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*Peer Reviewed Research Journal*

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# **aWEshkar**

A Peer Reviewed Research Journal

Prin. L. N. Welingkar Institute of Management Development & Research

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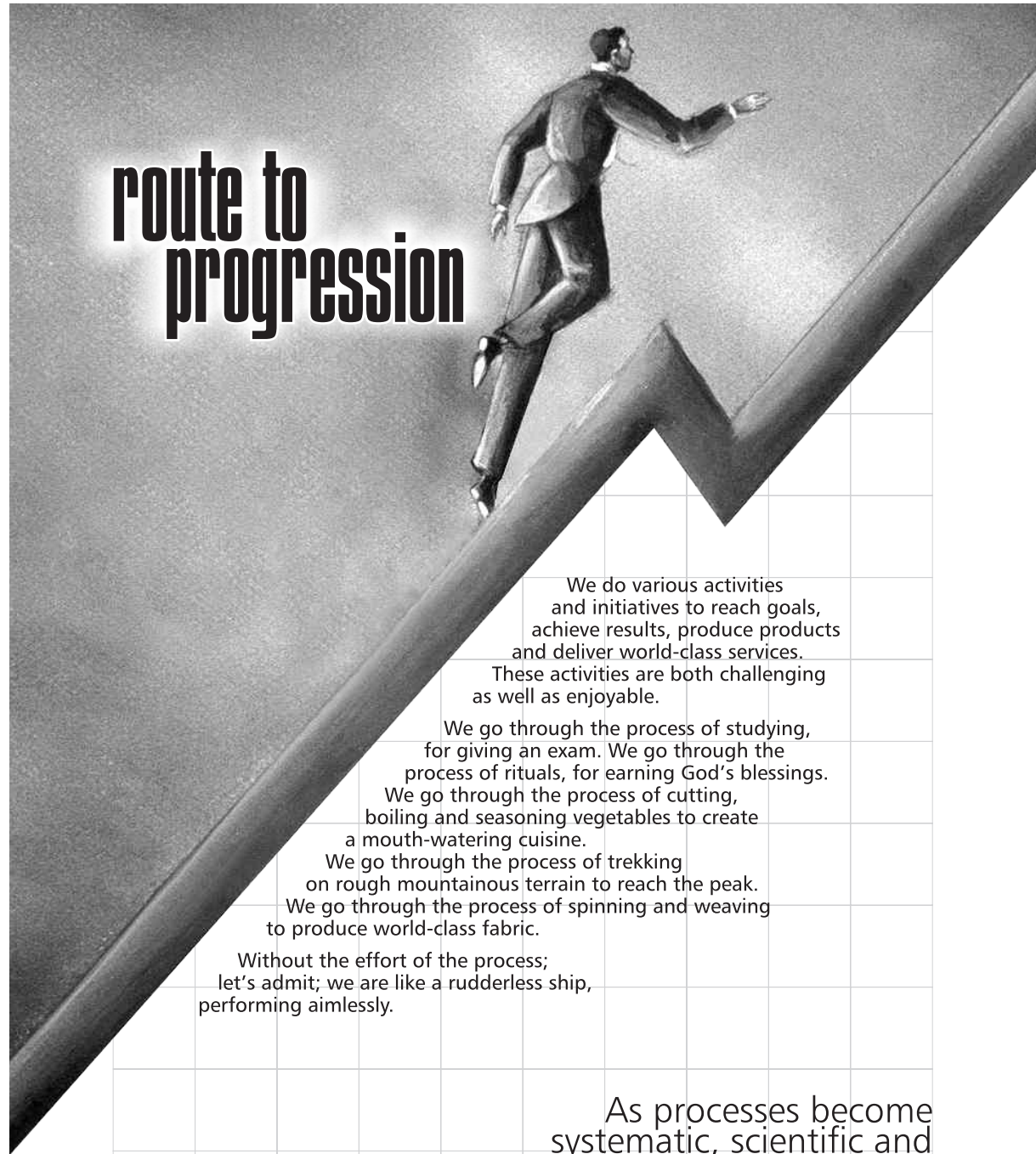
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*Salil Chaturvedi*



# route to progression

We do various activities and initiatives to reach goals, achieve results, produce products and deliver world-class services.

These activities are both challenging as well as enjoyable.

We go through the process of studying, for giving an exam. We go through the process of rituals, for earning God's blessings.

We go through the process of cutting, boiling and seasoning vegetables to create a mouth-watering cuisine.

We go through the process of trekking on rough mountainous terrain to reach the peak.

We go through the process of spinning and weaving to produce world-class fabric.

Without the effort of the process; let's admit; we are like a rudderless ship, performing aimlessly.

As processes become systematic, scientific and streamlined we can measure our

## OUTPUT, GOALS PROFIT and RESULTS

It goes without saying that investing time in preparing Process Plans and charting a course of action is de rigueur for success!

Dr. (Ms.) Ketna L. Mehta, PhD

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'Nano Thoughts on Management', Book published in 2005

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All submissions for aWEshkar to be sent to **ketna.mehta@welingkar.org**. The manuscript should have a cover page with author details, followed by an Abstract, 4 to 5 keywords, full paper, references and figures and tables if any. The manuscript should be typed in Times New Roman font size 12, with 1.5 line spacing and with margins of one inch on all sides. The normal size of a paper is about 5,000-7,000 words.

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**Figures and Tables:** Each Figure/Table should be printed on a separate sheet. Figures and tables are to be separately numbered, titled and attached at the end of the text serially. The position of the figure or table should be indicated in the text on a separate line with the words "Table 1 about here".

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# Yesterday, Today, Tomorrow: To work towards Regenerative Economy

**Niranjan Khatri\***

---

The year 1988 only seems like yesterday, when I heard about my transfer from Chennai to Port Blair, capital of Andaman & Nicobar Islands in the Bay of Bengal. The news sent shivers down my spine 3 parts chill and one part thrill, however this feeling lasted for a few days only.

When I went for the 1st time to Port Blair and while coming for landing run I could see the thick verdant tropical forests in numerous islands, surrounded by tequila clear water, azure and green in colors, with white sand in the pristine strings of islands.

The 3 parts chill became 4 parts thrill for being so fortunate to be posted in such a beautiful place which I had not imagined in my dreams & surprisingly Port Blair used to be called Kaala Pani, Black Water those days. A terminology used by the freedom fighters who were imprisoned there during the British regime.

I can say confidently that there are very few places in the world which have bragging rights, the Andaman & Nicobar Islands have this unique privilege because of its awe inspiring natural capital.

While the islands are extremely beautiful but the infrastructure of the island was impaired, as in most remote locations. I was the GM of the only 5 star 45 rooms hotel with its own challenges and hence I was a

big fish in a small pond, therefore under the gaze of the local administration.

A month after I was posted there the Commander & Chief-C&C of the navy called me up and requested me to do something about the packed lunch boxes emanating from hotel tourists who visited these outlying island on day visit picnic. The remote islands did not have any restaurant facility except sun, sand and crystal clear waters, hence everything was taken by the tourist to these islands from the hotel for picnics and they would litter the island with empty lunch boxes and come back.

The conservator of the forest also gave me similar feedback with a request to do something about changing guest behavior. In those days my hotel team & I were not aware of the environment challenges and we did not know what to do.

These gentle prods from the local administration led us to take hesitant but simple creative steps in environment management, today termed as sustainable development-SD.

The 1st initiative was to make stickers with a message- please do not litter the islands, please bring the lunch box back to the hotel. The sticker was affixed on the cardboard packed lunch box and it had the

---

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desired outcome, guests started to bring the litter back.

In 1988 we did not have any idea that we started EPR- Extended Producer Responsibility which many industries are still grappling with today.

Nature had a way of rubbing my nose on the ground and taught me and my team environmental engineering, there is a saying "Experience is a great teacher, it gives you the test first and lessons later on."

Through the cardboard lunch box EPR experience we learnt that business and environment can co-exist only if we do same thing differently by engaging all stake holders.

Having tasted success we eliminated the use of paper in many processes of the hotel, recycled paper optimally and then phased off CFC based products found in room fresheners without a clue of Montreal protocol of 1988 which mandated that western countries will stop production of CFC by 2000 and developing countries like India by 2015.

( It is important to know the background of the islands those days to appreciate the nature of challenges - the islands had poor telephone connectivity, no TV in the rooms , ships used to come once in 25 days and only Indian Airlines used to come twice a week, with restricted loads, as the runway was small those days. The hotel was operating with many infrastructural challenges).

After sometime we analyzed what to do with spent cooking oil and then converted the same to soap for washing utensils- beginnings of circular economy.

Since our hotel was made with wood we started compensatory /depository

afforestation to maintain natural resource balance. Today there are certification bodies like FSC-Forest Stewardship Council and UN has started REDD-Reducing Emissions from Deforestation and Forest Degradation.

On 1st of April 1990 the hotel experienced severe water crisis without any fore warning. Our water supply was cut by the municipality from 10 KL per to 2 KL per day for a hotel with 45 rooms and 65 staff. We had no clue about water management hence we stopped piped supply of water in the rooms and on request supplied fresh water in buckets for bathing and salt water for flushing use. The learning was to focus on demand side management the need of the hour in the country.

Thereafter we implemented water harvesting in a well for our garden use and roof top harvesting for drinking purpose and sea water pipe line was laid to use for flushing in the toilets.

We used tender coconut shells, littered on the islands for protecting soil on the slopes of our hill slope located hotel and to prevent soil erosion, yet another simple example of biomimicry .

In 1990 we adopted an orphanage and started imparting vocational training to the boys. Today MOT- Ministry of Tourism has mandated that all hotels will adopt the Hunur Se Rozgar Yogna and must train underprivileged boys and girls to create employment opportunities.

In 1991 the hotel opened an environment museum at a cost \$725, depicting the challenges and opportunities of changing ground rules of how to conduct business responsibly by empowering everybody in the organizations to think differently.

This step was taken in order to enter the

perceptual arena of guests mindset, many of them opinion makers/shapers, coming to our hotel for holiday.

In the same year in the state of Arizona Biosphere II was opened at a cost of \$200 million, however this shut down after 2 years, leading to the concept of eco valuation of natural resources.

In the bliss of a small pond and sheer geographical isolation I was fortunate to learn the nuts, bolts, strategy of green circular economy and how to bring eco efficiency in many business processes in the long journey towards SD.

Today it is good to see that concepts like green building, marketing and energy are becoming mainstreamed.

UN had set 10 Millennium development goals in 2000 and in 2105 it set guidelines for countries called the SDG's –Sustainable Development Goals. It is important that hotels align themselves to the goals. Please see UN SDG chart in fig 1.

#### Seeding ideas for green hotels of tomorrow

The hotel industry consumes huge amount of resources hence has been tagged under red category by MoEF depending on its size.

#### What do the hotels need to do?

- Eco design- the art of integrating environment sensibilities in all aspects of business.
- First and foremost the management of hotels and single owners need to retool the mindsets of its work force at multiple levels, as a matter of fact the Catering Colleges need to incorporate a simple module on Eco designing in the colleges so that the students are equipped with a

creative, questioning mind of operating hotels with minimal resources.

In line with the country's commitment to decarbonize, hotels must identify every opportunity to enhance the intake of renewable power thru in site-offsite opportunities.

- In a similar vein the water consumption can be halved with minimal expense by 50% with existing technologies and short ROI cycle.
- Waste is a valuable misplaced resource provided we learn to see it with creative eyes. Existing technologies can convert waste into bio gas for reuse in the hotels hence reducing LPG consumption.
- In India while solar and wind as systems are being installed to run hotels, factories and heavy industry, there is an opportunity to use cow manure based bio gas plant to generate power in large quantities.

According to KPMG India will have 155 million tons of cow and poultry manure by 2020 and by 2030 it will be 260 million tons p.a.

Herein lies an opportunity for generating power in rural India and using the slurry as good quality fertilizer thereby contributing to Swach Bharat and helping farmers to enhance crop yields as per vision of the PM.

The power generated in the rural areas an equivalent can be given by state grid as per the laws that exist in the wind energy domain.

It is imperative that our green initiatives must give multiple value added advantage as has not been thought of before. Needless to mention that all stakeholders, especially

the government must try and demonstrate a show case example in partnership with hotel industry in Haryana to begin with so that the dung of 73,23.286 ( as per cattle census of 2012) cattle in Haryana is put to productive use benefitting the stressed farmers and deriving green energy through synergy with farming /hotel sector.

- The IT industry needs to embrace the principles of cradle to cradle concept so that no waste finds its way into any land fill site for use in closed loop economy and the country sets its target to make India Land fill free country.

These are some examples of leveraging our rural waste in our quest to work towards green circular economy and embracing Extended Producer Responsibility to ensure there is no waste.

The hotel industry provides many jobs, it can identify more green jobs in its value chain in view of the onslaught of artificial intelligence, robotics which is stealing meaningful jobs in a country with demographic dividend .

It is important for industry to migrate from a compliance mode to beyond compliance approach as I believe industry has the bandwidth of unleashing creativity in the world with declining resources.

Fig.1



\*\*\*\*\*

## QUOTES

*To believe in something,  
and not live it,  
is dishonest.*

**Mahatma Gandhi**

# The Mystery Of The Missing Wheelchairs

Suresh Lulla\*

---

A well reputed hospital in Thailand had developed a mysterious problem. They were not able to discharge their patients when the patients were ready to leave.

The hospital policy required that patients should be transported to the lobby in Wheelchairs. But there never seemed to be a wheelchair when needed. In fact transporting patients anywhere within the hospital was difficult, owing to missing wheelchairs.

The immediate conclusion was that there was a shortage of wheelchairs. But the records indicated an abundance of wheelchairs. A new stock had been procured nine months earlier. So where had the wheelchairs vanished?

We established a quality improvement team to address the problem of the missing wheelchairs. Members included the CEO (German), head nurse (Chinese), Head of patient transportation (Thai), Chief administrator (British), Senior accountant (Indian), and a transporter (Thai).

As a first step, the team flow charted 42 as – is discharge processes, distributed over a week, as well as three shifts a day. This brought about a common understanding of the actual process to a multi-lingual argumentative team.

The transporter also tracked the actual time for each activity or task. They collectively, further analyzed the variability of each discharge journey. Numbers, rather than language, catalyzed consensus building.

To every member's surprise, the root cause

turned out to be a shortage of laundry hampers! This was nowhere on any ones radar at preliminary meetings. Much to the embarrassment of the head nurse the nurses were using the wheelchairs to tote the laundry.

As remedial action, the CEO ordered a replenishment of laundry hampers, nurses were happy.

Even with an increase in availability of wheelchairs, patients were quite often delayed for their journey to the lobby, resulting in irritated patients. Why because patients discharges occurred at fixed hours, thrice a day. Demand exceeded supply in these concentrated hours.

The team then suggested that the hospital policy of mandatory wheelchair trip for all patients be replaced by a policy that dictated the use of wheelchairs exclusively for non-ambulatory patients. The new policy eliminated the traffic jams on the wheelchair highway. All stakeholders were happy.

### Lessons Learned

1. Patient Focus is non-negotiable
2. Policies are guidelines; not diktats
3. Anyone impacted by the problem, should be represented in the quality improvement team
4. Vital few problems should be solved by the Vital few managers
5. Flowcharting is a good facilitation tool
6. Numbers are more effective

---

\*Suresh Lulla, is Founder & Mentor, Qimpro Consultants Pvt. Ltd. (Excerpted from his book 'Quality Fables')

Email: ssl@qimpro.com

# Alumni Relations Officer (ARO) Getting The Jigsaw Together For The Picture To Complete

Rutu Gujarathi\*

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Now this one is for the Alumni Relations community.....

As we all will appreciate, Alumni are the most resourceful stakeholder for an institute and also the 'Brand Advocates' of the institute who showcase the Institute's culture and ethos to the society. In this journey of theirs, the Institute plays a vital role in shaping their thinking process and decision making abilities as students of today, to build the mind and character as alumni of tomorrow.

It is known that Alumni Relations Officer world-over are faced with limited resource allocation amongst other challenges of varied types. Mentioned below are few basic principles that could assist the Alumni Relations Officer (ARO) be a 'Pro' and be efficient in overcoming the challenges.

### 1. Be the bridge

Highly efficient AROs become the bridge that connects the alumni community with the alma mater. In doing so they leverage on all the possible modes of connections at their disposal, such as off-line dialogues, online social media dialogues, in-person dialogues etc. to establish and maintain 'connect' with alumni located nationally as well as internationally. Reaching out for suggestions, feedback, advocacy, participation, networking, etc. helps the

ARO extend opportunities for 'continuous dialogue' between the alums and the institute. Smart AROs move the focus of the alumni community from benefits and discounts to a larger purpose of 'helping the alma mater advance', thereby driving a significant shift in alumni's lookout towards their institute and the alumni associations.

### 2. Create a Web-of-Networks

We all know that up-to-date record keeping leads to a well-connected network that can be leveraged on various occasions for a mutually synergetic relationship between the alumni community and the institute. Building up networks could be done by reaching out for volunteers, organizing fund raising; creating networking opportunities such as hosting events and platforms relevant for the alumni's growth professionally and personally. Having events that connect alumni with the institute and the other stakeholders, builds a leadership pipeline amongst the alumni group who could be asked to take initiative and lead at various occasions. Such endeavors give the young and aspiring alumni a chance to test their abilities and the veteran alumni chance for giving-back to the institute or society.

### 3. Clear Mission – Vision

Well began is battle half won having a clear Vision statement and well worded Mission

---

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statements, is like half battle won even before fighting it. Vague Vision and Mission statements lead to no conclusive and calculative goals. Since the alumni office requires participation from various contributors such as leaders, board members, alumni, students, faculty and staff, having a clear line of action leaves no room for ambiguity and streamlines the processes and the outcomes.

#### **4. Involving Leadership**

Like any vital department of an organization that requires attention and contribution from the leadership, efficient AROs seize every opportunity to get the leadership involved into occasions to celebrate the alumni during events and decision making. The alumni office as well as the AROs can benefit from these occasional participations of the leadership more so to get congruence of the alumni endeavors with the institute's mission thereby giving the Alumni Relations Department a larger and holistic visibility amongst stakeholders.

#### **5. Power of Board**

A strong and powerful Body of Members that constitutes the Alumni Board / Alumni Committee is only next important to the institute's leadership. They are the guiding forces central to the strategy and goals formulation for the alumni office where their utmost desire is advancement of the institute and in doing so they extend their support and resources. Efficient AROs take the Board very seriously and encash on their resources and reach for empowering the alumni agenda within the institute as well as outside the institute.

#### **6. Creating an Eco-system**

Collaborating and involving various institutional departments like Academics,

Reading resources, Sports, Research, Career services, Admissions, Marketing, PR, Co-curricular, Extra-curricular and others make the alumni endeavors more meaningful by making it an 'experience' for the alumni. As a result of getting the other institutional departments involved in the alumni endeavors creates an eco-system that together strives to get alumni closer to the institute. Efficient AROs collaborate to co-create a richer experience for the alumni and get Alumni Relations to a central position amongst the institutional departments.

#### **7. Celebrating the Alumni with Recognition & Awards**

It is important for an institute to acknowledge the right doers by recognizing them and awarding them. Alumni office could recognize and give awards for various categories to acknowledge the alumni's contribution to the industry, institute, alumni community and the society. Thus setting benchmarks for others to appreciate and highlighting to the world what the Institute believes in and delivers.

#### **8. Partnering in Advancement and Development**

Though not very developed in India, Alumni Relations Office plays an important role in the Advancement and Development of the institute. The endowments received from alumni work in two ways, first for the reason the funds are collected for and second as publicity in the media of the alumni as the giver and institute as the beneficiary. Effective AROs build on the strengths of these departments and work hand-in-hand for a cumulative result.

**9. YOU – the ARO** make the difference. Last but the most important piece of this

jigsaw is the ARO – Alumni Relations Officer. You are the driving force who can 'make the difference' and can 'drive the difference'. When we say 'make the difference', it is to do with the professional approach that AROs take to alumni tasks. And when we say 'drive the difference', it is to have the attitude and energy that spreads the motivation and positivity for alumni tasks amongst the multi-stakeholder ecosystem.

Efficient AROs strive to continuously innovate and improve the Processes, Policies and People of the existing ecosystem. While they expect others to

continuously innovate and improve, efficient AROs themselves possess a self-improving attitude. Innovating, benchmarking, seeking feedback and collaborating help foster a continuous self-improvement attitude.

Efficient AROs start working on tomorrow's alumni from today - in their students' years. These pointers may – may not get you more resources for the alumni office but could guide you to be an efficient ARO who makes the alumni office an important part of the institute irrespective of the resource allocation.

\*\*\*\*\*

## QUOTES

*“It is my conviction that nothing enduring  
can be built on violence”*

**Mahatma Gandhi**

*“I will not let any one walk through my mind with their dirty feet.”*

**Mahatma Gandhi**

*“The best way to find yourself is  
to lose yourself in the service of others”*

**Mahatma Gandhi**

*“Strength does not come from physical capacity.  
It comes from an indomitable will.”*

**Mahatma Gandhi**

*“The future depends on what you do today.”*

**Mahatma Gandhi**

### Understanding Values

Dr. Hema Mirji\*

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Values direct our behavior. They are core aspect of individual's personality. They are basic conviction which keeps on guiding as to what is right or wrong. A Value has the judgmental element in it. An individual carries his own idea of what is right, good or desirable in contrary to what is wrong, bad or undesirable. For example, whenever you are stuck in a situation as to how I should go about it, the internal guiding system tells us what is appreciated by the people, rather what I should do. In any situation what kind of output I am expecting (Happiness) and if I want to achieve such an output, what kind of path I should take (being helpful). Moreover, what is socially preferable and what should be avoided.

Everyone learns the concept of values from their parents, teachers, elders, and peer group. For example, when you were a kid you wanted a toffee from your friend you could have snatched it from him, your mother telling you not to snatch it, but to request for it. This was the first incident of learning the values, understanding right and acceptable behavior, rather what should be the one's goal in a situation and to achieve a said goal how one should act. In any situation, to be contented, one takes up a particular way to attain the goal.

Both content and intensity characterizes the individual values. The content part describe what is meant by values and intensity describes the priority or importance given by an individual to various values such as

honesty, affection, obedience, equality, self-respect & pleasure etc. For example, in individual's point of view pleasure may be an important aspect but when it comes to work then it is being honest on duty. Thus, in value system honesty is ranked above the idea of pleasure.

Values are studied as an important part of organizational behavior as they influence the perceptual process of an individual. It is important to know how do an individual interprets any of the thing in work place. For example, in a situation of offering promotion, if a HR manager selects an individual who performs outstandingly over an individual being experienced. The HR manager's value system can be understood from the perspective of giving importance to economic output rather than that of being social and respecting the elders. Thus, they are building blocks in understanding attitudes and motivation of an individual.

According to Gordon Allport, there are six types of values, which he described after studying the book "Types of Men" by Eduard Spranger, are as under:

1. **Theoretical value:** Theoretical value places high importance on the discovery of truth through a critical and rational approach.
2. **Economic value:** Economic value emphasizes the usefulness and practicability.
3. **Aesthetic value:** Aesthetic value places

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- to the form, beauty and harmony.
4. **Social value:** Social value assigns the importance to the love and affection of the people.
5. **Political value:** Political value places emphasis on acquisition of power and influence.
6. **Religious value:** Religious value is concerned with the unity of experience and understanding the cosmos as a whole.

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## QUOTES

*“Change yourself  
You are in control  
Forgive & let go  
Without action you aren't going anywhere  
Take care of this moment  
Everyone is human  
Persist  
See the good in people & help them  
Be congruent, be authentic, be your true self  
Continue to grow & evolve”  
Mahatma Gandhi*

*“The greatness of a nation and its moral progress  
can be judged by the way its animals are”  
Mahatma Gandhi*

*“First they ignore you, Then they laugh at you,  
Then they fight you, Then you win.”  
Mahatma Gandhi*

*“An ounce of practice is worth more than tons of teaching”  
Mahatma Gandhi*

## CASE STUDY

# Temptations which are too much to Handle

Dr. Mohan Gopinath\*

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### ABSTRACT

The case describes how a senior functionary in a multinational bank used his position and authority to siphon funds from bank reconciliations which were not properly reconciled and were too long to be monitored closely. The dangers therefore of having a large number of old outstanding items in reconciliations are highlighted as well as the unscrupulousness of individuals who capitalize on their knowledge of financial systems. The danger of having a Chief Executive Officer who is easily carried away by sycophants also comes out. The decision focus of the case is on organizational values and how these can affect the minds of employees negatively if these values are not properly nurtured and spread throughout the organization. Incorrect values, even in a single individual, can also damage the reputation of an organization and bring it a bad name in the market in which it operates. The case brings into sharp focus the inherent dangers of having such individuals in the organization and the importance of cultivating and spreading organizational values of the highest order.

**Key Words:** Bank Reconciliations, Ethical Behavior, Frauds, Bank Audit

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"'Tis a pitiful tale," said the Bellman,  
whose face  
Had grown longer at every word:  
"But, now that you've stated the whole  
of your case,  
More debate would be simply absurd."

Lewis Carroll – *The Hunting of the Snark* - 1876

### Prologue

David Turner was a man of moods and this reflected in the way he walked. A quick walk meant that he was deep in thought and (as he also had an abrasive tongue), his staff were careful not to approach him when his pace was brisk. A slower and leisurely walk meant he was more relaxed. This Monday morning his was brisk and his brow

furrowed in thought. "Better keep away from him for some time," thought Belinda, his secretary who had known him for a long time as Turner came into his office and she saw his face. He intimidated even her. "Ask Willie to see me immediately," he told her. Not even a "please", she thought.

### The Bank

Taiwan International Bank (TIB) is now a large and powerful organization. For the record the incidents described in this case occurred in the Bombay branch just after it was computerized, which was in 2009. TIB, in the decade ending 2010, moved from its traditional core banking areas into insurance, stock broking factoring, private banking etc. through separate subsidiary companies. The bank is headquartered in

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Taiwan. Internationally, it has a very strong presence in South Asia, Europe and the United States. The bank takes a lot of justifiable pride in its mix of managers from various parts of the globe.

TIB's executives fell into two cadres – International Managers and Resident Managers. The International Managers were recruited after graduation from reputed universities globally and then put through an intensive training program at Head Office. The Resident Managers were mainly recruited to serve only in one country. Usually they were graduates of well-known universities of that country. As a rule, all senior positions were held by International Managers or Resident Managers who were senior bankers. While the distinction between the two cadres remained watertight in the seventies and eighties, later on Resident Managers could look forward to being absorbed into the International Managers' ranks or at the least, get cross posted for a period of two to three years to other countries. This was a part of the policy of the bank to 'internationalize' its executive staff. The policy was working well and one of the Bank's Chairmen attributed this factor as one of the reasons why the bank was doing so well internationally.

