond Market

The above figure reiterates the steady increase of Bond issuance over the last 8 years and a spiked increase in the last 2 years of over 31 issuances only. Substantial further growth is predicted and it is forecast that in 2015 for green bonds.

On the other hand, bonds could be generic in nature as far as the technology or project is concerned and the proceeds could be used to finance any LCI project that meets the predefined criteria." Issue Paper: Green Bonds in India –Ministry of Power & Ministry of New and Renewable Energy Government of India; American People through the United States Agency for International Development (USAID) (2015)[1].

Green Bond Definition

Green Bonds are any type of bond instruments where the proceeds will be exclusively applied to finance or e-finance in part or in full new and/or existing eligible Green Projects and which follows the 4 Green Bond Principles. Green Projects are defined as projects and activities that will promote progress on environmentally sustainable activities as defined by the issuer and in line with the issuer's project process for evaluation and selection. The management of Green Bond proceeds should be traceable within the issuing organization and issuers should report at least annually on use of proceeds. **Green Bond Principles, 2014** – Voluntary Process Guidelines for Issuing Green Bonds[2].

Types of Green Bonds

Specifying Use of Proceeds, Direct Project Exposure, or Securitization towards new and existing Green Projects .There are currently four types of Green Bonds:

1. **Green Use of Proceeds Bond:** A standard recourse-to-the-issuer debt obligation for which the proceeds shall be moved to a sub-portfolio or otherwise tracked by the issuer and attested to by a formal internal process that will be linked to the issuer's lending and investment operations for projects. Pending such investment, it is recommended that the issuer make known to investors the intended types of eligible investments for the balance of unallocated proceeds.

2. **Green Use of Proceeds Revenue Bond:** A non-recourse-to-the-issuer debt obligation in which the credit exposure in the bond is to the pledged cash flows of the revenue streams, fees, taxes etc., and the Use of Proceeds of the bond goes to related or unrelated Green Projects. The proceeds shall be moved to a sub-portfolio or otherwise tracked by the issuer and attested to by a formal internal process that will be linked to the issuer's lending and investment operations for projects. Pending such investment, it is recommended that the issuer make known to investors the intended types of eligible investments for the balance of unallocated proceeds.

3. **Green Project Bond:** A project bond for a single or multiple Green Projects for which the investor has direct exposure to the risk of the projects with or without potential recourse to the issuer.

4. **Green Securitized Bond:** A bond collateralized by one or more specific projects, including but not limited to covered bonds, ABS, and other structures. The first source of repayment is generally the cash flows of the assets. This type of bond covers, for example, asset-backed securitizations of rooftop solar PV and/or energy efficiency assets. Green Bond Principles –ICMA group (2015)[3].

Green Bonds – Benefits to the Stakeholders

The benefits associated with Green Bonds have been evaluated from the perspective of four key stakeholders: Financial Institutions (Bankers/Lenders), Developers, Green Bond Investors and the State.

Key Benefits for Financial Institutions

1. **Overcome challenge of sector limits:** FIs in India have self-imposed limits which restrict exposure to a particular sector. With Green Bonds, FIs have an option to offload holding assets through RE portfolio issuance, thereby allowing the institutions to adhere to the sector limits, while deploying bond proceeds into new projects.

2. **Ability to manage asset liability mismatch:** A key challenge faced by mainstream SCBs in India is the asset liability mismatch as deposits are largely short-term. The lack of long-term liquidity in the system does not allow banks (barring specific institutions such as IREDA, PTC Financial Services, etc., which have access to long term capital from multi-lateral and bi-lateral agencies) to procure long-term lending to the sector. Green Bonds address this challenge as they allow FIs to raise long-term capital from the market. In addition, they provide an exit option to FIs via securitization of projects portfolios at certain stage of maturity to overcome asset liability mismatch.

3. **Ability to obtain premium on performing assets through issuances:** Due to roll out of “mature” projects portfolio through Green Bonds, FIs can command risk premiums via pricing arbitrage that may exist during issuance of Green Bonds due to low risk portfolio and potentially higher ratings in open markets.

Key Benefits for Developers

1. **Access to capital at attractive terms:** Project developers currently have limited options of approaching FIs in India who offer low tenures and high rates. Green Bonds will allow developers to access international capital at attractive terms.

2. **Excessive cash flow for capacity expansion:** Developers can generate surplus cash flow through longer tenure and bullet payment structures for bonds that allows access to capital to expand capacity without proportional equity infusion. Based on PACE-D TA Program analysis, it is estimated that redeployment of excessive cash flow can allow for 30-50% faster growth rates per year for the same equity base. Green Bonds can’t be leveraged for provisioning growth of capital for developers.

Key Benefits for Green Bonds Investors

While some institutional investors are promoting climate-friendly business practices, others are diversifying their investment portfolio to hedge the risks associated with climate change. Green bonds can help investors on both fronts. The long-term competiveness of green assets, higher liquidity associated with the bond market, and low operational risk offer institutional investors an attractive basket of investment through the use of Green Bonds.

Key Benefits for the State

With an aggressive target of 165 GW of installed RE by 2022, the Government of India will require large investments for the RE sector. For this, it is important to explore options beyond the traditional sources of funds. Green Bonds, in this regards, will enable India to attract capital and consequently scale its RE investments and meet the target set under the National Action Plan on Climate Change. Large-scale foreign capital inflow into the country will also expand foreign reserves while offsetting India's energy import and enhancing energy security. Issue Paper: Green Bonds in India –Ministry of Power & Ministry of New and Renewable Energy Government of India; American People through the United States Agency for International Development (USAID) (2015)[6].

GREEN BOND PRINCIPLES (GBP)

The **Green Bond Principles** do not specify exactly what makes a bond 'green'. However, applying these principles can help to ensure the process for managing a green bond is credible. Recommend concrete process and disclosure has been published for issuers which investors, banks, investment banks, underwriters, placement agents and others may use to understand the characteristics of any given Green Bond.

The Green Bond Principles have four components:
1) Use of Proceeds 2) Process for Project Evaluation and Selection 3) Management of Proceeds 4) Reporting

1. Use of Proceeds

The cornerstone of a Green Bond is the utilization of the proceeds of the bond. For a Green Use of Proceeds Bond or a Green Use of Proceeds Revenue Bond, the issuer should declare the eligible Green Project categories including types of investments made indirectly through financial intermediaries in the Use of Proceeds section of the legal documentation for the security. The GBP recommend that all designated Green Project categories provide clear environmental benefits that can be described and where feasible- quantified and/or assessed. There are several categories and sets of criteria defining eligible Green Projects already in existence in the market. The GBP recognize several broad categories of potential eligible Green Projects for the Use of Proceeds including but not limited to:

- Renewable energy
- Energy efficiency (including efficient buildings)
- Sustainable waste management
- Sustainable land use (including sustainable forestry and agriculture)
- Biodiversity conservation
- Clean transportation
- Clean water and/or drinking water

2. Process for Project Evaluation and Selection

The issuer should establish a well-defined process for determining how the investments fit within the eligible Green Project categories identified in the Use of Proceeds disclosure. A process of review should determine and document an investment's eligibility within the issuers' stated eligible Green Project categories. If possible, issuers should work to establish impact objectives from the projects selected. To the extent feasible, issuers should consider direct and indirect impacts of Green Projects, such as cases where investments lock-in a current level of emissions into the future. Multilateral and bilateral agencies and other International Finance Institutions have established processes to ensure that environmental criteria are considered for each project to which they allocate funds, independent of whether they qualify for use of Green Bond proceeds. These reviews are carried out with resident teams of environmental experts. The GBP recommend all issuers, where applicable, engage in similar environmental reviews of the projects they are financing.

In addition to the Green Bond process, criteria and assurances that an issuer provides, many Green Bond investors may also take into consideration an issuer's overall environmental and social and governance framework.

3. Management of Proceeds

The net proceeds of Green Bonds should be moved to a sub-portfolio or otherwise tracked by the issuer and attested to by a formal internal process that will be linked to the issuer's lending and investment operations for projects. So long as the Green Bonds are outstanding, the balance of the tracked proceeds should be periodically reduced by amounts matching investments made during that period. Pending such investments, it is recommended that the issuer make known to investors the intended types of eligible instruments for the balance of unallocated proceeds.

The management process to be followed by the issuer for tracking the proceeds should be clearly and publicly disclosed. The environmental integrity of Green Bond instruments will be enhanced if an external auditor, or other third party, verifies the internal tracking method for the flow of funds from the Green Bond proceeds. Depending on issuers' and investors' expectations, outside review of the internal tracking method may or may not be necessary. In addition to reporting on the Use of Proceeds and the eligible investments for unallocated proceeds, issuers should report at least annually, if not semi-annually, via newsletters, website updates or filed financial reports on the specific investments made from the Green Bond proceeds, detailing wherever possible the specific project and the dollars invested in the project.

The GBP recommend the use of quantitative and/or qualitative performance indicators which measure, where feasible, the impact of the specific investments (e.g. reductions in greenhouse gas emissions, number of people provided with access to clean power or clean water, or avoided vehicle miles travelled, etc.). While there is variability in impact measurement systems, much progress towards standardization has been made in the past several years. Issuers are recommended to familiarize themselves with impact reporting standards and, where feasible, to report on the positive environmental impact of the investments funded by Green Bond proceeds. (Green Bond Principles, 2014 – Voluntary Process Guidelines for Issuing Green Bonds) [4].

GREEN WASH

Need for Credibility

The lack of standard definitions of what makes a bond 'green' has led to uncertainty over whether all green bonds really are 'green'. Issuers face reputational risk and potential accusations of 'greenwash' if:

• Bond proceeds are used to fund activities that some stakeholders believe are not 'green' enough.

Core business activities are seen as unsustainable. For example, some stakeholders have criticized energy companies for issuing green bonds to fund renewable energy projects, while also being involved in nuclear power generation. Proceeds are not tracked or managed tightly enough to ensure they are used only for the intended projects. Some issuers have faced criticism over management of proceeds, for instance for holding unallocated proceeds temporarily in non-green funds while projects are in development. Issuers are unable to prove that proceeds have been used to meet green objectives and that the funded projects have benefitted the environment.

Issuers can protect the credibility of their green bond by:

• **Defining green bond criteria clearly in line with evolving guidance and standards:** apply a rigorous and transparent approach to defining what is considered.

• **Being transparent with investors:** we recommend issuers are transparent with potential investors about the bond criteria, in order to avoid any misunderstanding over how funds will be used.

• **Putting in place robust management processes and controls:** It is recommended that issuers develop processes and controls in line with the Green Bond Principles. The principles require issuers to disclose how proceeds are used and show that the amount spent matches the level of investments made in green projects throughout the life of the bond. It is important to ensure that the amount of capital raised is in line with the cost of projects to be funded and that there are either enough green projects in progress, or planned, to account for the proceeds raised.

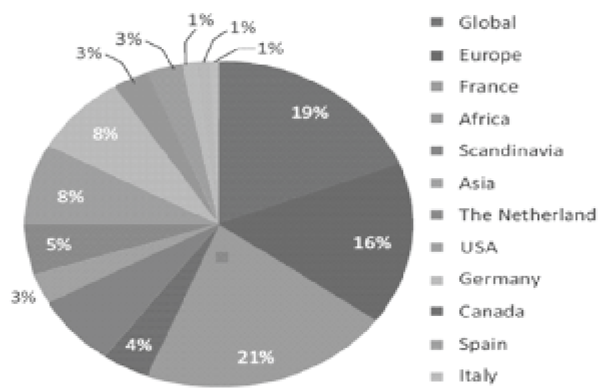
Issuers should also plan in advance where proceeds will be held if they are not invested immediately. Investors may require evidence that proceeds are not held in non-green funds or used for 'non-green' ('brown') projects in the meantime. The Climate Bonds Standard requires issuers to disclose any instance of proceeds not being used in line with the agreed criteria. Issuers should be prepared to provide evidence to a third party of the tracking mechanisms and process in place, to give investors greater confidence that the proceeds are used in line with the terms of the bond.

• **Measuring and reporting on environmental outcomes:** consider how progress against environmental and/or social objectives will be monitored and report at regular intervals through the life of the bond or the funded projects.

• **Selecting an appropriate type of assurance:** consider seeking independent third-party assurance to provide investors with confidence in the processes, controls and information reported. Sustainable insight – gearing up for green bonds – KPMG report (2015)[5].

GLOBAL STATUS

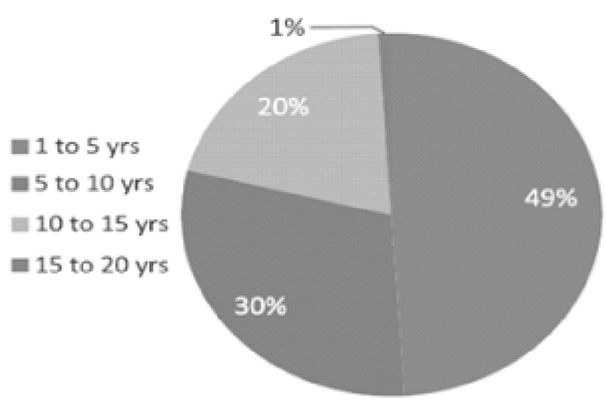
Figure 3 – Percentage Issuance of Green Bonds in Various Geographies



Source- Green Bonds for Financing India's Clean Energy Needs (2014)

The above figure - 3 shows the concentration of Green bond issuances are among in European nations and a minuscule 3% is in Asian countries.

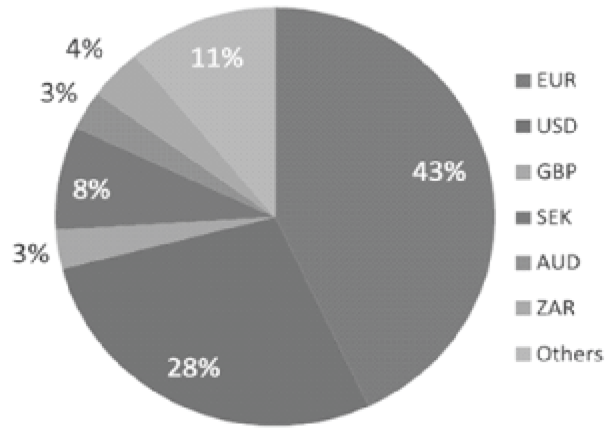
Figure 4 – Percentage Issuance of Green Bonds for Various Tenures



Source- Green Bonds for Financing India's Clean Energy Needs (2014)

As seen in the figure 4 above there is a clear preference for issuing Green Bonds for up to 5 years followed by up to 10 & 15 years. There is a distinct resistance for issuing green bonds for a period over 15 years.

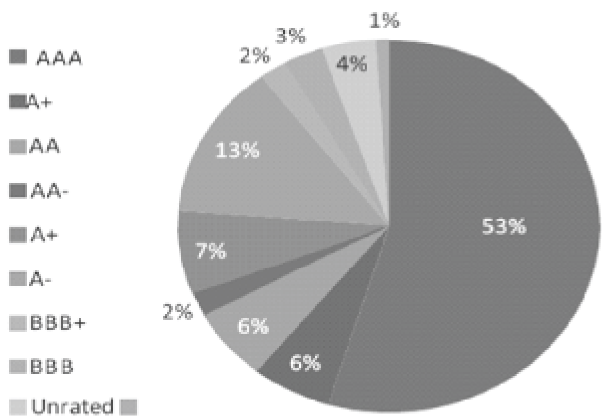
Figure 5 – Percentage Issuance of Green Bonds for Various Currencies



Source- Green Bonds for Financing India's Clean Energy Needs (2014)

As seen in the figure above majority of green bonds are issued in EUR & USD currencies making the respective nations the preferred destination for issuing Green Bonds.

Figure 6 – Percentage Issuance of Green Bonds for Various Ratings



Source- Green Bonds for Financing India's Clean Energy Needs (2014)

The figure above shows the similarity in the Ratings selection for bonds & green bonds preferred globally is AAA.

The above figures 2- 4 conclude the following:
Maximum bonds are issued for a 1-5 years tenure having an AAA rating and are issued mainly in Germany (21%), Scandinavia (19%), and Europe (16%) in EUR & USD currencies.

This issue was to fund an environment friendly water and energy projects. After the success of this bond, the Bank issued another Green Bond for EUR 500 Million for the same tenure got oversubscribed by two times.

Green Bonds in India

Growth on a low carbon economy trajectory has the potential to yield multiple benefits for India. These include, enhanced energy security from efficient energy usage (both supply and demand sides) and renewable energy projects; human health benefits from non-polluting transport; and environmental benefits through improved forestry and natural resource management, waste reduction programs, and reduced emissions of local pollutants from energy facilities. Hence, reducing carbon intensity of growth is an imperative. But how much financing will be required? Various estimates have been made for the global requirement. But as far as India is concerned, no readymade estimates are available. Such an estimation requires a great deal of information about physical impacts of Low Carbon Infrastructure; the mitigation and adaptation needs of the country; the expected economic growth, population growth, demand for infrastructure, use of clean technologies, and finally, the funding requirements of such needs. Nevertheless, it would suffice to say that the funding requirement is huge and could easily run into billions of dollars.

A study by McKinsey & Company2 corroborates this. According to this study, a projected increase in emissions to 5–6.5 billion MT of carbon dioxide equivalent in India could be lowered by 30 per cent to 50 per cent by 2030 by investing in energy efficient technologies in road transport, power, buildings, and appliances. The report suggests that incremental capital of about 600–750 billion euro ($874 billion to $1.1 trillion) would be needed between 2010 and 2030, even after accounting for steep declines in the cost of emerging technologies such as solar power. The estimates are staggering and there is no clear understanding of how these financing requirements will be met. A McKinsey & Company 2 report[6].

India has taken up aggressive target to increase Renewable Energy & Low Carbon Infrastructure penetration to 15% by 2020 from current 5%. With continued growth in the energy consumption and multi-fold increase in share for Renewable Energy & Low Carbon Infrastructure, it is expected that the capacity would have to grow by a factor of 8-10 times by 2030. While the substantially higher capacity target will ensure greater energy security, improved energy access and enhanced employment opportunities, it will require higher capital investments, estimated at around USD 200 billion, over the coming years.

Based on the huge projected capital and investment requirements, it is widely accepted that current project financing sources namely Scheduled Commercial Banks (SCB) lending, Non-banking Finance Company (NBFC) sponsored project financing, multi-lateral and bi-lateral lines of credit to financial institutions (FIs), domestic bond issuances, etc., which are prevalent in the Indian market would be inadequate to meet the financing requirements for capacity addition. There is a need to introduce new means of financing and innovative financial instruments that can leverage a wider investor base such as pension funds, sovereign wealth funds, insurance companies, etc. (estimated to manage over USD 80 trillion) that can invest in the RE sector. Another driving factor for the introduction of new sources of financing and instruments is the high cost and low tenure of project financing currently available for RE projects in India. At present, NBFCs and commercial banks are the main sources of debt financing in India. However, these organizations typically face difficulties in providing long-term funding for infrastructure projects due to asset-liability mismatch and the relatively higher cost of borrowing. In addition, banks have to deal with internally set sector limits (Power sector limits vary as per SCB guidelines). As such, instruments that can help tap long-term, low-cost debt from investor classes such as insurance, pension funds, and other long-term investors, (both domestic and foreign), to refinance bank debt for infrastructure projects are critical to meet the financing requirement for capacity addition. Further, since equity investments from various investor classes are dependent on the depth of debt markets, improvements in debt market need to be targeted first. Issue Paper: Green Bonds in India – by Vinod Kala, Vivek Garg. Ministry of Power & Ministry of New and Renewable Energy Government of India ; American People through the United States Agency for International Development (USAID)(2015)[7].

Green Bonds can facilitate access to capital for various development stages (pre-construction, construction and post commissioning) for IPPs and project developers (as shown in the Figure below), thus leading to larger implementation of projects.

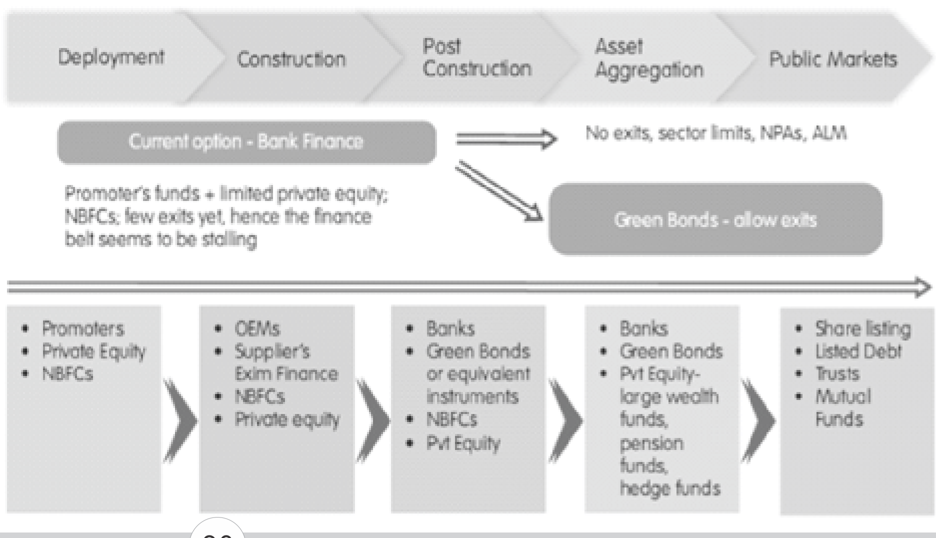


Figure 7
Financing Conveyor Belt – Access to Capital at Various Development Stages

Potential Impact of Green Bonds in India

With implementation of Green Bonds, there is a multiplier effect (towards deployment of Renewable Energy in India) due to lower costs, increased capital inflow, and access to finance at various stages of the project lifecycle. These include:

Low cost-long term debt: With low financing cost, there is a direct impact in reduction of cost of generation from RE. With reduction in the cost of power generation, there is larger adoption of RE projects from stakeholders such as consumers, IPPs, technology manufacturers, and distribution companies.