### **Joining the Bank**

In the eighties, the recruitment process was based mainly on recommendations of potential candidates from people known to the local management of the bank. MBAs were then a relatively rare breed (the proverbial *rara avis*). Consequently, the candidates whom the bank took into its fold came from well-known colleges or from well-heeled families with business connections which would later prove useful. In a few cases, clerical staff who were of outstanding merit would be promoted as

Staff Officers and then as Resident Managers. A couple of them had reached the highest job grade as a Resident Manager. One of them was the Area Manager – Finance, Manoj Hingorani, the 'protagonist' in this case study.

The Strong Head of Indian Operations  
The CEO just before the time of the events narrated in this case was DFL (David) Turner, a tough, no nonsense, extremely intelligent banker with around 25 years of international experience behind him. He was highly respected within the bank and outside. Because of his initials, he was also known as 'Difficult Turner' especially by those lesser bankers who had come across him.

Turner was an expert in both foreign exchange dealings and credit, which was an unusual combination. From a practical point of view this meant that he could independently hold his own with almost anyone without having the support of aides. The four Resident Managers were reported to be petrified if they received a call from Turner as invariably Turner picked relevant holes in the proposals they had sent to him for approval.

Turner had been in the position for slightly over two years. Prior to his Indian posting, he had served in almost all the major countries in which the bank operated. He had left the same extremely good impression in all these places. His resemblance to Stewart Whitman the Hollywood actor, also made him a hit in the cocktail circuit.

A man of strict principles, upright and with the bank's best interests always in mind, he was one of the best CEOs the bank had sent to India. He was the type of person for whom quality of work delivered was of paramount importance. Personal equations

were secondary.

TIB's global operations were controlled out of Head Office by the International Department. This department was run by three General Managers who monitored global operations and were fully responsible for their respective areas, including profitability. A General Manager in International Department commanded a lot of respect and wielded a lot of clout; it was a position which everyone wanted to fill. The normal practice was that after serving his stint as CEO for India, the next posting would be as a General Manager in International. In most cases, this would be the last posting for the officer as he would have reached retiring age by then. At the time the incidents narrated in this case took place, there were only two levels above a General Manager; these were the Deputy Chairman and Chairman of the TIB Group. Turner's equations with his Resident Managers and other senior officers were sometimes not good because of the way he treated them. He could not stand slipshod work and made it a point to rub the point in if he came across any type of slackness. As he used to say often, he was not doing the job to win a popularity contest. Turner was posted as General Manager – Group Audit in Taiwan after his stint as the CEO for India. This was the highest position in the audit function globally. Almost everyone in the bank who knew David Turner felt that he was the best man for this job.

Because of his intellect and functional skills, Turner was an ideal choice for the audit job. He soon got rid of the deadwood in the section and brought in young, highly qualified people into the office. Audit had become a parking place for the unwanted, and this image was hurting the function. Within six months under Turner's

leadership, all this had changed and Group Audit became a section which all the young and ambitious bankers in TIB wanted to join. All the 'fuddy duddies' as TIB called the earlier audit staff were eased out or, wherever possible, relocated to back office functions. Most of them were glad to go as they knew that working under Turner would not be an easy task. He would have driven them hard and it was entirely possible that he would have made them put in their papers if they did not perform up to his standards.

Turner's second in command in Group Audit was WS (Willie) Allen, the Assistant General Manager. The latter had also served a stint in India in Mumbai and could therefore relate to Turner on personal as well as professional levels. Allen was a hardnosed Scotsman and he reveled in the attention he gave to detail. He possessed a legendary short temper, but was a man who was never vindictive even though he was known for his violent outbursts. According to legend, these could be heard in the pub near the Head Office, but this was perhaps an exaggeration. Allen made a superb auditor because of his attention to detail, and along with Turner, reveled in the new image of Group Audit. Both of them were determined to see that the audit function in TIB would stand comparison with that of any other bank.

From being a function which was avoided by new recruits, it was now a challenge to pick and choose from the large number who showed a preference for this function. Apart from being considered to be among the chosen few, the audit function also gave a steep learning curve to its staff and they also quickly obtained an international perspective of the bank.

### **Head Office – the Concerns**

It was a beautiful Monday in Taiwan

morning and Turner's office on the seventh floor of the head office building was humming with activity. Apart from Turner and Allen, Stan Griffith the respected and highly intelligent Group Staff Controller for the bank's global operations was also present. So was Victor Chang, Allen's assistant, an Audit Executive, a Taiwanese national whose extremely sharp mind had been and continued to be of great help to his boss. All of them wore a serious look.

"This is really worrying me," said Turner. "I know bank reconciliations are difficult to keep under control especially when large volumes are involved. But what I saw last week really appalled me." (see Appendices A and B).

"I know what you mean, David. I too had a look and I was astounded," said Allen. Griffith nodded his head. "The US dollar reconciliation of the Indian branches is way too big. I fully agree. Anyone can easily fiddle around with it and no will really come to know. And this one runs into over 250 pages. Must be a record of sorts. Can one of you chaps recap how we got into this mess?"

Allen gazed out of the window. He pulled out his 20 pack Dunhill cigarette packet and gold Ronson lighter and luxuriously lit a cigarette. He was a three pack a day man and relished the fact.

"It started in 2006 when the Indian branches were not computerized. Up to then each of the main branches had their own account with our office in New York and they did their independent reconciliation of this account – the nostro account or 'our account'. In 2006 it was decided to centralize the US dollar reconciliation of all Indian branches in the All India Management Office and the

responsibility for the reconciliation fell on the Finance Department. Branches would pass their foreign currency entries through the Area Management Office instead of directly debiting or crediting their New York account. Finance would then pass the entries into the Vostro or nostro account on behalf of the branches and would reconcile the account twice a month. The volume of transactions then shot up over the years and the reconciliation was reduced to once a month."

"Sounds logical", said Griffith. "But I don't agree with this centralized reconciliation. It would grow too big to handle by one department. You can't just dump the mess for all our Indian USD operations on one department. Anyone with a bit of sense could have seen that. I am surprised the local people in India went ahead with this. Surely someone objected to this procedure?"

Allen smiled grimly. "They did but were overruled. But wait till you hear the rest. The next thing to hit the branches was computerization ; I won't go into the problems we had with the unions over this. You know how long the process of negotiating with them took. Anyway, the branches in India were computerized but it the reconciliation system was not programed very logically or correctly. We did things a bit too fast because of the initial delays in starting the process. Consequently, many entries were duplicated and in a number of cases the details of the transaction were unclear. So it remained outstanding on both sides as different details were mentioned for what the figures represented. Remember that the computerization had to capture the reconciliations from their inception – that was indeed a long and tedious task. So over the years the number of entries was so high that at one point the reconciliation system

collapsed. The CEO brought in a team of officers to sort out the mess but they were only partially successful. They also had to be sent back to their own jobs after a few weeks. So to cut to the chase, we now have 250 pages of outstanding entries and they are shooting up at the rate of knots. We will hit 300 pages in a couple of months. And I am only talking of the US dollar reconciliation with our New York office. ”

“Haven't your team pointed this out during audits?” asked Griffith to Turner.

“Of course, we have. And so has the Reserve Bank of India; they are extremely concerned at the large number of outstanding reconciliation entries in some of the banks they have scrutinized. But the problem is so big that nothing could be done about it. It's become a permanent non-compliance item in our audit reports. The story goes that the dollar reconciliation sheets were brought in by four youngsters when my team called for them. Each of them carried a large steel box in which the sheets were stored.”

“You know, what worries me really are the danger points,” said Victor. “A large reconciliation can be fiddled with and a few innocuous entries deleted by either transferring it to a personal account or directly debiting the account using a cash transaction. If there is an unreconciled item on the vostro - 'their account' side, I can remove it by one of these means and it will never come to light. I would liquidate a similar figure on the nostro side also. Similar figures are common in reconciliations and no one will notice. The reconciliation will continue to balance.”

“Don't these withdrawals have to be cleared at least by the Area Manager - Finance?” asked Griffith.

“Only if they are above a certain sum – INR 50,000/ in our bank. Otherwise it would not come to him. By the way his individual authorizing limit is also INR 50,000/.”  
“And if the Area Manager -Finance was doing the fiddle?”

“Almost impossible to find out,” said Victor. “The Area Manager –Finance is Manoj Hingorani – promoted from the ranks. I don't much care for him. Heard he was not too keen on the Reserve Bank of India's audit team having a butcher's at the dollar reconciliation the last time they were there a few months ago on a full audit. He tried to fob them off with some excuse or the other. This created quite a bit of a furor at the time, I remember. Ultimately, he gave in.”

Turner looked thoughtfully at the others. “I am getting bad vibes about this. Not only is the dollar reconciliation in a mess, it seems to be under the control of a not too lily white banker. I know this fellow well and he has worked under me for a few months in Bombay. I want some more clarity about this but don't want to launch a full scale audit. Willie, can you possibly go there on your own with Victor and find out what exactly is happening? I'm sorry about the short notice.”

“No problem. I would like to go back to the former Jewel in the Crown. I also want to catch up with my old friends in the bank in Bombay.” He looked at Victor who also nodded his assent. “Let's say we fly out mid-week and try and be back next week by Friday. This will be a surprise visit and Hingorani will not know what has hit him. I have met him a couple of times and to be frank he doesn't ring true.”

Turner looked visibly relieved. So did Griffith. “Thank you gentlemen”, said

Turner. "You have lifted a weight from my mind. I would love to see Hingorani's face when you walk into his office. I should as a matter of courtesy tell Dobby (Terence Dobby – CEO for India) about your arrival but I don't think I will."

And so the stage was set for a memorable visit to Bombay by two astute bankers who could be relied on to let nothing slip by their very bright minds.

### **The Area Manager – Finance and the CEO**

When Turner had referred to Hingorani as a 'not too lily white banker', he was being charitable to the latter. Hingorani had been in the bank for 31 years and had joined as a clerk in the Bombay office. Through sheer hard work and intelligence he had climbed up the ladder and was now one of the two Resident Managers who occupied the highest grade in the bank in India, on par with a regional branch manager. However, according to those who had worked with him, he was not averse to bending rules in return for favors from customers. He was also a born sycophant and would go far out of his way to please his bosses. Many attributed his rise in the bank to the latter habit and they were right in their assessment. Hingorani especially cultivated the International Managers who were posted to India in the hope that they would carry a good impression of him when they went back to Taiwan and promote his cause there (see Appendix C).

He was what is popularly known as a 'kick down, kiss up' manager and had a following of quite a few people in the bank who disliked him intensely. He also had his 'fans' who would go out of their way to help him in return for some benefits he could dole out to them. He was also a worshipper of the CEO and it was Dobby who had

promoted him as the Area Manager – Finance. This was a Godsend for Hingorani who knew that once he got that job, he could manipulate quite a lot of the financial systems for his benefit. He particularly had his eye on the USD reconciliation which he knew held a wealth of possibilities. He would retire shortly and a bigish nest egg would be most welcome. He had now been in the job for two years and had already put his plans into effect in terms of milking the USD reconciliation.

Dobby was once described by someone in head office as having a skull so thick that a bullet would not penetrate it easily unless fired from close range. He was a throwback to the colonial era and had been in India for three years. When he first landed in India he checked into the Taj Mahal hotel (old wing). He had insisted on the Taj Mahal hotel as he could get a view from his room of the Gateway of India, a prominent relic of the British Raj. He had insisted on this room with the view. Sometimes he wished he had been born a century earlier and been a part of the pageantry of the colonial era. He could imagine himself, for ceremonial occasions, in the colorful attire of a senior member of the British government with a number of people to serve him and attend to his lightest whims. But he consoled himself by thinking that he would make the most of his stay in India as far as ceremonies went. He would make sure that he brought a whiff of the Raj into his dealings with the Indian officers of the bank. He instinctively took a liking for Hingorani and his servility. This was the way he felt the natives would have behaved in a bygone era.

Hingorani caught the attention of Dobby when the former successfully sorted a problem the bank was facing with the Reserve Bank of India. The issue was a

minor one but Hingorani blew it out of proportion and gave the CEO the impression that he had single-handedly sorted out a major crisis. Hingorani was then working in the Bombay branch but he was now transferred to the Area Management Office.

The CEO took the Hingorani under his wing and proceeded to give him more responsible jobs. Ultimately he promoted him as the Area Manager – Finance which was an extremely sensitive and powerful job in the bank. There was opposition to the promotion from senior officers but the CEO bulldozed his way through the anti Hingorani group and had his own way. He told Head Office that Hingorani was the ideal banker in India for the job.

### **The Modus Operandi**

One month into the job, Hingorani asked his deputy, Ramesh Mansukhani (another loyalist; his enemies in the bank had another term for him) to get a sub-staff bring a hard copy of the latest USD reconciliation. It was necessary to have an accomplice in what Hingorani planned to do though the exact method he would use was still not clear in his mind. Mansukhani owed a lot to his boss and the latter knew that he could depend on his deputy to do what he ordered him to do. He asked Ramesh to come in on a Saturday which happened to be a holiday and so gave him to days to plan his ways to 'use' the reconciliation.

Hingorani had the hard copy of the reconciliation on his table when Ramesh walked in.

“Ever seen the size of this?” he asked Ramesh. Ramesh shook his head. Hingorani scrutinized the sheets for a full 15 minutes without speaking.

“The earliest outstanding entry goes back

15 years. That was before you joined the bank. It's for an amount of USD 200/ and represents cover paid on a dollar draft drawn by our Calcutta office on a bank in Boston.”

Ramesh, who was not used to the details of how remittances were made by the bank looked puzzled and his boss noticed the look.

“When we draw a dollar draft on a correspondent bank (or even on our own overseas branch), we have to reimburse them for the payment they will be making when our draft is presented to them. So we have to fund them for paying our draft. Otherwise why should they honor our draft? This payment we make is known as a cover payment. Sometimes, because of the large volumes involved the cover payment is not transferred to the correspondent and it remains in our New York account. Correctly speaking, the correspondent bank should have followed up for the payment but in many cases they do not do so. It depends on how vigilant they are. In this case the amount is also small.”

“So?”

“Chances are that by this time the correspondent bank has forgotten about this. If you recollect, we in TIB have an account called 'Drawings Paid without Cover'. A 'drawing' refers to a draft. This account is used to make payment of a draft drawn on us and we are not sure how and where we have been paid the cover. We debit this account to make the payment (we cannot dishonor a draft of our correspondent bank by saying cover had not been paid to us) and it is reflected on the asset side of the balance sheet. As you know demand drafts and pay orders are never returned unless they have been reported lost or there is a technical error in the instrument. This is a global rule for

banks.”

“The entry is reversed,” continued Hingorani,” when we know cover was credited to our New York account; we then debit 'New York – our Account' and credit the paid without cover account. And that's that. Got it?”

“I think so,” said Ramesh.

“It is up to the paying department to follow up and ensure receipt of cover is not delayed. A large number of entries in the Drawings Paid without Cover account means that follow up is poor. It is a dead give-away and shows laxity on the part of the department. In this instance after 15 years, people would have forgotten about it. And we, my dear old chap, are going to make use of this forgetfulness. See if you can locate a similar amount on the debit side.”

“Yes, and it is also within a week of the entry you located for USD 200/. It relates to some charges we have to receive from another correspondent bank. We have debited New York –our Account but the entry is still outstanding.”

“Ramesh, you will now reverse both entries using cash withdrawals. You and I split the proceeds and the dollar account remains balanced because equal amounts have been removed from both sides.”

There was silence for 10 seconds in the room as both men looked at each other. It was very quiet in the room.

“Boss, you are a genius,” responded Ramesh with a slow smile. His scruples and ethical values would have been difficult to locate even under the most powerful microscope.

“I know,” replied Hingorani modestly. “I am proud of you my number one son.”

And so started a systematic campaign by the duo to draw cash from the nostro dollar

account. Initially, the pair of them were worried that someone in the bank would get suspicious at the amount of cash vouchers which were coming out of the Finance Department. But nothing of the sort happened. Ramesh soon got the hang of it and they now both were emboldened by the fact that no one noticed what was happening. The amounts chosen were smaller than the USD equivalent of INR 50,000/ which meant that Hingorani could authorize the payment. The vouchers for the withdrawals were prepared by Ramesh who soon learnt to spot the entries which were unlikely to be queried by anyone if they were removed. The number of withdrawals also increased per month and both were highly satisfied at the way their disposable incomes were mounting. In fact, Hingorani had to caution Ramesh to be careful and not go too fast as he did not wish anyone to spot the number of cash vouchers he was authorizing. So far the duo had been lucky. This was a tricky issue and a sharp eyed cashier or teller could have known that something was rotten in the state of Denmark. It was now almost a year since they had hatched the highly nefarious activity. Luck seemed to be on their side and their visits to a nearby temple to give their thanks to the almighty increased in frequency.

“Religion is my second name,” said the senior officer to his deputy after one of these visits. Ramesh nodded in agreement and smiled to himself.

Till one fateful Friday morning when Hingorani walked into his office and found Willie Allen and Victor Chang from Head Office's Audit Department waiting for him. As was the usual custom, the two officers had done their own travel and hotel bookings so that the branch had no idea of their impending arrival. This was the

procedure usually followed during a full audit.

Hingorani could not hide a look of dismay which he covered up with a broad smile. Both the visitors had noticed the initial reaction.

“Good to see you, gentlemen,” said the Area Manager – Finance. “This is an unexpected pleasure.”

“We just popped in to check a couple of things. We will just say hello to Dobby and be back,” said Allen without preamble. They were back in 15 minutes and neither had mentioned to Dobby the reason for their visit except to say that it was a routine check they were doing of major branches and was not an audit. They gave Dobby the impression that they were concerned about the IT systems in the bank.

“Right, now to business,” said Allen to Hingorani when they got back. “We are going to look at all nostro account reconciliations. The Reserve Bank of India is putting pressure on us because of the growing number of unreconciled items and we want to see how things stand ourselves. We want to see them from the time we started doing these reconciliations. I want you to take hard copies of the sterling and US dollar reconciliations first as we plan to start with those. Take copies of the first five years initially. Give us an office room to work in and we will call you if required.”

Again, both the visitors noticed a shadow pass across Hingorani's face. Ramesh had joined them by this time and he too looked a little pale.

Within an hour, Allen and Victor had settled themselves in their office. The first batch of reconciliations arrived and Allen whistled incredulously when he saw number of unreconciled items.

“A goldmine for the wicked,” he told Victor who nodded in agreement. “Or a minefield of potential danger for the bank.”

“You know what to check,” continued Allen. “Look for the smaller items which keep disappearing from both sides of the reconciliation. Then we look at the paper trail of how they disappeared and see who comes out of the woodwork. Hingorani's limit for authorizing payments on his own is INR 50,000/. Keep that in mind. My guess is that whoever might have done this would have started from the older entries.”

And so for the next three days and most of three nights the two officers slaved through the maze of entries. Visits by Hingorani and his assistant were discouraged right from the beginning. It was at the end of the second day that they latched on to their first genuine 'find'. This was the first USD 200/ dollar transaction Hingorani had identified. The entry had disappeared in the subsequent reconciliation along with a corresponding and similar figure to set it off. The two soon saw a pattern emerge in how the reconciliation was being misused. A visit to the bank's archives where the vouchers for the day were stored revealed that it was the Area Manager Finance who had authorized the cash withdrawals in each case and the receipt of cash was acknowledged by his deputy by signing on the reverse of the voucher. Allen and Victor looked at each other when they saw the vouchers for the first time. They knew they had an open and shut case in their hands. Now it was just a matter of proceeding systematically and carefully. They also had to make sure that Hingorani and his assistant were kept totally in the dark of what they two officers from Head Office had discovered.

They breathed a sigh of relief as the next steps were routine. A call to Turner and

Griffith as to what they had found and a visit to the CEO were the priority items. "First the overseas calls," said Allen to Victor. "Dobby can wait. I will just tell him that we want to spend an hour with him soonest. We will also tell him to keep the meeting a top secret. Let him stew a bit. Meantime we will get the original vouchers signed by the dynamic duo and the copies of the reconciliation to show Dobby. Their modus operandi was not even clever," snorted Allen.

### **The CEO's Dilemma**

Allen had a hair trigger temper which he had learnt to keep under control over the years. Dobby's reaction when the two of them broke what was happening in his office and that too by a very senior banker, almost made Allen 'lose it'. For, what the CEO said when he saw the documents was, "It's not such a big deal; many banks are subject to such risks."

"Have you gone crazy?" shouted Allen. "A major fraud has been happening under your nose, perpetrated by someone you personally recommended for promotion and you have put your own job on the line. And is that all you have to say? And the Reserve Bank of India is going to come down very hard on you for this mess. It is going to hit the press and you my friend will have to face the music. We have just been on the phone with Turner and Griffith and I have never seen them so angry. I also learnt they will be calling you as soon as they decide what to say."

For the first time Dobby seemed to lose his confidence. The references to his job and the publicity had got home.

"You have a major problem my fine friend," continued Allen and looked at Victor.

"I think you have multiple fires to douse," responded Victor to Dobby. "The major ones have just been highlighted. But you will find innumerable new ones surfacing based on this one major unfortunate event. For example, for starters how will you tackle Head Office? Griffith and his colleagues are not going to let this one pass lightly. What are you going to tell the union?"

Dobby sat down and had a sip of water. The blood had drained from his face. All his arrogance had disappeared.

"Tell me gentlemen. What should I do and where do I start? If I don't handle this correctly I will be the laughing stock of the bank. Especially as Hingorani was my choice to be the Area Manager – Finance. I virtually rammed him into the position. " Victor looked at the CEO. "You have to come up with an action plan pretty fast. That call from Head Office is going to come soon and you have to have a plan ready. You have to show them that you are in some kind of control of the situation. Prioritize what you plan to do and who you are going to help you get on with what you intend to do. Please list out the various action points immediately. Both Turner and Griffith are in no mood for excuses; I strongly suggest you do not repeat what you told us a bit earlier about this being a routine affair in many banks."

The CEO buried his face in his hands. "I understand", he mumbled. "Thank you. I will do what I can to salvage this mess. The problem was he had no idea what he should do."

Allen and Victor looked at each other. They almost felt sorry for the CEO.

## Use & Objectives: Courses and Levels

The events narrated in the case are meant to highlight its discussion focus which is organizational values and their importance in ensuring employees maintain a high level of ethical standards. It is meant to improve the students understanding of several important issues relating to how they should understand and react to organizational values, and the thin line which separates enacted and espoused values. If we think about the times when we have been confronted with a value based dilemma, we might be able to recognize what kind of choices we were then compelled to make. In banking organizations especially (and this is applicable to other organizations also), the link between enacted and espoused values is often a thin one. What is important for the student to understand is that mismatches between these two types of values can harm the organization and will, if not corrected in time, lead to its nemesis.

Companies which stick to following their espoused values on a continuing basis in their day to day operations naturally are the long term survivors essentially because their employees have trust in the organization.

Over two thousand years ago, in 431 B.C., Pericles in Ancient Greece “eloquently urged the Athenians, who were at war with the Spartans, to adhere to values such as those inherent in democracy: informality in communication, the importance of individual dignity, and promotion based on performance. Pericles realized that the underlying values might mean victory or defeat.”(Weihrich and Koontz, 1998; 333). Rokeach in 1973 defined a value as "an enduring belief that a specific mode of conduct or end-state of existence is

personally and socially preferable to an opposite or converse mode of conduct or end-state of existence" (Rokeach, 1973). Rokeach also developed the concept of terminal and instrumental values. It is interesting to note that in an organization terminal and instrumental values can both get jeopardized simultaneously if the value systems are not in line with what is stated and enacted. And the fact that Pericles referred to “the importance of individual dignity, and promotion based on performance” over two thousand years ago shows the importance of treating employees with dignity.

The case is meant to be taken up ideally at the post graduate level, in a class for MBA or post graduate students in management, specifically for students specializing in Organizational Development/ Human Resource Management. It will specifically benefit students studying the processes and implications of organizational values as the case is positioned by us as one for understanding the complexities of the right and wrong ways of doing work in organizations. Ideally the students analyzing this case should have a minimum of three years' work experience in order to fully understand its multi layered nuances.

## Learning Objectives

The discussion point of the case is that it will help students to improve their understanding of several important issues relating to how they should view and view and understand organizational values in terms of their impact on the working and perception of employees. Specifically it will help them to:

- Analyze the challenges which senior management can face when they see subtle or blatant deviations from espoused values.

- Compare and contrast issues relating to how and why employees can view the same issue from different perspectives and be able to justify their stand.
- Evaluate the different ways in which errant employees should be handled when they act against laid down procedures.
- Plan and organize priorities and infer how to go about resolving a potentially dangerous value based issue which can jeopardize the reputation of the organization.
- Interpret what is happening in the organization at various levels in terms of ethical mismatches.

### Conceptual Perspectives

The essential perspective the case brings out is the importance of laying down policies and procedures which are linked to the values systems espoused by the organization, and not let short term considerations come in the way of this. The temptation to do this is high when a senior banker occupies a seat of authority and can use the clout he or she has over the systems to take part in activities which should be totally alien to any organization. Employees however, should never let such considerations take precedence over ethical ways of working irrespective of the temptations to do so. Organizational values should be ingrained into the employee's psyche during the induction period and should be frequently reinforced by top management. The very last thing which should happen is that employees perceive that there is a Disconnect between the espoused and enacted value systems operating in the organization.

A study done by Khanna A and Arora B., (2009) proves that the attitude towards RBI

guidelines is highly correlated with the level of compliance that included internal audits and control measures that can considerably reduce the occurrence of frauds. Albrecht (1996) stresses upon the moderating effect of internal controls on employee perceptions of organizational justice, thus reducing the likelihood of frauds. These papers emphasize that perception of employees towards the organization's focus on ethical environment has a role to play in preventing unethical practices in banks

Haugen and Selin (1999) bring out the objectives of internal focus including ensuring reliability of records and further stress upon the role of management's integrity in ensuring effective internal control systems.

Hyun (2001) indicated that articulating a clear and coherent notion of authentic values is an important task for any autonomy theorist. Much of the recent philosophical literature on individual autonomy has focused exclusively on the psychological conditions and abilities necessary for a person's acting autonomously. Less consideration has been given, however, to the equally important condition of an individual's having authentic values. While local autonomy is a characteristic of actions, global autonomy is a characteristic of persons. There exists the danger that too much emphasis on the need for critical reflection might make authentic values possible only for philosophers and other intellectuals. Having authentic values is a necessary precondition for acting autonomously. Persons are autonomous to the extent that they act on the values that can appropriately be called their own.

Sullivan, Sullivan and Buffton (2002) focus upon the role of organizational values and the alignment of these to individual values.

A congruence between the two types of values can be a facilitator for rapid and effective organizational change. The paper also explains how values affect behavior.

Krahnke and Wanasika (2011) were of the belief that strategic deception is a legitimate strategic tool and means of competition, and the by-standing stakeholders, namely the customers and suppliers were the victims in the process. The authors propose an ethical strategic framework aligned with universal individual values to reduce the damaging effect of corporate deception

A study by Ton van Nimwegen, Soeters Joseph, van Luijk, Henk (2004), indicated that multinational companies expected their employees to exhibit 'proper behavior' and envisage problems when they failed to keep up moral standards. This paper described the multinational bank that formulated four company values to ensure standards of morality were upheld at all times for all transactions involving the company's personnel on a worldwide scale. A rollout program permeated the four values of integrity, respect, teamwork and professionalism among the subsidiaries. The paper covered challenges involved in formulation, diffusion and reception of these values among the subsidiaries of the company.

The linkages and importance given to the key perspective being analyzed in this case comes out clearly in the foregoing brief review of conceptual foundations. The importance of working to value systems which are espoused is very important if an organization has to sustain itself over a long period of time. This fact is also evident from a study of the literature.

### Teaching Plan

The case is best used in a class of around two and half hours duration. The case provides scope for the discussion of multiple topics with the focus being on value - based ethical performance and the importance.

The instructor should ask the students to come prepared to specifically answer the following questions:

1. What do you feel will be the reputational repercussions on the bank because of the behavior of Hingorani?
2. Could the problem have been diffused by the CEO if he had not trusted Hingorani as much as he did?
3. Were the problems identified by Allen and Victor (which Dobby would face ) in terms of resolving the issues the correct ones?
4. Was Hingorani aware of the reputational risk to which he was putting the bank if what he was doing came to light?
5. What action (if any) should be taken against Hingorani and Ramesh by the CEO?

The instructor should begin the class asking a general question as to whether anyone has experienced such an event or heard of something akin to it (this is where the work experience of the students becomes important). He or she can then delve deeper into the subject by opening up with leading questions such as "what would you do if you were in the place of Dobby and the entire untidy mess was reported to him by the two officers from Head Office? The recent cases of banks being involved in

fixing the LIBOR and money laundering scandals (to name two) should form a backdrop to these discussions.

Preferably after the initial questions are asked, the class should be asked to form groups of four to five individuals and discuss the case in detail and identify the main issues which the incidents raise. This should be for at least one hour. They should then make presentations which should include the issues identified. Active class participation should be encouraged by the instructor.

Alternatively, the instructor can make the entire class discussion driven, with him or her acting as the facilitator. If so, the recommended balance for analyses is as follows:

1. Introduction to the case – 30 minutes
2. Discussion on having watertight computerized systems – 20 minutes
3. Ethical issues which are highlighted by the case – 45 minutes
4. Possible solutions – 45 minutes
5. Wrap Up – 10 minutes

### Discussion Questions and Answers

1. What does the case teach you about value systems in an organization?  
It brings out in sharp relief that compliance to espoused and enacted values is very important and these value systems should not be flouted by executives. Companies depend a lot on trust to get the best out of their employees and if the trust goes, then the edifice on which they operate also goes and results in the collapse of the organization. There are innumerable cases in the history of companies and banks in various countries which go to prove this point. And it will be seen that

organizational sustainability and organizational values go hand in hand. History shows that it is those organizations which stuck to their core ideologies and values and did not allow its employees to compromise them for short term profits, which won the day.

2. What is the reason for the disconnect between an organization with sound values and employees who do not espouse these?

It is a truism that the personal values of an individual should be as closely linked to the organization's values; the absence of this can naturally lead to an excess of turnover in employees leading to obvious problems. Or it can lead to activities such as the one described in the case. Allen and Hingorani and to a certain extent the CEO were at polar ends as far as their value systems were concerned with Allen standing for all the valuable ethical policies formulated by the bank, with Hingorani (and his assistant) at the other extreme. The fact that the bank had publicized its organizational values which were supposed to be transparent and clean made Allen react in the extreme way he did when he and his assistant met the CEO to tell the latter what they had discovered. Functional knowledge and intelligence are musts for any job; what is extremely difficult to find is a combination of these factors and commitment to the values of the organization.

3. Do you feel that recruiting policies in an organization should do more to check the match between organizational and individual values?

They should, but from a practical point of view it is difficult to ascertain the match with complete certainty. For example, a

senior level recruit to a banking organization may have all the correct credentials to back him up. It is only when he is actually in the job, however, that the true colors of the person come out. In the incidents described in the case, Hingorani had been with the bank for decades and yet was placed in a position of power and authority.

In general, organizational values tend to be about the behavior of people in the organization and the decisions that are made. For example, Google (the Internet search engine) is famous for its motto 'Do no evil' (which is quite similar to the medical professions 'Do no harm'). The Body Shop is known for not selling products which have been tested on animals. There are many voluntary and mutual organizations (like charities, and trades unions) which exist because of particular values that their founders and supporters believed in. For example, the Salvation Army was built on the value of "temperance." To sum up, it is felt that in theory it is fine to say that an organization has employees who share the former's values. *De facto*, it is not that easy to put into practice.

4. Are organizational values of any significance in today's competitive and brutal corporate environment?

Competition in the external environment should be a trigger for organizational values to come to the forefront; this applies equally to individual values. If this is not done, then there is every chance that the organization will lose its core ideology and focus. These values should serve as an anchor for the organization to move forward. A popular phrase used in organizational communication and other circles today is employee engagement. The

term is used to describe members of an organization who are personally invested in their work and in the success of their organization. These are not individuals who are simply putting in hours or marking time, but those who truly care about the future of the organization and are willing to invest their time and effort to ensure organizational success. Research conducted among U.S. companies suggests that only about one in four employees are actively engaged in their jobs, and as many as one in 10 are actively disengaged.

To use a popular example, this would mean that if you were to put a football team on the field, only two or three players would be totally committed and willing to take the personal initiative to help the team win, and one of your players might be actively sabotaging the team's efforts through their poor attitude and opposition to direction from the coaching staff. This is what happened in the case of TIB and the Area Manager – Finance.

5. What does the case teach you about computerizing critical areas in a bank?

It is most important that the pressures of time do not get precedence over the system being computerized. If critical areas such as reconciliations are not computerized systematically, it can lead to a number of problems which can crop up later. The people handling the work should be fully aware or made to be fully aware of what the deliverable should be. Otherwise, as happened in this case, the end result will be shoddy and also capable of being misused. This applies to all areas in banking as there are no 'non-critical' areas in a banking organization.

### Epilogue

After the meeting, Dobby set about trying

to salvage the situation as best as he could. He was hampered by the fact that under normal circumstances he would have relied on Hingorani to help him; obviously he could not do this now. Griffith and Turner were the first to be tackled when their call came through. The half an hour call shook the CEO and made him realize how slack he had been in monitoring the work of the Area Manager – Finance. He reported the matter to the Reserve Bank of India and the police during the course of the day. The Reserve Bank auditors came in the next day and started a detailed audit of the reconciliations and all other systems in the bank. This lasted over two months. Hingorani and Ramesh were dismissed and the matter was also reported to the Indian Banks Association. The police case which was registered dragged on for many months and the officers finally had to undergo simple imprisonment and had to pay a large fine.

The bank's union had to be brought into the picture as otherwise they would have felt matters were being hidden from them; by this time almost everyone in the bank knew of the fraud which was perpetrated. It took a long time to convince them that appropriate action would be taken against the two officers.

The tellers who paid cash were reprimanded as they were not vigilant enough to check why so many cash vouchers were being presented by Ramesh. One of them, who had paid cash against the largest number of vouchers, was dismissed.

The CEO was quietly transferred to Head Office and then asked to put in his papers. His successor bore the brunt of clearing the mess. The press played up the matter for the first two weeks and then other matters in the world of banking took precedence.

## Research Methods

This case is based on real life events which have been embellished in order to bring out the basic thrust of the case, which is focused on organizational ethics. Misuse of value systems by people in authority is a well-known reality in organizations and incidents such as the one described in the case are in no way unique. The characters are based on real life persons though their names have been changed. There is also no bank in existence named 'Taiwan International Bank'. The experience of one of the authors who spent over two decades in a multinational bank has also acted as a platform on which the case is written.

## Valedictory

For the record, the following were the reactions of Griffith, Turner, Allen and Victor Chang many months after the incidents described in the case.

*Stan Griffith* – “I was really most upset and angry at the way Dobby let matters slide. He should have been much more vigilant as the CEO. I was against him being sent to India in the first place, but had no choice at the time as we were facing a shortage of senior bankers. I feel we did the right thing in pulling him out of India and then letting go of him. I did feel sorry for his successor who had to additionally handle this case on top of his usual heavy work load as the CEO of a large country.

*David Turner* – “I was extremely angry with the audit team as they had not given sufficient importance to the seriousness of the US dollar reconciliation getting out of hand. I was also to blame for this as the matter was brought to my notice earlier. Under the circumstances, I sent two of my best officers to see what could be done to

set matters right. I am indeed happy that they lived up to my expectations. I told Griffith that I was ready to face any adverse consequences the incident may have on me but he indicated that he had full confidence in me. I am indeed beholden to him for saying that.”

“In addition, I also conducted a two hour session with my audit team and told them never in future to ignore danger signals, whatever the excuses made by the branch. I think I got the message home quite well.”

Willie Allen – “That twit Dobby's reaction to what had happened when Victor and I first met him to apprise him really made me see red. It is not often that I let my temper get the best of me but he managed to do that. But we really put a scare into him and made him realize the enormity of what had happened during his watch in the bank. He was a nervous wreck when we left him. He fully deserved what Griffith did to him by making him leave the bank.”

Victor Chang – “This incident had all the ingredients to blow up into a major issue. I have rarely seen Allen so angry and it was entirely justified. He is one of the most principled bankers I have come across and the incident really hit him hard. The CEO's initial reaction was unbelievable. I was therefore relieved when Dobby left the bank. He, Hingorani and Ramesh gave the bank's image in India a bad dent. I repeat, I am really glad the unholy trio is no longer with us.”

(Note: the stanza of Carroll's at the beginning of the case is a tongue-in-cheek reference to the activities described in the case by Hingorani and his assistant).

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## Appendix A Interbank Accounts

A bank cannot function as an independent entity but has to be linked with its branches (local and international). This is necessary so that remittances, trade transactions, foreign exchange transactions etc. are all routed through these accounts and without interbank accounts a branch cannot operate. The ideal way these linkages can be established is by maintaining accounts with them (or the other way round). So an Indian bank branch's account with its New York branch will be called 'New York – our Account' in the Indian branch's books. The entries in the reconciliation will be denoted in US dollars. It is the responsibility of the bank maintaining an 'our account' to conduct the reconciliation.

There will be a mirror account called 'New York – their Account' in the Indian branch's books which will reflect the entries passed by the New York branch into the account of the local branch with them (in US dollars). New York branch will not have a 'Bombay – their account'. They are also not responsible for reconciliations.

The problems which can arise are when the details of the entries are not clearly captured by the system. In such cases there will be a doubt if the outstanding entries in the 'their' account and the 'our' account are related to each other. Cancelling them and removing them from the reconciliation in such cases can be potentially dangerous. Under the manual system an officer could use his or her common sense and cancel or let the entries remain. An automated system makes this difficult and entries remain outstanding even when they could have cancelled out each other.

Many a time the New York branch will deduct charges for handling a transaction and so the amounts in the entries in the

two accounts will not match exactly. It is here that the old manual system had an advantage as the reconciling officer could use his or her judgment to see if the entries pertained to the same item.

### Terms Used in the Reconciliation Process

The account maintained by a bank with another bank is known as a nostro account and the statement which it receives from the bank with which it maintains accounts is known as a nostro account statement. The replica of this account is maintained by the bank in its books for operational purposes and is known as a nostro mirror account. Through the process of reconciliation, banks can track the status of cash received/receivable and the amount paid/payable and track unsettled transactions either in mirror or in actual nostro accounts. For instance, banks can ensure that their interbank cash flows from FX Spot, FX Forward, FX Swaps, borrowings, placements, derivative trades and merchant flows like Foreign Bills purchased/realized, Foreign Inward/Outward Remittances etc. are received and paid appropriately. It is important for banks to reconcile nostro accounts immediately on receipt of the statements from the correspondent banks as this will enable them to reconcile the same with their nostro mirror balances and also take quick remedial action in case of unsettled/discrepancy in transactions.

It is important that the outstanding entries on both sides, when added to the balance in the foreign branch's account and the balance as per the Indian branch's account, total to the same figure. This will show that the reconciliation is correctly done.

(The second section of this write up is based mostly from the Infosys Thought Paper 'Nostro Reconciliations' by Vinod Kumar Adepu)

## Appendix B

### BASIC FACTS RELATING TO RECONCILIATIONS

#### Inter Bank Reconciliations

- Every transaction undertaken by the bank has to be correctly recorded in the reconciliation sheet.
- Action on unreconciled items must be initiated as any delay will render the reconciliation process difficult.
- With a view to minimizing the incidence of unreconciled items, it is the practice in banks to put the transactions in a suspense account.
- A nostro account is the account maintained in foreign currency with a branch/ correspondent bank abroad. If Canara Bank maintains a USD account with Citibank, the latter would be debiting or crediting the account of Canara Bank in USD. Canara Bank in India in its books should maintain the accounts in INR. Canara Bank, in its ledger records the nostro account transactions in two currencies – USD and INR.
- One account is maintained in foreign currency to know the actual balance kept abroad and is used to reconcile the balance in the account with the statement received from Citibank.
- The second account is written with the actual amount received or paid in INR by the bank for each transaction.
- The bank in India thus maintains a mirror or shadow account which is an exact copy of the entries in the nostro account.
- When Canara Bank purchases foreign currency, the nostro account will be credited by Citibank.
- When Canara Bank sells foreign currency, it will debit the nostro account.

- In the mirror/shadow account maintained by Canara Bank, purchases will be debited and sales will be credited.

#### Customer Related Reconciliations

- For normal banking transactions, whenever a customer deposits money, it is entered as a credit and whenever he withdraws money, it is recorded as a debit. A customer of a bank in his books debits the bank account wherever he deposits money into the bank and when he withdraws he credits the bank account in his books. A nostro account with a foreign bank can be compared with a bank pass book while the mirror account maintained can be compared with the cash book maintained by the customer.

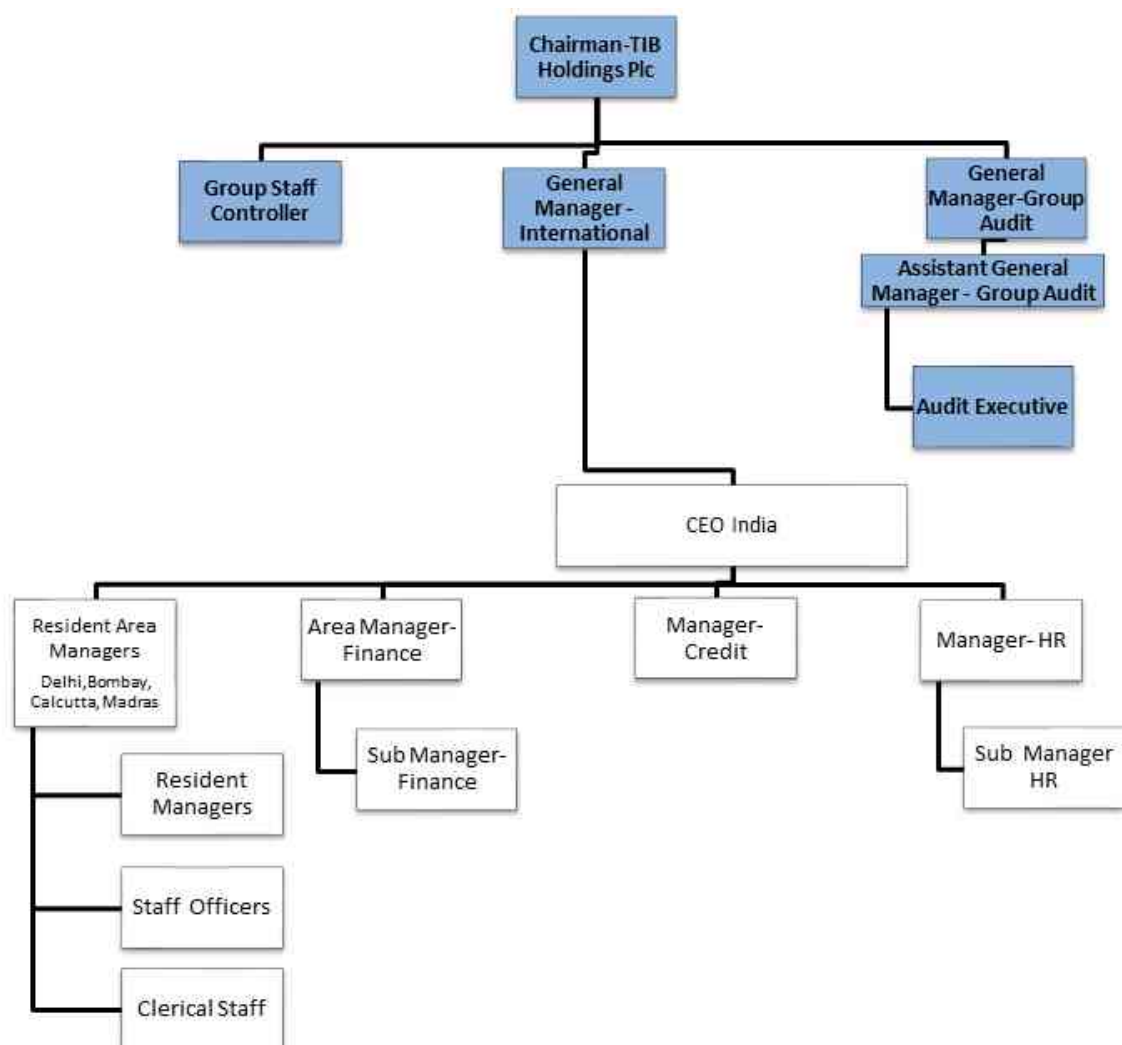
#### Process of Reconciliation

- Find out the details of transactions which needed to be reconciled.
- Find out the history of the outstanding entry.
- Find out how the transaction should have proceeded from beginning to the end and how exactly what happened to it.
- Find out the reasons for entry to remain outstanding.
- Each transaction in a mirror account has to be tallied/recorded with a corresponding entry in the nostro account.
- If a bank receives a credit that does not relate to it, it should return the amount to the remitting bank. The corresponding bank can also be authorized to debit the bank's account and reverse the entry.
- The reconciliation process is a process where entries incorporated in the Nostro account statements are matched with

- the entries in the corresponding mirror account.
- The bank holding the nostra account can receive statements either daily, weekly or once in a month.
  - If the statements are received continuously, the bank should verify all the debits and credits made in the account without delay.
  - The bank that has opened a nostra account should ensure that it has arranged sufficient funds to be maintained in the account.

## Appendix C

### ORGANIZATIONAL CHART (Partial) Taiwan International Bank, Head Office and India



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## Crowdfunding For Startups in India

**Dr. Manoj Kumar Joshi\***

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### ABSTRACT

*Crowdfunding as a medium of raising finance for the startups and small and medium enterprises has gained popularity all over the world. The development of crowdfunding can be attributed to the technological developments in the field of information and communication technologies particularly the Internet. In crowdfunding, a website acts as an intermediary (online platform) through which promoters of startups advertise their business ideas and seek funding from the prospective investors. A large number of investors registered with the online platform individually contribute small amount of money to the startups. The online platform facilitates raising money not only for commercial ventures but also for the social and charitable purposes.*

*This paper presents the crowdfunding scenario in India and also in other countries. It discusses the merits and demerits of crowdfunding as a source of finance. It examines the modified regulatory framework being adopted in different countries of the world, including India so as to facilitate the growth and development of this innovative financial source. Finally the paper highlights the need for government support so as to expand the size and scope of crowdfunding in India.*

**KEYWORDS:** Crowdfunding, Startups, Reward, Donation, Equity, Lending

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### Introduction

The global financial crisis of 2008 pushed the world into recession. In this crisis, commercial banks of western countries were hit hard when the housing bubble burst in the US. This crisis hampered the ability of the banks to fund startups and the Small and Medium Enterprises (SMEs). Basel III norms were accepted by many governments. These norms mandate commercial banks to maintain adequate capital adequacy levels so as to tide over the events of mass default by the customers. Indian banks are also required to adopt and implement Basel-III

norms by March 31st, 2019. When Indian banks adopt Basel-III norms, they may be constrained to lend funds to startups and other small ventures due to the risk of default associated with them. Hence, startups have to explore alternative financial sources such as Venture Capital, Angel investors and crowd funded platforms.

Crowdfunding refers to a way of funding a startup, a project or a venture by garnering small amounts of money from a very large number of people. The means of communicating with such investors is

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through an online platform which usually takes the form of a website. Thus, website acts as an intermediary between the startups and the investors interested in particular commercial or social projects. The startups present their business ideas, advertise their business proposals and solicit funding for starting their commercial or social ventures. Many a times the prospective investors are also contacted through social networking sites such as Facebook, LinkedIn, Twitter etc. A particular category of websites provide a common online platform for the promoters and the investors to share their views. These online platforms charge the startups listing fees, fund raising commission and in some cases a maximum of 1% equity participation in those startups which have raised funds through their assistance.

Securities and Exchange Board of India (SEBI) has defined Crowdfunding as “Crowd sourced funding is a means of raising money for a creative project (for instance, music, film, book publication), a benevolent or public-interest cause (for instance, a community based social or co-operative initiative) or a business venture, through small financial contributions from persons who may number in the hundreds or thousands. Those contributions are sought through an online crowd-funding platform, while the offer may also be promoted through social media.” (Securities and Exchange Board of India, 2014)

Reserve Bank of India (RBI) has defined Crowdfunding as “Crowdfunding' generally refers to a method of funding a project or venture through small amounts of money raised from a large number of people, typically through a portal acting as an intermediary.” (RBI, 2016)

### **Crowdfunding Categories**

Crowdfunding can be usually divided into

four categories.

**I. Reward Based Crowdfunding** – Here, the startup expresses its gratitude to the investors by offering them tangible rewards or a service in return for their investment in the venture. The examples of tangible rewards may take the form of a T-shirt containing the logo of the startup, the product manufactured by the startup or a service to the investors in which the startup specializes, (say six free car maintenance service). The reward given to the investors may or may not be the product or the service created or manufactured by the startup.

**II. Equity Based Crowdfunding** – This type of funding involves offering equity shares to the investors in return for their investment. Thus, people who invest in the startup become its shareholders. It is essential for the investors to weigh their risk and return preferences before investing in the unlisted startup entity through the online platform. If the startup is highly successful then the investors can sell their shares at a higher price and make profits. In India, such funding of the startups through equity shares have to comply with the private placement guidelines as dealt with in the Companies Act, 2013.

**III. Debt Based Crowdfunding** – It is also known as Peer-to-Peer (P2P) lending. As is evident, this type of financing takes the form of loan capital or debt capital for the startup. The money lent by the investors carries a fixed rate of interest and the principle amount is repaid to them after a given number of years. Some online platform facilitate lending and borrowing of loans between individuals while others facilitate pooling of funds for onward lending to the small and medium sized enterprises.

#### IV. Donation Based Crowdfunding –

Here, people lend money for charitable, social or humanitarian purposes without expecting anything in return. People come forward to contribute money when they perceive a worthwhile cause which will have a positive impact on the society. For instance, people may come forward to contribute money for constructing a temple, an old age home, reconstruction of a government school or any other philanthropic causes. Some crowdfunding platforms in India such as Ketto have helped in raising funds to support the sports persons from low income groups and tribal communities, compete in national and international events.

Table 1 presents the funding volume under various categories of crowdfunding, globally.

#### Advantages of Crowdfunding

Following are some of the advantages of crowdfunding both for the borrowers and also for the lenders.

- i. The primary advantage of crowdfunding is that it provides a very wide base of global investors to the startups. Traditionally, startups depended only upon limited number of venture capitalists, angel investors and banks in their respective countries for their funding requirements.
- ii. Online platforms provide a means for small enterprises to enter the market and raise funds without much paper work and effort.
- iii. A prospective startup can connect with diverse investors and is benefited by soliciting their ideas. The ideas can be modified and refined so that they are finally approved by the investors.

- iv. The crowdfunding website acting as intermediary helps the startups showcase their prospective business venture or prototype before thousands of global investors. Thus, the startup benefits from heavy advertisement even before formal commencement of the business activity. The coverage in the online media helps the startup develop business contacts in a big way.
- v. The startup can validate its business concept before other stakeholders such as the government, customers and prospective employees when once it gets the approval of the investors.
- vi. Online platforms also provide facility for poor people and social and charitable institutions to raise funds to cope with medical emergencies and natural disasters.
- vii. Crowdfunding can also support creative artists who lack adequate financial resources to showcase their works of art in the field of dance, music, paintings, creation of movies etc.
- viii. Commercial banks and other financial institutions have a well-defined criterion for sanctioning the project loans. This criterion may not be satisfied by the startup due to various limitations. For instance, startups may intend to bring disruptive products and services in the market and banks may be reluctant to finance since such projects may not have any precedence. In such cases, crowdfunding provides a convenient and hassle free alternative.

#### Risks in Crowdfunding

Crowdfunding has its own set of risks which cannot be altogether eliminated but can be

minimised to a large extent.

- i. In crowdfunding platforms, startups garner money from a large number of investors. Hence, there may be possibilities of financial scams and frauds in the absence of adequate regulations.
- ii. Crowdfunding may become a cover for corrupt people to indulge in money laundering activities.
- iii. It may not be possible for the general public and investors to verify the background and credentials of the promoters. Fly-by-night startups may vanish after collecting money from the public.
- iv. Venture Capital Funds (VCFs) and Private Equity (PE) investors have the power to influence the management of the startups and thus can negotiate reasonable returns. However, retail investors who do not have such bargaining power in the online platforms, generally follow 'herd mentality.'
- v. The investors face the risk of default. This is because the startups seeking funds do not issue any offer document to the investors. The online platform may not conduct proper due diligence of the borrowers on behalf of the investors. There is no recourse available to the investors if the online platform or the startup closes down without any notice.
- vi. In case of P2P lending, there is no protection for lender's money in the form of collaterals as is available in case of corporate bonds or insurance available to certain extent for bank

deposits.