Increased capital access: With Green Bonds being tradable instruments, there is improved liquidity; hence exit for investors during any point of time post investment is possible, thus allowing for flexibility in managing liquidity requirements on a short term basis. Such flexible instruments attract a larger pool of investors to the RE sector. Some of the key investor pools that can be attracted towards participation in Green Bonds for Renewable Energy are:

- Pension Funds
- Insurance Companies
- Sovereign Wealth Funds

Green Bonds facilitate access to capital various developments financing across development stages thus leading to larger implementation of projects.

The following challenges are considered key risk elements for issuance of Green Bonds for Indian entities.

Hedging costs: Currently, hedging costs are very high and hence take away the cost advantage for foreign currency financing in India. There is a need to explore instruments/methods that can enable reduction of such costs.

India's current sovereign rating of BBB- is not attractive to risk-averse investors.

Credit ratings: Enhancement, offered by multiple agencies such as IFC, AFD, and USAID-DCA, can help enhance credit rating. However, there are costs associated with such credit enhancement services. Such costs vis-à-vis potential benefits of interest rates reduction are required to be analyzed.

The External Commercial Borrowing (ECB) guidelines pose certain challenges for the usage of Regulations: proceeds from Green Bonds.
Viable solutions could include:

- Refinancing SPVs by IPPs that issue corporate bonds in foreign currency
- On-lending possibility for SPV of Infrastructure Finance Company created for issuance of Green Bonds
- Issuances of Green Bonds by an overseas SPV of a domestic Financial Institutions
- Only 25% of External Commercial Borrowings are allowed to refinance existing loans. Remaining 75% should be used for development of new construction, which poses a challenge for launching Green Bonds for operational assets.

Issue Paper: Green Bonds in India – by Vinod Kala, Vivek Garg. Ministry of Power & Ministry of New and Renewable Energy Government of India ; American People through the United States Agency for International Development (USAID)(2015)[7].

Some examples of Green Bond Issuance:

Case 1: Green Bonds Issuance for Banks/ Financial Institutions –

Issue Bank – NRW Bank, Germany (Regional Commercial Bank)
Issue Size – EUR 250 Million
Issue Date – November 2013
Issue Rating – AAA
Issue Tenure- 4 years

Case 2: Yes Bank – India's First Green Bond
Bond Name – Green Infrastructure Bond
Issue Size – INR 500 Crores
Tenor – 10 years
Payment Type – Bullet Payment
Isuue Date – February, 2015

The amount raised will be used to fund green projects such as Solar Power, Wind Power, Biomass and Small Hydel Projects.

Globally, Green Bonds issues amounted to almost $35 billion worldwide in 2014 while the market in India is still nascent. The first such green (infrastructure) bond issuance in India by YES Bank will catalyze the market for green bonds in India and allow responsible investors to facilitate funding towards Renewable and Clean Energy Projects.

Case Study 3 - Green Cess on Electricity Consumption in Maharashtra and Karnataka
In Maharashtra, the state government jointly with a private sector financial institution—the Infrastructure Leasing & Financial Services (IL&FS)—has promoted the Urjankur Nidhi Trust Fund to promote non-conventional energy projects in the state. The fund would initially promote bagasse-based co-generation power projects which have a significant potential in Maharashtra. The fund would provide financial support in the form of equity with maximum support per project of up to 20% of the project cost or 20% of the corpus, whichever is lower. The e-fund will also provide crucial support functions during project development, project management, and distribution of resulting power. The fund has a corpus of Rs 418 crores of which Rs 218 crores would be contributed by the government of Maharashtra. This fund would be replenished through the imposition of a green cess of 4 paisa per unit on industrial and commercial power consumers in Maharashtra. The other 200 crores would be contributed by private institutional investors. In Karnataka too, the state government has levied a cess called Green Energy Cess at 5 paisa per unit on commercial and industrial consumers. It is expected that the cess would generate Rs 55 crore annually. A part of the proceeds raised through this cess will be set aside for the Energy Conservation Fund. The remaining proceeds would be utilized for financing renewable energy projects in the state, strengthening the evacuation system for such projects and for an integrated information and communication program in the state. [Source: Maharashtra Energy Development Agency (2010); Karnataka Renewable Energy Development Limited (2010)].

Conclusion
As the green bond market continues to develop, it provides public and private sector organizations with an important source of funding for activities that can bring significant benefits to the environment and society. However, the market is not without risks and challenges. The lack of clear definitions of what is considered 'green', requirements on how proceeds should be tracked, managed and reported on, and the lack of assurance requirements over information reported, all need to be addressed if the market is to build credibility and continue its rapid growth. There is an ever increasing need for guidelines on Green Bonds in India; from the inception to trading to utilization of funds and return of the funds.

It could be a positive impact on the market, with growing standardization leading to lower transaction costs for issuers. This would result in an increase in the number of Green Bonds issued, larger investor interest and confidence. On the whole the increase of Green Bonds will prove to be a sweeter deal for all the stakeholders and environment.

Recommendations
Given the climate crisis, there is an urgent need to shift investment dollars away from financing climate pollution and toward environmentally sound initiatives. Green bonds can be an important component of that effort, but there must be common, basic standards in place.

- Exclusion of conventional energy: Green bonds should not finance conventional energy such as fossil fuels, nuclear energy, destructive dams, waste incineration or harmful biomass or forestry projects.

- Safeguard the environment and affected communities: In addition to greenhouse gas emissions, social and environmental criteria must be taken into account. For example, green bonds should not finance projects that violate human rights or pollute after.

• Transparency and reporting: Green use of proceeds bonds must report transparently and publicly on eligible investments at the outset, and then on the actual investments made through the lifetime of the bond. Such reporting should be independently verified

• Getting what you pay for: The proceeds of green bonds must be used for their intended purposes. Currently, in most countries, green bond issuers are not contractually obligated to finance the projects for which the bond has been publicized. Fixing this would require regulatory changes as well as high standards of transparency, disclosure, monitoring and reporting to the public.

• Excursion from international climate finance: The US$100 billion that developed countries are obligated to provide to developing countries for mitigation and adaptation activities under the United Nations Climate Convention is entirely separate from important efforts to shift private investment from brown to green. Green bonds must not be counted towards the US$100 billion in climate finance.

Way Forward

Bond issuers should take a rigorous approach towards the use and management of green bond proceeds now without waiting for mandatory requirements to emerge. Issuers that do so are likely to build increased credibility with investors, underwriters and rating agencies, as well as reducing their own reputational risks. Given that green bonds are long-term financing vehicles, the reputational risk to issuers extends for many years across the life of the bond and beyond, therefore it is advisable to seek to reduce that risk from the point of issuance onwards.

However, green bonds are not free from problems. Since these bonds are tax free and are government backed finance, they would compete for finite financial resources of the GOI-either from public debt or taxation-and such approaches could create a moral hazard in that the government could be asked to fund sub-optimal projects on the understanding that it bears the risk of commercial failure.

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Smart Growth, A Sustainable Blend of Education and Skills in Creating Smart Cities: Education, A Major Facilitator for Growth of Economy

Abstract

Education has been long viewed as an important determinant of economic well-being of any nation. An economy's ability to grow over time, its ability to innovate and rise in productivity and real incomes is strongly tied to the quality of education provided to the vast majority of people in the nation. Skills and intellectual capital are increasingly important in a modern economy and quality education through schools plays a central role in the development of valuable skills. Good quality education is the foundation of new discoveries, new knowledge, innovation and entrepreneurship that trigger growth and prosperity of the individual as well as that of a nation.

According to UN forecast, half of the Earth's current population of 7 billion lives in towns and cities and it will have reached 9 billion by 2050 and 70% of that number will be city-dwellers. Such high concentrations of people pose many challenges to local authorities, among them atmospheric pollution, traffic congestion and security and in this sense city problems will become wicked and tangled. Ensuring livable conditions within the context of such rapid urban population growth worldwide requires a deeper understanding of the smart city concept. The urgency around these challenges is triggering many cities around the world to find smarter ways to manage them. These cities are increasingly described with the label smart city. One way to conceptualize a smart city is as an icon of a sustainable and livable city.

The smart city concept is a vision shared by major cities as they chart their future course with more services, greater efficiency and a focus on sustainable development and the industry players that are helping them to step up to the challenges of growing urbanization and eco-awareness.

Smart cities management is a novel concept which has gained recognition due to many factors of economic, social, educational development in a nation. It gave solutions to many problems that arise from increase in population, pollution, traffic congestion, unemployment, standard of living decrease etc. Through various variable of Education, a smart city management can be facilitated which is core of the study. Leaders from education and government aspire to improve their institutions outcomes and value to society. They strive to meet rising expectations from students, communities and business with limited and increasingly constrained resources. Nations hold their educational systems accountable for a high level of performance for good reason. Education will be the critical determinant of success for communities in the 21st century just as land is the key to agrarian societies and capital investment was critical to industrial economies.

Education must begin today to build a student-centered industry that develops in each citizen the skills necessary to prosper and thrive in that world of tomorrow. Governments and educational institutions must begin to see themselves as part of a holistic system that anticipates the needs of its citizens by directing investments and resources to embrace the future.

<u>Introduction to the Title</u>

The concepts of Smart Cities already existed in this planet and ancient Indian university towns like Takshashila and Nalanda were smart cities of those times. Dating back thousands of years are numerous examples of ancient technology that leave us awestruck at the knowledge and wisdom held by people of our past. They were the result of incredible advances in engineering and innovation as new, powerful civilizations emerged and came to dominate the ancient world. These advances stimulated societies to adopt new ways of living and governance, as well as new ways of understanding their world (for example, Ancient Roman Concrete)

Definition of Smart City

Smart cities can be defined by relevant use of technology to make life easier and more comfortable, while being friendly to the environment and human needs. It is a dream destination need to be made habitable where people of all age and income groups should experience a livable and safe city with equitable access to all basic amenities such as

Livability, Accessibility, Power supply, Communication, Emergency Response, and Water Supply etc.

Education as component of Smart Cities

Among the various components of Smart Cities has mentioned earlier, the focus of this research paper is to understand the importance of Education in contributing to elements of growth and development which would facilitate Smart Cities Management. For generalizing this statement, it is utmost important to study the link of education in facilitating Economic growth which would indeed help in conceptualizing towards Smart City concept.

As much as technology and development is a key for the smart city initiative, a proper smart city education program is the foundation. Smart cities need a skilled workforce with training and experience that is in demand to succeed and continue positive growth. A refined, smart city-focused education system aids the urban development scene and combats unemployment simultaneously. Leaders from education and government aspire to improve their institutions' outcomes and value to society. They strive to meet rising expectations from students, communities and business with limited and increasingly constrained resources. Nations hold their educational systems accountable for a high level of performance for good reason. Education will be the critical determinant of success for communities in the 21st century just as land was key to agrarian societies and capital investment was critical to industrial economies.

A population that is better educated has less unemployment, reduced dependence on public assistance programs and greater tax revenue. Education also plays a key role in the reduction of crime, improved public health, and greater political and civic engagement. Investment in education results in billions of dollars of social and economic benefits for society at large.

Opportunities that can help to render change in education into quality education

Educational system responds to trends which will determine not only its value to its students but ultimately its long-term value to society. It is important to understand the areas which would help the rate of change and direction of developing realistic and actionable strategies for education policy, investments and programs.

The following areas of concern can help in achieving quality education under change in instruments of education system:-

1. The transition to a learner-centered paradigm of education

Educational process today has undergone a drastic change in terms of its teaching as well as learning through incorporation of various elements of technology, globalization etc. which has transformed the scenario towards learning and through learning of their own choice.

In today's classrooms, the student is an active participant in the education process and the role of a professor is that of a facilitator as opposed to an instructor. The instruction is designed to engage students in learning experiences that not only enable them to learn content but also to develop greater passion for learning – enabling them to 'learn to learn' and to be lifelong learners.

In the learner-centered paradigm of education, students are encouraged to take greater responsibility for their learning outcomes. They are encouraged to be reflexive and thoughtful learners, learning from themselves, their peers and their immediate environment just as much as they would from their professors. Accordingly, the teaching-learning methodology involves less lecturing and rote note taking and more hands-on activities to allow for experiential and interactive learning.

With coming years, such emphasis on learning will impact students and learning outcomes in ways that will have far reaching impact for Indian economy and society. Firstly, by stoking students' innate curiosity and encouraging them to learn in self-directed ways, it has enabled students to be independent, critical thinkers. As a result, it has greatly enhanced the country's innovation capability and entrepreneurial ambition, positioning it amongst the most attractive R&D hubs for dozens of multinationals. Secondly, the learner-centered paradigm has helped India's thriving human resource base to keep pace with the changing needs of their work environments. Trained to be active and adaptive lifelong learners, the Indian workforce is known to be dynamic and agile even in the face of 'disruptive' progress.

2. Intensive use of technology in teaching and learning

For the first time in history we have a generation of digital natives, the students of the Internet generation have grown up immersed in the use of information technologies. Unlike generations past, these students are at ease with technology and easily adapt and integrate new functionality from smart phones, laptop computers, mp3 players, game stations, and virtual reality worlds. They arrive at school expecting to leverage technology in the learning environment just as they do in their personal lives. In much of the world today, young people have come to depend on digital resources for communications, learning and entertainment activities at home, school or workplace. This revolution of mobile technology is being driven by innovations in the consumer marketplace.

New devices and services are being introduced around the world, even in emerging market economies. Broadband local wireless, radio frequency, and satellite devices are enabling new services and greater access in many regions. A plethora of new devices will emerge over the next decade as microchips proliferate, technology becomes more affordable and connectivity becomes globally pervasive.

Digital learning is a key concept that needs to be embraced by educators in today's classrooms. It could refer to the use tablets in the classroom. It could mean using online sites, services and programs as teaching tools. Alternately, it could even refer to the practice of using popular apps, social networks and communications platforms as tools to create your own digital assignments and agendas. Few examples that can be quoted are as follows Cloud Computing, Blended Learning, Flipped Classroom, Use of smart boards/ tablet computing, Learning Analytics etc. These tools will make learning easier and in accordance to the learning path of the student through which he/she can explore skills which can help them develop later for their livelihood.

3. Reforms in governance

This variable can be achieved through framework of internal and external to institutions ensuring quality, accountability, transparency etc. through their reforms such as

- Compulsory accreditation
  The move towards regulating outcomes has been accompanied by the introduction of a more sophisticated quality assurance system based on the establishment of a national accreditation agency for higher education and also several other agencies with a specialized focus.
- Enabling environment for private and foreign participation
  This would help in rendering better techniques of pedagogy and learning on international skill development
- Thrust towards internationalization:
  Internationalization has been a powerful driving theme enabling the Indian education sector to both be in consonance with global standards as also emerge a leader in higher education globally.
- Industry Linkages
  There are insufficient levels of meaningful industry participation in aspects like curriculum development, research and faculty exchange programs. Placement services in many universities are very limited resulting in a lack of co-ordination between employment seeking graduates and prospective employers who are looking for suitably qualified candidates
- Employability
  The Indian education system on the whole is not aligned to the skill and manpower needs of the market. Skills shortage across sectors is accompanied by high levels of graduate unemployment, highlighting the need to include employment-linked modules in courses
- Research and Development
  Sufficient focus on Research and Development will help in bringing solutions to posing challenges in quality education.

Review of Literature

Quality in education has been widely discussed & debated issue all over the world. There has been lot of contribution by many journals, Articles, research papers, University rating agencies etc. Some the contribution as a part of review of literature is given below:-

Gap Analysis

1	Roadmap for Educational Innovation in Institutions of Higher Learning: Towards Inter-University Centre for Innovation by Prof. Anil k. Gupta, W.P. No.2012-06-01, June- 2012	The research paper discussed about technology & social media can create quality in classroom
2	A Study of Influential Factor on Quality of Education By Mohammed Abaalkhail & Zahir Irani, International Journal of Humanities & Applied Science (IJHAS) Vol. 1,No.3, 2012 ISSN2277-4386.	The paper investigates the major influential factors on quality of education in general
3	International Initiatives in Assessment of quality & accreditation in higher education by Dr. MM Gandhi, Research India Publication, ISSN 2249-3093 volume-3.	The research discussed about various quality indicators prevailing all around the world.
4	Department of Business, I. a. (October 2013). Global Innovators: - International Case studies on Smart cities. London: National Archives, London.	The research focused on understanding the concept cities through very examples
5	Sekhar, D. P. (August 2015). Smart Cities through Secured Governance - A pathway to accelerated growth. Navi Mumbai:- Micro Tech Global Foundation.	Book focusing on concept of Secured governance enabling the future of smart growth

Objectives of the Research

1. To identify the concept of Smart City and variables facilitating Smart Cities
2. To understand the role of Quality education in facilitating Smart City Management
3. To study the importance of learner centered learning towards creation of quality in education
4. To analyze the role of technology in creating quality education
5. To study the various reforms of governance in creating smart growth i.e. quality in education

Hypotheses of the Study

1. Smart city growth is an amalgamation of technological development and educational development
2. Quality education helps in facilitating Smart City management
3. transition of learner – centered learning helps in creation quality in education
4. Educational Technology has significant impact on knowledge, skills and personal learning paths by facilitating smart growth
5. Various reforms of governance such as accreditation, employability , research and development, industry linkages etc. helps in creating quality education leading to smart growth.

Research Methodology

Research Methodology introduces overall research design of the study which includes the methodology adopted for carrying out the research study and various phases of this research. This study has been conducted with prime objective of identifying the role of quality education in facilitating smart growth. Although, a number of techniques are available for collecting primary information from academicians and policy makers as well as students, well-structured questionnaires have been designed and used as prime survey instruments for data collection as the questionnaire addresses the issue of reliability of information by reducing and eliminating differences in the way the questions are asked, and how they are presented.

Research Design

In order to satisfy the objectives of the research, the study employs both exploratory and descriptive research design. Exploratory research design has been used to generate basic knowledge on importance of education and for analyzing the academicians; descriptive research design has been used.

Data Collection

Primary Data:

Questionnaire Method (structured questionnaire)

Secondary Data:

- Official publications of Central and local governments, Census Board of India, Statistical Abstract of India, Indian Foreign Statistics, Economic Survey
- Official publications of semi government statistical organization
- Report submitted to economists, re-search scholars, universities and various educational and research institutions.
- Newspaper and Periodicals
- Website Links

Sampling

To understand the impact of quality education facilitating smart growth, 50 academics of higher education were surveyed from different institutions.

Recommendations through analysis of data

1. It is the primary responsibility of the institution to provide students the opportunities to imbibe quality education through orienting them towards active learning which will help them explore their skills.
2. Learning centered education should be followed for evoking their innate capabilities, leading them into critical thinkers
3. Institutions should devise various innovative styles of learning techniques to understand different learning styles of students which could be relevant and meaningful.
4. Learning through technology is a novel interactive concept, it's awareness require immense important and action taken to create awareness
5. Technological learning would an innovation which would radically change the traditional pedagogy for prospective future technological change happening
6. Students would benefit immensely with the integration of technology in Learning as it would help them learn and grasp effectively
7. Through personalized learning tactics, students can cultivate their own way of learning and assimilate the knowledge for better development of skills and talents.
8. Skill development will lead to better application of knowledge for practical utility
9. Compulsory accreditation can help in achieve better facilities in enhancing quality education in education system
10. By commencing private and foreign collaborations , various global techniques and standards of education can be achieved
11. Quality education will be achieved by developing skills at initial stages of education by referring to various industry linkages in pedagogy and curriculum.
12. Good focus should be given on increasing areas and opportunities of research and development for understanding intricacies of quality education.

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Payment Banks – A Path to Financial Inclusion in Indian Economy

Abstract

In recent years India has witnessed the paradigm shift as the Financial Inclusion[1] inculcated by the Government policies, which plays an important role in the development of India. Payment Banks that is similar to Digital Wallets, an idea of Nachiket Mor. The Committee which was setup last year by RBI; can be seen as one of the paths where the committee aims to contribute in spreading the financial inclusion mission by bringing small businesses and low income households into the realm of financial services. On the other hand 'Digital India' vision of Hon'ble Prime Minister Narendra Modi's has helped transforming our nation to create new opportunities and outlook as it aims at digitizing of various individual projects of all central government and ministries which can be delivered to citizens by joining all the areas of India including the Gram Panchayats at high speed internet through Mobile Phones.

As Payment Banks is a platform where it will help to reach customers mainly through their mobile phones rather than traditional bank branches, Digital India would play a vital role in India's fast evolving ecosystem. The objective of this paper is to review Payment Bank as a viable option to inculcate nonbanking population into banking arena and its future prospects as business model.

Keywords

Payment Banks, Digital Wallet, Online Payment, Mobile Commerce, Indian Economy, Financial Inclusion, Digital India

Introduction

Financial inclusion delivering financial services contributes to economic growth, especially for those who are ignored and left out of digital financial systems by formal sector institutions. As Mr. Shashwat Sharma, partner, KPMG India, says "With the release of final guidelines for licensing of small finance banks and payments banks, the RBI has reinforced its commitment to financial inclusion. This is a step in the right direction to bring India's unbanked and underserved segments into the formal finance structure, with banking penetration expected to expand substantially beyond the traditional segments".

Payments banks are niche banks which complements the plan of financial inclusion. Payment banks are anticipated to offer innovative models to the new generation with a digital approach. It has the potential to be more receptive to the changing economic and market trends. As Payment Banks and other Government project Digital India will use smart phones as a tool for interacting with the customer which is one of the fast growing instrument due to its affordability rate, user friendly and availability in various language, which can be further seen in the below statistics the reach of mobile phones and its usage.