- vii. The investors may not only face the risk of default but also may face the prospect of their investments becoming illiquid. This is because the secondary market for the investors in the crowdfunding platform is not yet developed.
- viii. The startups seek funds through the Internet from investors spread worldwide. Hence, disparities related to the application of Contract Act or Securities law and handling of investor grievances may arise in different jurisdictions.

### **Crowdfunding Scenario – India and the World**

Table 2 highlights the progress of crowdfunding medium in India.

Table 3 presents the features of some of the top Crowdfunding platforms in India

Table 4 presents the number of crowdfunding platforms in different parts of the world.

Table 5 presents the crowdfunding scenario in different countries.

From Table 5 we find that compared to Western countries and China, the crowdfunding is at a nascent stage in India. However, the cumulative annual growth in transaction value of 24.8% in India is only next to China which is at 31.4%.

### **Crowdfunding – Legal Position**

Realising the growth of crowdfunding in the world and in India, SEBI released a consultation paper on crowdfunding in India on June 17, 2014. In this paper it

highlighted the merits and demerits of crowdfunding as a source of finance for startups and SMEs. It also mentioned the financial regulations prevalent in India and also the legislative measures adopted by various countries with regard to crowdfunding.

Under Indian laws, donation based crowdfunding (where issuers directly seek donation from the grantors), reward based crowdfunding (where issuers directly offers rewards like movie tickets, new computer game, download of a book etc.) and P2P lending do not fall within the regulatory purview of SEBI, as they do not generally involve issue of securities for financial return. However, P2P lending falls under the jurisdiction of RBI.

Some of the significant proposals made by SEBI (in its consultation paper on crowdfunding in India) are:

- Permitting only 'Accredited Investors' to invest under crowdfunding.
- Qualified Institutional Buyers (QIBs) to hold atleast 5% of issued securities
- The contribution of retail investors under crowdfunding to be capped at a minimum of Rs. 20,000 and a maximum of Rs.60,000.
- The Private Placement Offer Letter of the issuer need to be circulated to a maximum of 200 selected accredited investors excluding Qualified Institutional Buyers (QIBs).
- Crowdfunding source to be utilized only by those startups which are less than two years old.
- The promoter(s) need to hold a minimum of 5% equity stake in the company for at least three years from the date of the issue of securities.
- Any online offering or issue or sale of securities needs to be made only

through SEBI recognized crowdfunding platform.

- Startups intending to raise funds through crowdfunding should disclose anticipated business plan, intended usage of funds, audited financial statements, management details etc., to the crowdfunding platform.
- Registered crowdfunding platforms should make arrangements for the conduct of regulatory checks and basic due diligence of start-ups and investors. They also need to provide this information to the SEBI as and when required.
- Registered crowdfunding platforms should constitute a screening committee comprising 10 persons with experience in capital markets, mentoring start-ups etc to filter quality business ideas and business plans.

SEBI has taken a grim view of the equity-based online crowdfunding platforms operating in India. In its note issued in the first week of September, 2016, it has declared six prominent Equity Crowdfunding Platforms (ECPs) as illegal, unauthorized and unregulated under the Securities Contract (Regulation) Act, 1956 and the Companies Act, 2013. It has also barred these ECPs from registering new investors or considering the request for funding from the startups. SEBI has argued that only recognized stock exchanges are authorized to provide electronic platforms for listing and trading equity and other corporate securities. In addition, SEBI has also pointed out that these ECPs do not have a net worth of Rs. 100 crore needed to establish security exchanges. It has expressed its apprehension that investors' hard earned money may turn into illiquid investment when lent to unknown startups. The apprehensions of SEBI also arise from

the fact that money laundering has come to light in certain cases where deposits have been secured from the public.

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RBI has raised concerns about the possibility of coercive methods being adopted to recover the loans from the borrower. It has also mentioned that regulations would lend credibility to P2P lending for both borrowers and lenders (RBI, 2016). It would prevent the crowdfunding industry from disrupting the financial services sector in a negative manner. Moreover, crowdfunding under the regulated umbrella would prove to be an alternative source of finance in such cases where traditional financial source seem inadequate or inaccessible. On the other hand RBI is also worried that stringent

regulations may stifle the growth of this innovative but nascent online industry. Moreover, since this industry is nascent, there is no particular danger of immediate systemic risk to the economy due to the failure of crowdfunding medium. Based on its consultation paper, RBI has released a gazette notification, recognizing the P2P lending platforms as non-banking financial companies (NBFCs) (The Gazette of India: Extraordinary, 2017).

RBI has come out with a set of directions known as the Non-Banking Financial Company–Peer to Peer Lending Platform (Reserve Bank) Directions, 2017(RBI, 2017). These directions intend to regulate the P2P lending platform so as to bring about transparency and reduce the risks to the investors. The Prudential Norms contained in the RBI directions relate to the following:

- The leverage ratio maintained by NBFC-P2P should not be more than 2.
- The maximum amount that a single lender (investor) can lend to a given borrower is Rs. 50,000.
- The maximum amount that a borrower is permitted to raise from all the P2P platforms put together is capped at Rs. 10 lakh.
- It is essential for the online P2P platforms to obtain a certificate from the lenders and the borrowers that the prescribed limits related to lending amount and borrowing amount respectively has been adhered to.
- The fund transfer between the borrower and the lender should be done only through the bank accounts by means of an escrow account, operated by a trustee. Thus, RBI has effectively barred cash transactions.
- It is mandated that two escrow accounts should be maintained – One for

receiving the funds from the lenders, pending disbursement and the other for collecting repayments from the borrowers.

- The lending should be free from any collateral security.
- The loan tenure should not be more than three years.
- The online P2P platforms should not resort to coercive recovery practices.

In India, startups face legal hurdles when they intend to raise finance through the medium of crowdfunding. A startup has to legally register itself as a company if it intends to raise money from the public. If registered as a private company, the startup can raise money from a maximum of 50 people who would be its shareholders. However, raising money from more than 50 people comes within the purview of a public offer that can be made only by a public limited company.

A startup has to issue a prospectus and comply with other regulatory requirements as per Section 67 of the Companies Act, 2013 for raising money from the public. Moreover, raising money from the general public with an assurance of interest/returns requires registration with SEBI. For a startup, legal compliance entails additional costs which it may not afford. Table 6 presents the restrictive conditions imposed by some countries on the investments made by the investors under crowdfunding.

Many countries have imposed restrictions with regard to the resale of securities issued under crowdfunding in the secondary market. However, SEBI has proposed resale of crowd funded securities only to the following:

- To the issuers (unlisted public limited)

of securities under buyback provisions of the Companies Act, 2013.

- To another accredited investor registered with the online platform.
- To a family member or relative or friend of the accredited investor or the equivalent.

Some countries of the world such as the USA and China have eased the regulatory requirements for crowdfunding. US government enacted the Jumpstart Our Business Startups (JOBS) Act, 2012 that provided legal recognition to the equity crowdfunding (Securities and Exchange Commission, 2017). This Act provides a legal and regulatory structure stipulating the maximum amount that the companies can raise and the investors can invest through the crowdfunding platforms.

The main proposals of this Act are as follows:

- Maximum amount that a company can raise equity capital annually through crowdfunding is \$1 million.
- Any company intending to raise more than \$500,000 through crowdfunding has to provide more detailed information to the SEC.
- The investors need to be educated and provided requisite information about the risks involved in crowdfunding.
- An investment cap stipulates that investors whose annual income or net worth is less than \$107,000 can invest only upto the greater of either \$2,200 or 5% of the net worth in a year. Net worth of an individual is the difference between his/her total assets and total liabilities.
- Investors with annual income and net worth greater than or equal to \$107,000 can invest 10% of either the annual income or the net worth whichever is lesser. But such investment should not

- exceed \$107,000 in a year.
- Recognition has been given to the securities purchased online through crowdfunding platforms by classifying them under a new category.
- Such securities purchased online through crowdfunding platforms should not be sold before one year.

Similar to the USA, the Chinese regulators also intend to allow only those investors to participate in crowdfunding activity who are deemed to be qualified. The Securities Association of China (SAC) has brought out tentative draft regulations in December, 2014 specifying the financial condition for a qualified investor (Alois, 2015):

- The qualified investor should make a minimum investment of ¥10,00,000;
- The net assets of the qualified investor should be greater than ¥10,00,0000 and
- The qualified investor should have financial assets of ¥30,00,000 and an annual income of at least ¥5,00,000 over the last five years.

It is argued by some scholars that these draft regulations are highly restrictive with regard to qualifying as a sophisticated investor. The prescribed minimum investment limit is very high because small enterprises do not have such huge financial requirement. Moreover, such huge minimum investment limit will bring in just a few investors thereby hampering the diversification of risk process (Yang, n.d). In Canada, crowdfunding is permitted in equity and non-equity platforms and the Canadian Securities Administrators (CSA), the regulator for securities in Canada, has given exemption with regard to prospectus and Offering Memorandum (OM) to the dealers selling securities on the Internet. Similarly UK has also given recognition to

the online platforms where investors can buy equity and debt securities not listed or traded on a recognized exchange. In France, regulations have been modified so that companies using the crowdfunding route can solicit investment from unlimited number of accredited investors. In addition, investment limit for a particular investor has also been removed.

## Conclusions and Suggestions

Regulators from different countries of the world intend to achieve two balancing objectives with regard to crowdfunding. The first one is that they intend to support the growth of crowdfunding as an innovative source of finance. The second one is that they intend to prevent lenders and borrowers from indulging in speculative activity through excessive lending and borrowing, respectively. The common thing proposed by the regulators all over the world is that the investors should have thorough knowledge before investing in the crowdfunding platform. In addition, the cap imposed on the amount of investment would prevent investors from losing their hard-earned money. The regulators have also capped the amount to be raised by the borrowers so as to prevent financial frauds and greed.

It is essential for the government to bring in suitable law to govern the crowdfunding medium of raising finance. This will encourage the spirit of self-employment among the people. Entrepreneurship should be encouraged in India where about 10 million people enter the job market every year (Press Trust of India, 2017).

Crowdfunding may turn out to be innovative source of funding for the budding entrepreneurs. The entrepreneurs

need not depend upon the government for their financial needs and expect subsidies and incentives all the time. This medium would provide them an easy, convenient and time saving medium of raising funds from the global investors.

The potential for the growth of crowdfunding medium is enormous. According to World Bank (The World Bank, 2013),

- One-third of the world's population has access to Internet;
- 85% of the people in the world use mobile phones;
- 40% of the African people will be able to use Smart phones in the next five years;
- Total market potential for crowdfunding by 2025 is between US \$90 billion to US \$ 96 billion per year; and
- Nearly half of the contribution to this figure would come from China with a potential of US \$46 billion to US \$50 billion.

It is estimated that the market size globally for crowd-funding has increased from \$6.1 billion in 2013 to \$34 billion in 2015, showing an increase of nearly 466%. Further by 2025, the market size is expected to increase to \$90 billion (Pani, 2016). Presently the internet penetration in India and China is 34.8% and 52.2% respectively. However, India has the fastest growing Internet user base in the world. The number of Internet users in India will double to 730 million in 2020 from 330 million in 2015 with a CAGR of 20% (NASSCOM, 2016). In addition, India has the second largest Smartphone users in the world after China with more than 230 million users (NASSCOM, 2016). In other countries like UK, USA and

Scotland, banks have started collaborating with online platforms with the intention of helping their customers. In India also this type of collaboration can be explored since rising Non-performing Assets (NPAs) and priority sector lending norms have constrained the lending capacity of the commercial banks. Thus, banks can act as a bridge between online platforms, borrowers and lenders and this will have synergistic effect on the RBI's goal of financial inclusion.

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Table 1: Categories of Crowdfunding and Global Funding Volume (2015)

| Crowdfunding Category | Funding Volume (in US \$) |
|-----------------------|---------------------------|
| Donation              | 2.85 billion              |
| Reward                | 2.68 billion              |
| Lending               | 25.1 billion              |
| Equity                | 2.56 billion              |
| Royalty               | 405 million               |
| Hybrid                | 811 million               |

Source: <http://crowdexpert.com/crowdfunding-industry-statistics/>

Table 2: Crowdfunding Scenario in India

| S.No. | Highlights   |
|-------|--|
| 1.    | Number of companies funded through crowdfunding medium is around 200.                |
| 2.    | Amount raised through crowdfunding is Rs. 350.00 crore.                              |
| 3.    | Commission charged by the online platforms for raising funds is 2% to 6%.            |
| 4.    | Equity participation by the online platforms in the startups varies from 0.5% to 1%. |
| 5.    | Time taken to close the deals is 12 to 90 days.                                      |
| 6.    | Average number of investors in one deal is 5 to 20.                                  |
| 7.    | Average number of investors in each online platform is 60 to 100.                    |
| 8.    | Average investment ticket sizes are decided by the company or the online platform.   |

Source: The Economic Times, 9th September, 2016.

Table 3: Top Crowdfunding Platforms in India

| Name of the Platform | Name of the Founders                          | Type of Platform           | Projects Funded  | Number of Investors | Loans Raised       |
|----------------------|---|----------------------------|--|---------------------|--------------------|
| Rang De              | Smita Ram and Ram N. K                        | Peer-to-Peer lending       | Not-for-profit, Rural entrepreneurs and Social investments   | 9,699               | US \$ 7 million    |
| Faircent             | Rajat Gandhi, Vinay Matthews, Nitin Gupta     | Peer-to-Peer lending       | Peer to Peer lending   | 6,000               | US \$ 973,000      |
| Ketto                | Kunal Kapoor, Varun Sheth and Zaheer Adenwala | Donations                  | Community/social projects, Creative arts, Personal development.  | 100,000             | US \$ 5,990,400    |
| Wishberry            | Priyanka Agarwal, Anshulika Dubey             | Donations -for-rewards     | Creative projects – music, stand-up comedy, film production, art, dance, design, photography, publishing, theatre. | 11,000              | US \$ 1.3 million  |
| Catapooolt           | Satish Kataria                                | Donations -for-rewards     | Sports, political projects, social enterprises and business startups   | 2,000               | US \$ 150,000      |
| BitGiving            | Ishita Anand                                  | Donations                  | Creative projects – artists, engineers, and creators; Medical treatment  | -----               | -----              |
| Milaap               | Mayukh Choudhury and Anoj Vishwanathan        | Hybrid donations and loans | Education, energy, microloans and water and sanitation.  | -----               | US \$12.7 million. |
| Crowdera**<br>*      | Chet Jain, Chaitanya Atreya, Rich Mastuura    | Donations                  | Nonprofits, individuals, and organizations.  | -----               | US \$ 537,000      |
| Fuel A Dream         | Ranganath Thota                               | Donations                  | Creative arts projects, social causes and charities.   | -----               | -----              |
| ImpactGuru           | Khushboo Jain and Piyush Jain                 | Hybrid donations and loans | Micro-loans for people   | -----               | US \$12.7 million. |

\*\*\* It does not charge any commission

Source: <http://crowdsourcingweek.com/blog/indias-top-ten-crowdfunding-platforms/>

Table 4: Number of Crowdfunding Platforms Worldwide

| Region        | Number of Crowdfunding Platforms (2014) |
|---------------|---|
| Europe        | 600                                     |
| North America | 375                                     |
| Asia          | 169                                     |
| South America | 50                                      |
| Ocenia        | 37                                      |
| Africa        | 19                                      |

Source: <https://www.statista.com/>

Table 5: Crowdfunding Scenario in Different Countries

| Country   | Transaction Value in 2017 | Annual Growth in Transaction Value (CAGR 2017 – 2021) | Cumulative Transaction value by 2021 | Average Funding per Campaign (2017) |
|-----------|---------------------------|---|--------------------------------------|-------------------------------------|
| India     | US\$6 m                   | 24.8%   | US \$16 m                            | US \$ 171.60                        |
| China     | US\$5,505 m               | 31.4 %  | US \$ 16,414 m                       | US \$ 816.72                        |
| USA       | US\$ 959m                 | 9.1 %   | US\$1,360 m                          | US \$ 5,186.14                      |
| UK        | US\$138m                  | 12.0 %  | US\$218 m                            | US \$ 4,002.13                      |
| Japan     | US\$81m                   | 16.3 %  | US\$148 m                            | US\$3,402.74                        |
| Australia | US\$46m                   | 6.0 %   | US\$58 m                             | US\$5,327.54                        |
| Germany   | US\$34m                   | 6.6 %   | US\$44 m                             | US\$4,146.60                        |
| France    | US\$88m                   | 7.2 %   | US \$116 m                           | US\$3,815.44                        |

Source: <https://www.statista.com/>

Table 6: Crowdfunding – Investment Restrictions

| Country   | Limitations on Investments  |
|-----------|---|
| USA       | In a 12 month period, investors are allowed to invest <ul style="list-style-type: none"> <li>\$2,000 or 5 percent of their annual income or net worth, whichever is greater, if both their annual income and net worth are less than \$100,000.</li> <li>10 percent of their annual income or net worth, whichever is greater, if either their annual income or net worth is equal to or more than \$100,000</li> </ul> |
| UK        | <ul style="list-style-type: none"> <li>No limit for investors advised by professionals, linked to corporate finance or venture capital firms, or those certified as sophisticated or of high net worth.</li> <li>Not more than 10% of assets - excluding homes and pensions, for other investors</li> </ul>   |
| Australia | One of the options proposed is that the investor needs to be sophisticated i.e. have assets of worth at least \$ 2.5 million or have a gross income of at least \$ 250,000 for each of the last 2 financial years.  |
| France    | €1,000 per campaign   |
| Canada    | A maximum of \$2,500 in a single investment and \$10,000 per year   |

Source: SEBI Consultation Paper on Crowdfunding in India, June 14, 2014

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## Electronic Payment Adoption In India: Development And Policy Issues

**Dr. Durga Madhab Mahapatra\* & Dr. Soumendra Kumar Patra\*\***

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### ABSTRACT

Commercial banks, Cooperative banks, financial institutions and Non-Banking Finance Companies (NBFCs) constitute the Indian financial system. Under section 5(B) of Banking Regulation Act 1949, banking means accepting for the purpose of lending or investment, deposits from the public, repayable on demand and withdrawable by cheque and draft. Till now, India has been following the universal banking model and issues a single class of banking license to both domestic as well as foreign banks. Thus, all of them enjoy full and equal access to the payments and settlement system. Bandyopadhyay, Tamal (2014) In early 1990s, the then government embarked on a policy of liberalization, licensing a smaller number of private banks. The banking industry in India has witnessed a disruptive development which include the entry of new banks in the form of payment banks and small banks.. Today 60% of India's population does not have a bank account. In addition about 90% of small business has no links with formal lending institutions. Efforts to achieve financial inclusion have failed to deliver adequate results. There are going to be many more players entering the banking business. There are 11 payments banks and 10 small finance banks including two full scale banks i.e. Bandhan Bank and IDFC bank. The Digital India initiative, along with the JAM (Jan Dhan-Aadhaar-Mobile) eco-system is at the heart of the government development and inclusive growth. Globally, the three internet companies, Alibaba, Tencent and Baidu have their own payment platforms i.e. Alipay, Tenpay and Baidu wallet. Mobile wallets could be the most preferred mode of payment due to ease of transactions. Sidhartha (2016)

**KEYWORDS:** Adoption, Electronic, Development, Policy, Digital, Technology and Payment.

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### INTRODUCTION

Due to changes in banking regulation, developments in technological and financial innovations, inverse interest rate structure, high volatilities in financial markets and the severe competition between profitability and efficiency analysis in banking. The post reform epoch has changed the whole structure of banking sector in India. Yadav, R.J.(2016) The

banking industry in India is poised for several changes which include the entry of new banks in the form of payment banks and small banks. Payment banks will have a large role to play. The size of the large untapped market for digital payments is huge. Thus, mobile and the growth of wallets and cards should prompt cash consumers to move to digital payments. Payment banks will be facilitators for creating new merchants ecosystem, new

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ways of facilitating digital cash acceptance systems like M-POS, mobile-to-mobile transfer. The entry of payment banks would enhance the financial ecosystem making banks technology savvy and getting them to come out with new products. The Government is focusing on the composition of 5Ts- Tradition, Talent, Tourism, Trade and Technology. Further, 3Ds- Democracy, Demography and Demand. However, 3Ss- Skill, Speed and Scale has to follow. Technology will be the core strategy of all banks for their future growth with increase in mobile and internet penetration across the country, banks are innovating various new products. It offers facilities such as

card-to-card transfer, e-cash, NEFT, IMPS, fund transfer, U-mobile registration, mobile recharge, self service passbook printer etc. Table 02 and 07 stated the different payment channels during 2014 to 2015. The new players will have to take banking solutions to the doorsteps of rural folks using technologies that can process transactions instantly. Further, Cash transactions impose a huge financial burden on an economy. According to a new study by Visa, the cost of cash transactions in India is equivalent to 1.7 percent of the Gross Domestic Product (GDP). (See in Table: 01) (see in table 06 during 2011 to 2015).

**Table: 01 Stated the cost of cash by country wise with respect to GDP**

| SL | Country's Year   | % of GDP |
|----|------------------|----------|
| 1  | India (2015)     | 1.7      |
| 2  | Australia (2009) | 0.8      |
| 3  | Sweden (2009)    | 0.5      |
| 4  | Denmark (2009)   | 1.0      |
| 5  | Hungary (2009)   | 1.1      |

(Source: Bakshi, Ishan (2016) "Cash Deals Cost 1.7% of GDP: Visa", Business Standard, 6th Oct 2016, P.14)

**Table: 02 Stated the different payment channels during 2014 to 2015**

| Items               | Volume(millions) |       | % change | Volume(Rs. Billions) |         | % change |
|---------------------|------------------|-------|----------|----------------------|---------|----------|
|                     | 2015             | 2014  |          | 2014                 | 2015    |          |
| RTGS                | 92.8             | 81.1  | 14       | 754032               | 734252  | 3        |
| ECS(Dr.)            | 226              | 192.9 | 17       | 1739.8               | 1268    | 37       |
| ECS(Cr.)            | 115.3            | 152.5 | -24      | 2019.1               | 2492.2  | -19      |
| NEFT                | 927.6            | 661   | 40       | 59803.8              | 43785.5 | 37       |
| Debit cards         | 808.1            | 619.1 | 31       | 1213.4               | 954.5   | 27       |
| Credit cards        | 615.1            | 509.1 | 21       | 1899.2               | 1539.9  | 23       |
| Prepaid Instruments | 314.5            | 133.6 | 135      | 211.9                | 81      | 162      |

(Source: RBI Annual report 2015)

### Role of Payment and small banks in India

A payment bank may only accept deposits but cannot lend. The issue of payment bank licenses to as many as 11 entities will change the face of the remittance business in the country. Further, the entry of payments

banks will intensify competitive pressures in the very segment in which Bandhan has its roots. The 11 applications for payments bank licenses were chosen from among 41 applications. An External Advisory Committee (EAC) headed by RBI board member Nachiket Mor, scrutinized all

applications and sent its recommendations. RBI has granted payments bank licenses to 11 companies such as Aditya Birla Nuvo Airtel M Commerce, Chola mandalam Distribution, Department of Posts, Fino PayTec, National Securities Depository Limited, Reliance Industries, Dillip Shanghvi, IDFC, Uninor, Vijay Shekhar Sharma, Tech Mahindra and Vodafone Mpesa. Payment banks can (a) accept demand deposits from individuals, small business and other entities, (b) It can set up branches, ATMs, issue debit cards, offer internet banking (c) hold a balance of up to Rs 1 lakh per individual (d) accept remittances to be sent to multiple banks or receive remittances from them (e) distribute mutual fund products, insurance products and pension products; undertake utility bill payments. The payment banks were not (a) accept NRI deposits (b) not issue credit cards (c) not set up subsidiaries to undertake non-banking financial services activities (d) and not offer other financial/non-financial services of promoters along with payments bank services. The Nachiket Mor committee on these niche banks had also stated that telecom entities should be able to establish themselves faster, with their reach and connect to the unbanked population. (Anand, Nupur(2016) Table 03 stated the payment and small bank operational policies in India.

Payments bank will play an important role in taking banking services to the last mile in a quick and efficient manner and benefit millions of unbanked citizens. Bharati Airtel launched its payment bank which facilitates cashless purchases of goods and services through mobile phones. This bank started its operation at Rajasthan. This bank provides open bank accounts at Airtel Retail outlets using e-KYC through their Aadhaar cards. Technology used to make payments in new ways. These may be online payment systems or mobile payments and emerging technology such as crypto currencies. Varty, Neeraj (2016) Airtel Payments Bank, a subsidiary of the country's leading mobile phone operator Bharati Airtel. This bank offers the highest annual interest rate of 7.25% and an insurance of Rs 1 lakh per account. Airtel bank using a mobile phone without charging any processing fee, one can open an account using e-KYC through Aadhaar card and can then deposit and withdraw cash. Consumer can check their account balance, access other services by using Airtel Money app on smart phones or through USSD or IVR on feature phones. Regional Rural Banks (RRBs) are another major financial touch points as they continue to have a major presence in rural and semi-urban areas.

**Table: 03 stated the Payment and small bank operational policies in India**

| Activity   | Payment Bank   | Small Bank   |
|------------|--|--|
| Objectives | Financial inclusion  | Help small business & unorganized segment get cheaper credit.        |
| Acceptance | Accept small savings, No lending   | Accept deposits. Lending to small business Micro & Small industries. |
| Set Up     | NBFC, Mobile Companies, Super market chains, Real sector cooperatives with 5 year good track record. | Individuals with 10 year experience in banking /NBFC/MFIs.           |
| Paid-up    | 100 Crore  | 100 Crore  |

Further, the RBI has granted in-principle license for small finance banks to 10 entities. The name of the applicants that have been granted the license include Au Financiers, Capital Local Area Bank, Disha Microfin, Equitas Holdings, ESAF Microfinance and Investments, Janalakshmi Financial Services, RGVN (North East) Microfinance, Suryoday Microfinance, Ujjivan Financial Services and Utkarsh Microfinance. The in-principle approved granted by RBI will be valid for a period of 18 months. Small Finance banks will be similar to the existing commercial lenders. The small banks will undertake basic banking activities of accepting deposits and lending to unserved and under-served sections. Small banks also allowed distributing mutual fund products, insurance products and pension products. These banks can lend only for financial inclusion including small business units, small and marginal farmers, micro and small industries and unorganized sector entities.