Figure 1

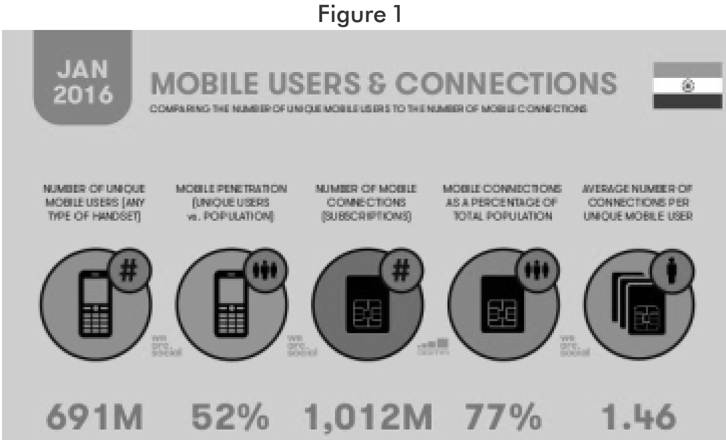
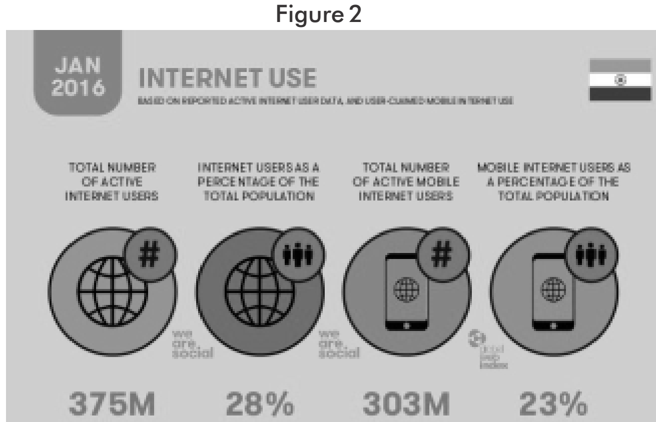


Figure 2



Source: Global Social Media Research Summary 2016, by Dave Chaffery

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1- **Financial inclusion** or inclusive financing is the delivery of financial services at affordable costs to sections of disadvantaged and low-income segments of society, in contrast to financial exclusion where those services are not available or affordable

Figure 3

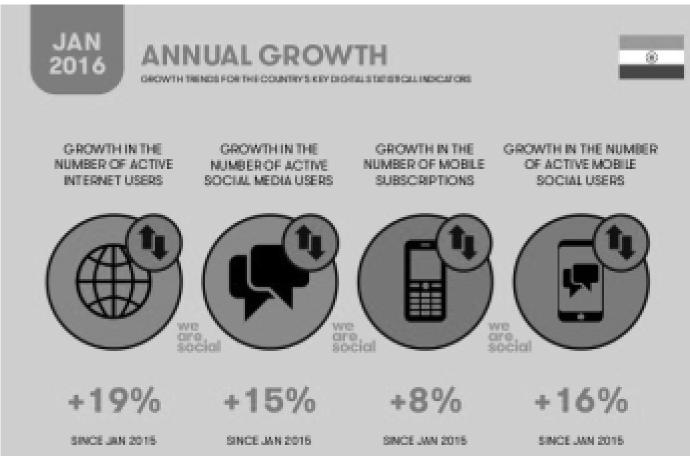
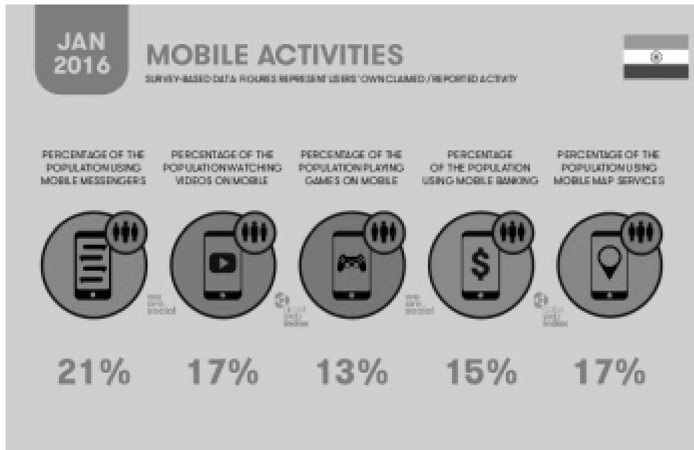


Figure 4



Source: Global Social Media Research Summary 2016, by Dave Chaffery

Figure 5

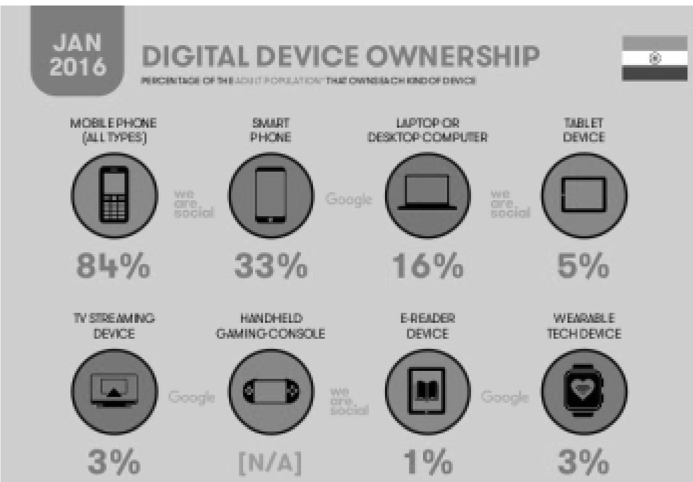
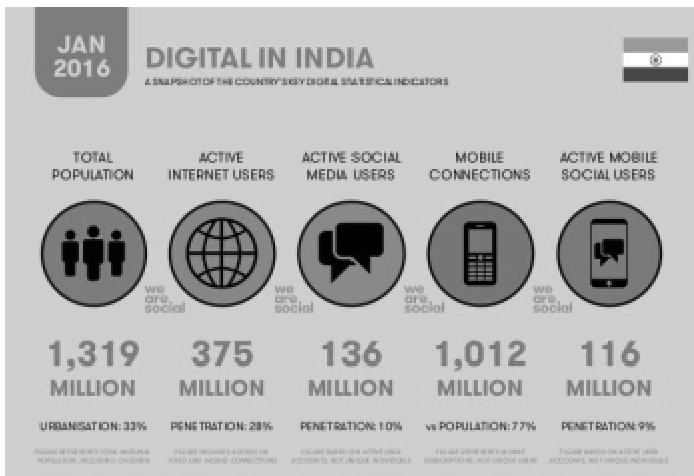


Figure 6



Source: Global Social Media Research Summary 2016, by Dave Chaffery

According to TRAI telecom subscription report, March 2016, and the above statistics we can interpret that India has millions of new subscriber's additions, predominantly coming from rural areas where it grew nearly by 5x as compared to Urban. India currently ranks number 2 in the world with over 1 billion mobile subscriptions, of this, approximately 240 million consumers' use smartphones and this base is projected to increase to over 520 million by 2020. The Indian population is projected to make digital payments worth $500 billion in the next four years, resulting in non-cash overtaking cash transactions by 2023. All these insights would in turn help Payment Banks be a great platform to penetrate in these areas and as emphasized, the vision of Digital India program which is the flagship program of Government of India expresses 'transform India into a digitally empowered society and knowledge economy'.

A] Payment Banks

Payment Banks which will be revolutionizing the banking sector; are like Prepaid Payment Instrument (PPI[2]) works as digital wallet with banking facilities. It's a theory based on PPI whereby cash can be pre-deposited and be used for multiple purchases and payment by transferring money from one mobile to another mobile or a bank account or to Point of Sale terminal at a retail chain outlet. Payment banks expected to reach customers mainly through their mobile

2-PPI: As per the RBI, Pre-paid payment instruments are payment instruments that facilitate purchase of goods and services, including funds transfer, against the value stored on such instruments phones rather than traditional bank branches. It is recommended options for creating a special cluster of banks which would positively impact financial inclusion within India. As SBI Chairman Arundhati Bhattacharya has said "This partnership brings together the combined strengths of two of India's Fortune 500 corporations committed to making a transformative impact on India's financial inclusion landscape. We see this license as an opportunity to promote financial inclusion".

As per the directive, telecom operators, Post office systems, Corporate Business Correspondents, supermarket chains, electronic wallets and prepaid instrument players can open these payment banks to accept deposits, offer basic saving facilities and provide remittance services for millions of people. As these are the key strategic units where people can easily have access anywhere even in remote places of rural areas.

On 19th Aug 2015, the Reserve Bank of India 'in principle' cleared 11 entities to set-up 'payment banks'. These are:

i) Aditya Birla Nuvo,
ii. Airtel M Commerce Services,
iii. Cholamandalam Distribution Services,
iv. Department of Posts,
v. Fino Pay Tech,
vi. National Securities Depository,
vii. Reliance Industries,
viii. Dilip Shantilal Shanghvi, the Sun Pharma promoter,
ix. Vijay Shekhar Sharma, Paytm founder,
x. Tech Mahindra,
xi. Vodafone M- Pesa.

B] Need for Payment Banks

In many regions of India there are places where they have less or no access to formal institution, regional disparities, connectivity or technology due to which they have negligible options in doing business, building assets, banking systems or even save for old age. In the ADBI working paper series, the authors Abheek Barua, Rajat Kathuria, and Neha Malik mentioned that "India's record of financial inclusion, despite the existence of a large and well-regulated financial system dominated by commercial banks, is poor. The absence of inclusion is especially conspicuous in rural India, home to around 60% of the population ". It is even noticed that it is not feasible or economical for banks to open branches in such areas; here Payment Banks would play an important role in bringing the unbanked masses in the realm of general banking.

There is still lot of opportunity available in India for this type of banking provided they get the essential technology solutions. "The recent Google and Boston Consulting Group (BCG) report, **Digital Payments 2020**, states that the digital payments industry in India is projected to reach **\$500 Bn. by 2020**, contributing **15% to India's GDP**[3]**.** Further, non-cash[4] contribution in the consumer payments segment will double to 40%". By this Google-BCG report and the above graphical statistics, we can observe that the Payment Banks would not only help reach out to the people in remotest corner of India where banking system is not effective as a platform but it will also help increase the country's GDP.

It is predictable that the payment banks through the mobile phones will be promising low cost platform for providing basic banking transactions, particularly; payment for services and subsidies. A mobile phone platform still has lot of opportunity to penetrate rural India. Over the next few years the smartphone outburst will usher in a new era in digital payments in India which would be a turning point to encounter credit and remittance needs of small businesses, unorganized sector, low income households, farmers and migrant work force. A study conducted by Access Markets International (AMI) expects the Digital India initiative to further expand e-commerce as India's tier 4 towns and rural areas will have access to internet .

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3 - **GDP**: Gross Domestic Product

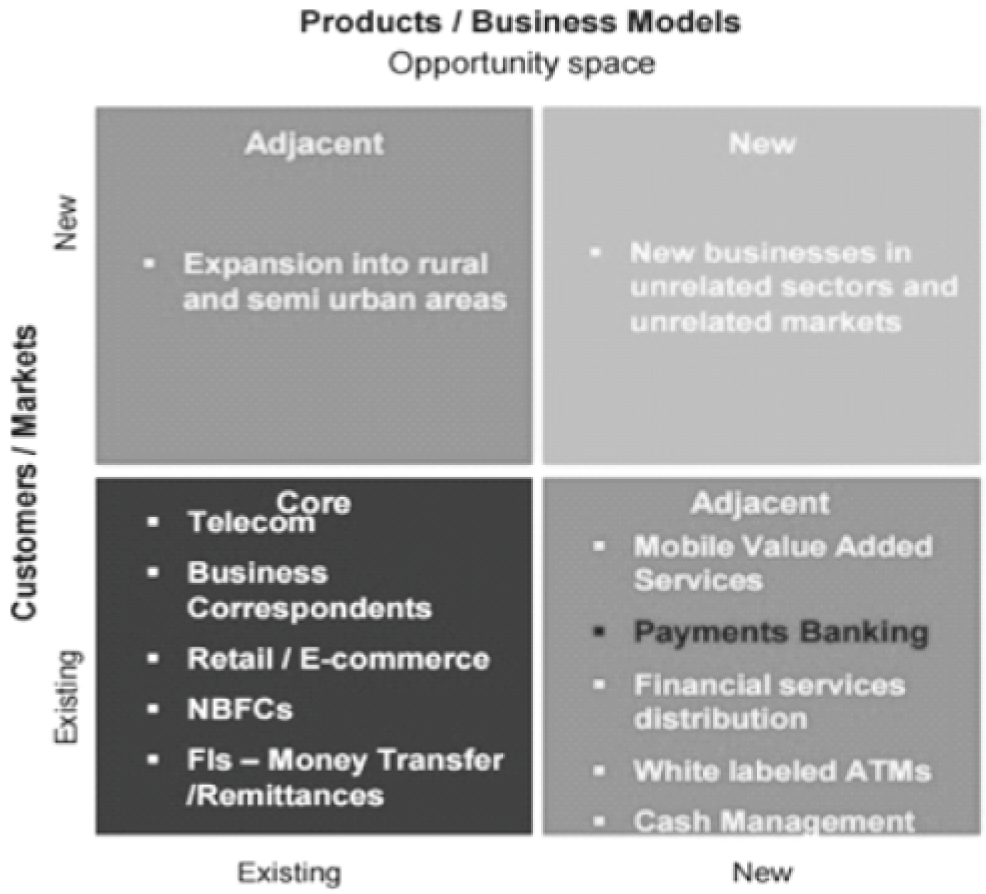
4 - **Non-cash** includes cheques, demand drafts, net-banking, credit/debit cards, mobile wallets and UPI

C] Payment Bank as a Business Opportunity

Indian Economy has more smartphone users, as penetration of mobiles has gone far ahead as compared to bank account holders, these Unbanked[5] and Underbanked[6] population have large portion of which comes from Indian rural areas; which are predominantly the prime target audience for Payment Banks. With the access of internet in India's tier 4 towns and rural areas, there will be an upsurge in online transactions and with the Digital India initiative coming into the role; it will help expand e-commerce in India, also further more help the individual, small businesses connect globally.

The telecom operators with the Payment Bank license; their users have started adapting digital wallets which would serve as base for payment accounts and also Indian Post Office through their post saving accounts and the retail chain consumer; their customer base and business conglomerates can be a customer base for Payment Banks.

Figure 7: Smart Payment Banks



Source: Quora, What's the revenue model of payment banks by Rajeev Wadhwa

As per the Economic Survey 2015-16, 'India has the third largest base of technology start-up firms in the world' ; these tech-savvy population in turn look for smart payment solutions while dealing with their customers within India as well as in foreign countries. So the mobile-based payment solutions and proprietary payment networks have become the hot arena in the Indian ecosystem. This will drive merchant acquisition by offering low-investment solutions resulting in merchant's establishments that will accept digital/mobile payments, acceptance network which is simply expected to grow.

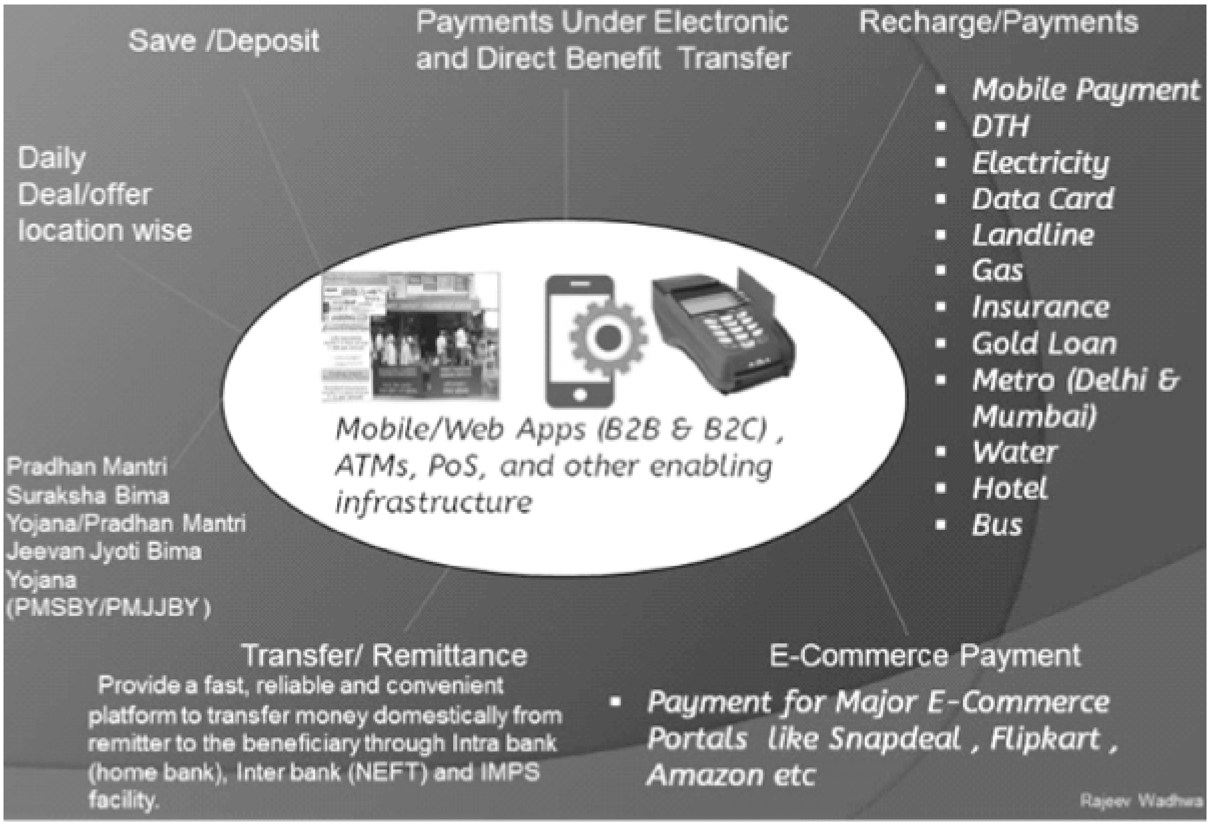
5 - Unbanked: Who do not use or not having access to the services of a bank or similar financial organisation.

6 - Underbanked: People or businesses that heavily relies on checks and cash as a mean of funding or have poor access to mainstream financial services.

Revenue model of Payment Banks

People from low-income households, migrant labor workforce, small businesses and other unorganized sector entities and other similar users travel distant places to get access for the basic banking services like deposits, fees, and transfer money. People should be encouraged to join the digital economy by migrating cash-based customers into digital networks by offering digital payment transactions for free or rock bottom digital charges; this will lead to rapid uptake and usage of payment banks. It will also enable high volume-low value transactions in deposit and payment/ remittance services in a technology driven atmosphere. This will help people to less depend on cash and encourage to use mobile wallet as a bank account soon enough.

Figure 8: Smart Payment Bank Model (Urban/Rural)



Source: Quora, What's the revenue model of payment banks by Rajeev Wadhwa

Payment Banks provide amenities to the customers who make e-commerce purchase expense through their payment bank account using Mobile/ Web Apps, PoS[7], Merchant Point etc. All day-to-day payments including P2P[8] and P2M[9] payments can be done remotely through mobile phones.

Challenges

Although Indian economic growth looks favorable but the living standards of most citizens have not changed, with eCommerce and digital payments still gaining ground in India; which is primarily still a cash based society, suffers from irregularity in digital infrastructure – technology adaptation would be a key feature in this scheme for financial inclusion. The other challenge would also of customer acquisition as some of these customers who are using mobile banking services might not be willing to migrate to a new bank. As banks already have infrastructure for mobile

7 - **PoS**: Point of Sale

8 -**P2P** (Person-to-person) payments is an online technology that allows customers to transfer funds from their bank account or credit card to another individual's account via the Internet or a mobile phone.

9 - **P2M** (Person-to-merchant) payments is an online technology that allows customers to pay any e-commerce or brick-and-mortar merchants.

banking in place with low cost remittance alternatives, payment banks on the other hand would find it difficult as they would have start establishing everything from scratch. Most of the population in India vastly resides in rural and semi-urban areas who are mostly less educated with limited knowledge of using technology and literacy constraints for availing services.

The entities which that were granted an in-principle approval for starting a payments bank, after eight months, a JV between a qualified group, a bank, and a telecom player; they have reservation of having economic sense to start and operate a payments bank and also that the regulations on operations were quite stringent and restricted. Other than this the entities were not allowed to undertake any lending businesses or issue credit cards and the income stream is initially restricted to remittances. Eventually, they can cross-sell banking products through their reach and earn a fee, but this stream of revenue are not high-margin businesses as the ability to earn depends on the capability of generating large volume. This, in turn, will be easier for entities like telecom companies who already have significant networks in place. Then the growing market of various payment gateways and other financial systems will be overlapping with the Payment banks which will ultimately somewhere hamper the business.

Conclusion

India is an emerging growing market where the usage of smartphone are rapidly catching up but largely a huge unbanked market where Payment Banks can play an important role in emphasizing the growth of financial inclusion and tapping all the corners of the country progressively. Here adaptation of the infrastructure and technology would definitely be the key features in this scheme for financial inclusion. As the author Gopal Sathe mentions in online website Gadgets 360° that "This is also very important when considered from the perspective of financial inclusion, as someone could now fill cash into a m-Commerce bank account from Delhi, and a relative in a small town who holds the debit card could withdraw cash from any ATM frictionlessly, or even in a more rural location, through any point of sale terminal with a "business correspondent", essentially an authorized partner for the bank".

With Payment Banks coming into play other factors like m-Commerce, small business, online transfer, etc. would grow with ultimately giving rise to the India's GDP in turn helping in financial inclusion upsurge. The payment bank license will enable us to build on this further and offer a more comprehensive portfolio of banking and financial products and services, accelerating India's journey into a cashless economy. Payment Banks will help keep pace with the ever growing expectations of customers for faster, easier and simpler banking and financial services.

It would be interesting to see how Payment Banks will change the living standards of people and boosting businesses of millions of MSMEs[10] and the coming entrepreneurs in the near future.

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Issues in Behavioral Finance with Respect to Investment Decisions of Individual Investors in Mumbai

Abstract

Individuals have to achieve financial goals at different stages of life for which personal financial planning plays a very important role. To achieve these financial goals, individuals invest in different investment avenues. Achievement of financial goals depends on selection of proper investment avenue. As per traditional finance investors are considered as rational, unbiased and consistent who make optimal investment decision without the effect of emotions. Though, emotions influence their decisions causing them to behave irrationally. Behavioral finance explains the irrational behavior of investors. The current study presents the Investment pattern of 100 Individuals in the city of Mumbai and presents the issues in Behavioral Finance. The study analyses whether past events in life influence investment decisions and the association of age of an individual & influence of past events in life on investment decisions.

1.0 Introduction

Financial Planning is the process whereby an individual moves towards meeting personal and financial goals through the development and implementation of a comprehensive financial plan. Financial planning is not a static concept; it is an on-going process as it is related to the changing requirements of clients. Financial planning is deciding a comprehensive plan to achieve the financial goals, which are concerned with maximization of wealth. It is a process, which gives direction to financial decisions. It is also considered as a process of meeting goals in life through proper management of finance. Life goals can be purchase of a house, arranging funds for marriage, financing of children's education, planning for retirement etc. Financial planning brings solution to all these financial problems. It is the way of managing the earnings and savings in such a manner that one becomes financially independent. Financial planning can start at any age. Earlier one does better it is.

Wise investment decision is absolutely necessary to achieve the desired financial goals. Investment decisions taken abruptly may lead to heavy financial losses and such decisions cannot achieve desired financial goals. To maximize return on investment various established theories in finance may be used by an individual to take investment decision. The investment decision may be done by doing fundamental analysis about the investment, analyzing various risk factors, expected return, appreciation on investment, time frame, liquidity, safety and overall economic condition. Even after doing initial study regarding investment avenues, the investments does not achieve the desired returns which results in delay in achieving the chosen financial goals or failure in achieving the looked-for financial goals. This may be due to error in judgment of investment decisions, as investment decisions may be influenced by emotions. Behavioral finance explains the irrational behavior of investors (Phung, 2008). The current study presents the Investment pattern of 100 Individuals in the city of Mumbai and presents the issues in Behavioral Finance. The study analyses whether past events in life influence investment decisions and the association of age of an individual & influence of past events in life on investment decisions.

2.0 Conceptual framework and Literature Review

Ample of the literature makes available the evidence of how emotions and behavior of individuals affect investment decisions of individuals. Homo economics is a simple model of human behavior stated that humans are perfectly rational in their economic decision (Simon, 1955). Though, many psychologist believe that human are not perfectly rational and human behavior is less ruled by rationality than biased emotions (Michael Pompain, 2006). It was also highlighted that there seems to be certain degree of correlation between the behavioral finance theory factors and individual investor's behavior towards investment (Anna A Merikas 2000). Investors perception over various investment avenues was also emphasized (N. Geetha and M. Ramesh, 2012). In 1980's a new field was emerged known as behavioral Finance that combines the psychological and behavioral theories with traditional financial theories to provide the explanations of why people make irrational decisions (Phung, 2008). Kahneman and Tvesky contribute a lot in the field of behavioral finance with their work on prospect theory. Behavioral finance explains the cognitive and emotional factors that influence the decision making process of individual, groups and organisations (Ricciardi & Simon, 2011). Past experiences can impact future decision making and past decisions influence the decisions people make in the future (Juliusson, Karlsson, and Garling, 2005). From the above available literature on behavioral finance and investment decisions, it is quite understood that behavioral finance has a major impact on people's everyday decision regarding investments but few research is done on influence of past experiences on investment decision making. Therefore, examining the subject is essential in order to understand the changing world of investment.

3.0 Objective of the study

Objective of the study are as follows:

1) To find out influence of past events in life on investment decisions.

2) To find the association between age of an individual and influence of past events in life on investment decisions.

4.0 Research Methodology

4.1 Research Design

The study was exploratory. It was conducted to find influence of past events in life on investment decisions.

4.2 Hypothesis

There were two suggested hypothesis for the study as follows:

1) Influence of past events in life on investment decisions

H_o: There is no influence of past events in life on investment decisions of an individual.

H_a: There is influence of past events in life on investment decisions of an individual.

2) Association between age of an individual and influence of past events in life on investment decisions of individuals.

H_o: There is no significant relationship between age and influence of past events in life on investment decisions of individuals.

H_a: There is significant relationship between age and influence of past events in life on investment decisions of individuals.

The hypothesis was tested by using inferential statistical technique.

4.3 Sources of Information

Primary data

Primary data was collected through questionnaire.

Secondary data

Data from secondary sources such as books and journals played a major part as a point of reference for the study.

4.4 Target Population and sample size

Target population was individual investors with sample size of 100 respondents and all the respondents were randomly selected from Mumbai. The questionnaire was distributed to 107 individuals out of which, 7 were discarded for blank responses and the balance 100 were used for data analysis.

4.5 Data Analysis

The data analysis was done by using descriptive statistics and inferential statistical technique: testing of hypothesis was done by Chi-square test.

5. Research Findings and Interpretations

5.1 Age Group

Table 1.1

Category	Frequency	Percent	Valid Percent	Cumulative Percent
Young age	50	50.0	50.0	50.0
Middle age	44	44.0	44.0	94.0
Old age	6	6.0	6.0	100.0
Total	**100**	**100.0**	**100.0**	

The age of individuals was divided into three categories. The "young age" category had respondents from 18 years to 39 years, the "middle age" category had respondents from 40 years to 55 years and the "old age" category had respondents above age of 56years. Table 1.1 shows responses for age categories. The total respondents in young age category were 50, the total respondents in middle age category were 44 and total respondents in old age category were 6. Hence, 50% of the respondents were young age, 44% of the respondents were middle age and only 6% of the respondents were old age.

5.2 Investment decisions are influenced by past events in life

Table 1.2

Particulars	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	9	9.0	9.0	9.0
Agree	54	54.0	54.0	63.0
Neutral	11	11.0	11.0	74.0
Disagree	19	19.0	19.0	93.0
Strongly Disagree	7	7.0	7.0	100.0
Total	**100**	**100.0**	**100.0**	

Table 1.2 shows responses to the statement "Investment decisions are influenced by past events in life". Past events in life are incidents that have had great impact in individual investor's life like heavy loss in particular Investment Avenue in past, mistakes committed in the past regarding investments, financial drain in the past due to heavy responsibilities, education and so on. Past events meaning was explained to each respondent while filling the questionnaire and responses were received as shown in the table. 9 responses were for option strongly agree, 54 responses were for option agree, 11 responses were for option Neutral, 19 responses were for option disagree and 7 responses were for option strongly disagree. Hence, 9% responses were for option strongly agree, 54% responses were for option agree, 11% responses were for option neutral, 19% responses were for option disagree and 7% were for option strongly disagree.

5.3 Testing of hypothesis

Hypothesis:

Testing of hypothesis was done using Chi-square tests

1) Influence of past events in life on investment decisions

Ho: There is no influence of past events in life on investment decisions of an individual.

Ha: There is influence of past events in life on investment decisions of an individual.

The results of the Chi-square tests were as follows:

Chi-Square tests

Table 1.3

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	76.4	4	.000
No of Valid Cases	100		

Table 1.3 shows the result of Chi square tests. The sample size was of 100 individual investors and Chi-square test was applied to find out whether there was influence of past events in life on investment decisions of an individual. The value of Pearson's Chi-square was 76.4 and p value was .000, therefore p value was less than 0.05 level of significance. It means null hypothesis was rejected and there exists influence of past events in life on investment decisions of an individual.

2) Association between age of an individual and influence of past events in life on investment decisions of individuals.

H_o: There is no significant relationship between age of an individual and influence of past events in life on investment decisions.

H_a: There is significant relationship between age of an individual and influence of past events in life on investment decisions.

Cross tabulation table of Age group and Investment decisions are influenced by past events in life.

Table 1.4

		Investment decisions are influenced by past events in life.					Total
		Strongly Agree	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**	
Age group	**Young age**	3	27	8	9	3	50
	Middle age	2	27	3	8	4	44
	Old age	4	0	0	2	0	6
Total		9	54	11	19	7	100

Table 1.3 shows cross tabulation of age group and responses to statement investment decisions are influence by past events in life. The responses to young age category and strongly agree option were 3, the responses to middle age and strongly agree option were 2, the responses to old age and strongly agree option were 4, the responses to young age category and agree option were 27, the responses to middle age and agree option were 27, the responses to old age and agree option were 0, the responses to young age category and neutral option were 8, the responses to middle age and neutral option were 3, the responses to old age and neutral option were 0, the responses to young age category and disagree option were 9, the responses to middle age and disagree option were 8, the responses to old age and disagree option were 2, the responses to young age category and strongly disagree option were 3, the responses to middle age and strongly disagree option were 4 and the responses to old age and strongly disagree option were 0.

Chi-Square Tests

Table 1.5

	Value	D f	Asymp. Sig. (2 - sided)
Pearson Chi - Square	31.274	8	.000
No of Valid Cases	100		

Table 1.4 shows the result of Chi square tests. The sample size was of 100 individual investors and Chi-square test was applied to find out whether there was any association between age and influence of past events in life on investment decisions. The value of Pearson's Chi-square was 31.274 and p value was .000, therefore p value was less than 0.05 level of significance. It means null hypothesis was rejected and there exists significant association between age and influence of past events in life on investment decisions.

6. Conclusion

After studying responses from 100 individual investors and the results of the Chi square test it was found that for the analyzed data there exist influence of past events in life on investment decisions of an individual and there also exist an association between age of an individual and influence of past events in life on investment decision making. However, the results from the study are more indicative in nature than confirmative and open up various research opportunities where, more factors that influence investment decisions of individuals can be analyzed greed, hate, love and biases on investment decisions of individuals.

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A Study on Awareness and Their Perceptive of Bottled Drinking Water among Consumer's in Pune City

Abstract: There is no need to say that water is a compound oxygen & hydrogen. Water is a precious natural gift and it is very which is very crucial for survival of human being. The water used for drinking purposes should be clean & pure which does not contain any impurities. 80% of the human metabolism consists of water. This is the reason why 90% of human diseases are water borne. As this fast reflects the need of pure water in human's life people are more interested in having pure water in their life. Unfortunately sanitation & hygiene is lacking in India because of which Bottled water industry is one of the most flourishing sector in India. The given study will assess the consumer's perception & their awareness about Bottled drinking water in Pune city. It has been observed that awareness about bottled water is there among consumers as it treats a pure drinking water, but they are really unaware about different types of bottled water present in market & there use with all other details. Water has its own place in the lives of human so they should know what they are drinking & what they are supposed to prefer for healthy life. This paper will help them for better understanding of Bottled water.

Key Words: Bottled Water, Mineral Water, Consumer Awareness, Packaged Drinking Water

Introduction: The Bottled water industry is one of the emerging & growing industries in India. The bottled water market is growing at a rapid rate of around 20% a year. India's Bottled water industry is to reach Rs. 160 billion by 2018. (The value notes report).There are around 180 domestic Indian Bottled Water Brands. According to Shilpa Eguvanti, Team Lead (Consulting) at Value Notes, "Even as the industry is on a growth path, smaller local players and the unorganized sector are eating into the market of the established players, often by imitating their trademarks."

Bottled water is drinking water (e.g., well water, distilled water, mineral water, or spring) packaged in plastic or glass water bottles. Bottled industry majorly divides into two segments that is Mineral water & Packaged drinking water. Mineral water is the water that contains minerals. The minerals can be added artificially or it can naturally be in the water. It is believed that water is gotten from a starting place (source) like lake, rivers, or wells, which are the only places where the rich minerals are available. Even water from other places is treated with minerals by artificially adding the nutrients in it. Mineral water is a good source of nutrients and it provides extra benefits during consumption. It does not give off any problems. It becomes expensive as the water undergoes many processes before it is bottled.

Packaged drinking water is the sealed water, which ensures that the water will be safe, clean, and potable for human consumption. There are large number of manufacturers, which has a wide gap between demand and supply. Though, it is safe and clean, it is chemically treated and is not that healthier as compared to mineral water. It may be treated in various manners to eliminate microbial hazard, which anyhow will not contain sufficient minerals in it, or the minerals will be artificially added. It does not mean that the packaged drinking water will cause illness.

Table 1: Comparison between Mineral Water and Packaged Drinking Water

	Mineral Water	Packaged Drinking Water
Description	Water containing dissolved mineral salts or gases, such water is especially considered to be healthy to drink.	Packaged drinking water is the sealed water, which ensures that the water will be safe, clean, and potable for human consumption.
Treated	The water is not at all chemically treated	The water is chemically treated. For example: Chlorination
Filtration	There is a small process for filtration in which no addition is done. In fact the natural contents remain in water.	It is chemically filtered.
Shelf life	Longer shelf life because of pure and natural consumption.	Synthesized product, and has a shorter shelf life.
Healthy	It is healthier for body because no chemicals are added.	It is not as healthy as compared to mineral water because it is chemically treated.

Image Courtesy: recipe-finder.com, in.all.biz

Literature Review:

Dr. Ramesh Sardar, 2012 in SUMEDHA Journal of Management, Vol. 1, No 2 April- June, 2012, "A Study on Brand Preference of Packaged Drinking Water in Maharashtra", and this research article explores the brand preference of packaged drinking water. The detailed analysis of marketing, brand preference of packaged drinking water is carried out in Maharashtra state. As a result, focusing on an industry where brands, marketing knowledge and distribution networks have been important determinants in the growth and survival of firms. It reaches distinct conclusions. The article illustrates the analysis and interpretation of data. Finally it concludes with findings and recommendations of the study which may be useful for general public as even the dealers can understand the dimensions reflecting brand preference of packaged drinking water and impact of all these factors on customer satisfaction.

Jonathan Chenoweth et al. in Springer Science+ Business Media B.V. 2010, Water Resour Manage (2010) 24:4339–4358 DOI 10.1007/s11269-010-9662-4, "Comparison of Consumer Attitudes Between Cyprus and Latvia: An Evaluation of Effect of Setting on Consumer Preferences in the Water Industry" In this study consumer preferences in the water sector are investigated in two contrasting case studies: Cyprus, where there have been significant quantity and continuity of supply issues, and Riga, where there have been water quality issues. While water quality is undoubtedly the main priority of water consumers in Riga, in Cyprus consumers indicate that they prioritize a more reliable service even though many are sufficiently dissatisfied with water quality that they do not drink the tap water. The analysis of consumer attitudes in the two case studies suggests that when water supply is unreliable, reliability takes precedence; once it is reliable quality issues come to the fore.

Craig Schram in his "Health Risk Perceptions, Averting Behaviour, and Drinking Water Choices in Canada" A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of Master of Science in Agricultural and Resource Economics. This thesis examines preferences for drinking water in Canada. Probabilistic mortality risk perceptions and other perceived water quality measures are included in econometric models of choice, and assessed for their impact, and value.

Josiane T. M. Queiroz et al., Journal of Environmental Protection, 2012, 3, 324-333, News about Tap and Bottled Water: Can This Influence People's Choices? The given study states that the pursuit of alternative safe water has increased dramatically the world trade in bottled water. Events happened in Canada which changed the population's perception about the quality of tap water, despite all government efforts. Media has an important role to pass on information because there is value judgment in its reports. As a result, this study aims to present recent data from two Canadian newspapers of national circulation, which refer to tap water and bottled water. It used quantitative and qualitative data for this analysis. The study concludes that the media, taken into consideration, provides its readers with important information, but the information can also be ambiguous. Nevertheless, it arouses interest in further research about this subject matter and about protecting water resources.

Somesh Kumar Sharma and R. Srinivasan, in Management Decision Vol. 46 No. 10, 2008 pp. 1465-1481, Perceptions of foreign players for effective positioning in India. The purpose of this paper is to identify facts of effective positioning mechanism for Indian market and develop a model that integrates three essential aspects of international trade, which have not been addressed combined yet. The study explores three statistically significant steps for effective Indian market positioning, which are finally summarized into 18 influencing variables in contrast to 91 variables available in literature.

Need for the study:

It is pointless to comment that water, a compound of Hydrogen and Oxygen is a valuable natural gift which is very essential for survival of mankind including animals. The water used for drinking purposes should be free from undesirable impurities. 80% of the human metabolism consists of water. This is the reason why 90% of human diseases are water borne. As this fast reflects the need of pure water in human's life people are more interested in having pure water in their life. Unfortunately sanitation & hygiene is lacking in India because of which Bottled water industry is one of the most flourishing sector in India.

Water has its own place in the lives of human so they should know what they are drinking & what they are supposed to prefer for healthy life. This paper will help them for better understanding of Bottled water.

Scope & Limitation of study:

There are majorly two types of Bottled water is present in the market but awareness about them and use of them is not at the par. Consumers are using Bottled water but they are having lack of information about product which they are consuming. People are aware about packaged drinking water but they cannot differentiate between packaged drinking water & Mineral water. So one of the major objectives of the study will 'understand of consumer of product. Bottled industry has many local player or we can say huge unorganized market also present in this industry. Also there are many “me too” types product present in the market which may lead to wrong direction to consumers. It is also important to see all manufacturing details as water plays crucial role in the human body. The given study will assess the awareness & perception about Bottled water among the consumers in Pune city. The given survey will be focused on limited geographical are i.e. Pune city from which respondents will be selected.

Objectives of the study:

1) To comprehend the understanding of customers about Bottled drink water.
2) To understand differentiation of Package Drinking Water & Mineral Water bottle.
3) To know the consumers approach towards Bottled drink water.
4) To suggest different promotional tools for Bottled drink water.

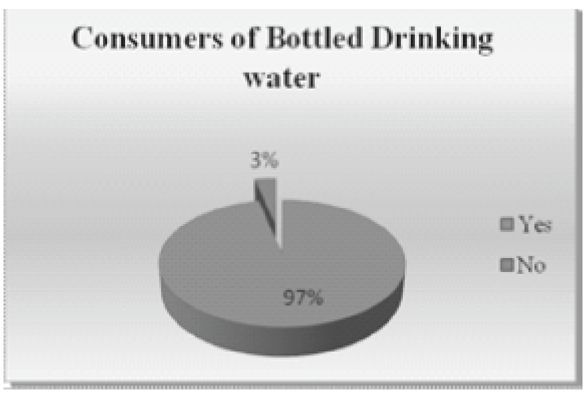
Research methodology:

In order to find out the awareness & knowledge about Bottled drinking water among the consumers. For the given study Descriptive type of research methodology has been used by researcher. Consumers are used as a sampling unit as a respondent and 200 respondents has been used as a sample size. Sample size has been selected by simple random sampling. The essential data has been gathered from primary & secondary source of data. Structured questionnaire has been used for collecting primary data whereas secondary data collected from journals, articles, websites & magazines.

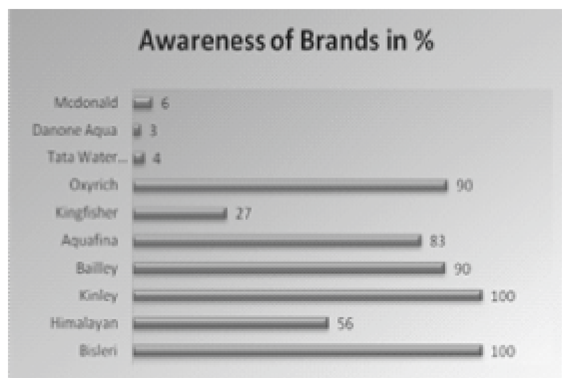
Findings & suggestions:

It has been observed that majority of people are consuming Bottled water. Survey shows that 97% of consumers are using Bottled drinking water.

Graph 1



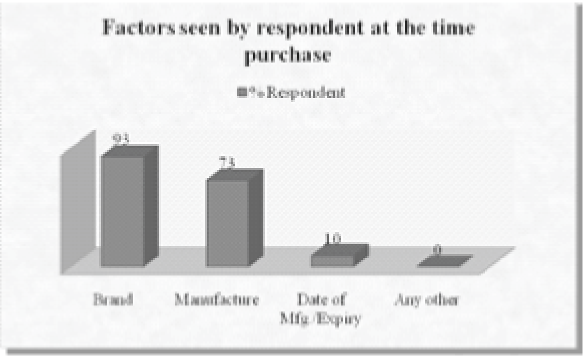
Graph 2



It has been seen that the majority of population of given study were aware about different brands present in the market. Bisleri & Kinley are known by all respondents as researcher has got 100% awareness about them. Wherein Oxyrich, Aquafina,& Bailley are also have good awareness among consumers as there awareness is 90%, 90% & 83% resp. Himalayan water brand is known among 56% of given population. There are few other brands name are also given by respondents but there awareness is very low. They are Mcdonald, Danone water & Tata water.

To understand the approach of consumer towards bottled water there interest in different factors or informative factors has been surveyed. It has been observed that majority of population is looking for brand and manufacture. Wherein very few seem to be interested in Date of manufacture & expiry of Bottled water.

Graph 3



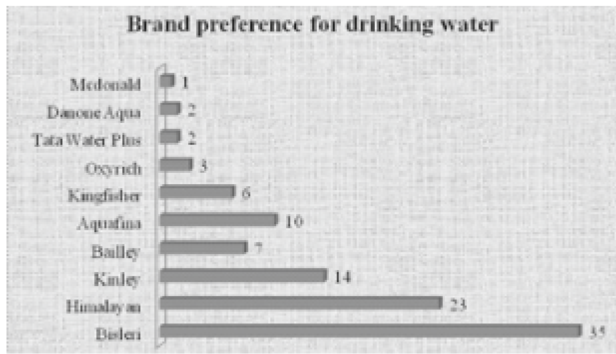
Graph 4

It has been also noticed that many i.e. 87% respondents are not preferred local brand of Bottled water wherein very few i.e. 13% are preferred local brands.