Role of Mobile Wallets(M-Wallets) in disruptive technology for payment  
M-Wallets (Mobile based cardless mode of payments) have emerged as one of the biggest beneficiaries of a digital payment

industry in the country. Mobile wallets have quickly become the digital equivalent of physical wallet. The M-wallet players such as Paytm, Citrus Pay, Mobikwik, Oxigen, Airtel Money, Oxigen wallet, PayUmoney, HDFC's pay Zapp, Axis bank's Lime, M-Pesa and M-Rupee among others are moving aggressively to scale up. M- Wallet players will have to advantage in e-commerce, cab service, online recharge, bus ticket bookings and online food payments etc. According to Report of 2015 Boston Consulting Group "Inclusive growth with disruptive innovations", that 24% customers doing online shopping with 32% transactions done using mobile wallets. Mobile wallets will play a significant role in day to day life as an increase in use of smart phone can be seen and people are relying on digital lifestyle to make things convenient and fast. India is a unique mobile market more than half a billion new smart phones connections are expected in India between 2015 and 2020, bringing the total to 690 million up from 149 million in 2014. Table 04 stated the registered users of leading mobile wallet companies operating in India. Mobile wallets are a good alternative to cash-on-delivery. Indian e-commerce companies prefer to settle refunds to its customers through wallets.

**Table: 04 Stated the different registered uses of leading mobile wallet companies**

| Factor                         | Paytm | Freecharge-Snapdeal | Mobikwik |
|--------------------------------|-------|---------------------|----------|
| Registered Users(m)            | 104   | 87                  | 25       |
| Annual transactions(m)         | 900   | 200                 | 300      |
| Monthly transactions per users | 2.5   | 5                   | 10       |
| % of mobile transactions       | 85    | 80                  | 90       |
| Peak transactions per second   | 6,000 | 2,298               | NA       |

Source: The Times of India, 9th October 2015, p.11

**Advantages of mobile wallet in India**

1. M-Wallet players will have to create brand connect and discover more use cases for their products.
2. M-Wallet players have to ensure that their loyalty programme provide consumers ease of earnings as well as redeeming these earned points.
3. Online mobile wallet Paytm has its own toll-free number 180018001234 to enable consumers and merchants without an internet connection to pay and receive money instantly. This more is to bring in feature phone users to go cashless without a smart-phone.
4. Oxygen have moved aggressively launched various campaign like the "Give Selfishly" campaign and the ongoing "Play the Host" campaign.(see in Table 08)
5. ICICI bank's mobile wallet pocket is targeted at first time customers especially the youth.
6. Wallet transactions will rise significantly once cash-out system is incorporated in this payment system, which is now possible with the introduction of payment bank's and business correspondent partnership. (see in table 05 during 2011 to 2016)

7. The use of alternative modes of payment, particularly e-wallets has gained momentum with the withdrawal of Rs.500 and Rs.1,000 notes as Demonetization by the Govt. of India. The RBI had advised digital payment companies to carry out a special audit by the empanelled auditors of Indian Computer Emergency Response Team (CERT-In) to comply with the best safety and security practices. (Choudhary, Sharath(2016), Miglani, Tejinderpal singh(2016)

**Disadvantages of mobile wallet in India**

1. In a country like India with economically and socially diverse, the digital map with telecom and internet services getting disrupted due to flood cyclone etc. Thus, wallets lack universality.
2. The threat of cyber attacks and fraud is a great challenges for wallets. The digital revolution has transformed banking with digital taking precedence over physical branch banking. From 2012-13 to 2015-16, mobile banking transactions increased.

**Table: 05 stated the Mobile Transactions have exploded during 2011 to 2016**

| Year | Volume (Millions of Transactions) | Growth (%) | Value (Rs Billion) | Growth (%) |
|------|-----------------------------------|------------|--------------------|------------|
| 2011 | 1.05                              | -          | 0.84               | -          |
| 2012 | 3.12                              | 197        | 2.32               | 176        |
| 2013 | 6.40                              | 105        | 9.91               | 327        |
| 2014 | 10.74                             | 68         | 34.07              | 243        |
| 2015 | 19.76                             | 84         | 169.14             | 396        |
| 2016 | 49.47                             | 150        | 572.8              | 238        |

(Source: RBI)

**Table: 06** stated the Spending of Cards during 2012-13 to 2015-16

| Year    | Credit Cards     |                  | Debit Cards      |                  |
|---------|------------------|------------------|------------------|------------------|
|         | Volume (Million) | Value (Rs Crore) | Volume (Million) | Value (Rs Crore) |
| 2012-13 | 399              | 1,24,393         | 6000             | 17,39,344        |
| 2013-14 | 512              | 1,55,672         | 6,707            | 20,60,286        |
| 2014-15 | 619              | 1,92,263         | 7,805            | 23,49,265        |
| 2015-16 | 792              | 2,43,702         | 9,247            | 26,96,063        |

Includes both POS and ATM transactions. (Source: RBI)

**Table: 07** stated the Architecture of different types of electronic payment adoptions in India

| Debit Card  | Credit Card  | UPI   | E-Wallet  |
|---|--|---|---|
| The daily POS(Point of Sales) limits range from Rs 0.75-6lakh per day.                | The daily limit as per card limit.   | The transfer money to an account in any networked bank.   | Under e-wallet can allow payments for merchant transaction with a limit of Rs 10,000 for non - KYC compliant users and up to Rs 1 lakh for KYC complaint users. |
| No changes for POS transactions but charges on fuel (2.5%) and train tickets booking. | Repayments made after due date attracts finance charges (up to 46%) and late fees. | UPI allows transaction of Rs 50 to Rs 1 lakh per day for all users. The fund transfer costs are 50 paise per transaction. | No transaction cost.  |
|   | Charges on fuel (2.5%) and train ticket booking.                                   | The transaction cost below 0.45 paise.  |   |

(Source: Paisabazaar.com and bankbazaar.com, Business Standard, 10th Nov 2016, P.8)

The Government's new digital initiative JAM (Jan Dhan- Aadhaar-Mobile). In tandem with this, the UPI was encourages direct money transfer between banks through smartphones. The move from cash to digital payments; is an important issue particularly for women. Thus Africa's M-pesa, mobile phone based money transfer system creates history. SBI Buddy is the lender's mobile wallet application. The

bank is also promoting Easy Pay card to its corporate clients in order to get them to pay their vendors and workers directly into their bank accounts as paying in cash has become difficult. This card will also allow the recipients to transact them at ATMs as well as point of sales terminals as debit cards.

Table: 08 stated the APPs of different sectors

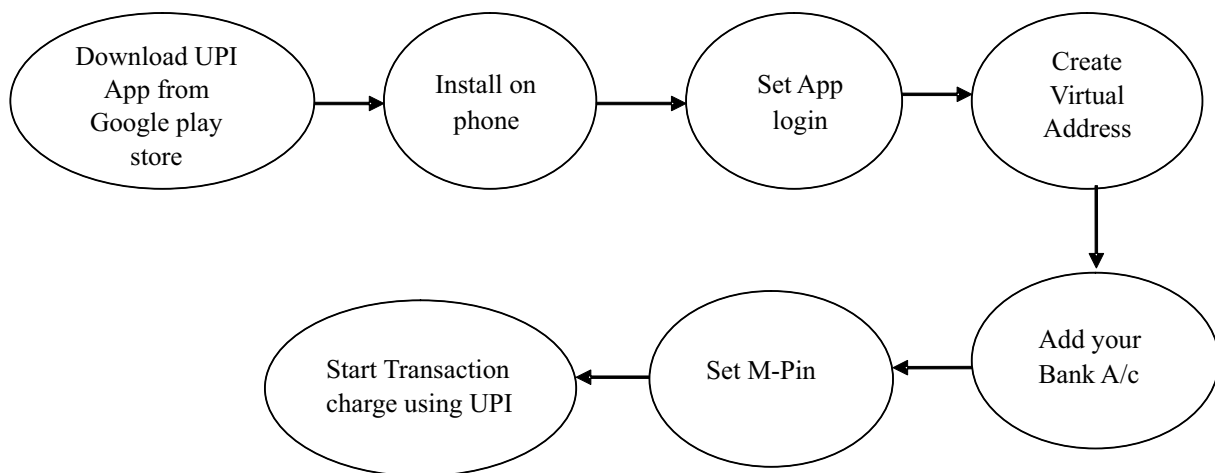
| Sector                | APPs.                                  |
|-----------------------|--|
| Transport             | OLA, Uber, Jugnoo (Auto)               |
| Groceries             | Grofers, BigBasket, Nature's Basket    |
| Recharge and Payments | Paytm, PayUMoney, MobikWik, FreeCharge |
| Ordering Food         | Zomato, Swiggy, FoodPanda              |
| Medication            | NetMeds, Zigy                          |
| Household Services    | UrbanClap, Helptr                      |

(Source: Chakraborty, Nilanjana (2016) "Apps to help you go cashless", The ET Wealth, Nov 21-27, P.11)

**Role of Unified Payment Interface(UPI)**  
in disruptive technology for payment  
UPI is a game changer for digital payments. The success of digital payments will depend on hybrid solutions that are able to leverage digital and physical networks. Mohapatra, Manoranjan (2016). The access of the

internet has almost become universal. The advent of new generation companies and start-ups, the risk of fraud or cybercrime on e-commerce sites, internet banking, mobile wallets, payment gateways etc, is getting compromise in network and payment infrastructure. Dastur, Navroze (2016).

#### New Payment Architecture UPI (Unified Payment Interface)



(Source: Roy, Anup (2015) "On the Fast track from bricks to clicks", Business Standard, 26-17 December 2015, p.7)

#### Advantages of Unified Payment Interface

- Unified Payments Interface (UPI) becoming a preferred mode of payments rather than Cash on Delivery (CoD). Bhakta, Pratik (2016)
- UPI will supersede the mobile wallets. UPI could supersede bank transfer systems like National Electronic Funds Transfer (NEFT) and Immediate

Payment Services (IMPS).

- The UPI allows for instantaneous 24\*7 transfer of upto Rs 1 lakh between two bank accounts without any exchange of sensitive information. Each UPI account has a handle (which is like an e-mailid) and a couple of sms texts are enough to make and validate a transfer. Datta, Devanghu (2016)

- Due to the advent of digital technology, use of currency notes as a medium of exchange and storage of wealth in physical form may reduce gradually.
- UPI is a smart phone-based-peer-to peer payment system. Bhakta, Pratik (2016)
- Demand for PoS terminals and card swiping machines is pouring in from merchants across industries. Pine Labs is a largest provider of card-swipe machines in the country. Variyar, Mugdha and Bansal, Varsha (2016)
- These apps like Walnut Expense Tracker, Cash No Cash and CMS ATM Finder promise to find out the nearby ATMs cash availability.

#### **Disadvantages of Unified Payment Interface**

- The UPI will need robust security, the end to end encryption to prevent messages, theft of mobiles and loss of connectivity during a transaction etc.
- UPI now be a disruptive technology that propels the banking system into new era. Currently, less than 25 million Indians have credit cards and about 125 million have mobile wallets. The UPI app supersedes mobile wallets since it is more convenient.
- It is a fourth option after credit card, debit card and net banking. A customer will be able to enter his virtual payment address under UPI. He will then get an alert on his mobile app and can authorize it immediately.
- UPI will play the role of a common payment gateway for all banks.
- The UPI platform runs on the immediate payment system (IMPS) network, a real time fund transfer mechanism maintained by the National Payments Corporation of India (NPCI). Sheety, Mayur (2016)
- Technology shapes today's lifestyles and mobile wallets have contributed a lot the process. Maji, Priyadarsini (2016)
- Digital payment startup Itzcash has entered into a strategic partnership with visa. This means that all Itzcash wallets and instruments will now be accepted wherever Visa is accepted. It is like bank debit cards powered by visa. Shrivastav, Aditi (2016)
- Amazon India launched Amazon Tatkal which allows merchants to on board in under an hour.
- Mobile wallets are replacing pre-paid cards. Mobile wallets are more generic and can be used to make a variety of payments.
- The launch of UPI app, customers can transfer funds using a Unique Virtual Private Address (UVPA). Currently only 21 banks offer the UPI app. According to RBI guidelines, all transactions have to be authenticated by a two factor process. For example, you have One Time Password (OTP) plus MPIN plus password for mobile devices. Hence, mobile-based transactions are fairly secure. Banks have built additional layers of security such as setting transaction limits. Customers too can set individual limits. Third party wallets also have two factor authentications and offer the option to set limits. They also give sms-alerts. Nair, Priya (2016)
- Phishing is an attempt to obtain sensitive information such as user names, passwords and banking details by conning people into believing that the attempt is being made by an official trusted entity. The more than 100 consumers of e-wallet Freecharge lost Rs 8000 to Rs 10000 across the country in cities like Chennai, Mumbai, Hyderabad and Delhi. Freecharge has 37 million customer accounts. The cyber attack is a raised worried concern. Chitra, Rachel and

Ayyar, Ranjani (2016)

- Not to use public wi-fi to log into bank accounts and be sure to active firewall setting. Singh, Sanjay Kumar (2016)
- In urban areas, the UPI can be pushed but in rural areas, IMPs must be popularized.
- USSD (Unstructured Supplementary Service Data) channel is generally used for balance inquiry, peer-to-peer dealings, deposits and withdrawals via, Banking Correspondents which are counted as basic banking transactions.
- BBPS (Bharat Bill Payment System) supports payment of electricity, water, gas, telephone bills and mulkopal taxes.
- Due to liquidity crunch has forced e-commerce companies are turning from Cash-on-Delivery (CoD) to Card-on-Delivery (CoD).

Further, Internet of Things (IOT) refers to a network of inter connected devices that can be accessed through the internet. The IOT market in India is expected to grow up to \$15 billion by 2020 from \$5.6 billion in 2016-17. IOT is set to become a major differentiator in driving the next generation of services and products. Digital transactions bring in better transparency, scalability and accountability. Gartner estimates that the global IOT industry should be worth \$1.4 trillion now and assumes that by 2020, IOT could be worth \$3 trillion. The global GDP was \$78 trillion in 2015 and India's economy is now about \$2 trillion. IOT will clearly result in efficiency gains across multiple sectors.

## CONCLUSION

Payment gateway companies like Tiger Global backed by Razorpay, Sequoia Capital backed Stripe, Naspers-owned PayU created new opportunities for

consumers. Shankar, Shaswati (2016) E-wallets are becoming a major vehicle to the new cashless way of life. AppLock are available. It allows putting all the sensitive apps on mobile phone including the mobile wallet. It will protect the device against a virus or malware attack. Singh, Sanjay Kumar (2016) The Poor internet coverage makes it hard to connect to central service to retrieve and reconcile data, making it impossible to run automated teller machines (ATMs) or to check the validity of credit card or mobile wallet transactions.

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## QUOTES

*"Honest disagreement is often a good sign of progress."*

**Mahatma Gandhi**

*"The enemy is fear. We think it is hate; But, it is fear."*

**Mahatma Gandhi**

*"We will become who we are meant to become  
There is no need to try, to be someone different"*

**Mahatma Gandhi**

*"The weak can never forgive.  
Forgiveness is the attribute of the strong."*

**Mahatma Gandhi**

*"As human beings, our greatness lies  
not so much in being able to remake the world -  
that is the myth of the atomic age -  
as in being able to remake ourselves."*

**Mahatma Gandhi**

# Predictors For Top Ranking Management Institutions In India - A Study

**R. Srinivasa Rao\* & Avadhanam Ramesh\*\***

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## ABSTRACT

*Post graduate degree in management is most vaunted for many Indian students as it is a sure path to lucrative jobs and exciting careers in the corporate world. India has nearly 5,500 B-schools in operation, excluding unapproved institutes. National institution ranking framework (NIRF) initiative by Ministry of HRD comes at opportune time, given wide disparities in ranking by several agencies for evaluating several Business schools in India and therefore has serious implications for stakeholders namely students, faculty, industry, government, regulating authorities and society at large. The study uses NIRF ranking data (2016) for B-schools and uses Discriminant analysis for classification and prediction for top 50 B-schools in India. The study also uses Analysis of variance and post hoc to assess the significant differences between different management institutions in India.*

**KEYWORDS:** National Institution Ranking Framework, Classification and Prediction, Business Schools

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## Introduction

Indian Institute of Social Welfare and Business Management in 1954 was the first academic institution to offer management education in India. Later four universities namely Andhra, Bombay, Delhi, and Madras have established departments of management. The premier world class 'Indian Institute of Management, Calcutta (IIMC) was established in 1961, Indian Institute of Management, Ahmedabad (IIMA) in 1962, and Indian Institute of Management Bangalore (IIMB) in October 1973. Currently management institutions in India produce nearly 5,000 full-time MBAs and about 3,000 part-time MBAs every year. Over period of time there were

lot of changes and some management institutions have obtained international accreditations to gain trust at international level.

Eclectic variety of B-schools exist in India with world class Indian institutes of Management, autonomous B-schools management colleges affiliated to universities, accompanied by with varied ranking methods by different magazines has made the problem more complex for evaluating of the management institutions in India. Therefore, choosing good Business school by the students is a difficult decision. Proliferation of rankings often caused confusion among the stakeholders and also seriously raised the issues of trust and ethics.

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In the light of the above precarious situation, National institution ranking framework (NIRF) initiative by Ministry of HRD is useful for evaluating several B-schools in India and has serious implications for the stakeholders. To our limited knowledge, there has been very little empirical research done in the area of B-School ranking and differentiation among different Schools in India. In this paper, an attempt has been made to identify the best predictors impacting Top 50 B-school ranking in India on and also develop mathematical model for classification and prediction. The study uses NIRF ranking data (2016) for B-schools as input data for the study and Discriminant analysis for classification and prediction for B-schools in India. The study also uses ANOVA One way and post hoc to assess the significant differences between different B-schools.

Gioia, D. A., & Corley, K. G. (2002) argued against increasing competition based on rankings for B schools and observed that B -school's foremost responsibility is generation and dissemination of knowledge. Dichev, I. D. (1999) investigated the quality and nature of B –school rankings given by two sources Business Week and U.S news and observed that existing rankings should be considered critiqued the methodologies of ranking systems, their statistical validity, the factors used, and the weightings given to them. The author observed that rankings are significant drivers of a school's reputation. Good performance can double inquiries and applications and allow schools to charge prestige premiums. Financial Times top decile MBA programmes charge, on average, just below \$80,000 for an MBA. Bottom decile schools charge only \$37,000. The author also observed that the proliferation of rankings has led to a parallel proliferation of academic

explanation on methodologies employed in the rankings and attempts to undermine the statistical veracity of the results and business school reactions to the “game” based on grounded theory.

According to GMAC's Global MBA Survey of 2001 and confirmed in subsequent surveys, 95 per cent of graduating MBAs said that school rankings had more influence on their decision-making process than any other media source (Tyson, 2001). Kotler and Fox, (1995) observed that the concept of marketing has become increasingly important for universities across the world from 1980s onwards and particularly in the UK since the re-designation of polytechnics to universities in 1992. The increasing sectoral competition and demanded marketing efforts from the universities to build distinct image and identity to attract and retain students both in the domestic and international markets (Brookes, 2003; Domino et al., 2006; Bennett and Ali-Choudhury, 2009).

Moore, Robert M. (2004) observed that academic institutions are adopting market oriented approach because of that intensified competition for top students, impacting bottom-line due to tuition discounting and searching (shopping) effort by prospective students and their parents, alumni and stakeholder concern about reputation and rankings. Corley, K., & Gioia, D. (2000) examined how B-schools play the rankings game and responses by them and media. Authors made an attempt to discern the rules of the ranking game.

Robert C. Lockwood and Jerry Hadd (2007) observed that factors such as academic offerings, student experience, an institution's prestige, and "intangibles" comprise a higher education brand promise.

Today's prospective students have abundant online and print resources at their disposal for making decisions. Vidaver-Cohen, D. (2007) developed conceptual model for B-school reputation based on recent advances' in reputation theory. Philip, J. (1992) examined the various issues in the management education in India and also discussed the future direction. Dayal, I. (2002) observed that changes in macro environment in Indian context would pave the way for changes in management education and similar structural changes were observed in management education in western countries.

Older B-schools like IIM Calcutta and XLRI launched an aggressive marketing drive to showcase their ethos and strengths. XLRI Jamshedpur started a brand building exercise in 2012. The institute is adopting new marketing techniques to showcase its programmes and infrastructure. The institute has persisted with its brand-building exercise started two years back, according to Sunil Varughese, Chief Brand & Sustainability Officer at XLRI Jamshedpur.

National Institutional Ranking Framework (NIRF) has been approved by the MHRD and launched by Honourable Minister of Human Resource Development on 29th September, 2015. This framework outlines a methodology to rank institutions across the country. The methodology draws from the overall recommendations, broad understanding arrived at by a Core Committee set up by MHRD, to identify the broad parameters for ranking various universities and institutions. The parameters broadly cover "Teaching, Learning and Resources," "Research and Professional Practices," "Graduation Outcomes," "Outreach and Inclusivity," and "Perception".

## Gaps in the study

To our limited knowledge, there has been limited empirical research conducted for classification and assessing differences among top B-schools and Management institution's in India.

## Objectives of the study

1. To identify best predictors and build the model for identifying best predictors for B-school ranking and classify the incumbent B-school for ranking among top 25 or below 25.
2. To assess the degree of differences among different Schools in India considering total scores based on NIRF Parameters (teaching, research, graduate outcome, perception and social outreach etc.)

## Scope and Methodology

Authors felt to confine the scope of the study to Top 50 B-schools and use the NIRF 2016 data as input data for the study. The study uses discriminant analysis for prediction and classification, and model building. The NIRF ranking data was divided into two categories a. top 25 ranked institutions b. next 25 ranks or bottom 25 ranked institutions. SPSS tool has been used for analysis.

Checking the Amenability of the data/Data sufficiency - Using the thumb rules (source- Multi variate analysis by Hair) for number of observations and size of the category i.e. there should be minimum number of 5 observations for each independent variable and 20 observations for each category. The total number of 50 observations of NIRF would suffice and complies with the thumb rule required for discriminant analysis and

multiple regression. Discriminant analysis techniques are used to examine variables associated with the predictability of performance category membership and the combinations of attributes most

contributory for performance category development. Discriminant analysis is a technique of finding linear combinations of variables that best separate groups and was chosen for two reasons.

Table1 Analysis & Output of the study

| Group Statistics |     |         |                |                     |          |
|------------------|-----|---------|----------------|---------------------|----------|
| Category In      |     | Mean    | Std. Deviation | Valid N (list wise) |          |
|                  |     |         |                | Unweighted          | Weighted |
| Top 25           | TLR | 80.1680 | 8.95204        | 25                  | 25.000   |
|                  | RPC | 82.6140 | 7.30866        | 25                  | 25.000   |
|                  | GO  | 83.6292 | 9.40389        | 25                  | 25.000   |
|                  | OI  | 59.7852 | 14.90588       | 25                  | 25.000   |
|                  | P   | 69.0000 | 27.63000       | 25                  | 25.000   |
| Bottom 25        | TLR | 62.0000 | 11.67619       | 25                  | 25.000   |
|                  | RPC | 63.5600 | 16.68602       | 25                  | 25.000   |
|                  | GO  | 65.0000 | 16.66083       | 25                  | 25.000   |
|                  | OI  | 57.7200 | 11.87617       | 25                  | 25.000   |
|                  | P   | 31.6400 | 17.73622       | 25                  | 25.000   |
| Total            | TLR | 71.0840 | 13.79240       | 50                  | 50.000   |
|                  | RPC | 73.0870 | 15.97341       | 50                  | 50.000   |
|                  | GO  | 74.3146 | 16.36477       | 50                  | 50.000   |
|                  | OI  | 58.7526 | 13.37893       | 50                  | 50.000   |
|                  | P   | 50.3200 | 29.73313       | 50                  | 50.000   |

Table 2 Tests of Equality of Group Means

|     | Wilks' Lambda | F      | df1 | df2 | Sig. |
|-----|---------------|--------|-----|-----|------|
| TLR | .557          | 38.120 | 1   | 48  | .000 |
| RPC | .637          | 27.352 | 1   | 48  | .000 |
| GO  | .669          | 23.704 | 1   | 48  | .000 |
| OI  | .994          | .294   | 1   | 48  | .590 |
| P   | .597          | 32.370 | 1   | 48  | .000 |

**Group Statistics Table:**

In discriminant analysis, we examine whether there are any significant differences between groups on each of the predictors. The group statistics given in the above Tables 1&2 and tests of equality of group means provide this information. Group statistics table reveal that there is a large separation among all the predictors. It

can also be observed from test of equality of group means, all the predictors have a significant difference shown in the above table. The F value is high (38.120) for the predictor TLR, means that it is a very good differentiator. The pooled within group matrix given in the below Table 3, also establish the fact that the intercorrelations among all the predictors are very low.

**Table 3 - Pooled Within-Groups Matricesa**

|             | TLR | RPC     | GO      | OI      | P       |
|-------------|-----|---------|---------|---------|---------|
| Covariance  | TLR | 108.236 |         |         |         |
|             | RPC | -32.379 | 165.920 |         |         |
|             | GO  | 8.771   | -16.057 | 183.008 |         |
|             | OI  | 19.653  | -14.206 | -13.766 | 181.614 |
|             | P   | -14.208 | 20.615  | 36.602  | 66.779  |
| Correlation | TLR | 1.000   |         |         |         |
|             | RPC | -.242   | 1.000   |         |         |
|             | GO  | .062    | -.092   | 1.000   |         |
|             | OI  | .140    | -.082   | -.076   | 1.000   |
|             | P   | -.059   | .069    | .117    | .213    |
|             |     |         |         |         | 1.000   |

a. The covariance matrix has 48 degrees of freedom.

**Eigenvalues**

| Function | Eigenvalue         | % of Variance | Cumulative % | Canonical Correlation |
|----------|--------------------|---------------|--------------|-----------------------|
| 1        | 2.879 <sup>a</sup> | 100.0         | 100.0        | .861                  |

a. First 1 canonical discriminant functions were used in the analysis.

**Table 4- Wilks' Lambda**

| Test of Function(s) | Wilks' Lambda | Chi-square | df | Sig. |
|---------------------|---------------|------------|----|------|
| 1                   | .258          | 61.673     | 5  | .000 |

From the above Table 4, it can be seen that only one discriminant function as we have two groups, so the number of discriminant functions is equal to the number of groups top 25 and bottom 25 minus one. The canonical correlation is the multiple correlation between the predictors and the discriminant function. It can also be used to

measure the overall model fit. Here, we have a canonical correlation of 0.861, the model explains 74% of the variation in the grouping variable i.e. whether the institute fall either in top 25 or bottom 25. Wilks' Lamda also suggests the same, a high significant function.