It has been observed that respondents have their own brand preference where they feel there preferred brand is reliable and can fulfill there need.

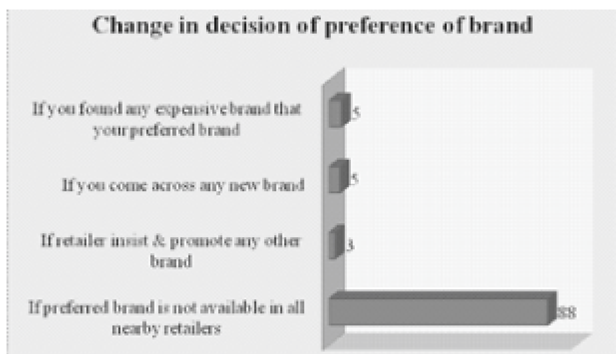
It was really remarkable that though consumers are having their own prefernce among different brands, but still they have to change their preferece at the time of actual purchase of product. There are different situation under which consumers are changing their prefernce for final purchase. Majority i.e. 88% respondents are saying that they have to change their decision because of unavailability of preffered brand at retail shop.

Graph 5



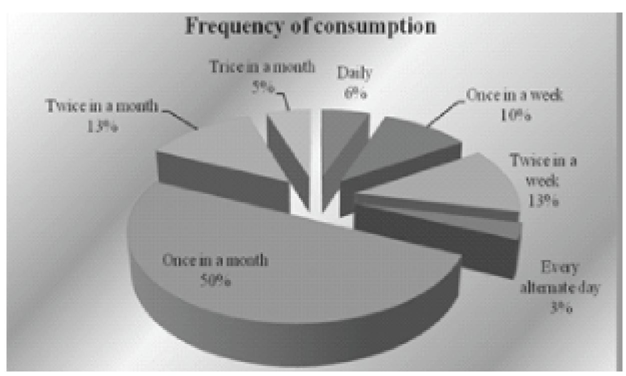
It is found that 50% of population is using Bottled water ones in a month. Wherein only 6% are consuming it daily. 13% are using twice in a week & 10% are having once in a week. 5% are having it trice in a month & remaining 13% are having it twice in a month.

Graph 6

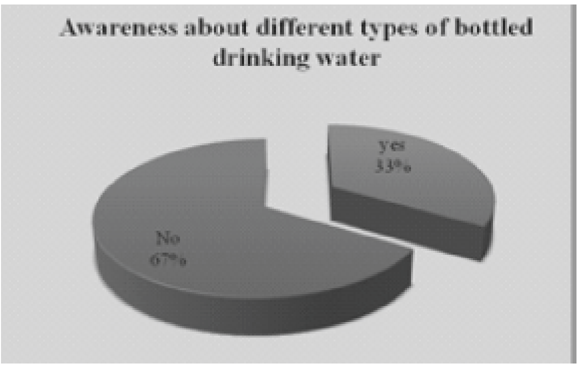


Very surprisingly it is observed that though people are having their own preference of brand, majority of them were not actually aware about different types of Bottled water. Almost 67% of sample population is not aware about the difference between packaged drinking water & Mineral water. Also they cannot differentiate them by their brand names.

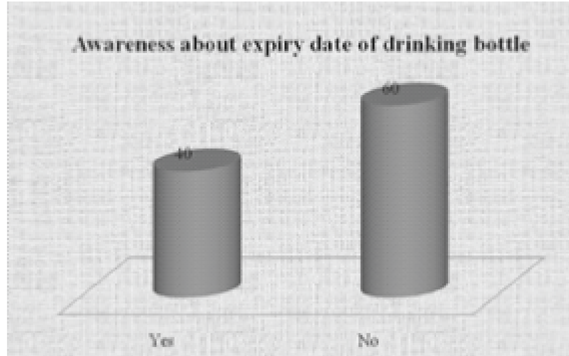
Graph 7



Graph 8



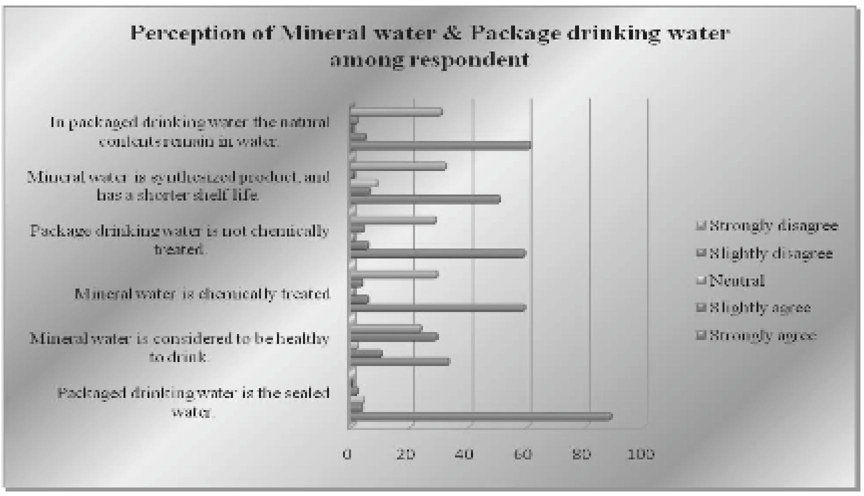
Graph 9



It is found that 60% of sample population was not aware that there is expiry date for bottled water. It has been assumed by majority of respondents that there is no expiry date for Bottled water which not actually a fact. Factors like core product & packaging plays an important role for expiry date of that product and likewise Bottled water also has their life span.

It has been also seen that the technical difference between packaged drinking water & Mineral water is not known by 67% of respondents. Majority of respondents are having their own perception about bottled water.

Graph 10



Conclusion:

With the help of findings researcher has concluded that people are aware about Bottled drinking water & different brands available in the same. But at the same time it is noticed that people don't know about different types of Bottled water which is actually very important. As Mineral water & Packaged drinking water has different process of manufacturing as well as it contains different values, consumer must understand this difference. Both of them are not at all harmful to human body but they also have different life span which is reflected through expiry date. This is very important because after expiry date of product it may have adverse effect, which may have direct effect to health as water plays crucial role in the human body. But unfortunately majority of people are not aware about this fact of Bottled water. Also People are not aware about actual contents present in mineral water & packaged drinking water. Again here it is very easy to recognize that Mineral water contains mineral. But what about packaged drinking water? Majority of them are really not aware about content information of packaged drinking water.

People are also not aware about detail contained & at least major difference between Mineral water & Packaged drinking water. Majority of them have wrong perception about the product they are using, like Package drinking water is not chemically treated, Mineral water is synthesized product, and has a shorter shelf life. Both these statements are actually false but majority of them has supported which shows their wrong perception about Mineral water & Packaged drinking water.

Because of this unawareness many unorganized players in this sector are taking undue advantage & selling their products to consumer, which is very dangerous & harmful to consumers.

Appropriate information & promotion is very important to increase the awareness about Bottled drinking water. This will lead to consumer to choose their right & essential product from the market.

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Environmental Fidelity – The Sole Panacea for Business Right

''Earth provides enough to satisfy every man's needs, but not every man's greed." - Mahatma Gandhi

A talk on the environment does not relates to the laws made by human but the laws of the nature which is omnipotent and self-reliant and sometimes an abstract and a metaphysical but at the end certainly "divine". Man is also one of the units of the nature but the only difference is intellect is bestowed upon him by the nature. Bestowing intellect certainly demands that he should work for the solidarity and safeguarding the creatures of nature from any calamities and impediments. In the case of Ridge v. Baldwin Lord Reid observed on the natural justice of a human being, where a police officer was unheard by the authority and dismissed. He challenged the same on the principle of audi alteram partem (hear the other side too): His Lordship observed:

"The principle audi alteram partem goes back many centuries in our law and appears in a multitude of judgments of judges of the highest authority. **In modern times opinions have sometimes been expressed to the effect that natural justice is so vague to be practically meaningless. But I would regard these as tainted by the perennial fallacy that because something cannot be cut and dried or nicely weighed or measured therefore it does not exist.** The idea of negligence is equally insusceptible of exact definition, but what a reasonable man would regard as fair procedure in particular circumstances and what he would regard as negligence in particular circumstances are equally capable of serving as tests in law, and natural justice as it has been interpreted in the Courts is much more definite than that". (Italics supplied)

The reason for quoting these wordings of the most revered Justice in England is that environment though bestowed on every individual equally and where none of us know how the air looks like, few of us touched the moon and stars in the galaxy but not we all, none of us dare to touch the Sun but we perceive it by our sense and none of us know the range of sky and why it looks blue but we enjoy its omnipresence. What here the author would like to stress that not necessary that the every aspect of the environment and its existence could be defined but still it has its own perennial existence. Environment therefore cannot be encompassed and measured. It does not have its own voice but has its expression by existence. It proves sometimes a boon to the humanity and sometimes a bane. All existence on the earth therefore depends on the behavior of the environment which itself is beyond the range of human imagination. So what is left into the hands of human intellect is to walk on the path of protection and preservation of cohesive environment because secret of his own survival depends on it.

So, as the learned judge in the above case has observed natural justice is the right of every human being i.e. "Right to be heard" in the same sense though environment is voiceless the human has to pay heed to it and shall not pay blind eye or deaf ear as he is the product of the same. Environment is the basic structure of the universe and therefore author would like to define it as "What man creates is an Environment and it is the product of keen or casual observation of duties by him and the ultimate impact of which will be there on his and others living rights." (Emphasis added).

Environment – International scenario, Constitution, Legislations and Judicial Decisions.

It was defined by UNEP as "that outer physical and biological system in which man and other organisms live- is a whole, albeit a complicated one with many interacting components" which includes "rocks, mineral, soils and water, its land and their present and potential vegetation, its animal life and potential for livestock husbandry and its climate" [ii]. It was defined as "the physical surroundings, conditions, circumstances etc. in which a person lives"[iii]. As per the Environment (Protection) Act, 1986[iv]. "Environment includes water, air and land and the inter relationship which exists among and between water, air and land and human beings, other living creatures, plants, microorganism and property". The Encyclopaedia Britannica observed "Environment means the entire range of external influence acting on an organism, both the physical and biological and other organism.

So environment is nothing but the relation of biotic and abiotic things forming part of the ecology. Existence of abiotic things is that necessary for the biotic things as that of walls in the making of house. But making of the house is not enough because the house is known by its homeliness and this responsibility utterly rest on the man who is the intellect dweller in this nature and its bastion. He can grace or disgrace the nature by his intellect but same is not the case with other creatures. Every individual creature of nature may be living beneath or above the earth, beneath or above the water or in the air redeem the nature what it takes. This process of pollination and giving back to the nature for rejuvenation can be witnessed in other creatures except the man. Hence the intellect of the man only extracts from the nature and never pays back. May it be Water, Earth, Wood, Food and Air. Therefore to regulate his uncontrolled greed for development a thought was given by the International and National community for laying some yardstick for development of which no ambit no scope was defined under the garb of exhuming from the nature forgetting deliberately or intentionally the existence of other creatures. The author would like to touch upon some obligations laid down at the International platform in the hard work for "Environment and its Protection".

1) International Impetus

The United Nations assembled at Stockholm in 1972 to take a look on the environment quality for human existence where some principles were laid down by the member nations. **The measures taken** by this Conference was to intensify at national, regional and international level an elimination of impairment of the human environment and improve the surroundings for human survival The object of the Conference was (1) Planning and management of human settlements; (2) Natural resources and its management; (3) Identify and control the Pollutants and nuisances affecting international world. (4) Importance of environment in educational, social, cultural sphere and information thereof in general; (5) To highlight upon development and environmental aspect and (6) Implementation of decisions taken at international platform on environmental concern. Interestingly the efforts for conservation were appreciated and the "Stockholm Declaration" accordingly presses upon seven important truths of man and also laid down the 26 principles for Human Environment. The seven truths highlight upon the fact that man is the creator and alternator of his environment and hence an intellect of man should always incline in favor of environment and its preservation on the path of development. The 26 Principles had been laid down at the same conference showing a concern that man has the fundamental right to live and at the same time his duty is towards the inter-generational equity, so that each generation could enjoy the vital resources of nature. The principles are nothing but a call for developed and developing countries to ensure economic development with prerequisite of environmental protection and natural resources conservation.

After this In 1976 UN Habitat Conference on Human settlement held at Vancouver, 1976. It was convened on the recommendations of the UN conference on Human Environment where the General Assembly expressed that there is a need to consider conditions of Human settlements, especially in developing countries. Basing upon the principles of the United Nations Charter, the conference was called upon to provide solutions for world problems and to create an international community based on equity, justice and solidarity. The issues of concern dealt with in the conference were Social, economic, ecological and environmental deterioration, World population growth trends in the next 25 years and their need for growth, food and shelter etc., Uncontrolled urbanization and related problems, Rural backwardness compelling many to live in backwardness, Involuntary migration from own region, establishment of a just and equitable world economic order establishment of a just and equitable world economic order, recognizing that there is a need of establishment of a just and equitable world economic order and its imperativeness. The Conference highlighted upon **"Opportunities and solutions"** to deal with all these problems. General principles laid down that the Economic development must result into the Quality of life, dignity of human. No forceful settlements in the territory should take place and it should be condemned. Sovereignty of the country must be respected and every State has the right to take the necessary steps to maintain under public control the use, possession, disposal and reservation of land. Every individual have a right of free movement and have a right of settlement within the domain of his own country. Every State has the right to take the necessary steps to maintain the use, possession, disposal and reservation of land. Every State has the right to plan and regulate use of land, which is one of its most important resources, in such a way that the growth of population centers both urban and rural are based on a comprehensive land use plan. Every State has right to protect its Historical Monuments and settlements against any attacks or aggression. Developing countries must try to involve youth and women in political, economic and social activities of the country. **"Guidelines for actions"** had been given in details (1-22) so that the Governments and the International organizations should strive for the better Human settlements for the future world by maximum utilization of land in a planned manner for the betterment of human existence. The United Nations Environment Programme (UNEP) was established by UN in June 5, 1972 especially to deal with Environmental issues in the world and to coordinate the global activities relating to Environment, having it Head Office at Nairobi, Kenya. **The Mission of the UNEP** is "To provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations." Its functional programs are carried through (1) Division of Early warning and Assessment (DEWA) It provides timely, scientifically credible, policy-relevant environmental analyses, data and information for decision-making and action planning for sustainable development. It monitors, analyzes and reports on the state of the global environment, assesses global and regional environmental trends and provides early warning of emerging environmental threats. (2) Division of Environmental Policy Implementation (DEPI) It functions for Ecosystem management for human well-being and covers Ecosystem services, and economics, Fresh water and terrestrial ecosystems, and Marine and coastal ecosystems. It also addresses environmental causes and consequences of disasters and conflicts; and Adaptation to climate change. It deals also with Poverty and environment initiative thorough UNDP-UNEP Partnership. Also it emphasizes upon the Environmental education programs. (3) Division of Technology, Industry and Economics (DTIE) Set up in 1975, three years after UNEP began. It (DTIE) provides solutions to decision-makers and helps change the business environment by offering platforms for dialogue and cooperation, innovative policy options, pilot projects and creative market mechanisms.(4) Division of Communication and Public Information(DCPI). Communication lies at the very heart of UNEP's mandate and effective communication is an integral part of the strategic management of the organization. It communicates for Public awareness via different media. Celebrate World Environment Day and campaign on food waste (Think, Eat and Save).Organizing activities and events on environmental issues. Own publications "Our Planet" and "Tunza" and maintaining Library for public enquiry and questions. UNESCO organized intergovernmental conference on Environmental Education in Soviet Georgia. It had given the emphasis on Environmental problems, Role of Education, Inter-Governmental efforts in preservation of environment. The Report suggested that the It would be advisable to associate in the efforts of Environmental protection efforts, not only educational research institutions but also universities, scientific research centers and other institutions concerned with research into various aspects of the environment.

In Nairobi in 1982, 105 nations gathered for declaration on long term environmental strategies till 2002 and beyond and the same was endorsed by UNEP. They have adopted the "Nairobi Declaration" in support of the Stockholm Declaration and the pledge was taken so that the small planet earth would be transferred to our future generation fruitfully for their enjoyment. It was also decided to form a Commission which will provide a guideline on "Sustainable Development" till the year 2000 and onwards. Accordingly an Inter-Governmental Committee was established on Development and Utilization of New Renewable resources of energy. In the same year the UN General Assembly adopted "World Charter for Nature" for guidelines to human in dealing with nature. The Charter for Nature is a collective call to for promoting nature conservation. Important coverage was given at the apex international forum for first time, for sustainability of life on the earth and it was readily accepted by the nations of the world. The General principles lay down the essential process in the nature shall not be impaired and the natural habitat in the atmosphere viz. on the soil, sea or else shall not be affected by human developments. The ecosystem in all its form should be preserved. Charter shall be mandatorily followed by all the States by implementing the principles in the charter at their domestic laws and similarly at the International level. In 1982 International conference on "Environmental Education" was held at New Delhi calling for education, research and monitoring and emphasized on formal and informal education on environment. An urge was also made to the NGO's to join in the mission. Non- Aligned Movement (NAM) also joined in the momentum in that year in New Delhi and where the Prime Minister Mrs. Indira Gandhi expressed "Some people still consider concern for the environment an expensive and perhaps unnecessary luxury.

In any policy decision and its implementation, we must balance present gains with likely damage in the not too distant future. Human ecology needs a more comprehensive approach". In the year 1985 again the emphasis was given upon the "Protection of the Ozone Layer" and a Vienna Convention was held towards international cooperation for the protection of the ozone layer. A thought was given that the atmospheric area between 15-30 km. above the earth surface where ozone is prevalent; should be protected, which prevents and filters the harmful ultraviolet radiation (UV) from the sun reaching towards earth. It was also decided appropriate legislative and administrative measures should be taken by the contracting parties. The Convention was followed by an international agreement in 1987 in the form of a treaty "Montreal protocol on Substances That Deplete the Ozone Layer" and a concrete step was taken to avoid and control all those pollutants which affect the ozone layer. Later on the "Earth Summit" at Rio-de-Janerio in 1992 was called upon on "Environment and Development" to preserve Environment form irreversible damage and reaffirming the Declaration of Stockholm in 1972. Agenda 21 as a blue print and About 27 principles were laid down for the guidance of States in 1992.The Principles again emphasized upon sustainable development. States are bound to control the damages caused by their developmental activities to other trans boundary States and shall give such prior intimations. Environmental impact assessment should be mandated which likely to cause adverse impact on environment and the same is subjected to the decision of competent authority. Women and youth should be given the participatory role in environment protection. Indigenous people and their communities and other local communities should be made aware about environment protection by preserving their identity, culture and interests. Also States shall strive for the protection of environment even during warfare likely to cause destruction. States and the people should cooperate in furtherance of the principles embodied in the declaration for sustainable development. In 1996 UN Conference at Human Settlement (Habitat-II) held in Istanbul, Turkey and adopted the "Habitat Agenda" highlighting on "everyone has right to adequate standard of living for themselves and for their families, including adequate food, clothing, housing, water and sanitation and to continuous improvement of living conditions". So (Habitat II) addressed upon two themes- "Adequate shelter for all" and "Sustainable human settlements development in an urbanizing world". Human beings and their shelter (sustainable human settlements) are the concerns for sustainable development balancing with the nature.

The UN Millennium Declaration in its Fifty Fifth sessions held on 8th Sept.2000 and it was pledged that UN shall work as an effective instrument for development and against poverty, ignorance and disease, injustice, violence, terror and crime, degradation and destruction of our common home." It was in 2002 the International conference on "Sustainable Development" was called at Johannesburg. It was mostly directed on the measures- Commitment for sustainable development, global society with human dignity, provide future generation a world free from indignity, indecency caused by poverty and degradation caused by unsustainable development, to strengthen upon sustainable development by economic development, social development and environmental protection - at the local, national, regional and global levels, to assure the future generations that they will inherit the sustainable environment from the preceding generations and to have a practical and visible plan to bring about poverty eradication and human development at the crossroads. Afterword, United Nations Conference on Sustainable Development Rio+20, Earth Summit 2012 takes place. This conference came with a political outcome document containing clear practical measures for the sustainable development. The Sustainable Development Goals (SDG's) and Millennium Development Goals (MDG's) with post 2015 development agenda speaks for the same. Also a highlight was made on Green Economic Policies. The Conference also pledged for number of thematic, including energy, food security, oceans, cities, and decided to convene a Third International Conference on SIDS in 2014. The Rio+20 Conference also galvanised 700 voluntary commitments and witnessed the formation of new partnerships to advance sustainable development. It highlighted upon **the thematic "Future We Want"** – and generated new momentum for achieving sustainable development. So this synergy, in between the countries at UN level certainly ends into a world of sustainable development. Many more efforts at National, International and domestic level are taking place under the directives of UN for the growth with sustainable environment. India is bound by those international covenants vide its constitutional provision where Parliament is mandated to make legislations on the same parameters[v].

2) Constitution - Environmental concern and some Judgments

Our Constitution has taken care for sustainable development of all in the very prologue of the Constitution called "Preamble". It States that citizens of India pledged for **securing** Justice, Liberty, Equality, Dignity and permeate Fraternity, Unity with Integrity in the Country. This pledge is taken by all for the citizens of India, but now the real issue is whether we have succeeded in making our pledge true.

If we talk in terms of **Justice**- Social, economic and political we can say that only one is satisfied i.e. political but not social and economic. In terms of **Liberty**- of thoughts, expression, belief, faith and worship we still not achieved that in its true spirit because the liberty brings differences and clashes mostly on ethnic and religion basis in our heterogeneous democracy. **Equality**- for status and opportunity is still fighting though we have many policies on the issue. In this backdrop **fraternity, unity and integrity** of the nation seems to be fragile. Then what is the solution? In the view of author it is only our pledge in the same Preamble for **"dignity of the individual"** if sustained then we may fulfill the dream of our versatile democracy. This dignity of the individual certainly has a concern with the wholesome environment too because livable environment could only survive the people of India and **secure** as promised in the preamble.

Our Constitution makers certainly had given a thought to this "Environment" concern and had taken care while granting "Fundamental Rights" under Part- III that though they are fundamental they are not absolute in all sense and hence let us have a look on those prominent Articles imbibing on the concern for environment.

Art-19- **Protection of certain rights regarding freedom of speech, etc.-**
(1) All citizens shall have the right-
(a) To freedom of speech and expression;
(b) To assemble peaceably and without arms;
(c) To form associations or unions;
(d) To move freely throughout the territory of India;
(e) To reside and settle in any part of the territory of India; [and]
(f) (Omitted by 44th Amendment Act, 1978)
(g) To practice any profession, or to carry on any occupation, trade or business.

The freedom of speech is subjected to reasonable restriction in the interest sovereignty and integrity of India, the security of the State, friendly relations with foreign States, public order, decency or morality, or in relation to contempt of court, defamation or incitement to an offence. In the same way freedom of assembly is restricted in the interests of the sovereignty and integrity of India or public order. Freedom of association is restricted in the interests of the sovereignty and integrity of India or public order or morality. Freedom of movement, residence and settlement is restricted by in the interests of the general public or for the protection of the interests of any Scheduled Tribe. Freedom of practicing profession. Restricted by the State by making any law imposing in the interests of the general public the reasonable restrictions and at the same time the State can prescribe professional or technical qualifications for practicing any profession or carrying any occupation, trade or business or even the State can exercise monopoly in the matter of any trade, business, industry or service to the exclusion complete or partial of citizens or otherwise. (Italics supplied)

So for the present topic in hand if one give a detailed look at Art-19(6) imposing reasonable restrictions on the trade or profession in the interest of general public vested in the hands of State and the State can accordingly take the welfare measures in the interest of general public because **State holds a Public trust.** Not only this, Art-21- Protection of Life and Personal Liberty- was expounded by the Supreme Court in every form and aspect of Life and laid down many judgments on the same line observing "Wholesome Environment" is right to life and which cannot be denied under the garb of Freedom of trade, business or profession.

The Apex Court held "The Precautionary Principle and The Polluter Pays Principle" are the salient features of the "Sustainable Development. Art-21, Art-48-A and Art51-A (g) makes it obligatory on the State and the citizens to protect and preserve the environment[VI]. In Taj Trapezium case the Court applied directly the precautionary Principle observing that it is our duty to preserve our prestigious monuments[VII]. In A. P. Pollution control Board case the Court observed that inadequacies in the science compel the Court to interfere and it is better to err rather than allowing a harm which is irreversible[VIII]. In Oleum Gas Leak case[IX] the Court observed that the manufacturers of products discharging toxic effluents into the region would be liable for payment of the Compensation on the principle of "Absolute Liability" under Indian scenario. It was observed that "hazardous or inherently dangerous industry which poses a potential threat to the health and safety of the persons working in the factory and residing in the surrounding areas owes an absolute and non-delegable duty to the community." It laid down further that "We have to evolve new principle and lay down norms which adequately deal with the problems which would adequately deal with the new problems which arise in a highly industrialized economy. We cannot allow our judicial thinking to be constricted by reference to the law as it prevails in England or for that matter of that, in any other foreign country."(Italics supplied) The Supreme Court therefore dissents on any exceptions to liability as bearing in the case of Rylands v. Fletcher[x] decided in England on the principle of strict Liability evolved in 19th Century.

Bhopal gas tragedy is the patent example where the people since 1984 fighting for the justice and the Court in 1987 therefore addressed the issue by laying down this principle of Absolute liability. Also referred as, No Fault liability or Liability without fault. The above case is a mile stone, in the development of Environmental Jurisprudence in India. In M. C. Mehata v. Kamal Nath the Court directed the Motel to pay compensation by way of cost for the restitution of environment and ecology of the area. The respondent attempted to divert the natural flow of the river for private and commercial use. The Court further observed that the State by leasing ecologically fragile land to the Motel has committed a patent breach of public trust[XI]. On the same line the Court observed the Mahapalika has committed a breach of Public Trust when Lucknow Mahanagar Palika permitted a builder to develop an underground market below public park.[xii]

The Constitution further vide **Art 23. Prohibits traffic in human beings and forced labour and Art 24** Prohibits employment of children below the age of fourteen years in factories, mine or engagement in any other hazardous employment. Further **Art-25 and 26** speaks about public order, morality and health as the preconditions for enjoyment of freedom of religion. So vision of our Constitution makers very apparently indicates that no freedom shall be absolute and same is the case with the right to trade, business, profession or occupation. Even further Part- IV on "Directive Principles" expressed vide- Art-48-A- Protection and Improvement of environment and safeguarding of forests and wild life. In M.C. Mehta (II) v. U.O.I[XIII] Supreme Court had given the direction under this Article that various local bodies and Boards shall take appropriate steps to preserve the water from pollution and as per Part-IV-A,Art51A(g) under "Fundamental Duties" the Central Government should introduce compulsory subject of teaching on improvement of natural environment. In T. N. Godhavaram case[XIV] the Court directed the Government to take appropriate steps in the protection of wild buffalo.

If one turns towards the laws on the issue of environment and its protection which are put to amendment from time to time one can notice they are many[XV]. Not only this even we have the other laws dealing on the subject viz. Indian Penal Code, Code of Criminal and Civil procedure, Bombay Police Act etc. Also the prohibitory Local Laws and norms are there. For the State of Maharashtra we have The Maharashtra Felling of Trees (Regulation) Act, 1964 for better provision for regulating the felling of certain trees in the State of Maharashtra and operated under the chairmanship of Collector for revenue areas. Other Act, The Maharashtra (Urban Areas) Protection and Preservation of Trees Act, 1975 was made operative under the chairmanship of Municipal Commissioner. The Act is enacted to make better provisions for trees in urban areas in the State by regulating felling of trees and providing for planting of adequate number of new trees in those areas[XVI]. The Maharashtra Ownership Flats (Regulations of The promotion of Construction, Sale, Management and Transfer) Act, 1963, controls the multi-storeyed dwellings in the cities. Even the Corporation (town planning Department) rules expects the builders to plant the number of trees and against that also deposit amount was taken which may be returned only if rules followed. Even the corporation may not provide the "Commencement Certificate" for non-completion of the desired requirements for plantation of trees and their safety. But, we failed largely on this aspect because of unawareness of the occupant customer and lackadaisical approach of Administration and nexus with Builders.

So the rules, regulations, byelaws and legislations are many on the issues on environmental preservation (air, water, Noise, wild life, Forest etc.). The legislations are made in alignment with the Constitution and International treaties certainly are effective. But on the other side of the coin it is also true that **"Development"** is the need of the global world. Certain amount of pollution is permissible and without which development is impossible. But the real question is, it should not be at the cost and unwarranted destruction of our own environment. The resources of benefit must reach to all without discrimination otherwise we are playing fraud with our Constitutional duty[XVII]. We must rest development upon the pivotal of inter-generational equity[XVIII]. Recently even our own Supreme Court ordered Goa Government to take necessary steps in preservation of environment[XIX]. The problem of threat to mangroves in Mumbai was also at threat and the forest department is proposing a conservation project that promises to double the amount of mangroves across six districts in the state over a decade. Three of these districts-Mumbai, suburban Mumbai and Thane-fall in the Mumbai Metropolitan Region (MMR), while parts of Raigad are also part of the MMR[XX]. The lions share in the management of the issues of Environment certainly lay in the hands of local self-Government. Urban and Town Planning authorities have to implement the policies as per the spirit of law[xxi] and the people have to respond to the cause affirmatively.

Conclusion

In the end it can be said that the main concern is not about the development but about the undefined ambit of development which may explode the globe and ruin the life on the earth of which reason is men and his greed and the preys are all even the innocent creatures. Laws are one of the mode of controlling human activities contributing pollution occurred by trade, business, occupations etc. Right to profession and livelihood is the guaranteed right under Art- 19 &21 but right never travels lonely but is subjected to duty. Performing own duties reciprocally results into protection of right of the others. So the right to business never been denied but certainly subjected to reasonable restrictions imposed by law and the reasonability will always be tested by the independent judicial mind. Even the right to Freedom of Religion under our Constitution is subjective and governed by Public order, morality and health.

So the solution to this entire dilemma can be traced from the well settled law by one of the venerated Justice Lord Atkin in Donoghue v Stevenson [1932] AC 562 House of Lords- observing:

“The rule that you are to love your neighbor becomes in law you must not injure your neighbor; and the lawyer's question “Who is my neighbor?" receives a restricted reply. You must take reasonable care to avoid acts or omissions which you can reasonably foresee would be likely to injure your neighbor. Who then in law is my neighbor? The answer seems to be persons who are so closely and directly affected by my act that I ought reasonably to have them in contemplation as being so affected when I am directing my mind to the acts or omissions which are called in question."(Italics supplied)

This principle of neighborhood given by the learned judge has no bound and can be applied even beyond the boundaries of nation when in Trail Smelter Arbitration case[XXII]. The sulphur dioxide fumes emitted from the plant in Canada and spread over to USA causing damage were challenged and the Arbitration Tribunal awarded compensation to the Government of USA. So the different countries exists on the one earth by fragmentation however the nature at every corner of the globe is same and never discriminate. Pollution at one end of the globe certainly maligns the other corner. Hence major responsibility rest on the trading and business Industries who relentlessly contributes pollution to air by fumes and noise, pollution to water by effluents and sludge, health hazards by wastes and deforestation, ecological imbalance by mining, quarry and other excavations. So development should be rational and not errant. If man sows (development) errantly he has to reap it accordingly.

So finally while giving rest to the thoughts on this issue, it seems that the ethical business is the only panacea which rest in the lap of the principle of neighborhood i.e. duty to take care and respect others rights and define the boundaries of development by gauging the Environment Impact Assessment. Under Indian way of life and indigenous thinking the community living is the strength and web of the society. Community living includes not only human relations but his relationship with flora and fauna and the nature around him. To be humane with environment only can provide him the blissful and **dignified** life as we have cherished in the Preamble of our Constitution and business is not an exception to this. Business without fidelity towards neighborhood environment leads to a dismal and bleak.

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xvi) In May, the Bombay High Court (HC) had directed the NMC to form a proper tree committee on the lines of the Pune Municipal Corporation's committee. Tree activists have alleged that the NMC suppressed facts and did not inform the HC about the partly-constituted committee.(Ref- http://timesofindia.indiatimes.com/city/nashik/Green-panel-invites-experts-for-expansion/articleshow/41133804.cms visited on 11th Feb.2015)

xvii) Art-39-Certain Principles of policy to be followed by the State.; The Constitution of India

xviii) Letter to James Madison (6 September 1789) ME 7:455, Papers 15:393.- Thomas Jefferson said - the earth belongs to each of these generations during its course, fully and in its own right. The second generation receives it clear of the debts and encumbrances of the first, the third of the second, and so on. For if the first could charge it with a debt, then the earth would belong to the dead and not to the living generation. Then, no generation can contract debts greater than may be paid during the course of its own existence. (http://en.wikiquote.org/wiki/Thomas Jefferson) visited on 11th Feb.2015.

xix) The expert committee has been asked by the Supreme Court to submit a report within six months on how the mining dumps in the state of Goa should be dealt. It will submit the final report within 12 months. The Goa government has been directed by the Supreme Court to frame a comprehensive scheme with regard to the Goan iron ore permanent fund in consultation with the CEC for sustainable development and inter-generational equity and to submit it to the court within six months. http://timesofindia.indiatimes.com/topic/Goa-illegal-mines/news/ visited on 11th Feb.2015

xx) http://timesofindia.indiatimes.com/city/mumbai/Mumbai-for-Me-More-mangroves-may-cover-our mudflats/articleshow/12774663.cms visited on 11th Feb.2015

xxi) Ref. 73rd and 74th Constitutional Amendment.

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Employability of Graduates In India

"There is a definite disconnect between the skills and aptitude of the majority of graduates and the needs of industry."

Abstract

Against the backdrop that India has one of the world's youngest population and unprecedented opportunity to accelerate growth, it is necessary to equip the youth with the right set of skills critical to make them employable. Though increasing employment opportunities are available, yet organisations are facing a shortage of skilled and competent manpower because the pool of 'qualified' candidates which is available is not 'skilled' enough to meet the requirements of industry. This paper with the help of insights of different research studies tries to identify the importance of incorporating skills and competencies in the educational framework to enhance chances of employability.

Significance of the study

India's key strength is its favorable demography - the average age of its population will be 29 years in 2020. The demographic dividend translates into growth in several ways. It holds the promise of an expanding middle class, affordable labor force, productivity growth, and thereby giving rise to greater economic growth. However, the same demographics can prove to be a curse: where educated youth fail to find jobs and this unemployment can lead to social unrest and have a destabilizing effect on an economy. Employers ranging from software service providers to retail chains have been complaining about how difficult it is to find fresh graduates with the skills their industries require—whether the technical acumen to trouble-shoot business processes and systems or inter-personal and conversational skills to deal with customers and colleagues. So it is imperative to bridge the employability-skill gap by incorporating employability skills in the curriculum.

Objective of the study

There is a need to integrate employment enhancing skills in the mainstream core curriculum of students pursuing a graduation course, be it the three years Bachelors/Masters degree course or professional graduate/post graduate course so as to make them employable in the private sector.

- To identify the education-employability linkage and examine the causes of lack of employability of graduates.
- To identify the employability enhancing skills for graduates.
- To find out ways and means to bridge the employability-skills gap.

Methodology

This paper is a conceptual paper incorporating the findings and suggestions based on secondary data mentioned in different research studies on the topic. The period of study is from the year 2010-2015. Given the paradox that higher the education, higher the rate of unemployment, an imperative need has been identified to incorporate employability enhancing skills in the academic course structure.

Introduction

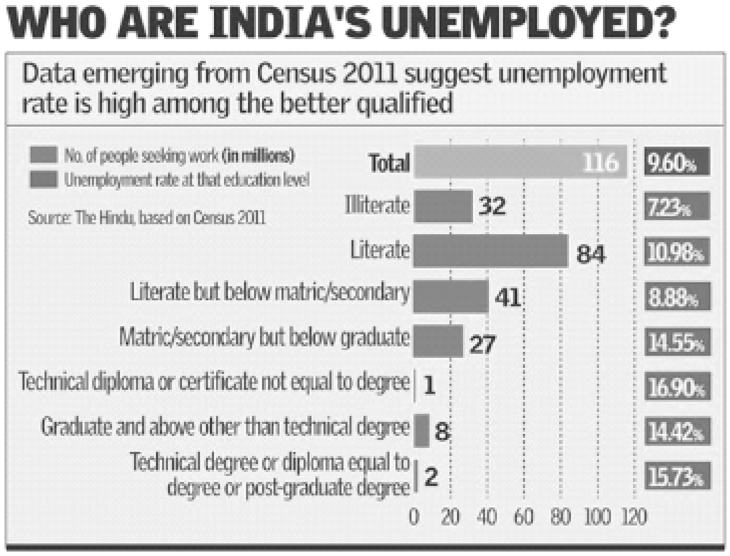
In less than a decade, India is strategically poised to emerge as the world's largest human capital provider. Our demographics point to a clear advantage — we are the world's second most populous country, with over 50% of the population less than 25 years of age. However, unemployment rate in India shot up to a five-year high of 5 per cent in 2015-16 says a report by Labor Bureau. And though the country has a gross enrollment ratio of 20% in higher education, various reports have highlighted that only a fraction of our professional graduates are employable.

Education-Employability Linkage

India turns out about 350,000 engineers and 2.5 million other university graduates annually, yet at any given time five million graduates are unemployed, according to industry lobby Federation of Chambers of Commerce and Industry (FICCI).

The data of Census 2011 analyzed by The Hindu shows that of the 116 million Indians who were either seeking or available for work, 32 million were illiterate and 84 literate. Among literates, unemployment rates were higher among the better qualified, highest of all among the 7.2 million people with a technical diploma or certificate other than a degree. Overall, India's unemployment rate grew from 6.8 p.c. in 2001 to 9.6 p.c. in 2011, based on official Census data. A challenge for the country is driving change that will ensure a competitive, skilled workforce well-equipped for the vagaries of a knowledge economy.

Figure 1

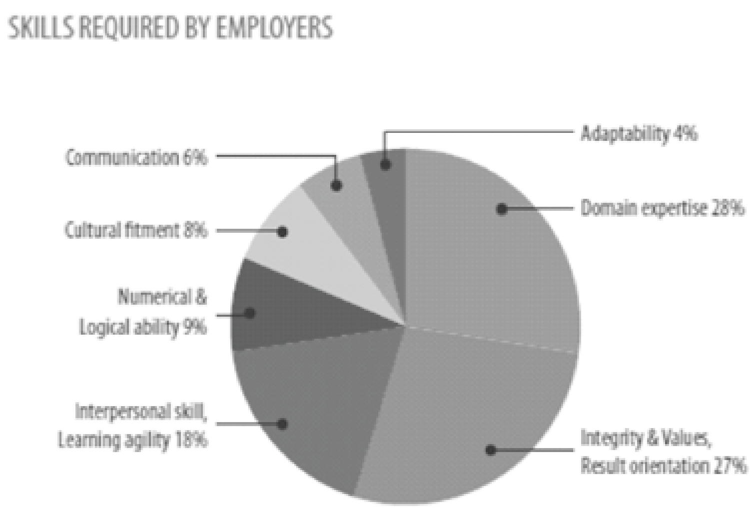


Identifying the Employability-Skills Gap

Employability skills are general skills that are needed to get most jobs, but they also help you to stay in a job and work your way to the top. While there will always be some job specific skills that an employer is looking for, most employers will also want you to have some general skills. It talks about two areas - one being the job specific skills and the second general skills. Students lack job-specific skills because our education system is more academic oriented. It gives more thrust on acquiring bookish knowledge rather that understanding and using its application; while the key skills areas for employers are: Effective oral and written communication skills; IT literacy; flexibility; ability to work independently; resourcefulness; research, investigative and intellectual skills and good interpersonal skills like teamwork, people skills, etc.

As per India Skills Report 2015, it was found out that of all the students entering the job market across the country, hardly 1/3rd meet the criteria of the employment set by the employers. Corporates are spending huge amounts of money to retrain fresh graduates just to make them employable. According to Nasscom, the information technology (IT) industry spends $0.75 billion on training fresh campus graduates annually. Imagine how many new jobs can be created if this amount is invested in business?

Figure 2: Pie Chart showing Skill Needs



Source: India Skills Report – 2016

The pie chart above is a graphical representation of the skill needs in terms of absolute numbers of frequency of response. The chart clearly indicates that employers are looking for non-cognitive skills, which are pre-dominantly generic skills and promote long term success of the employees. The difference between the 'qualified' and 'skilled' talent pool is a common problem across sectors. While every year one lakh of qualified candidates get added to the talent pool, the one's with required skills is very low.

Therefore a challenge for the country is driving change that will ensure a competitive, skilled workforce well-equipped for the vagaries of a knowledge economy. To achieve this, there is a common agreement that both the quality and quantity of university graduates matter. It is estimated that there will be 104.62 million fresh entrants to the workforce by 2022 who will need to be skilled.

Bridging the Gap

Each job with different work environment and team dynamics required different abilities to meet the objectives of the job. Employers prefer to employ persons with both degree and professional qualifications clearly indicating better career prospects for university students if supplemented with professional qualifications. It is recommended that the curriculum should include more opportunities to integrate class-room instructions with actual working environment. Academic institutions need to work towards making students ready for industry. The ultimate purpose of these institutions is to produce employable talented work force to meet the growing needs of the industry. There needs to be more industry-academia interface to make the available skill pool more competent, like the ways mentioned below:

Figure 3

INDUSTRY-ACADEMIA COLLABORATIONS TO INCREASE EMPLOYABILITY %	
Creating internship opportunities	85.71
Facilitating exchange programmes among universities/colleges	42.85
Taking guest lectures at colleges	92.85
Facilitating Industrial visits	50
Working together on curriculum development	71.42
Introduction to short term courses/summer school	42.85
Carrying out teacher training	64.28
Creating entrepreneurship cells in colleges	14.28
Developing college infrastructure	78.57
Creating innovation hubs in colleges	21.42
Conducting joint research	57.14
Regular Industry-academic interaction platform	50

Source: The Economics Club, Mumbai

Conclusion

Considering the enormity of the impact, the skill – job gap is going to have in the socio-economic environment of the country, it needs immediate attention. Communication skills need highest focus during academic times for youth in order to bridge this 'gap' from industries perspective followed by Life Skills and Fundamental Skills. Academic fraternity and industries need to join hands and contribute towards this mission. More soft skills interventions at college level on communication skills, social skills and life skills would help in reducing this gap and make the graduates employable. So the study with ascertained facts concludes that to enhance employability, a blend of education and skills is essential to reap our demographic dividend, before it turns into a disaster.