Table 5

| Standardized Canonical Discriminant Function Coefficients |            |
|---|------------|
|   | Function 1 |
| TLR   | 0.685      |
| RPC   | 0.608      |
| GO  | 0.369      |
| OI  | -0.069     |
| P   | 0.454      |

Table 6 - Unstandardized coefficients

| Canonical Discriminant Function Coefficients |          |
|--|----------|
|  | Function |
|  | 1        |
| TLR  | 0.066    |
| RPC  | 0.047    |
| GO   | 0.027    |
| OI   | -0.005   |
| P  | 0.02     |
| (Constant)                                   | -10.842  |

Table 7

| Structure Matrix |          |
|------------------|----------|
|                  | Function |
|                  | 1        |
| TLR              | 0.525    |
| P                | 0.484    |
| RPC              | 0.445    |
| GO               | 0.414    |
| OI               | 0.046    |

Table 8 - Unstandardized canonical discriminant functions evaluated at group means

| Functions at Group Centroids |          |
|------------------------------|----------|
| Category In                  | Function |
|                              | 1        |
| Top 25                       | 1.662    |
| Bottom 25                    | -1.662   |

Based on the output of the discriminant analysis (see Tables 5,6,7, &8). The standardized canonical discriminant function coefficients are analogous to standardized multiple regression coefficients. The sign indicates the direction of the relationship. Here all the predictors have a positive sign except for OI (outreach). The coefficient is high for TLR, means that it is most significant differentiator than other predictors. The structure matrix is another way of indicating the relative importance of the predictors. It shows the correlations of each predictor with discriminant function, called discriminant loadings. The largest loading

for TLR discriminates between top 25 and bottom 25. The discriminant function can be written as

$$Y = -10.842 + (0.066) \text{ TLR} + (0.047) \text{ RPC} + (0.027) \text{ GO} - (0.005) \text{ OI} + (0.020) \text{ P}$$

The important predictors for the top 50 ranking of B-schools (top 25 and bottom 25) based on the standardized coefficients include:

1. **TLR** Teaching, Learning & Resources
2. **RPC** Research, Professional Practice & Collaborative Performance
3. **P**- Perception
4. **GO** Graduation Outcomes
5. **OI** Outreach

**Table 9 - Classification Results<sup>a</sup>**

|          |       | Category In | Predicted Group Membership |           | Total |
|----------|-------|-------------|----------------------------|-----------|-------|
|          |       |             | Top 25                     | Bottom 25 |       |
| Original | Count | Top 25      | 24                         | 1         | 25    |
|          |       | Bottom 25   | 0                          | 25        | 25    |
|          | %     | Top 25      | 96.0                       | 4.0       | 100.0 |
|          |       | Bottom 25   | .0                         | 100.0     | 100.0 |

a. 98.0% of original grouped cases correctly classified.

The rows in the above Table 9 are the observed categories of the dependent and the columns are the predicted categories. The number of cases on the diagonal represents the number of correct classifications. The classification results reveal that 98% of cases were classified correctly into 'top 25' or 'bottom 25' groups. This is also called hit ratio. Top 25 were predicted with accuracy 96% while bottom 25 with accuracy 100%.

Discuss on results and Validation of the model – As the sample size is small, there is no holdout sample or split sample some observations are taken at random and tested for the category for discriminant analysis. Validation for IIMB is as follows:

$$Y = -10.842 + (0.066) \text{TLR} + (0.047) \text{RPC} + (0.027) \text{GO} - (0.005) \text{OI} + (0.020) \text{P}$$

$$= -10.842 + (0.066) 96 + (0.047) 94 + (0.027) 90 - (0.005) 87 + (0.020) 95 = +3.807, \text{ which fall into top 25 category.}$$

Validation for DBAT (Dept. of Business Administration Tezpur University) is as follows:

$$= -10.842 + (0.066) 90.1 + (0.047) 63.1 + (0.027) 62.5 - (0.005) 57.1 + (0.020) 25 = -0.0277, \text{ which fall into bottom 25 of top 50 category.}$$

For ANOVA one-way classification analysis, top 50 b-schools of NIRF 2016 Ranking data was further classified into 5 categories. 1. IIM's established by special act of parliament (13 no's) 2. Institutes set up by Government of India (6 no's) 3. Private B-schools (22 no's) 4. Private universities (Dept. of Management) (5nos) 5. M B A Colleges (Affiliated to Universities) (4nos)

**Table -10 ANOVA**

|                | Sum of Squares | df | Mean Square | F     | Sig. |
|----------------|----------------|----|-------------|-------|------|
| Between Groups | 2442.897       | 4  | 610.724     | 8.436 | .000 |
| Within Groups  | 3257.770       | 45 | 72.395      |       |      |
| Total          | 5700.668       | 49 |             |       |      |

Table 11- Dependent Variable: SCORE Tukey HSD

| (I) Type Of Institute category | (J) Type Of Institute category | Mean Difference (I-J) | Std. Error | Sig.  |
|--------------------------------|--------------------------------|-----------------------|------------|-------|
| IIMs                           | Institute set up by Govt       | 10.90333**            | 4.19936    | .088  |
|                                | B School                       | 14.38818*             | 2.97649    | .000  |
|                                | Private University             | 13.67000*             | 4.47748    | .030  |
|                                | MBA College                    | 23.07000*             | 4.86493    | .000  |
| Institute set up by Govt       | IIMs                           | -10.90333             | 4.19936    | .088  |
|                                | B School                       | 3.48485               | 3.91874    | .899  |
|                                | Private University             | 2.76667               | 5.15216    | .983  |
|                                | MBA College                    | 12.16667              | 5.49223    | .193  |
| B School                       | IIMs                           | -14.38818*            | 2.97649    | .000  |
|                                | Institute set up by Govt       | -3.48485              | 3.91874    | .899  |
|                                | Private University             | -.71818               | 4.21541    | 1.000 |
|                                | MBA College                    | 8.68182               | 4.62487    | .344  |
| Private University             | IIMs                           | -13.67000*            | 4.47748    | .030  |
|                                | Institute set up by Govt       | -2.76667              | 5.15216    | .983  |
|                                | B School                       | .71818                | 4.21541    | 1.000 |
|                                | MBA College                    | 9.40000               | 5.70769    | .476  |
| MBA College                    | IIMs                           | -23.07000*            | 4.86493    | .000  |
|                                | Institute set up by Govt       | -12.16667             | 5.49223    | .193  |
|                                | B School                       | -8.68182              | 4.62487    | .344  |
|                                | Private University             | -9.40000              | 5.70769    | .476  |

\*The mean difference is significant at the 0.05 level.

\*\*The mean difference is significant at the 0.10 level.

From the above Tables (10 & 11) it is observed that there is significant difference in the NIRF scores between IIMs and B Schools, Private Universities and MBA colleges (affiliated to universities). while there is no significant difference in the NIRF scores between IIMs and institutes set up by government at 0.10 significance level. Also, it is observed that there is no

significant difference in the NIRF scores between institutes set up by government and B Schools, Private Universities and MBA colleges which are affiliated to universities. It can also be observed that there is no significant difference in the NIRF scores between B Schools and Private Universities and MBA colleges which are affiliated to universities.

**Table 12 - Group Statistics**

|       | established | N  | Mean    | Std. Deviation | Std. Error Mean |
|-------|-------------|----|---------|----------------|-----------------|
| SCORE | Private     | 31 | 63.6774 | 8.34021        | 1.49795         |
|       | Govt        | 19 | 75.6268 | 10.35976       | 2.37669         |

**Table 13- Independent Samples Test**

|       |                         | Levene's Test for Equality of Variances |       | t-test for Equality of Means |    |                 |                 |                       |   |          |
|-------|-------------------------|---|-------|------------------------------|----|-----------------|-----------------|-----------------------|---|----------|
|       |                         | F                                       | Sig.  | t                            | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |          |
|       |                         |   |       |                              |    |                 |                 |                       | Lower                                     | Upper    |
| SCORE | Equal variances assumed | 1.038                                   | 0.313 | -4.48                        | 48 | 0.00            | -11.9494*       | 2.66591               | -17.3096                                  | -6.58926 |

\*The mean difference is significant at the 0.01 level.

From the above Tables (12 & 13) it can be concluded that null hypothesis of equal variances is accepted, which is essential to test there is any significant difference in the two groups means. Also it can be concluded that there is significant difference in the NIRF scores between government and private institutes which are in top 50 NIRF rankings (2016).

Conclusion – There is significant difference between IIM's and private B Schools, Private Universities and MBA colleges (affiliated to universities) but no difference between IIM's and other management institutions set up government of India such as IIT and Indian institute of forest

management etc. Surprisingly, that there is no significant difference between institutes set up by government of India and private B Schools, Private Universities and MBA colleges which are affiliated to universities. The important predictors for top ranking B-schools include Teaching, Learning & Resources (TLR), Research, Professional Practice & Collaborative Performance (RPC), Perception, (P), Graduation outcomes (GO) and outreach (OT). The incumbent B-schools who have not made to the top 50 should focus on above factors commensurate with their strengths and resources. Existing top ranked B-schools need to consolidate their position by focusing on their strengths. There is no

significant difference between IIM's and management institutions set up by government of India. These institutions have world class faculty and face no paucity of funds. Majority of them are old and have sufficient first mover advantage.

Surprisingly, private Business schools are on par with other management institutions set up by government of India but not IIM's. By focusing on their strengths and try to improve their weak areas. For B-schools to be more relevant, B-schools need to foster greater collaboration with for course design and training. Conceptual knowledge and skill development is necessary for the budding managers. As the corporates shift to triple bottom line, the sensitivity towards society, needs to be cultivated by the B-schools for the students through social outreach programs. But Schools are advised to consider the ranking exercise as benchmarking with the closest competitors and identify areas needing improvement and play fair game.

Limitations and directions for future research – NIRF is not comprehensive in itself, as it did not consider the B-schools above 50 ranks unlike engineering colleges in which top 100 colleges or institutions are considered. Alternate methods such as correspondence analysis and data envelopment analysis can be used to assess the quality of B-schools in India given wide disparities in resources of the institutions.

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## QUOTES

*"Whatever you do will be insignificant  
but it is very important that you do it."*

**Mahatma Gandhi**

*"It is unwise to be too sure of one's own wisdom.  
It is healthy to be reminded that the strongest might weaken  
and the wisest might err."*

**Mahatma Gandhi**

*"Nobody can hurt you without your permission."*

**Mahatma Gandhi**

## Problems and Challenges of Indian MSMEs in the Post Demonetization Era

**Dr. Mateen Ahmed Siddiqui\***

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### ABSTRACT

MSMEs play a leading role in the development of majority of the economies globally. MSMEs form the backbone of the Indian economy and are also called as engine of economic growth. Despite the fact that these play a very gigantic role in GDP, production, exports and also employment, they persevere to face very distinguishing set of challenges. The most important problem they continue to face is unavailability of finance; among other problems are skilled labour not available, shortages of raw material and marketing of their products. This research paper explores the specific problems and challenges congregate by the MSME sector. In this study the researcher has surveyed those MSMEs who have availed finance from banks and financial institutions and attempted to find out the other problems faced by them affecting their performance. Here stratified random sampling was adopted based on the interviews of 112 entrepreneurs and managers of MSMEs; the data was collected with the help of structured questionnaire. It was found that for MSMEs tremendous competition from LSI and imports, MNCs and other units is a major problem, whereas availability of low-priced substitutes is also affecting their performance.

**KEYWORDS:** Challenges, GDP, Exports, MNCs.

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### INTRODUCTION

Micro Small and Medium Enterprises (MSMEs) play a imperative role for the growth of Indian economy by contributing 45 per cent of industrial productivity, 40 per cent of exports, approximately 3 crore MSMEs employing more than 10 crore workforce, create 13 lakh jobs per annum and manufacture more than 8000 quality products for the Indian and international markets. MSME's Contribution towards GDP in 2011 was 17 per cent which is expected to increase to 25 per cent by 2020. In spite of various policies framed by the governments since independence, most of

the problems of MSMEs still persist to trouble the sector. MSMEs mammoth involvement to employment generation and the role they play in sustainable development encouraged many countries around the world to come up with special programs and support organizations for the development and growth of this sector.

But the financing problems for this sector still persist; MSMEs entrepreneurs in general have restricted access to finance. This induces them to borrow from unregulated lending markets or from their own dealers and they end up paying much higher interests. Not only does this lead to

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overpricing of products, but also confines the MSME entrepreneurs' ability to add value, upgrade technology, quality and adopt modern management methods. Thus accessibility of finance at reasonable cost is significant for Indian MSMEs. In this study it has been attempted to identify the different problems and challenges faced by MSMEs who in spite of accessibility to finance face different problems in their working.

### **Objectives of the study:**

1. To know the different challenges and problems Indian MSMEs are facing

To know whether there is any significant difference among the problems faced by assisted MSMEs the hypothesis has been framed and the data has been analyzed using ANOVA one way.

### **Hypothesis of the study**

Ho: There is no significant difference between the problems faced by the assisted MSMEs

Ha: There is significant difference between the problems faced by the assisted MSMEs

## **METHODOLOGY**

### **Area of Study**

The survey was done in two districts of Telangana namely, Hyderabad and Rangareddy.

### **Sample Selection**

To conduct the study, 112 MSMEs were surveyed pertaining to eight different sectors namely food, chemical, pharmaceutical, engineering, service, plastic, printing and miscellaneous industry.

### **Collection of Data**

Primary data for the study is collected from

MSMEs by using a structured questionnaire.

### **Data Analysis**

The information gathered was tabulated and was analyzed by using ANNOVA one way

## **REVIEW OF LITERATURE**

Tarun and Thakur propagated the wide gap between the sophisticated production techniques adopted by SSI in developed countries and India. Indian SSI has to address various issues of technology up gradation, quality improvement in order to stay in competition with LSI. But SSI on account of shortage of capital are forced to compromise on outdated machinery which hampers their productivity and quality of product.

In its report IDBI, ranked the various problems faced by enterprises in Andhra Pradesh, Kerala and Karnataka. The prime problems faced by the enterprises were unavailability of working capital followed by marketing and raw material problems. Delay in getting finance has also affected the productivity of these enterprises which has lead to escalation in cost of production.

Ahmed, assessed that in order to emerge prominently on exports front marketing innovations are essential for SSI sector, along with maintaining the track record of price competitiveness, latest advancement in information technology, effective application of quality and delivery in production process. These measures would provide the necessary cutting edge for the sector to boost the exports.

Deb, Ranabijoy specified the various constraints which hinder the growth of SSI which leads to lack of full capacity utilization were insufficient marketing,

inadequate working capital, unavailability of raw material, unavailability of skilled labour, inadequate power, transportation and climatic conditions, ineffective implementation of various incentive, supporting measures of the government, their channeling procedures and entrepreneurs response and attitude to such measures.

In their study Indian Institute of Management evaluated the effectiveness of District Industries Centre (DIC) programs in Andhra Pradesh. The study shows casts deficiencies in the various schemes of DIC. It was viewed that the indifferent attitude of DIC towards the various problems of small entrepreneurs like term loan assistance, working capital assistance, capital subsidy, land and factory shed have left them in a very pathetic condition.

Christopher, Mahemba and Erik appraised the weak relationship between the growth performance of MSMEs and their innovative behaviour, on account of organizational, product and process changes, use of obsolete technology in manufacturing for lack of awareness and non availability of new technology and heavy dependence on foreign technology. The authors recommend a national innovation policy, that links together all the economic factors of a nation.

Farooqi, evaluated that SSIs always prefer to manufacture a reserved item and establish their own brand equity using the latest technological tools. However, they are often not able to do so, as they have to restrict their investment in plant and machinery to remain classified as a small scale industry. Therefore SSI under such environment and conditions have to opt for horizontal growth, use obsolete technology

and yet withstand global competition which often leads to sickness due to their inability to compete. It is recommended that SSI should spend more on R&D, opt for better infrastructure, marketing of products and have more funds for modernization.

## CHALLENGES TO MSME

In spite of showing a healthy growth rate of over 10 per cent over the last 10 years, the MSME sector is beleaguered with operational problems due to size and nature of business. It is very important to authorize the MSME sector to utilize the limited resources, they have in a finest manner. The MSMEs need to be sophisticated and well-versed of the latest developments taking place worldwide and helped to obtain ability necessary to keep pace with the global developments. MSMEs are now exposed to greater opportunities than ever for expansion and diversification across the sectors. Indian market is budding rapidly and Indian entrepreneurs are making noteworthy progress in various Industries like Manufacturing, Precision Engineering Design, Food Processing, Pharmaceutical, Textile & Garments, Retail, IT and ITES, Agro and Service sector. The problem and challenges faced by MSMEs are discussed in detail here.

### Financing of MSMEs

MSMEs require timely and adequate capital infusion through term loans and working capital loans, particularly during the early and growth stages. Historically the MSMEs have relied on following sources for financing their needs:

Retained earnings, funding through sale of assets  
Ancestral capital, personal savings, loans

from relatives, loans from unregulated market

Institutional financing from scheduled commercial banks

Venture capital funds/ seed funds

Among the formal financial institutions, commercial banks constitute the largest source of financial assistance for the MSME sector at about 87 per cent. Further, the outstanding credit to the MSME sector as a share of adjusted net bank credit has remained at 17-18 per cent levels during the last four years 2012 to 2016. According to RBI data, outstanding credit to MSMEs extended by all scheduled commercial banks rose to 12.16 lakh crore as on end-March 2016 from 11.71 lakh crore on March 31, 2015. However, the growth rate of outstanding credit to MSMEs extended by all scheduled commercial banks over the last four years declined from 28.51 per cent in 2012-13 to 19.66 per cent in 2013-14 to 12.62 per cent in 2014-15 and further to 3.83 per cent in 2015-16, this rate may show a further decline in the post demonetization era.

#### **Financing related**

Non-availability of adequate and timely credit;

High cost of credit;

Limited capital and knowledge

Collateral requirements;

Unavailability / insufficient working capital

Recovery from debtors

Diversion of working capital funds for acquisition of fixed assets

Excessive paper work while availing loan from FIs

#### **Managerial / Legal and tax related**

Multiplicity and procedural complexity of labour laws;

Issues relating to taxation, both direct and indirect, and procedures thereof.

Follow up with various government agencies to resolve problems

Getting statutory clearances related to power, environment, labour

lack of man power and knowledge

No mechanism for quick revival of viable sick units and

speedy shutdown of unviable sick units

Raw Material and Operations related

Problems in supply to government departments and agencies;

Cost efficient procurement of raw materials;

Low production capacity

Poor infrastructure

Problems of storage, designing, packaging and product display.

#### **Infrastructure and technology related**

Lack of access to global markets;

Inadequate infrastructure;

Constraints on modernisation & expansions

Lack of access to modern / suitable technologies;

Lack of skilled manpower in manufacturing, services, marketing, etc.

#### **Marketing related**

Limited local market or access to markets

Less Variety of goods offered to market

Price of the product is high

Ineffective marketing strategy

#### **Labour related**

Labour Absenteeism / turnover

High rates of wages / salaries

Shortage of manpower

Non availability of skilled labour at affordable cost

Poor industrial relations.

#### **Problems and Challenges of MSMEs**

While many studies show the performance of MSMEs, it is equally important to analyze the factors which lead to the poor

operational performance of MSMEs. To measure the impact of factors responsible for poor performance on account of operational problems twenty five variables are identified in the questionnaire, these variables are drawn from six essential areas namely financial, marketing, managerial, raw material, labour, and technology. A five point Likert scale has been used to measure the impact of these variables.

The study supports the point of Khanna, (2001) that lack of infrastructure leads to

failure in industrial development and Aziz & Babu (1997) that power shortages and breakdown will stagnant the industrial activity.

The scores of individual respondents were added and divided by total number of respondents whose scores were added. The responses are given ranks based on the percentage of scored obtained by each variable. The ranks for all problems have been arranged in ascending order and shown in table 1.

| <b>Table 1 Chronological Ranks of Factors Responsible for Poor Operational Performance</b> |  |     |      |     |         |           |
|--|--|-----|------|-----|---------|-----------|
| S.no.  | Statistics                                   | N   | Mean | Sum | percent | Rank      |
| 11   | Excessive competition in the market          | 112 | 4.46 | 500 | 89.29   | <b>1</b>  |
| 3  | Shortage of Working Capital                  | 112 | 4.38 | 490 | 87.50   | <b>2</b>  |
| 24   | Quality of products offered to market is low | 112 | 4.13 | 463 | 82.68   | <b>3</b>  |
| 4  | Difficulty in receiving amount from Debtors  | 112 | 3.97 | 445 | 79.46   | <b>4</b>  |
| 2  | High cost of borrowing                       | 112 | 3.86 | 432 | 77.14   | <b>5</b>  |
| 8  | Weak Market Demand                           | 112 | 3.78 | 423 | 75.54   | <b>6</b>  |
| 1  | Unavailability of credit                     | 112 | 3.76 | 421 | 75.18   | <b>7</b>  |
| 19   | Unskilled labour available                   | 112 | 3.75 | 420 | 75.00   | <b>8</b>  |
| 12   | Technology of competitor is superior         | 112 | 3.74 | 419 | 74.82   | <b>9</b>  |
| 15   | Fluctuation in the price of raw material     | 112 | 3.71 | 415 | 74.11   | <b>10</b> |
| 22   | Obsolete Plant and Machinery                 | 112 | 3.62 | 405 | 72.32   | <b>11</b> |
| 16   | Low quality of material available            | 112 | 3.54 | 397 | 70.89   | <b>12</b> |
| 7  | Dealing with Govt. laws                      | 112 | 3.52 | 394 | 70.36   | <b>13</b> |
| 5  | Lack of management skills                    | 112 | 3.49 | 391 | 69.82   | <b>14</b> |
| 14   | Raw material not available                   | 112 | 3.46 | 388 | 69.29   | <b>15</b> |
| 13   | Price of the goods offered to market is high | 112 | 3.41 | 382 | 68.21   | <b>16</b> |
| 23   | Inadequate infrastructure with the firm      | 112 | 3.41 | 382 | 68.21   | <b>17</b> |
| 18   | Labour absenteeism                           | 112 | 3.34 | 374 | 66.79   | <b>18</b> |
| 6  | Absence of Long term planning                | 112 | 3.27 | 366 | 65.36   | <b>19</b> |
| 9  | Availability of Limited local market         | 112 | 3.25 | 364 | 65.00   | <b>20</b> |
| 21   | High cost of labour                          | 112 | 3.25 | 364 | 65.00   | <b>21</b> |
| 20   | Labour turnover                              | 112 | 3.24 | 363 | 64.82   | <b>22</b> |
| 25   | Dependence LSI                               | 112 | 3.19 | 357 | 63.75   | <b>23</b> |
| 10   | Less Variety of goods offered to market      | 112 | 2.93 | 328 | 58.57   | <b>24</b> |
| 17   | Imports of raw material is difficult         | 112 | 1.79 | 200 | 35.71   | <b>25</b> |
| <i>Source: Primary data</i>  |  |     |      |     |         |           |

## TESTING OF HYPOTHESIS

In order to find out whether there exists any significant difference among the problems faced by different MSMEs, MSMEs are divided into eight different sectors like food, plastic, chemical, pharmaceutical, service, engineering, miscellaneous and printing and the key factors affecting their operational performance of these MSMEs have been grouped into financial, managerial, marketing, technological, raw material and labour.

To know whether there is any significant

difference among the problems faced by MSMEs the hypothesis is tested with the help of ANOVA one way.

Ho: There is no significant difference between the problems faced by the assisted MSMEs

Ha: There is significant difference between the problems faced by the assisted MSMEs

Further analysis are done to find out sector wise whether there exists a significant difference in the problems faced by sample MSMEs and the results shown as under in Tables 2.

| <b>Table 2 ANOVA sector wise problems faced by Micro Small and Medium Enterprises</b> |                |                |     |             |          |             |           |
|---|----------------|----------------|-----|-------------|----------|-------------|-----------|
| ANOVA   |                | Sum of Squares | df  | Mean Square | F        | P           | Result    |
| Finance   | Between Groups | 450.9104       | 7   | 64.4157663  | 0.39534  | 0.90318952  | Accept Ho |
|   | Within Groups  | 16945.52       | 104 | 162.937675  |          |             |           |
|   | Total          | 17396.43       | 111 |             |          |             |           |
| Managerial  | Between Groups | 6156.255       | 7   | 879.465018  | 3.118557 | 0.004992482 | Reject Ho |
|   | Within Groups  | 29329.06       | 104 | 282.010215  |          |             |           |
|   | Total          | 35485.32       | 111 |             |          |             |           |
| Marketing   | Between Groups | 3510.404       | 7   | 501.486216  | 2.762822 | 0.011291118 | Reject Ho |
|   | Within Groups  | 18877.28       | 104 | 181.512295  |          |             |           |
|   | Total          | 22387.68       | 111 |             |          |             |           |
| Raw material  | Between Groups | 18460.16       | 7   | 2637.16521  | 12.88244 | 0.0001      | Reject Ho |
|   | Within Groups  | 21289.84       | 104 | 204.710034  |          |             |           |
|   | Total          | 39750          | 111 |             |          |             |           |
| Labour  | Between Groups | 4454.287       | 7   | 636.326747  | 3.132295 | 0.004836934 | Reject Ho |
|   | Within Groups  | 21127.63       | 104 | 203.150312  |          |             |           |
|   | Total          | 25581.92       | 111 |             |          |             |           |
| Technological   | Between Groups | 9404.206       | 7   | 1343.45799  | 4.54611  | 0.000185144 | Reject Ho |
|   | Within Groups  | 30733.89       | 104 | 295.518166  |          |             |           |
|   | Total          | 40138.1        | 111 |             |          |             |           |

Table 2 shows the calculation of "F" value and "P" value at 5 percent significant level. The calculated value of 'P' is less than 0.05 at 5 percent significant level for managerial, technological, raw material, labour and marketing problems. It could be observed

that five out of six variables have significant differences among all the sectors. Hence the null hypothesis that there is no significant difference between the problems faced by the assisted MSMEs is rejected and the research hypothesis that there is

significant difference between the problems faced by the assisted MSMEs is accepted. Thus the study concludes that the finance problems are common among the different sectors of MSMEs in the post demonetization era, whereas there is significant difference in the other problems faced by MSMEs.

### Conclusion:

Despite of the magnitude of the MSMEs in Indian economic growth, the sector is facing challenges and does not get the required support from the concerned government departments, banks, financial institutions and corporate which is proving to be a barrier in the growth path of the MSMEs. The objective of the current study is to analyze the different factors that hinder the performance of MSMEs who have availed finance from different sources. The major problems encountered by sample MSMEs could be summed up as shortage of working capital, lack of management skills, excessive competition, fluctuation in the price of raw material, availability of skilled labour and low quality of products offered to market. This study helps the reader to gain insights into the problems and challenges faced by the Indian MSMEs post demonetization era. It outlines a structured and specific system of understanding these pressures to the MSMEs performance and survival such that further research can be done to investigate potent solutions to address the dire situation. The research highlights key elements such as the importance of finance in the sector. It asserts that perhaps availability of finance is not as much of a problem as now different banks and financial institutions have shown a helping hand to this sector but other problems continue to threaten the profitability of this sector. To counter the challenges faced by MSME sector and

capture the opportunities in the market, the MSME dept. should play a leading role to developed key strategies to promote and support the MSME sector; the sector should be encouraged to espouse innovative ideas and concepts for the promotion of their business. This is possible by organizing seminars, conferences, workshops, trade promotional activities and training programs and other trade promotional activities to educate & create awareness amongst the MSMEs.

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## QUOTES

*"The difference between what we do and what we are  
capable of doing would suffice to solve most of the world's problems"*

**Mahatma Gandhi**

*"It is health that is real wealth and not pieces of gold and silver"*

**Mahatma Gandhi**

*"We must become the change we want to see. "*

**Mahatma Gandhi**

*"Be truthful, gentle, and fearless."*

**Mahatma Gandhi**

*"There is more to life than simply increasing its speed"*

**Mahatma Gandhi**

*"You can chain me, you can torture me,  
you can even destroy this body, but you will never imprison my mind."*

**Mahatma Gandhi**

*"The enemy is fear. We think it is hate; but, it is fear."*

**Mahatma Gandhi**

*The future depends On what you do Today "*

**Mahatma Gandhi**

# A Roadmap For Managing Disasters In India

Venkatesh Ganapathy\*

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## ABSTRACT

*The frequency of natural disasters across the globe has increased and the intensity of each disaster has only exposed all nations to the vulnerabilities associated with the occurrence of disasters. Rapid urbanization, climate change, the growing gap between the haves and have-nots, inability of the state machinery to meet the needs of the socially marginalized communities and exponential growth in population are some of the reasons for the occurrence of natural disasters and the adverse effects associated with them. The financial burden of disasters is something that the government alone cannot handle. Therefore there is a greater need for private sector participation in disaster management more than ever before.*

*Disaster planning is equally important as response and recovery and the private sector can play a crucial role in this area. Public private participation in disaster management is needed to encourage greater involvement of the private sector in disaster management efforts. The main challenge is to make such partnerships more productive so that disaster management can be effective. This study has reviewed the body of work in this area to highlight the challenges associated with public private participation in disaster management and the key research areas emerging from the same. Limited insurance and reinsurance capacity has led to the need to examine alternative risk transfer mechanisms to meet the financial obligations in the aftermath of a disaster.*

*This effort addresses the public private participation in disaster management from both angles viz. the involvement of private sector in disaster planning, response and recovery as well as involvement in alternative risk transfer mechanisms. Based on experiences of private sector in disaster management in various regions of the world, this study has recommended actions that need to be taken by the state machinery to evolve a regulatory framework so that greater value can be derived from public private partnerships.*

**KEYWORDS :** Disaster, Disaster Management, Disaster Planning, Risk management.

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## INTRODUCTION

A recent World Bank report concluded that the cost of disasters has quadrupled over the last 30 years – from an annual average of around a year in the 1980's to annual losses of some US\$ 200 billion today. Climate

change, urbanization, exponential growth in population in some regions and environmental degradation has resulted in increase in the frequency and intensity of disasters. It has therefore become important to get risk management right. Unpredictable nature of environmental

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hazards are challenging for governments, communities and individual households as they lack the capacity to manage the covariant risk presented by droughts, floods and hurricanes (Kelman & West, 2009; Mycoo, 2011, Campbell & Beckford, 2009).

Over 25 million people were affected by droughts in the Horn of Africa and the Sahel. Typhoon Haiyan in Philippines impacted over 16 million individuals. Developed countries are also equally becoming vulnerable to disasters like the hurricanes in USA and tsunami in Japan have proved. In Europe natural disasters resulted in 100,000 deaths over the last decade.

According to a 2012 World Bank report, the Thailand floods of 2011 for example, resulted in US\$46.5 billion of economic losses and required the Thai government to spend almost 5 per cent of its annual revenues for response and recovery efforts. ASEAN countries suffer annual damage of over US\$4.4 billion each year because of disasters—an amount equivalent to more than 0.2 percent of the region's total GDP

(World Bank, 2012).

Natural disasters caused a total of \$1.5 trillion in damage worldwide between 2003 and 2013, according to a study by the United Nations Food and Agriculture Organization (FAO) leading to more than 1.1 million deaths and affecting the lives of more than two billion people. In 2016, earthquakes in Japan, devastating floods in China and a deadly hurricane that swept across Haiti pushed the total damage caused by natural catastrophes to \$ 175 billion according to Munich Re.

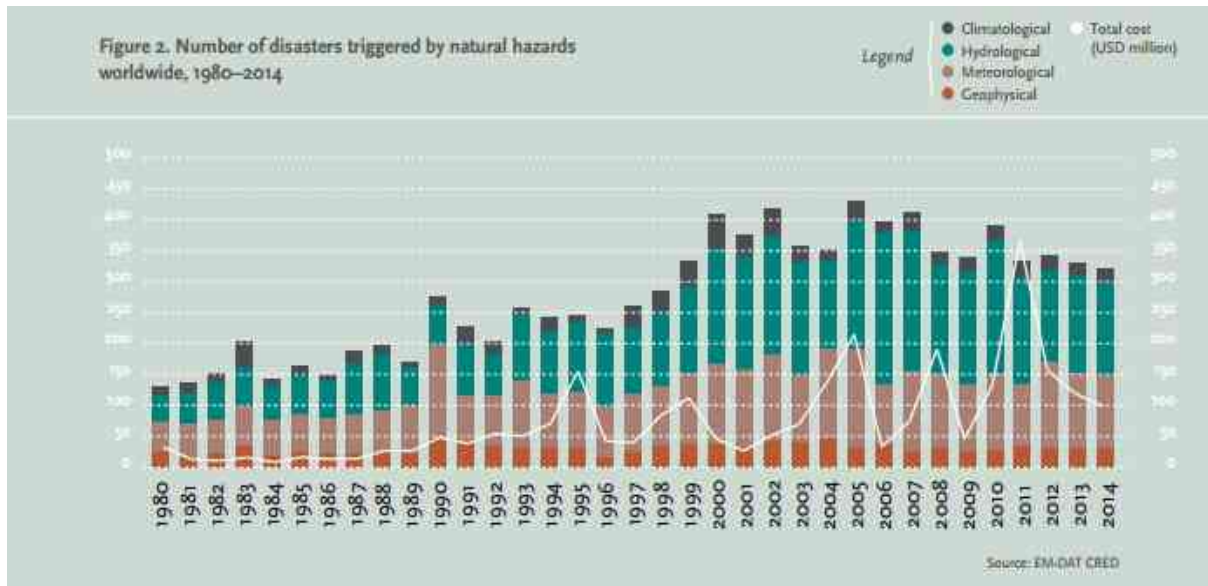
Only 30% of the losses -- \$50 billion -- were insured. The costliest disasters were in Asia. Two earthquakes in Japan combined to produce \$31 billion in losses, while floods that struck China during the summer caused \$20 billion in damage. In North America, the costliest single event was Hurricane Matthew, which killed hundreds of people in Haiti and produced \$10 billion in damage. But the continent was hit by a total of 160 disaster events in 2016, which is more than any year since 1980.

Figure 1: Disaster Risk Management



Source: Eyerkaufner, Lima & Goncalves, 2016, 'Public and Private partnership in disaster risk management', *Jamba: Journal of Disaster Risk Studies* 8(1), a277.

Figure 2: Number of disasters triggered by natural hazards worldwide, 1980-2014



Challenges associated with public private participation in disaster management need to be addressed as part of research efforts. Alternative risk transfer mechanisms are needed to supplement the efforts of government and insurance industry in meeting the financial obligations in the aftermath of a disaster.

## DISASTERS AND DISASTER MANAGEMENT

Focusing attention on social vulnerabilities that predated a disaster is as equally important as disaster relief and response (Masozera, Bailey & Kerchner, 2007) (Sugarman, 2007). Disasters present a broad range of human, social, financial, economic and environmental impacts with potentially long lasting, multi- generational effects (Wolfram et al, 2016).

Disaster management involves a complex network of interdependent agencies consisting of numerous and unprecedented interactions within and between various relief agencies (Bigley & Roberts, 2001). Increase in frequency and severity of

extreme events along with concentration of people and assets in vulnerable locations has resulted in extensive social, economic and environmental impacts from extreme events (Wolfram et al, 2016) (Van der Berg, 2015).

Disaster response can often fail to reach minorities and poor due to reasons like complex application process and transportation problems (Burby et al, 1999) (Dash, Peacock & Morrow, 1997). Middle and higher income disaster victims are more comfortable than low income groups in negotiating disaster recovery bureaucracy for assistance and aid (Fothergill & Peek, 2004). The effects of a disaster can persist into the next generation (Adger, 1996). Disaster management invests organisations and population with resilience capacity to minimize damage and loss. Key elements of disaster management are prevention, mitigation, preparedness, response and relief, rehabilitation (Bretan, 2007) (Baur & Parker, 2015) (Lapolli, 2013) (Atmanand, 2003) (Koven & Strother 2016). Understanding disaster risk management process (Figure 1) is essential.

Disaster management is often plagued with issues of implementation, poor governance and management deficiencies (Van der Berg, 2015). Uninsured risks, lack of purchasing power and lack of awareness about insurance covers are issues in India that lead to losses from natural disasters (Atmanand, 2003). Interconnected global economies lead to higher costs when supply chains break down. So, there is a need for impact reduction measures like coastal defenses, improved building codes, land-use zoning and planning and early warning systems (Baur & Parker, 2015).

## DISASTER MANAGEMENT IN INDIA

Developing economies are more vulnerable to climate change due to limited levels of disaster resilience, lower coverage through insurance markets and less fiscal flexibility. India is no exception. Population living in low lying coastal areas, greater reliance on agriculture for GDP growth and lesser capacity for adaptation are all characteristics of developing economies that are more vulnerable to disasters (Wolfram et al, 2016).

Private sector is less attracted to actively participate in disaster management in developing nations (Khan & Rahman, 2007) (Ahrens & Rudolph, 2006). In addition, the financial markets are not well developed. In developing countries, private insurers share only 9% of the total property losses due to natural disasters. In contrast to this, New Zealand and France, 75% and 100% of property is covered by private insurance respectively (Sawada & Zen, 2014). PPP in disaster management has resulted in new programs for loss prevention in US and France (Auzzir et al, 2014). British risk assessors Maple Croft have rated

India as high risk in terms of exposures to natural disasters along with Mexico, Philippines, Turkey, Indonesia, Italy and Canada. A World Bank study says that one dollar spent on prevention is more valuable than 10 times dollar spent on relief. The Japan earthquake and tsunami of 2011, New Zealand earthquake 2011, Haiti earthquake 2010, Chile earthquake of 2010 and Hurricane Katrina of 2005 are grim reminders of the ravages that natural disasters can cause.

Working group Report on Disaster management for 12th 5 year plan was tabled by the Planning Commission on 31/10/2011. Existing institutional structure on disaster management needed streamlining to avoid multiplicity of structures. The Government has realised that there are innovative means for application of science and technology in disaster risk reduction.

Disaster management has to be an integral part of the development agenda. The vision of NDMA – National Disaster management Authority is to build a safer and disaster resilient India by developing a holistic, proactive, multi disaster and technology driven strategy for disaster management through collective efforts of all stake holders. Community level initiatives for disaster preparedness by involving people at the grass roots – for those who are vulnerable so that they are better prepared.

## PRIVATE SECTOR & DISASTER MANAGEMENT

Changes in frequency of disasters and intensity of disasters have changed. From 2000 to 2014, the number of US disaster declarations has increased dramatically – 65 major declarations per year on average and

a total of 1907 declarations in all. The private sector contribution to disaster recovery financing occurs in two forms – for profit businesses that can minimize disruptions in payroll and private non-profits like philanthropies and charities.

Often it is found that presidential declaration of an emergency or announcement of a major disaster spurs public sector to finance disaster recovery. Public utilities provide support to other organisations that are involved in disaster recovery by arranging for replacement of damaged facilities, removal of debris, repair of roads and bridges, controlling water facilities and facilitating emergency protective measures. There are other efforts like temporary housing, arranging for evacuation that is done by public sector agencies to assist individuals in disaster recovery efforts. (Chandra et al, 2016). Disaster cycle involves pre-planning, response and recovery. Recovery may happen both in short term and long term. When disaster impacts are severe, local communities tend to reach out to central and local government machinery. Private sector role is crucial at this juncture as it can bring in flexibility while distributing aid to local communities.

As recovery phase begins, households need to access medical and disability benefits and often these needs can exceed what is available through a health insurance cover. The private sector has often addressed these shortfalls by arranging for medical relief camps and mobile health care vans. The involvement of private sector in planning and early response can help long term recovery (Chandra et al, 2016).

The different ways in which private sector can aid disaster management are:

1. Build local capacity as part of pre-disaster planning.
2. Focus on improving resilience of vulnerable communities.
3. Set standards and quality assurance criteria for safer structures in urban areas
4. Facilitate formulation of business processes and support risk assessments
5. Include employees and their family members in creating awareness about disaster management.
6. Speedy restoration of critical infrastructure and completion of the recovery jobs as per specifications laid by the Government.

Lack of information precipitates the need for more systematic engagement of state emergency centers to share information with the private sector. Rather than asking what is actually needed, private sector can report about what they can offer as disaster aid (White & Lang, 2012).

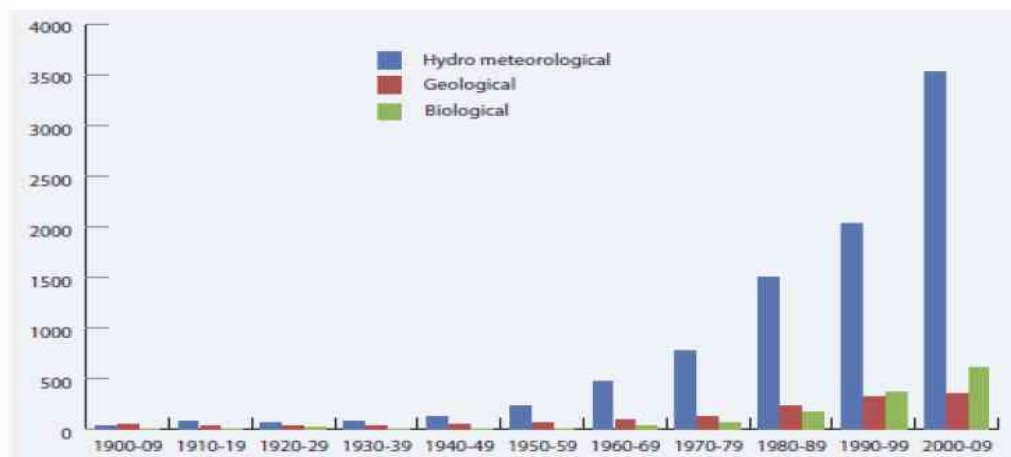
Security guards, drivers and lift operators could be trained in rescue and first aid with training support provided by manufacturers of specialized equipment or providers of services. For instance, in a post-earthquake reconstruction scenario, engineers working in Government, academic institutions or retired engineers could be helpful in designing appropriate structures for buildings to be reconstructed. Private sector and NGOs have a track record of efficient disbursement of funds in the aftermath of a disaster (Chandra et al, 2016).

| Name of organization (Private sector) | Support to disaster management   |
|---------------------------------------|--|
| IBM                                   | Smarter cities challenge grants in Japan after the 2011 earthquake and tsunami; open source database for tracking people and resources to aid community monitoring of recovery.  |
| Office Depot                          | Educate small businesses about emergency preparedness  |
| Shell Oil                             | Support for disaster victims in need of fuel   |
| Walmart                               | Use of information in website to promote preparedness among employees and posting tips for specific areas and shelter or information about disasters.  |
| Airbnb                                | Partner with Portland and San Francisco to pre-identify hosts for displaced people and services; provide alerts during a disaster via web and mobile technology.   |
| Citigroup                             | Pre crisis preparation; providing programs for the unbanked – those without formal bank accounts ; providing them immediate support in the form of prepaid benefit cards to facilitate economic recovery after a disaster. |

### Challenges during disaster relief

- Incomplete information on spending by different sectors
- Lack of expertise in identifying specific areas for private sector contribution
- Absence of data to assess the impact of contributions / investments in effective recovery
- Is the right kind of relief reaching the right people?
- Lack of availability of relevant information
- Difficulty tracking the flow and timing of funds
- Risk of potential overlap of emergencies in disaster-prone areas.

Figure 3: Disaster events globally between 1900 and 2009



Source: Disaster Management in India, Ministry of Home Affairs

## PUBLIC PRIVATE PARTICIPATION IN DISASTER MANAGEMENT

PPP is defined as a relationship established (by virtue of a contractual agreement) between the public sector and private sector (Van der Berg, 2015). PPP is a contract between a public sector authority and a private party in which the private party provides a public service or project and assumes substantial, financial, technical and operational risks in the project (Abou-Bakr, 2012).

A public private partnership (PPP) is a joint venture operated concertedly through government and private initiatives that provides a sustainable framework for sustainable development in communities and states. Both stakeholders share knowledge, technology, capital and goods (Miller & Rivera, 2010). The World Bank institute defines a public-private partnership as a long term contract between a private party and government agency for providing a public asset or service in which the private party bears significant risk and management responsibility. The concept of PPP originated in the West in US and later in Europe. PPPs enable reduction in risk (Lassa, 2013). Public private partnerships can combine the strengths of private actors such as innovation, technical knowledge and skills, managerial efficiency and entrepreneurial spirit, and the role of public actors, including social responsibility, social justice, public accountability and local knowledge to create an enabling environment for delivering high quality health infrastructure and services. However PPP failures are also not uncommon.

Under the Hyogo framework for action, promoting public-private partnerships is an

important strategy for implementing risk mitigation and risk financing in high risk countries. Promoting dialogue and co-operation among scientific communities and practitioners working on disaster risk reduction is essential (Hyogo framework for action 2005-2015). (Miller & Rivera, 2010)

Three phases in disaster management cycle:

- a) Pre disaster phase in order to reduce disaster risks by adopting preparedness and mitigation measures.
- b) Immediate aftermath phase aiming at response and rescue.
- c) Recovery phase focusing on long term recovery and reconstruction.

Pre-disaster framework agreements that link potential participants in disaster prone areas in advance are essential. Formal post disaster arrangements have to be mobilized faster, to efficiently organize diverse potential participants (Zou et al, 2015). Typical PPP approaches may not work in disaster scenarios demanding rapid responses and involving people- those affected as well as those who help (Zou et al, 2015). Social media can play an important role in disseminating the right information.

The US Federal Emergency Management Agency (FEMA) has identified the following 8 benefits of public-private partnerships for disaster resilience: (Reference 2)

- Timely information on disaster risks to facilitate sound decisions related to planning, operations, customer and employee safety. Real time situation updates through twitter feeds and video/photo submissions.
- Improved decision making through timely and relevant information and

appropriate risk assessment and mitigation strategies by government and private sector.

- Increase in availability and efficient use of resources.
- Improved communication for better resilience, preparedness and recovery efforts.
- Involvement of public and private sector in all stages of the emergency management cycle through regular meetings and virtual networks.
- Increased mutual understanding between public and private sector to appreciate each other's limitations.
- Relationship building to support disaster response and recovery.
- Collaboration, coordination and communication between government and private sector partners to increase capacity and support local communities to manage disasters.

International disaster management arena comprises 3 types of PPP categories:

- Awareness and advocacy partnerships
- Disaster preparedness partnerships
- Social investment partnerships

#### **Awareness and advocacy**

This involves sharing knowledge, managing risks, reducing the impact of future disasters and fostering resilience in communities.

Annual disaster drills for employees and employers of local authorities are conducted along with disaster management camps for school students. Fire departments, disaster management volunteer groups and individuals from the local community are involved in educating participating citizens in household preparedness.

#### **Disaster Preparedness**

This involves improving the readiness of local authorities and communities.

Stockpiling of equipment and supplies, co-ordination and stand by equipments, information management, personnel training and development of contingency or disaster management plans become essential.

#### **Social investments**

Private sector provides communities with financial support, volunteers or expertise and product donations to improve living conditions of those in disaster stricken areas or to repair critical infrastructure damaged by disaster. Such PPPs are often established by MNCs as philanthropy or as part of corporate social responsibility efforts. (Van der Berg, 2015)

Disaster management needs collaboration and co-operation among a diverse set of actors and regulatory support. Leveraging government, community and industry needs to have a grip on vulnerabilities is essential for a PPP in disaster management (Abou-Bakr, 2012) (Miller & Rivera, 2010). An integrated approach involving government, civil society organisations and private sector can aid mobilization of human and non-human resources to support prevention and response to disasters (Lassa, 2013) (Chen et al, 2013). The government must set targets and define standards for PPP (Johannessen et al, 2013). Local governments can set up a disaster reserve fund using the taxes collected.

PPP can supplement financial capacity of local governments and frame operational procedures for hazards to improve capacity and provide training through improved co-ordination (Lassa, 2013). PPPs can help smaller communities and support federal disbursement processes. They encourage multi stakeholder participation to improve planning and resilience. PPPs can drive

innovation and use of technology to expedite disaster recovery (Van der Berg, 2015) (Chandra et al, 2016) (Busch & Givens, 2013).

Challenges in PPP in disaster management (Buwa, 2012) include delays in the reimbursement process dealing with relief partners, constant change of government personnel dealing with relief process, absence of a disaster relief official on the sites of distress and unsubsidized expenses incurred by the relief partners.

Germany implemented a project called 'Get Airports ready for disaster' as a successful example of private-public sector partnership (Ha, 2015). New model like public-private

community partnership (PPCP) model wherein both the government and private players work together for social welfare eliminating the focus of private players on profit is also emerging (Abou-Bakr, 2012).

Existing PPP models are skewed towards disaster response and recovery. So, risk reduction and resilience building also must be encouraged along with improvement in trust. Post Hurricane Sandy in 2012, businesses donated funds for relief but stayed away from getting involved in long term recovery. PPP can bring in flexibility in disaster relief leading to demonstration of accountabilities by private sector before, during and after disasters.

### Successful examples of PPP across the globe

| Disaster Event/ Country                     | Private sector involvement  |
|---|---|
| Hurricane Katrina in 2005, USA              | Walmart provided disaster victims with staples like food, water, toilet paper and fuel. (Van der Berg, 2015)<br>Walt Disney company's use of character actors in shelters for survivors (Abou-Bakr, 2012).  |
| 9/11 terrorist attacks, USA                 | Federal Express   |
| Piracy off the coast of Africa              | Maersk's efforts to combat piracy   |
| India                                       | Partnership between an ambulance service company in Mumbai (Ziqitza Healthcare Limited) and local government (Rakesh & Sripama, 2014). The service company saw this as an opportunity to expand their social mission.   |
| Tornado, Moore, Oklahoma, USA (20 May 2013) | Partnerships between government entities and businesses played a significant role in the recovery efforts. (Abou-Bakr, 2012).<br><br>The Ford Motor Company donated \$ 400000 to local charities including the American Red Cross which worked closely with first responders to help survivors. The Home depot gathered 300 employees in Dallas, Texas including plumbers and general contractors and took them by bus to Moore to assist in recovery operations. (Abou-Bakr, 2012).<br><br>Numerous cell phone towers were destroyed in the Moore area. The wireless phone company Sprint provided cell phones to local first responders and set up mobile cell phone towers on trucks to boost service coverage. (Abou-Bakr, 2012). |

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| Blumenau (Santa Catarina state), 2008, Brazil                   | Federal Express partnered with the local government for identification of appropriate logistics solutions Fonseca et al. (2012).  |
|   | One of the successful PPP has been that of Thomas Nationwide Transport (TNT), an express delivery company that partnered with humanitarian agency World Food Programme. Barriers were overcome and solutions were arrived at by clear definition of roles and responsibilities (Tomasini & Van Wassenhove 2009).  |
| PPP in disaster management in Bangladesh (Baur & Parker, 2015). | <p>Bangladesh is a country prone to floods. People rely on government aid, NGOs, microfinance institutions to support them. The Bangladesh government along with international agencies and local partners has now built structural solutions to counter the losses caused by floods. The government has found protection for residents of the river basin against catastrophic floods like raising river embankments, constructing flood protection shelters and food and medical stores. Ex-post financing of disasters puts enormous burden on government and delays disaster relief.</p> <p>The flood index insurance project was launched by donor organizations in close collaboration with the private sector. This pilot covered 1660 families from 14 villages and uses model-generated flood data for payout calculation.</p> |
| Indonesia   | <p>Mercy Corps received financial grants from OFDA-USAID and Boeing Corporation for a project (2008-2010) to facilitate coordination among local communities, local governments and private sector actors so they could plan, mitigate and respond to natural disasters.</p> <p>Disaster risk reduction trainings for 156 staff of local governments, 129 private sector personnel, more than 14000 students and more than 1500 community members. This project trained communities, teachers, high school students, local government officials at different levels, local disaster management offices and private sector stakeholders. (Lassa, 2013)</p> <p>Building of evacuation roads including bridges and one evacuation building to reduce the evacuation time so that people can avoid tsunami traps.</p>                       |

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| China | Partnership between Swiss Re and the Beijing municipal government provides insurance cover for insurance companies participating in Beijing Agricultural Risk Insurance Scheme. Under terms of the contract, the insurance companies will be responsible for losses below 160% of annual premium. Swiss Re and state owned reinsurer China Re will take up any losses between 160 and 300% and settle reinsurance payouts with the individual insurance companies. Losses over 300% are covered by the Beijing Municipal Government's Agricultural Catastrophe Risks Reserve (Swiss Re, 2011). This is an example of a movement away from post-disaster government funding to pre-disaster risk management. Business engagement has to be such that they can move away from short term post disaster contributions to long term engagement in resilience efforts. (Reference 2) |
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To cite an example of CSR, Siemens and Sky Juice foundation leveraged their expertise and technical knowledge to assist local communities in the restoration of infrastructure damage to water systems in the aftermath of a disaster. Siemens and Sky Juice foundation developed 'Sky Hydrant', a portable water filtration system which makes use of membrane filtration systems to provide up to 10000 liters of safe and pure drinking water (without the use of electricity) per day. (Van der Berg, 2015)

## DISASTER INSURANCE

People hesitate to take insurance cover due to lack of awareness about the need for insurance, cost of premiums and lack of trust in insurers (Lashley & Warner, 2015). On an average only 30-40% of disaster risks are insured. Recovery and rehabilitation efforts gobble up government funds and the onus falls on the exchequer. Disasters also set the clock back on development gains achieved by economies over the years. Insurance plays an important role in mitigating the macroeconomic costs arising

from major natural catastrophes (Baur & Parker, 2015).