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Agricultural Advances and its Impact on NPAs of Public Sector Banks – A Case Study With Reference to State Bank of India, Mumbai Region

Introduction

As per the statement given by Mr. A. Krishna Kumar, Managing Director, State Bank of India on March 31, 2012, SBI's slippages were at Rs 26,976 crore, up from Rs 18,145 crore in FY11. The bank's gross NPAs rose to 4.44 per cent (3.28 per cent in FY11), while net NPA was 1.82 per cent in FY12 (1.63 per cent in FY11). We know that NPA can only be reduced but it cannot be avoided. Even if the banks don't want to sanction the loans they are obligated by the government as it leads to investment of money for development purposes. Especially in agriculture sector sanctioning of credit is of utmost importance as agriculture is the backbone of India and a lot of scope has been given to agricultural sector.

This assignment on the above topic makes an attempt to study the effect of different variables on the non performing farmers, as the main objective of our study is to know what are the difficulties faced by our Indian farmers in paying back the borrowed amount with regular payment of interest. We have used both the data collection methods and Telephonic interview method to collect sufficient information. After the study suggestions are given as to how the NPA's can be minimized by considering the main functions of Management.

The main business of a banking company is to receive deposits and lend money. Receiving deposit involves no risk, since it is the banker who owes a duty to repay the deposit, whenever it is demanded. On the other hand, lending always involves much risk because there is no certainty of repayment. A banker shall be very cautious in lending, because he is not lending money out of his own capital. A major portion of the money lent comes from the deposits received from the public. These deposits are mostly repayable on demand. Hence, while lending money, a banker should follow a very cautious policy. The risk involved in lending business makes it very important as it involves making prominent decisions. Therefore while sanctioning credit the banker should appraise the project reasonably or else it leads to the non-repayment of loans and advances. Most of the banks today in India are facing the default risk wherein some part of the profit is reserved for covering the non-performing assets.

Role of PSB

Public Sector Banks have been playing a vital role in the economic development of the nation. The flow of credit to agriculture and allied sectors during the 1st two decade of nationalization paved the way for industrial growth because of the robust growth in the rural economy. The contribution of credit to SMEs also heralded entry of Indian economy in the global scene. Never the less the Public Sector Banks have been subjected to continuous criticism by various Govt. agencies and entrepreneurs /borrowers alike in different forum and in different periods. From parliamentary committees to the block level review meetings, the Banks have been facing the flack for the slow and tardy growth of credit and being branded an institution insensitive to the credit needs of the clients. The gap between the expectation and delivery has never been appreciated leaving the Banks to take cover. Banks have been defending themselves quoting the ever-increasing NPA as the prime reason for strictness in credit disposition. This is despite a plethora of laws, like State Public Demand Recovery Act, Agriculture & Misc. Recovery Act, Debt Recovery Tribunal and the SARFESAI Act. These acts cover almost all types of defaulters i.e. from small farmers to top industrial/ business houses. Therefore, it is but natural that eyebrows are raised as to what prevent the Bank officials taking quick, prompt and pro-active decision! Why is that an applicant has to answer a heap of questions and has to run for days and months to get a credit limit sanctioned or even face silent rejection. And why is that Private Sector Banks en-cash this delay and dilemma of the Public Sector counterpart, by delivering a fast decision and thereby increasing their business Is it that Private Sector officials are better qualified and better trained or having better knowledge in comparison to Public Sector Officials.

Role of PSB official's

The officials of Public Sector Banks are constantly under the fear of being prosecuted by the State for any decision going wrong or any credit portfolio turning NPA. The bane of PSBs is that the Govt. imposes too much accountability on the employees. Of course, another view is that the reason for poor performance is the total lack of accountability due to the

Govt. policy. Both the views are diametrically opposite, it is strange but true. The truth is that there is harsh accountability if the decision goes wrong and there is no accountability on those who really do not take any decision. There is oppressive level of accountability and punishing the employees for genuine decision taken, which later results in loss and the second is the widely held perception that any PSB official who is totally negative and refuses to take any decisions is never taken to task for his non-performance. Whenever a decision leads to a loss, the concerned official is taken to task, not only by the Bank, but also the agencies of the Govt. like CBI and CVC who step in to examine the decision taken by the officials that too 5 to 7 years back and decide whether he or she should be arrested, or prosecuted. The officials indeed are treated like criminals, till they are acquitted by the courts.

Narasimham Committee's view

The Narasimham Committee on financial reform also says “there is indeed no such thing as riskless banking and there would be occasional losses which with benefit of hindsight, might appear to have been avoidable. Provided that the losses are bonafide business losses, they should be accepted as such. Mistakes will be made but an atmosphere of fear of being subjected at some later date, to investigation and unsavory publicity is not conducive to efficient and informed decision making”. The committee also mentions about the promises made by the authorities to the Public Sector Bank officials that mistakes arising out of bonafide decision would not be questioned. Sadly these officials know that these are only mere promises with little, if any, intention of implementing them. Cases are not rare where Central Vigilance Commission insists on issuing a warning to an official before retirement for some minor lapse. And the Bank duly administer the warning on the last day of the officials service asking him to be more careful in the discharge of his duty and it is immaterial that the official had only few hours service left in the Bank. Many Public Sector Banks officials would be able to recall some such instances that had hit their colleagues on the last day in service. Is it then a surprise if Public Sector Bank officials widely perceive the vigilance machinery as a persecuting mechanism from which one has to be lucky to escape?

Challenges of Agricultural lending

In any lender-borrower relationship, there is a general problem of moral hazard that is the result of specific personal characteristics and decisions of each individual borrower. In this regard, farmers do not differ from any other borrower group in terms of information, incentives, monitoring and enforcement problems associated with the lending process. Firstly, it is obvious that the lender does not have the same information as the borrower. The latter knows exactly what his/her own management capacity is and how the loan will be used. The lender does not know the potential borrower to such an extent. In rural financial markets, information about low income loan applicants is particularly difficult to obtain. Secondly, even if the loan applicant frankly shares all relevant information for the credit decision, his/her future actions cannot be fully predicted. Therefore, it is crucial for financial institutions to apply incentives so that borrowers behave in such a way that repayment is assured. Thirdly, the farmer may decide to change his/her economic behavior, invest the money elsewhere or simply move to another part of the country. Many subsidized agricultural credit programs tried to manage this risk by imposing very costly regular monitoring of the borrower. Finding cost efficient methods of monitoring borrowers is a particular challenge in agricultural lending. However, there are other risks beyond the general behavioral risks of a borrower. This second category of loan loss risks is associated with the agricultural sector or agricultural production. It refers to factors external to the farmer's repayment attitude.

Farming is a risky business

Crops may fail, weather influences the productivity and sale prices fluctuate and are difficult to predict when the crops are planted. If productivity is lower than expected, farmers may not be able to repay loans. These risks and many other aspects of agricultural risk will need to be identified, measured and actively managed in order to stop lending institutions turning away from this clientele. Let's look at the various external risk categories that need to be taken into account in agricultural lending.

Production and yield risk

Agricultural yields are generally uncertain, as natural hazards such as the weather, pests and diseases and other production calamities impact on farm output. Even slight changes in weather conditions - less rain than usual - can seriously impact on farm production. Pests and diseases may spread quickly, leading to a loss of part or all of the crop's produce. The soil quality of the plots as well as their location also significantly influence productivity and yield risk.

NON-PERFORMING ASSETS IN STATE BANK OF INDIA

Non-Performing Asset means an asset or account of borrower, which has been categorized by a bank or financial institution as sub-standard, doubtful or loss asset, in accordance with the directions or guidelines relating to asset classification issued by The Reserve Bank of India.

Out of order

An account treated as 'out of order' if the outstanding balance remains continuously in excess of the sanctioned limit/ drawing power. In case where the outstanding balance in the principal operating account is less than the sanctioned limit/ drawing power, but there are no credits continuously for six months as on the date of balance sheet or credits are not enough to cover the interest debited during the same period, these account should be treated as 'out of order'.

Methodology

The methodology followed in this case study is Primary Data Collection method which involves both monitoring and communication method. In the communication study, the researcher questions the subjects and collects their responses by personal or impersonal means. The communication followed in the case study is Telephonic Interview wherein the farmers were interviewed through telephone in Hindi and Marathi as well as in person.

Reasons for non-performing loans in the case of agricultural Advances

As the scholar would like to study the reason for performing loans among farmers has selected a sample size of 100 farmers was chosen randomly from select 5 branches of State Bank Of India, covering different regions namely, Thane, Kalyan, Bhiwandi, Kurla and Muland. Among these 100 farmers 50 are creditworthy borrowers who pay their interest properly and the other 50 farmers are nonperforming farmers who do not make any attempt to pay their interest on loan thereby contributing to generation of non-performing assets which will in turn reduce the profitability of the bank.

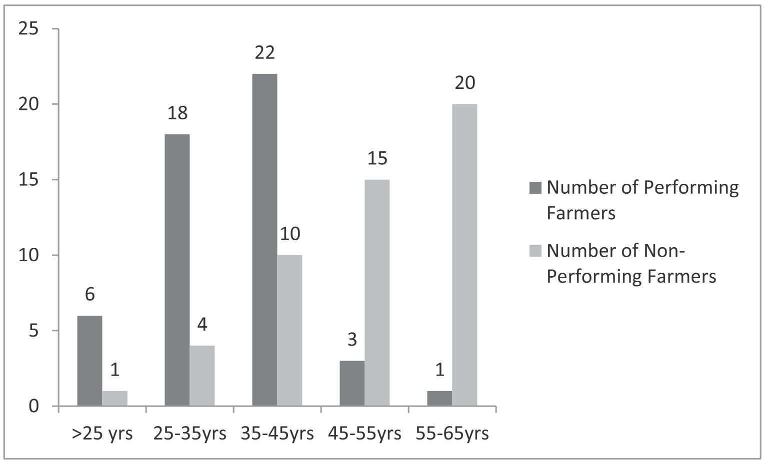
A set of 10 variables like age, caste, religion, education etc. have been considered which contributes to the non-creditworthiness of the farmers. Even though there are other factors which will contribute to the non-repayment of interest and loans, the following variables have a major share. Let us see the impact of these variables on the Normal as well as the nonperforming farmers and what factors differentiates the two classes of farmers.

1) Effect of age

Table 1: Effect of age Chart

õá	Number of Performing Farmers	Number of Non-Performing Farmers
>25 yrs	6	1
25-35yrs	18	4
35-45yrs	22	10
45-55yrs	3	15
55-65yrs	1	20

1: Effect of age



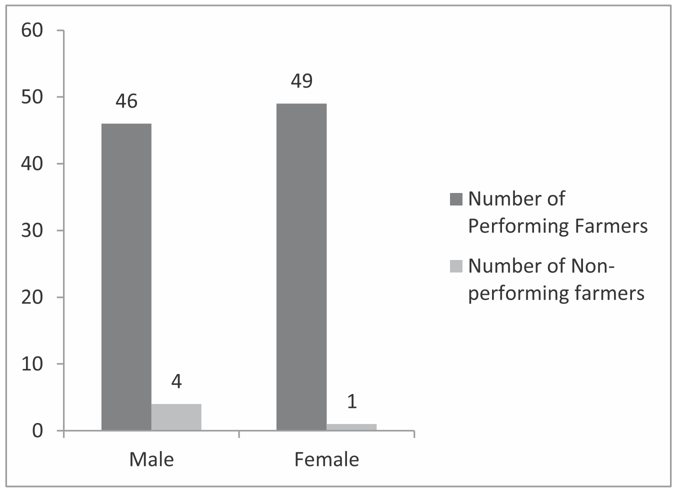
The above result clearly indicates that the age has its impact on the performance of farmers.

2) Sexual status

Table 2: Effect of sexual status

Já˝	Number of Performing Farmers	Number of Non-performing farmers
Male	46	4
Female	49	1

Chart 2: Effect of sexual status

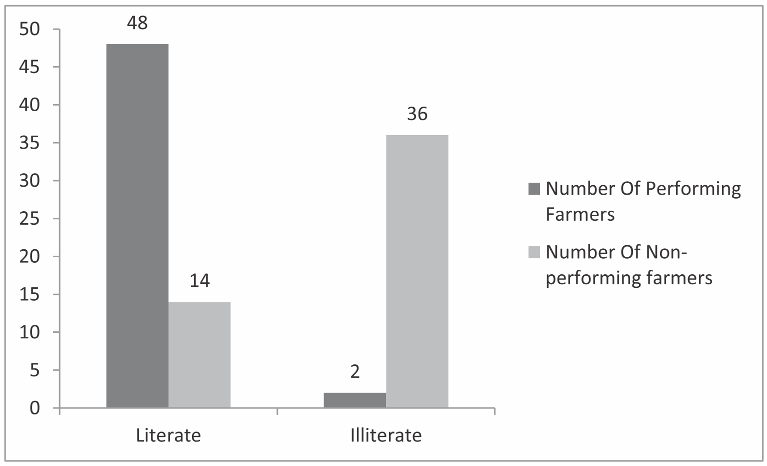


3) Educational status

Table 3: Effect on educational status

S[fl¶[i ≠á	Description	Number Of Performing Farmers	Number Of Non-performing farmers
Education	Literate	48	14
	Illiterate	2	36

Chart 3: Effect on educational status



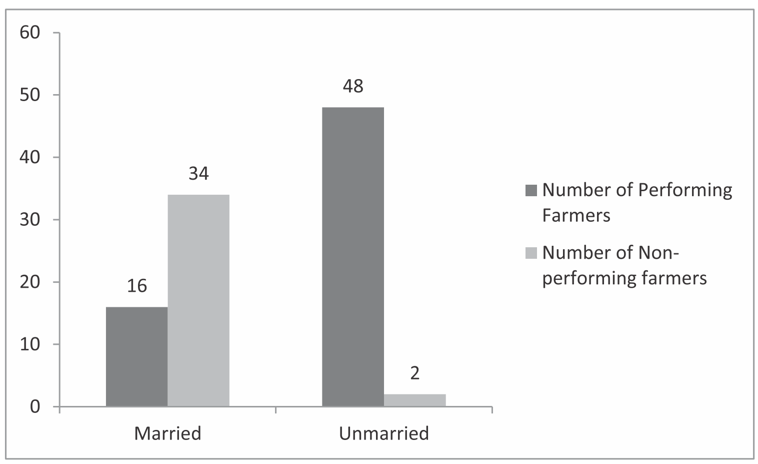
Therefore the performance of farmer and his/her educational status are dependent. Thus we conclude the educational status and the farmer performance are dependent.

4) Effect of marital status

Table 4: Effect of marital status

S[fl¶[i ≠á	Marital status	Number of Performing Farmers	Number of Non-performing farmers
Marital Status	Married	16	34
	Unmarried	48	2

Chart 4: Effect of marital status



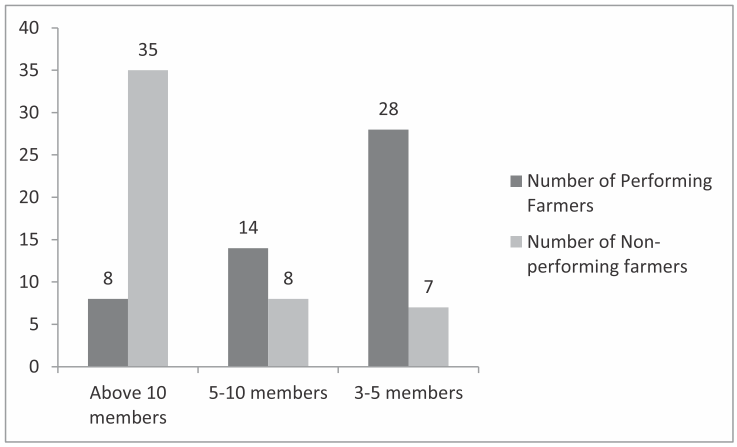
This shows that performance of farmer and marital status is dependent.

5) Family size

Table 5: Effect of family size

S [ff[i ≠a	Description	Number of Performing Farmers	Number of Non-performing farmers
Family members	Above 10 members	8	35
	5-10 members	14	8
	3-5 members	28	7

Chart 5: Effect of family size



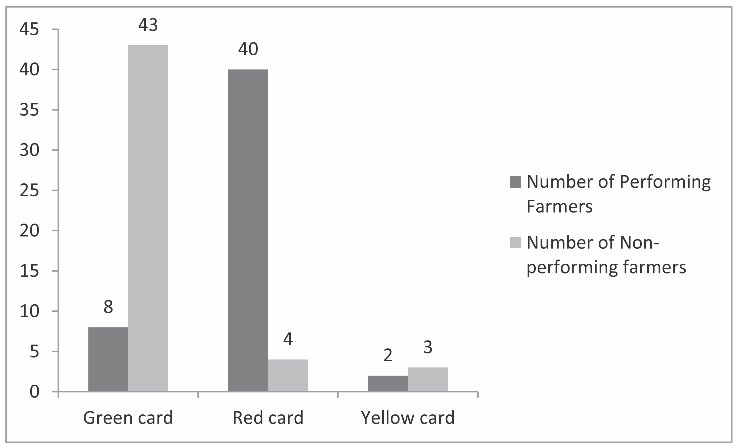
Hence farmer performance depends on family size.

6) Effect of Wealth status

Table 6: Effect of wealth status

S [ff[i ≠a	Description	Number of Performing Farmers	Number of Non-performing farmers
BPL Type	Green card	8	43
	Red card	40	4
	Yellow card	2	3

Chart 6: Effect of wealth status



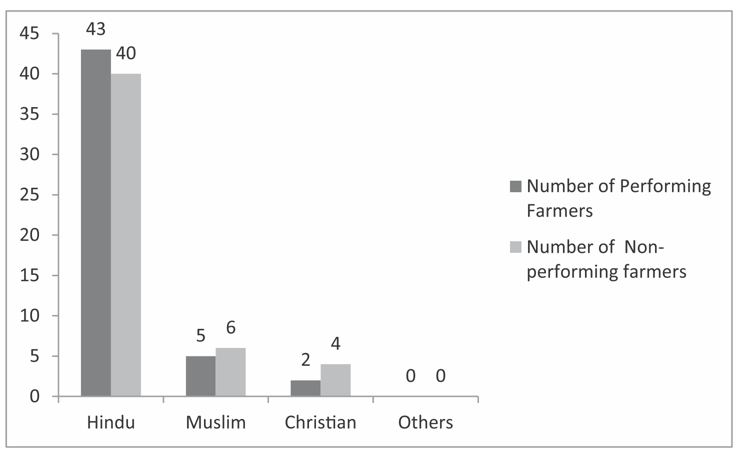
This shows that wealth status and performance of a farmer are dependent

7) Effect of religion

Table 7: Effect of religion

S [ff[i ≠a	Religion	Number of Performing Farmers	Number of Non-performing farmers
Religion	Hindu	43	40
	Muslim	5	6
	Christian	2	4
	Others	0	0

Chart 7: Effect of religion



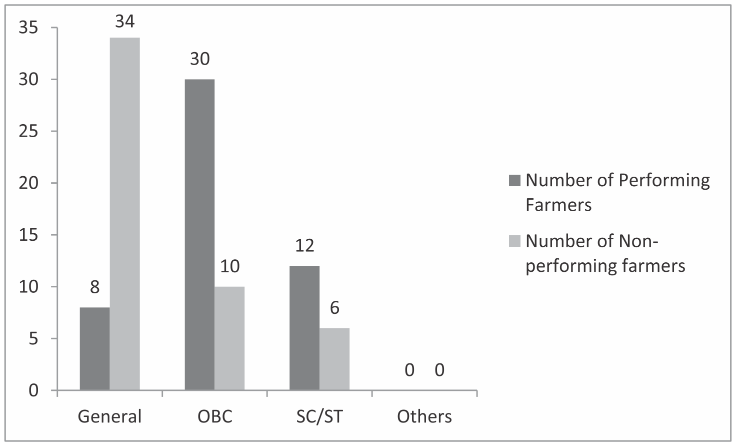
This shows that we cannot conclude whether farmer performance and religions are dependent or independent

8) Effect of caste

Table 8: Effect of caste

S [fl¶[i ≠á	Description of caste	Number of Performing Farmers	Number of Non-performing farmers
Caste	General	8	34
	OBC	30	10
	SC/ST	12	6
	Others	0	0

Chart 8: Effect of caste



The performance of farmer is dependent on caste

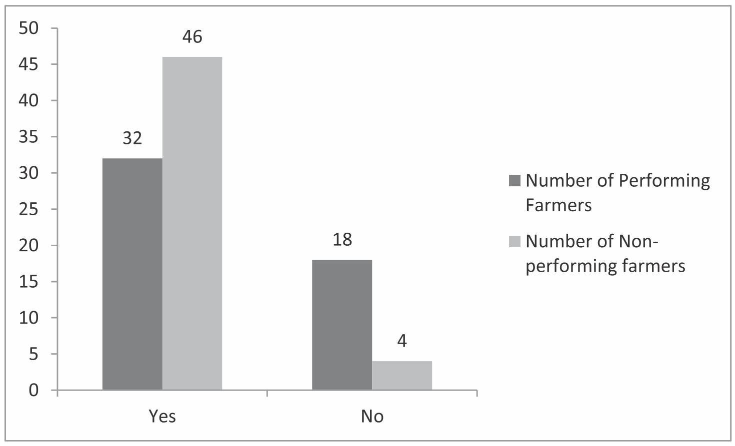
9) Effect of money lenders

Apart from the bank and other financial institutions there are private money lenders who will lend money to the farmers on the basis of mortgage provided by the farmer.

Table 9: Effect of money lenders

S [fl¶[i ≠á	Borrowed from private money lender	Number of Performing Farmers	Number of Non-performing farmers
Money lender	Yes	32	46
	No	18	4

Chart 9: Effect of money lenders



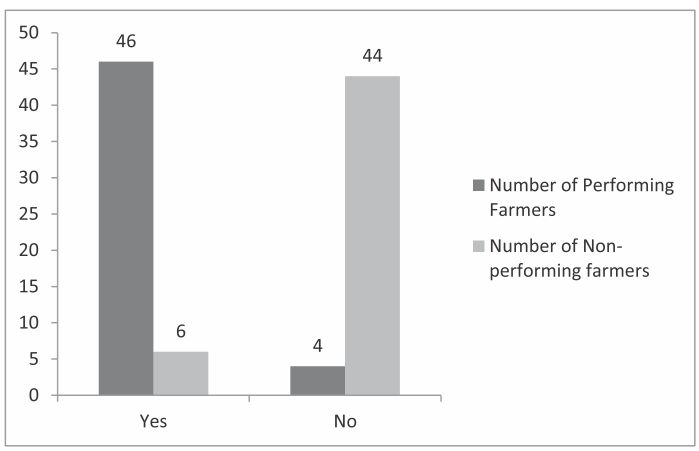
This shows that the presence of money lender is dependent on the performance on a farmer

10) Effect of guarantor

Table 10: Effect of guarantors

S [fl¶[i ≠á	Description	Number of Performing Farmers	Number of Non-performing farmers
Guarantor	Yes	46	6
	No	4	44

Chart 10: Effect of guarantors



Hence we say performance of farmer is affected by the presence of guarantor. The following table gives us the overview of the type of correlation of variable.

Table 11: Type of correlation of variables

Variables which do not influence farmers performance		Variables which influence farmers performance	
1)	Sex	1)	Age
2)	Religion	2)	Educational status
3)	Security of other assets	3)	Marital status
4)	The volume of land owned by the farmer	4)	Effect of family size
		5)	Effect of wealth status
		6)	Caste
		7)	Money lender
		8)	Guarantor
		9)	Security of land
		10)	Security of gold
		11)	Experience
		12)	Suitability of land to crop
		13)	Type of farming
		14)	Irrigation facility
		15)	Any other source income
		16)	Subsidy

From the table we can conclude that we have got a positive result as 16 of our variables considered had their impact on the performance of the farmers. These significant differences are the one which will decide the creditworthiness of a borrower. A banker should consider these variables while sanctioning credit to the farmers in order to reduce NPAs.

Data Collected from the telephonic interview

Reasons Contributing to creditworthiness of the borrowers according to the Ranking Scale:

1. The farmers used the entire credit amount for the purpose to which the credit has been sanctioned. There is no diversification of credit amount for other personal uses.

2. Using advanced type of farming in agriculture like tractors, tillers etc.

3. In addition to agriculture the farmers are involved in other allied activities which will contribute to their goodwill.

4. Bank personnel will educate the farmers about the benefits of timely repayment of loan and also about the consequences of default. This will create awareness in the minds of the customers.

5. The type of crop matches very well with the cultivation land.

6. Availability of adequate irrigation facility.

7. Highly fertile land will also contribute to the increased output.

8. Use of good quality of seeds and also the bio-fertilizers which are eco-friendly.

The Following table represents some of the prominent reasons provided by the creditworthy farmers for the proper repayment of loans and advances along with interest:

Table 12: Reasons provided by creditworthy farmers

' ∫ } á	Reasons	Percentage of farmers
A	Utilization of credit amount for the purpose to which it was sanctioned	26
B	Using advanced type of farming	22
C	Involvement in other allied activities	12
D	Motivation by the banker	11
E	Matching of crop with the cultivation land	10
F	Adequate irrigation facility	8
G	Highly fertile land	6
H	High quality seeds	5

Reasons contributing to the timely non-repayment of loans:
1. Farmers face difficulty in the repayment of loan due to crop failure. Indian farmers are mainly dependent on monsoon. Therefore the major cause of crop failure is the natural calamities.
2. Majority of the farmers still follow the traditional method of farming even though the technology is advanced. This will also contribute to reduction in the crop output.
3. Lack of labors at the right time to carry out the required operation will lead to delay in the harvesting of crops which in turn contributes to the crop destruction.
4. Lack of inputs like the seeds quality, availability and bio-fertilizers will also contribute to reduction in output.
5. To get a very high yield it is necessary to sow the crop that is suitable to the land. Mismatch between the crop and the cultivating land will also lead to crop failure.
6. Some of the crops need an adequate supply of water for their growth. In these cases lack of irrigation facility will also lead to crop failure.
7. Pests and diseases to the crops will lead to crop failure.
8. One more reason contributing to reduced profitability is the decrease in the marketability of the product due to i) low quality product or ii) bulk production.
9. Apart from inbound problems the personal obligation of the farmer and also the family commitments will also lead to the non-repayment/delayed payment of loan. For ex: Marriage, Funeral etc.

Table 13: Reasons contributing to the timely non-repayment of loans

' ∫ } á	Reason	Percentage of farmers
A	Crop failure	23
B	Traditional cultivation methods	18
C	Lack of adequate labor	14
D	Lack of adequate inputs	13
E	Mismatch between the crop and the land	10
F	Inadequacy of irrigation facility	9
G	Improper maintenance of crops	8
H	Decrease in marketability	3
I	Personal problems	2

Results of the Case Study

The young farmers have very less chance of defaulting the loan than the old aged farmers. From this we can predict that the age will contribute to the creditworthiness of farmers as the young farmers will work hard in the agricultural field rather than the old aged persons.

This theory can be justified by considering the following reasons:

a. Young farmers follow the advanced type of agricultural practices thereby getting better yield.

b. Young farmers readily adapt and implement innovative ideas as well as the agricultural methods which will help them to get a good crop yield.

The percentage of women defaulting is rare because they are usually financed in groups called as the self-help groups wherein each group has a leader and that leader will take the responsibility of the entire repayment of the loan amount.

From the study, it is clear that the most of the non performing farmers are illiterates. It means that the educational status will definitely have an impact on the performance of a farmer.

There are 2 reasons which contribute to this interpretation:

a. It is very difficult to change the mindset of the illiterate farmers as they take considerably long duration of time to accept the change.

b. They are deprived of the information provided by newspapers and other articles published in magazines which give updated knowledge about the advanced agricultural techniques.

Unmarried farmers are efficient in repaying the loan than the married persons. Since unmarried farmers are single they don't have any family related responsibilities. Therefore they can concentrate on agriculture. This shows that the married persons have family problems which will contribute to their non-creditworthiness.

Farmers having more family members face difficulty in repayment of loan as they have to fulfill the needs of all the members in a family. This is where the utilization of the sanctioned credit amount for the purpose to which it has been taken comes into picture. Most of our farmers are not utilizing the credit amount in agriculture instead they use for the purpose of marriage, construction of new house and also buying some physical assets like gold and vehicles. This will create a threat in the non-repayment of interest as these investments don't fetch any profit to the farmer. Therefore while sanctioning the loan the banker will not sanction it at a time but it will be in the form of installments. They will also conduct post sanction survey to check whether the loan amount has been properly utilized or not.
BPL farmers will have more chances of default as they are in poverty. Poverty is a major problem in India, on which most of our politicians are working till today, to bring up the below poverty line people.

Religion does not have any impact on the repayment of loan as it is only concerned with the personal identity of a person.

When it comes to caste the people falling under the general category will face difficulty in repayment of loan as they did not receive any subsidy or other assistance from the government whereas the people belonging to backward community will receive certain privileges in the form of subsidies sanctioned by the government which will make them creditworthy.

According to our study the creditworthy farmers did not take any loan from outside because they have to pay back the money at later stage. But in case of nonperforming farmers they take loan from wherever the money is made available as their job is to default.

A creditworthy borrower will maintain his goodwill and a disciplined code of conduct with the other persons in the society. As a result we find that the creditworthy borrowers have guarantors than the non-creditworthy borrowers.

Creditworthy farmers will pay back the loan amount with interest properly.

The chances of defaulting are more in case of the farmers who have than 5 acres of land. This makes sense because the profit obtained by these farmers is not sufficient to meet both their family requirement as well as their repayment of loan.
Experience counts a lot, not only in agriculture but in other occupations also. The farmers having more years of experience know the pros and cons of adapting a new technique in agriculture. This helps them to play safe in the cultivation activity. As a result their profitability increases.

Before cultivation the farmers have to decide on the crop that has to be grown in their area. If the proposed crop suits the land the quantity of crop increases. If a farmer commits any mistake in decision making then he will end up in loss. This clearly shows that decision making not only plays a vital role in management but also in agriculture.

Farmers following the advanced type of farming are more efficient in paying the interest than the farmers following old and traditional methods of cultivation.

According to our study the farmers having well irrigated land have higher yield which will contribute to their creditworthiness. For this reason only the bank sanctions separate loan to the irrigation purpose. Farmers having other source of income other than agriculture will utilize this income to pay their interest. Therefore they have less chances of defaulting.

Conclusion

Agri loan NPAs on the rise

Even though the government provides subsidy to both normal as well as non performing farmers the non performing farmers will wait for the subsidies. This will create delay on the part of the farmer in payment of interest. Within five years of the announcement of the government's debt relief package for farmers, distress in the agricultural loan segment is building up once again with non-performing assets (NPA) seeing a sharp uptrend. Gross NPAs in the agriculture loan segment are inching up towards 5% compared with close to 3% for non-agriculture loans.

Bankers feel the NPA situation could worsen if the monsoons are weak leading to lower crop yields and agricultural incomes. The Reserve Bank of India governor D Subbarao said at a recent Nabard conference that there had been a 47% growth in Agri NPAs in 2011-12.

The country's largest lender State Bank of India (SBI) saw a 72% year-on-year (yoy) jump in farm loan NPAs to Rs. 7,778 crore in 2011-12. In percentage terms the NPAs rose from 6.7% of agri advances to 8.9%. Union Bank also saw a sharp rise in its agri loan NPAs from 4.1% to 9.6% during the same period. Other large public sector lenders like Bank of Baroda (BoB) and Punjab National Bank (PNB) have also seen a rise in their agri sector NPA levels to 5% and 4% respectively, up from 3.6% and 3.5%.

Private sector banks have managed to keep their agri NPAs under check. HDFC Bank saw a small rise in NPA levels from 0.4% in 2010-11 to 0.9% in 2011-12 and ICICI Bank saw NPA levels fall from 7.6% to 4.8% and Axis Bank from 2.6% to 2.3%.

According to Nitesh Ranjan, economist at the Union Bank, public sector banks have seen a much larger rise in agri sector NPAs because they now recognize system-based NPAs. "Under the manual recognition of NPAs, most PSU lenders did not recognize several agri and small sized accounts as NPAs. But now all accounts that have not seen interest payments for over 90 days and over are classified as NPAs," said Ranjan.

Finally, we can conclude that the bankers can avoid sanctioning loans to the non-creditworthy borrowers by adopting certain measures. They must be careful and appraise the project which involves checking the economic viability of the project. A banker must consider the return on investment on a proposed project. If the calculated return is sufficiently higher than the credit amount he can sanction the loan.

Secondly, he can constantly monitor the borrower in order to ensure that the amount sanctioned is utilized properly for the purpose to which it has been sanctioned. This involves the post sanction inspection by the banker.

Thirdly, the banker should get both the formal and informal reports about the goodwill of the customer. If he had already proven as a defaulter then there is no question of sanctioning loan to him.

Fourthly, the banker should motivate the farmer to pay the interest properly and in a timely manner.

Fifthly, the banker also has to educate the farmer regarding the effects and consequences of defaulting. By considering all the above factors the banker can reduce the nonperforming assets in a bank.

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Rural Marketing with a Social Cause

Abstract
This paper attempts to describe how social issues in rural areas can be used as a base to create an effective marketing strategy. A number of social issues are prevalent in rural India and some companies have tried to reach out to the rural consumer by addressing the social issues. The social issues can be successfully incorporated as a part of the company marketing strategy. The marketing strategy developed by companies' aims to achieve rural development and company profits. It overall leads to rural development, increased employment and ultimately more rural people using branded FMCG products and consumer durables. With many social issues prevalent in rural India like illiteracy, unemployment, poverty, lack of sanitation and hygiene facilities etc. and now in recent times the scanty rainfall has only added to the existing problems of the rural people as they are mainly dependent on agriculture. A marketing strategy developed with a broader perspective will pay rich dividends to the company. For e.g.: HUL's Roti reminder campaign at Kumbh Mela. HUL along with creative agency Ogilvy had partnered with more than 100 dhabas and hotels at the mela site to serve rotis that are stamped with the message "Life buoy se haath dhoye Kya?" This way the company promoted lifebuoy hand wash to inculcate in the minds of consumer the need to wash hands before having a meal. HUL aimed to have the hand wash message stamped on approximately 2.5 million rotis during the 30 days period of the campaign thereby achieving higher sales and also promoting hygiene .

This paper is based on the available secondary data. It will be useful for students, faculty and also companies interested in marketing their products in rural India.

Key Words
Social issues, Agriculture, FMCG, Consumer Durables

Introduction

Definition of rural area

The census of India defines rural as any habitation with a population density of 400 per sq. km, where at least 75 per cent population is engaged in agriculture and where there exists no municipality or board. (Kashyap)

Planning Commission of India defined rural market as towns up to 15,000 populations are considered as rural market. According to marketers an underdeveloped area which is sparsely populated and lacks amenities like good schools, roads hospitals electrification and where agriculture is the main source of income. These places are generally influenced by the nearby town or city.

McKinsey and company predict that given the right investment in rural infrastructure, the rural markets may be worth $500-600 billion by 2020. Over the years marketing has gradually evolved from the production stage to product stage to selling stage marketing stage and now we are in the societal marketing stage gradually moving to the digital marketing stage. Treating urban and rural consumers on the same parameters could prove to be disastrous. Rural consumers also have aspirations like their urban counterparts but their needs are different and also their level of disposable income is low. An effective marketing mix would help in successfully targeting rural consumers.

Some of the advantages a company can have in reaching out to rural consumers by addressing social issues are:
1. Create goodwill about company and its products.
2. Establish relationship with the customers.
3. Increased revenue for the company through higher sales.
4. Win loyal customers for life time.
5. Providing better quality life to rural people.
6. Create a strong brand presence.

A marketing philosophy based on marketing, societal concepts and relationship marketing should be developed. The following points should be kept in mind when you want to successfully target rural consumers by addressing the social issues.

1. Know the importance of women.
2. Work with NGOs
3. Approach influential people like sarpanch, Gram sevak, School headmaster Doctors etc.
4. Train the local youth (men and women) to work with you.
5. Use technology to the best extent possible
6. Coin slogans which people will remember.

Some Case studies

1. ITC E-Choupal

Indian Tobacco Company Limited (ITC) is one of India's foremost multi-business enterprises with a market capitalization of US $ 40 billion and a turnover of US $ 8 billion. ITC is rated among the World's Best Big Companies, Asia's 'Fab 50' and as 'India's Most Admired Company' in a survey conducted by Fortune India magazine and Hay Group. ITC's aspiration to create enduring value for the nation and its stakeholders is manifest in its robust portfolio of traditional and greenfield businesses encompassing Fast Moving Consumer Goods (FMCG), Hotels, Paperboards & Specialty Papers, Packaging, Agri-Business, and Information Technology. (about-itc/profile/index.aspx)

To eliminate the problems of middlemen and to ensure that farmers get the right price for their produce and also to provide the farmers the latest updated information on price, educate them about new farming techniques. ITC started the E-Choupal through an internet Kiosk, set up in the house of an influential person in the village called as the shanchalak.

This has created a win-win situation for both ITC and the villagers. The villagers get a fair price for their produce which they sell to ITC through the E-Choupal and also get all the necessary information needed about price, farming etc. While ITC gets to buy directly from the farmers at a fair price and also gets to sell its other products directly to the villagers.

Thus through E-Choupal ITC has been successful in making goods move from rural to urban area and vise-versa. This business model has been successfully replicated in many villages across different states of the country.

ITC has now tied up with Nokia to carry this service further. They will now offer personalized crop management advisory services to individual farmers integrating mobile phones into the physical network of E-Choupal.

2. "Project Jagruti" by Colgate

Awareness about oral hygiene is very less in India especially in the villages. Colgate executed a rural hygiene drive along with the Indian Dental association. In 1998 60 lakh people in 20 thousand villages were contacted under this project of which 15 thousand villages had no experience in the availability of tooth paste or tooth powder. This strategy was useful in providing vital information on oral hygiene also helped Colgate create brand awareness.(Ghuman, Reprint 10th Edition 2012)

3. Marico Industries- Parachute Oil

Marico Industries is in the business of hair care, skin care healthy foods. Parachute is a premium grade coconut oil in the market. With aim of getting women out of their homes, Marico industries launched a van campaign for parachute coconut oil for towns with less than twenty thousand population in Tamil Nadu. (ahuja, 2015)

The product is basically aimed at the women and so using them to promote the product made the campaign successful. This strategy of getting the women out of their homes to participate in the van campaign is a good social initiative as women in rural India are generally confined to their homes.

4. HUL Soap selling strategy

HUL is the largest soap and detergent manufacturer in India. The company is now differentiating its products based on a health platform. One means of making this connection was the tie between diarrheal disease prevention and HUL soap products.

UNICEF estimates that one child dies every 30 seconds from diarrhea globally. Research on preventive behavior for diarrhea disease shows that washing hands with soap reduces diarrhea attacks significantly. Currently hand washing using soap is low among Indians especially among rural people. HLL used public-private partnership to market its soap as a product required for hygiene in rural areas and in this way reached out to rural Indians by addressing a social issue.

Some companies have used Swachh Bharat as an example of how brands can play a role in societal progress while remaining true to social progress and also remain true to the core business. Swachh Bharat was launched in 2014. Lakhs of toilets were being built every day, but this activity has to be supported by educating people on right behavior. For the first time three brands-Lifebuoy, Pireit and domex have come together to the adoption of "Swach Aadat". The companies wanted to propagate-washing hands in a proper way, using a toilet to defecate and adopting safe drinking water practices. This campaign was brought alive through the fun and engaging film "Haath Mooh Bum, Bimari Hogi Kum" It celebrates children as agents of behavior change, trying to influence adults to change old practices. The goal is to make India illness free, also the objective of Swach Bharat Abhiyan. (Nair, 2016)

5. Tata Water Purifier

In the rural area's three out of four villages do not have access to drinking water and where an estimated 4,00,000 children die every year from diarrhea .

During the launch of Swach-Hindi for clean, Tata had said that his dream was to provide safe and affordable drinking water to millions of Indians. According to company sources the product will be available in two variants priced at Rupees 749 and Rupees 999 respectively. It was the Tata group strategy to cater to the bottom of the pyramid. The social issue of clean drinking water is what drove the group to develop a product to address crises in rural areas. Tata Swach is a product that will reach the masses and is also affordable.

Tata Swach is a house hold water purifier and requires no electricity or running water to operate. Using the power of Nano technology combined with natural ingredients, it delivers safe drinking water at a bench mark price of Rupee one per day for a family of five. This product is made available all over India, using the distribution network of Tata salt. The water purifier is also sold online. (Mint, 2009)

6. Dabar

Dabar used a unique distribution strategy to distribute their products in rural areas. Well knowing the problem of unemployment among rural youth, Dabar in their effort to distribute the product involved the rural youth. They recruited the local youth, provided them training and offered them a unique career path.

7. HUL-Surf Excel

Water scarcity is a major issue in rural areas. Surf having a good understanding about this issue decided to do something about it. They have designed their product "Surf Excel Quick Wash" in such a way that it requires only two buckets of water for washing clothes. Generally for a wash a minimum of four buckets are required. The detergent with its low form technology is capable of reducing water consumption to two buckets instead of four.
This new form low detergent also claims to be a quick wash formula with features such as high speed stain removal, low scrubbing and low rinsing. (Krishana)

Conclusion

From the above cases of different it can be observed that all these companies identified a social issue and integrated the social issue in their marketing plan.

- ITC realized the long chain of middle men, who were depriving the farmers of a fair price for their produce. The company also realized that on many occasions, the farmers were not aware of the actual price in the market and hence they came up with the idea of e-chaupal.
- Colgate realized long ago that rural markets are virgin markets. Most people in rural area's use charcoal to brush teeth and most important do not give much importance to oral hygiene. They therefore conducted free dental cheek ups in school to emphasis on the importance of oral hygiene among the young school kids.
- Marico industries well know that women in rural India do not get much opportunity to venture out of their houses.

They were aware that majority of their consumer bases comprises of women. They came up with the idea of organizing van campaigns and involved women to do so. It created a sense of liberalization among the women, and helped create brand loyal customers for the company.

- Washing your hands before having your meal, cooking food, after working in the fiends or visiting the toilet is a good practice People in rural areas were neglecting this habit of washing hands with soap, which resulted in illness. HUL tried to create awareness and used this as an opportunity to promote and sell their soap and Hand-wash.
- Tata's realized that people in rural areas were deprived of safe and clean drinking water. This was one of the main reasons for diarrhea, which resulted in many deaths each year. The company therefore came up with a low cost water purifier so as to provide safe drinking water in rural areas.
- Dabur Company knew one of the major issues in rural areas among the youth was unemployment and disguised employment. The company thus tried to involve the youth in distributing its products in rural areas thereby providing employment and to have effective distribution of its products.
- HUL company knew the water scarcity issue in rural area and hence it came up with a washing powder which requires only two buckets instead of the average four buckets of water. The product helped in overcoming the water scarcity issue related to washing clothes.

It can thus be concluded that marketing concept is long over and most successful companies are now opting for the societal marketing concept. This approach yields rich dividends when used for rural marketing. It creates a win-win situation leading to a better life for rural consumers and higher profits for the company. The companies need to understand that the problems faced by the rural consumers are different from those faced by their urban counterparts. Each region might have its own set of problems and hence a thorough understanding of region specific issues is very important before devising a marketing strategy.

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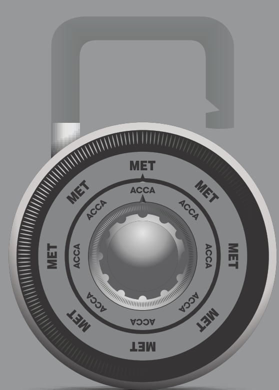

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