Between 2005 and 2014, insurance covered approximately 51% of all losses in high income countries but less than 10% losses in developing countries. (Wolfram et al, 2016). In Europe only 30% of disaster risks are actually insured against.

A key challenge to the viability of disaster insurance has been the establishment of a sufficiently large pool of policyholders with independently distributed probabilities of loss. In many countries, insurance for disaster risks is an optional add-on to other policies which has led to limited take up and significant under insurance of these risks even where the extra premium for disaster insurance coverage is affordable. (Wolfram et al, 2016). Lack of awareness about available insurance covers among the population is a huge handicap (Thomas & Leichenko, 2011).

High underwriting costs of disaster insurance in developing countries coupled

with lack of cost effective means of distributing insurance products has led to poor uptake of disaster insurance. Micro insurance schemes in many countries have been unable to demonstrate commercial viability and scalability is an issue. Access to reinsurance coverage at an affordable premium is essential for long term viability of micro insurance. In addition, developing suitable distribution channels is a must.

Insurance spreads losses among people and across time and reduces the catastrophic impact of disasters. Appropriate pricing of risks can motivate risk reducing behavior of insured (Lashley & Warner, 2015). While insurance can support adaptation and risk resilience for extreme weather, it is not appropriate for foreseeable, widespread, slower onset climate induced impacts. Even for weather related events, insurance cannot be a stand-alone measure to address frequent hazards such as flooding. Resilience building and prevention of loss and damage may be more cost effective ways to address these types of risks (Lashley & Warner, 2015).

Switzerland and Romania have made disaster insurance mandatory. Countries like Belgium, France and UK have made disaster coverage as a mandatory extension to property insurance policies. In Germany insurance companies, consumer organisations and state governments have increased awareness about disaster risks, the need for financial protection and the risk of depending on government compensation which may not be forthcoming for property for which insurance is available. (Wolfram et al, 2016).

In Australia, insurers must provide flood insurance cover – this action was taken following the 2010-11 Queensland floods. In the US, a number of publicly backed

insurance pools have been established to cover wind and storm damage in hurricane prone states in the South East. (Wolfram et al, 2016).

A number of disaster insurance schemes involve public-private partnerships that establish specific thresholds for the coverage of risks by the private and public sectors. Example – the Japanese Earthquake Reinsurance Co. Limited retrocedes (re-reinsures) 50% of mid-level exposures back to the private sector and adjusts the level of retrocession periodically based on changes in market capacity. (Wolfram et al, 2016).

Countries with underdeveloped insurance markets and limited penetration of property insurance need to promote insurance coverage for property risks. World Bank and Global environment facility have established Europa Re in South East Europe to encourage development of local catastrophe insurance markets. Europa Re provides a comprehensive market development package that includes reinsurance capacity, insurance market infrastructure services and technology solutions such as access to a sophisticated web-based production platform that supports automated pricing, underwriting and claims management. The platform was launched in 2014 (Wolfram et al, 2016)

### **Design of disaster insurance covers**

Risk based premiums for insurance coverage and premium discounts for effective risk reduction measures can provide incentives for reducing risks by offsetting the costs of risk reduction measures with lower future premiums for insurance coverage. Risk reduction measures implemented by policyholders such as elevating a building to protect against flood or installing storm shutters to protect against wind damage can reduce losses from disasters.

## FUTURE RESEARCH AREAS & WAY FORWARD

- Which areas of disaster management can benefit from private sector contribution?
- How can PPP be made more effective?
- To what extent must private sector formalize its role or responsibility in disaster preparedness?
- How can private sector funding data be captured adequately?
- How can quality of private sector involvement in disaster risk reduction be assessed?
- What are the procedures for establishing PPPs?

## SUGGESTIONS & RECOMMENDATIONS

International disaster events have highlighted the need for better planning, preparedness and effective governance. 70% of fatalities caused by natural disasters occur in the Asia Pacific region. Collaborative partnerships across all levels of government, the non-government sector, business and individuals will lead to better disaster management (3). India can set up early warning systems, conduct risk assessments for all hazards and regions, increase public awareness about disasters and enforce building bye laws. Manufacturing sector must meet safety and legal requirements; they must have a business continuity plan and conduct regular mock drills and hazard assessments.

Community based/ mutual insurance model in India and involvement of village panchayats in creating disaster awareness among rural communities are other measures. A SAARC kind of institution can be set up to promote global and regional advocacy in disaster management.

Community education can be promoted by involvement of rural women folk and volunteers. For example, one in 20 people in Australia are trained emergency management volunteers. The general insurance association in Thailand provides employee volunteers from insurance companies who encourage communities to embrace insurance and use one million Baht fund to fund relief activities. Micro insurance is being provided extending fire insurance of houses to include earthquakes and floods (3).

Insurers can collaborate with construction companies to ensure that the buildings are earthquake resilient and assist in calculating potential damage and loss estimations before the onset of a disaster as well as the costs of proposed structural mitigation measures.

Development of knowledge bank on disaster management, risk management, BCP, Risk auditing and offsite emergency plans needs to be on the anvil. Coastal sirens, simulations, wireless web based dissemination and radio technologies need development. The emergence of a central information system including all risks may be made available on the public domain (3).

Sustainable economic development needs a proper understanding of disasters. A disaster insurance system that functions well can allow quick pay-outs so that restoration work can be carried out with agility as otherwise the onus falls on the government. Well-designed insurance policies can deter deviant behaviors. Risk based pricing can motivate businesses and individuals to reduce their exposure to risk. Risk modeling and scaling up of insurance pilot projects in developing nations can yield good insights.

Private organisations must build social capital through humanitarian activities and improve their brand equity (Tomasini & Van Wassenhove, 2009). Business efforts in disaster relief and recovery can lead to social capital between businesses and communities. Social capital enables understanding the social fabric at the heart of the community psychology agenda (Saegert et al, 2017). Social capital is the ability of an individual to obtain benefits through membership in social networks (Portes, 1998). Social capital refers to resources embedded in social networks assessed and used by actors for actions including goodwill (Avery & Swafford, 2009) (Yasin & Gomes, 2010) (Adler & Kwon, 2002).

The public sector can raise awareness, structure control and enable creation of facilities. The private sector can infuse the partnership with their competence, agility, professionalism, operational resources and financial resources. The synergy between both partners will eventually lead to an integrated and comprehensive disaster management plan (Auzzir et al, 2014).

## CONCLUSION

The involvement of private sector in disaster management has been marginal in developing countries and more pronounced in developed countries. Yet there is a crying need to increase private sector participation in disaster management to enhance disaster response and recovery efforts.

The Government has to steer efforts to involve private sector in the disaster planning stage. Disaster planning and risk mitigation are equally important as response and recovery efforts. Compared to disaster recovery efforts, the involvement of the private sector is more skewed towards

disaster response and relief. This situation needs correction.

Having said this, we need to bear in mind that public-private participation in projects has not always been successful. In Peru, following the Pisco earthquake, lack of integration between public and private sector during pre and post disaster situation led to severe financial losses as coordination was poor.

In India, projects that were implemented using the PPP route have often dragged on endlessly leading to time overruns and cost overruns. Bureaucratic hurdles have often subsumed PPP projects. One shouldn't expect anything great from PPP in disaster management. Rather it is imperative to provide a framework and mechanism by which the coalition between public and private sector in disaster management can be productive and result-oriented. The trick is to keep things simple, clarify roles and responsibilities and accountabilities at the beginning itself and establish an ongoing monitoring and review process to check if things are under control.

Community involvement in disaster planning, response and recovery is essential. When floods ravaged Chennai in late 2015, help poured in from unexpected quarters. Citizen groups volunteered to support victims of the disaster. This is again clear evidence that business community can engage with local communities in relief efforts. The catch is how to cascade this momentum to pre-disaster planning and post-disaster recovery efforts.

The Government of India is promoting "Make in India" to encourage entrepreneurship in a big way. There is also added thrust on digitalization. This is the right time to encourage startups to look at

designing and implementing projects that can help in pre-disaster planning and risk mitigation/ reduction. To ensure greater involvement of private sector, the government needs to amend the Corporate Social Responsibility (CSR) guidelines to include disaster management efforts by the business community.

Global institutions often sponsor projects for community development. These projects must be designed, planned and executed keeping in mind the needs of the community. A cover story in the Hindu (Sunday, April 9, 2017) reported how the villages in and around the Cauvery delta are facing the adverse consequences of shrimp farming. More than 2000 acres of agricultural land in Thalainayiru block stand to be salinated because of shrimp farms.

The Asian development bank, under the aegis of the Central and State governments, announced an ambitious plan to build regulators on the three rivers that enter the sea in the block. The Rs. 1650 crore project is called as the climate adjustment project. The readjustment will reportedly have no impact on small farmers and their pockets of land. The proposed regulator is being built at a spot where it will not control the sea water inversion completely. The community was not consulted by the Public Works Department regarding the design. Such contentious issues can be challenging to deal with. So, community involvement in disaster management projects is important to derive greater buy-in from them.

Disaster insurance uptake is inadequate in most countries – developing countries in particular. Awareness about insurance cover and affordability of the disaster insurance are two issues that need to be addressed with alacrity. Of the losses

resulting from a disaster, only 40% are insured and this figure can be much lower in underdeveloped and developing nations. Despite capacity provided by reinsurance, the truth is that there is only so much disaster insurance can provide if one considers the debilitating impact of disasters and the magnitude of the financial duress that results from the disaster. Huge losses and claims in a post-disaster situation lead to enormous burden on the state as expectations from the public can become unmanageable in such a situation. Governance becomes a challenge too. There is a need to create a disaster relief fund with contributions from the insurance and reinsurance sector in India and this fund can be managed by GIC Re on behalf of the government.

Seldom can all aspects of disaster management be addressed in one go and neither is there a magic wand to wish away the problems. A concerted effort by the government to act as an aggregator of all the different sub-elements/ task forces that need to work together to manage disasters well is essential. The management of disaster can be a complex affair considering the involvement of so many stakeholders. The Government will need support from public works authorities, public sector, private sector, non-profit organizations, civil society organisations and multilateral institutions like World Bank. If volunteering has been successful in Australia, so can it be in India. Adopting a strategic mindset will go a long way in managing disasters effectively.

We may have little control on the occurrence of natural disasters; however early warning systems, predictive analytics and weather forecast modeling can prepare us for managing disasters. Disaster planning will help mitigate risks to reduce the impact

of financial crises after a disaster. The public-private participation in disaster management will play an important role in this transition from a reactive to a proactive approach. As always, in troubled times, the old adage “Prevention is better than cure” stands tall.

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## QUOTES

*I offer you peace.*

*I offer you love.*

*I offer you friendship*

*I see your beauty.*

*I hear your need.*

*I feel your feelings.*

*My wisdom flows from  
the Highest Source.*

*I salute that Source in you.*

*Let us work together  
for unity and love.*

**Mahatma Gandhi**

# Performance Assessment Of Housing Finance Companies In India

**Dr. P. Hanumantha Rao\***

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## ABSTRACT

Real estate market is presently going through lot of policy changes which are expected to have long term positive impact. In last 10 months, significant changes like demonetization of high value currency, passage of RERA Act, implementation of goods and service tax have taken place. These changes are very significant from the perspectives of housing market in India. Activities in housing market depend on the efficiency of housing finance industry. This paper attempts to study the fundamental of housing finance sector in India by taking a sample of top five housing finance companies in India on the basis of market capitalization. These sample companies are LIC Housing Finance, Housing Development Finance Corporation, Indiabulls Housing Finance, PNB Housing Finance, and GRUH Finance. The study considers significant financial measures like current ratio, debt equity ratio, return on equity, return on capital employed and return on assets ratio for five years starting from financial year 2011-12 to 2015-16. Statistical tools like mean, s.d, c.v and one way ANOVA are used for the analysis purpose. The study observed a significant difference among the performance of sample companies.

**Key words:** Performance Assessment, Housing Finance, Economy

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## Introduction

The Indian economy is currently going through a phase which can be termed as the "productive growth phase" characterized as a period of continuing growth while maintaining the macroeconomic stability. This sets the stage for a sustained growth cycle in the time to come. The real GDP growth is expected to rise to 7.9 per cent by December, 2017. This will be driven by favorable external demand, improving corporate balance sheets and private capex recovery. According to the research report of Morgan Stanley, growth is likely to remain higher, accelerating by almost 1 per cent point over the next three quarters. The implementation of GST is expected to

lead to efficiency gains through better allocation of factors of production. The stock market is also expected to trend upwards as is already evident from the sensex movement. Ministry of Finance estimates the growth rate of the industrial sector to be moderate to 5.2 per cent in 2016-17 as compared to 7.4 per cent in the previous fiscal year. The government's efforts to boost infrastructure and urban development, such as the addition of 25 million homes, 40 million dwelling units and 98 smart cities by 2022, has further enhanced the growth prospects of the real estate and related services sector.

According to domestic rating agency ICRA, the affordable housing segment is likely to

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grow over 30% over the medium term and will be the key growth driver for the mortgage finance market in India. As the focus of the government is on affordable housing segment, including initiatives like 39% higher allocation under the Pradhan Mantri Awas Yojana (PMAY), extension of the credit-linked subsidy scheme to loans of value upto Rs 1.2 million, borrower base is expected to expand.

The year 2016-17 has turned out to be a year of transition, especially for real estate — a sector that has been directly or indirectly affected or altered by most policy reforms which includes policy of demonetization, RERA Act, implementation of good and service tax introduced by the Centre government. Some of these policy changes may seem to have negative impact in the short run, but they will move the entire system towards more matured, organized and transparent in long run. Housing sector activities seem all geared up to expand quickly in near future. Availability of easy housing finance acts as stimulation to the growing housing sector activities in India. Housing finance is a relatively new concept in India as compared to other financial services that are widely available since a long time. However, quick development in housing and various housing activities have led to the impressive growth of Indian housing finance market. As a result, a large number of players have entered into the market. Here, It was first in the year 1970 when Housing and Urban Development Corporation (HUDCO) was established to finance various housing and urban infrastructure activities. However, the Housing Development Finance Corporation (HDFC) was the India's first private sector housing finance company which came into existence in the year

1977. Since then, the housing finance in India has been very impressive. It is estimated to grow at a growth rate of 36% in the coming years.

Of late, commercial banks have also started expanding housing-related disbursements. As a result, the market share also started growing up. In 2000, the Indian housing finance companies accounted for 70 per cent of the disbursements, while their collective share declined to 36 per cent within 5 years. In 2005, banks had accounted for 64 per cent of the disbursements. In the context of this, the present study aims to see how these housing finance companies are performing and what their future growth prospects in India are. Brief profile of sample companies:

- **LIC Housing Finance:** It is one of the largest Housing Finance company in India. Incorporated on 19th June, 1989 under the Companies Act, 1956, the Company was initially promoted by LIC of India and went public in the year 1994. It possesses one of the industry's most extensive marketing network in India:
- **Housing Development Finance Corporation:** HDFC is a leading provider of Housing Finance in India since 1977. It has so far financed 5.8 million cumulative units and sanctioned Gross loans amounting to Rs.3.4 trillion and has over 1.8 million Deposits Accounts.
- **Indiabulls Housing Finance:** It is engaged in the business to provide finance and to undertake all lending and finance to person or persons, co-operative society, association of persons, body of individuals, companies, institutions, firms, builders, developers, contractors, tenants and others either at

interest or without and/or with or without any security for construction, erection, building, repair, remodeling, development, improvement, purchase of houses, apartments, flats, bungalows, rooms, huts and townships, among others.

- **PNB Housing Finance:** It is an India-based housing finance company which provides housing loans to individuals and corporate bodies for construction, purchase, and repair and up gradation of houses. It also provides loans for commercial space, loan against property and loan for purchase of residential plots. It provides home loans including home purchase loans, home extension loans, home construction loans, home improvement loans, residential plot loans and loans for non-resident Indians (NRIs). Its non-home loans include commercial property loans, loan against property (LAP), loan for purchase of non-residential premises (NRP) and lease rental discounting (LRD). It also offers construction finance to the real estate developers.
- **GRUH Finance:** It provides home loans to individuals, and families for purchase, construction and extension. The Company operates through Housing Finance Business segment. GRUH also provides loans for repair and renovation of houses and home loans to families in the self-employed category. GRUH offers loans for purchase and construction of non- residential properties (NRP) and offers mortgage loans against existing residential and commercial properties. GRUH offers developer loans on a selective basis. GRUH offers loans on annual, monthly and daily rest basis.

## Literature Review

There are not many studies on the housing finance sector as the formal housing finance system has emerged very late in India. It was only in 1988 when National Housing Bank (NHB) was formulated for housing sector as a regulatory body. Majority of the previous studies conducted in the housing finance sector relates to operational efficiency analysis.

Reinhart and Rogoff, (2008) argued that housing cycles can influence economic activity through wealth effects on consumption and private residential investment mainly due to changes in profitability and the impact on employment and demand in property related sectors. They further suggested that if house prices are not aligned with the fundamentals, they can threaten the economic and financial stability of the country mainly because of the macro-financial linkages, as empirical evidence demonstrates. One of the most important factor which cause the financial crisis was the collapses in real estate prices. Ashwani, Parvinder and Pushpinder (2009) made a study of the effect of various selected independent variables (i.e Interest income, interest expenses, Non interest income, operating and administrative expenses and employee costs) on profitability of selected HFCs. Bi-variate Correlation analysis was used to study the correlation between various variables. They concluded that the overall profitability of the housing finance companies has gone down as observed in falling trend of return on capital employed. Manoj (2010) analyzed the operational efficiency for a sample of 10 major HFCs in India based on their relative operational efficiency calculated with cost to income ratio and ROE (Return on Equity). Statistical

analysis like, Trend Analysis, Correlation Analysis, and Regression Analysis etc were used to test the significant variance. It was observed that there exists quite significant difference in the operational efficiency of major HFCs in India, primarily because of the difference in the cost structure of the respective HFCs. Manoj (2010) analyzed the financial soundness of housing finance companies in India and determinants of profitability using a “CAMEL ” approach along with ROE Decomposition Analysis for a sample of top 10 HFCs. Popular tools of financial analysis like, ROE Decomposition Analysis were used for analyzing the profitability of the HFCs, whereas “CAMEL ” method was used to assess the financial soundness as well as to categorize these HFCs into a few distinct groups. It was observed that while there is significant difference in the relative financial soundness of HFCs in India, all HFCs are constantly facing the pressures of rising costs. Close monitoring of costs for improving their returns to income ratio is important for enhancing ROE. Allen and Carletti (2010) argued that the main cause of the recent wide-spread financial crisis was not that there was a bubble in real estate in the U.S. but also because there were a number of such bubbles in many other countries like Spain and Ireland. Guruswamy (2012) made a comparative analysis of selected HFCs in India by taking a sample of four housing finance companies, namely, Housing Development Finance Corporation Ltd., LIC Housing Finance Ltd., Can Fin Homes Ltd., and Vysya Bank Housing Finance Ltd using a secondary data for a period of 10 years from 1991-92 to 2000-2001. It was observed in that study LIC Housing Finance Ltd., and Housing Development Finance Corporation Ltd stood as excellent housing finance companies having the real competition in

the housing finance field.

Peppercorn (2013) presented the following critical factors for development of housing finance markets:

- a) Value for money, i.e. maximize the impact of public resources, leveraging government initiatives with the involvement of the private sector, with the goal of achieving a higher multiplier;
- b) Coordination, i.e. ensure the coordination between administrations and public/private sectors, to maximize the efficiency and effectiveness of the programs;
- c) Public sector role, i.e. from provider to enabler of housing; and
- d) Inclusive housing finance, i.e. include non-salaried borrowers. According to Peppercorn, poorer households tend to borrow from informal sources, at higher rates.

## Objectives

The objectives of the paper is to

1. To assess the liquidity and solvency position housing finance sector India
2. To assess the profitability position housing finance sector India
3. To make a comparison analysis of the liquidity and profitability positions of the companies
4. To identify strengths and weakness of key players in housing finance market

## Research Methodology

The sample companies, which represent the top 5 housing finance companies in India on the basis of market capitalization, are LIC Housing Finance, Housing Development Finance Corporation, Indiabulls Housing Finance, PNB Housing

Finance, and GRUH Finance. The ratios which are considered for the purpose of the analysis are current, ratio, debt equity, return on equity, return on capital employed and return on assets. Current ratio and debt equity ratios are used for analyzing the liquidity and solvency position whereas as return on equity, return on capital employed and return on assets ratios are used for profitability analysis.

The source of the data is the annual reports of the company. The study covers a period of five years starting from financial year 2011-12 to 2015-16. The statistical tools used for the study are mean, standard deviation, CV and one way ANOVA. The study is based on the following hypothesis:

**H01:** There is no significant difference in Current Ratio between the Sample Units and within the sample units during the study period.

**H02:** There is no significant difference in debt equity Ratio between the Sample Units and within the ample units during the study period.

**H03:** There is no significant difference in return on equity between the Sample Units and within the sample units during the study period.

**H04:** There is no significant difference in return on capital employed between the Sample Units and within the ample units during the study period.

**H05:** There is no significant difference in return on assets between the Sample Units and within the ample units during the study period.

### **Data analysis and interpretation**

The necessary data for the analysis is compiled from the annual reports of the respective companies. The analysis is divided into two parts, namely, analysis of liquidity and analysis of profitability.

### **Analysis of Liquidity**

A firm requires liquid assets to meet day to day payments. Therefore, liquidity ratios refer to the ability of the firms to convert its assets into cash. If the ratios are low then it means that money is tied up in stocks and debtors. Thus, money is not available to make payments. Liquidity of firms can be measured by an important ratio, namely current.

**Current ratio:** It shows the relationship between the current assets and the current liabilities. It is a financial ratio that measures whether or not a company has enough resources to pay its debt over the next business cycle (usually 12 months) by comparing firm's current assets to its current liabilities. A high ratio is an indicator of "safe" liquidity, but also it can be a signal that the company may be facing problems in getting paid its receivable or have long inventory turnover, both indicates that the company may not be efficiently using its current assets. The following table gives us an idea about the current ratios of the sample companies:

| CURRENT RATIO                           |         |         |         |         |         |      |      |        |
|---|---------|---------|---------|---------|---------|------|------|--------|
|   | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | Mean | S.D  | C V    |
| LIC Housing Finance                     | 0.51    | 0.39    | 0.47    | 0.46    | 0.44    | 0.45 | 0.04 | 9.68%  |
| Housing Development Finance Corporation | 0.37    | 0.36    | 0.3     | 0.27    | 0.26    | 0.31 | 0.05 | 16.25% |
| Indiabulls Housing Finance              | 0.32    | 0.75    | 0.69    | 0.78    | 0.73    | 0.65 | 0.19 | 28.98% |
| PNB Housing Finance                     | 0.47    | 1.34    | 1.08    | 0.71    | 0.28    | 0.78 | 0.43 | 55.97% |
| GRUH Finance                            | 0.46    | 0.37    | 0.37    | 0.4     | 0.47    | 0.41 | 0.05 | 11.66% |

It can be seen that PNB housing finance has the highest average current ratio whereas the least is found in case of HDFC. However the highest variability is also observed in case of PNB Housing Finance. LIC Housing Finance has least variability in

its current ratio implying that it is very much centered around its average of 0.45. Not it can be tested whether there is significant difference between the current ratio of sample companies on the basis of following ANOVA table:

| One Way ANOVA for CR |      |       |      |      |         |        |
|----------------------|------|-------|------|------|---------|--------|
| Source of Variation  | SS   | df    | MS   | F    | P-value | F crit |
| Between Groups       | 0.71 | 4.00  | 0.18 | 3.84 | 0.02    | 2.87   |
| Within Groups        | 0.93 | 20.00 | 0.05 |      |         |        |
|                      |      |       |      |      |         |        |
| Total                | 1.64 | 24.00 |      |      |         |        |

**Interpretation:** As the calculated value (3.84) is greater than the critical value (2.87) at 5% level of significance in Table 2, null hypothesis (H<sub>01</sub>) is rejected and hence it can be concluded that there is significant difference in current ratio between the sample companies. Hence, it can be noted that PNB Housing Finance has best liquidity position among the sample companies. HDFC has to improve its liquidity position as it has least average current ratio.

**Debt-Equity Ratio:** The debt to equity ratio is a financial liquidity ratio that compares a total debt of a company with its equity.. The debt to equity ratio shows the percentage of company financing that

comes from creditors and investors. A higher debt to equity ratio shows that more creditor financing (lenders) is used than investor financing (shareholders). A lower debt to equity ratio usually indicates a more financially stable business. Companies with a higher debt to equity ratio are more risky to creditors and investors than companies with a lower ratio. Unlike equity financing, debt has to be repaid to the lender. As debt financing also requires debt servicing or regular interest payments, debt can be a far more expensive form of financing than equity financing. Companies leveraging large amounts of debt might not be able to make the payments on time. The following table gives an idea about the debt equity ratio of sample companies:

| Debt Equity Ratio                       |         |         |         |         |         |      |      |        |
|---|---------|---------|---------|---------|---------|------|------|--------|
|   | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | Mean | S.D  | C V    |
| LIC Housing Finance                     | 8.42    | 9.06    | 9.49    | 10.64   | 10.51   | 9.62 | 0.95 | 9.86%  |
| Housing Development Finance Corporation | 5.05    | 4.38    | 4.03    | 4.23    | 4.42    | 4.42 | 0.38 | 8.66%  |
| Indiabulls HousingFinance               | 6.08    | 5.1     | 5.19    | 6.03    | 4.65    | 5.41 | 0.62 | 11.53% |
| PNB Housing Finance                     | 6.99    | 8.96    | 8.99    | 9.2     | 11.23   | 9.07 | 1.50 | 16.56% |
| GRUH Finance                            | 7.95    | 7.69    | 9.1     | 10.68   | 10.36   | 9.16 | 1.36 | 14.83% |

It can be seen that PNB housing finance has the highest average current ratio whereas the least is found in case of HDFC. However the highest variability is also observed in case of PNB Housing Finance. LIC Housing Finance has least variability in

its current ratio implying that it is very much centered around its average of 0.45. Not it can be tested whether there is significant difference between the current ratio of sample companies on the basis of following ANOVA table:

| One Way ANOVA for DE |        |       |       |       |         |        |
|----------------------|--------|-------|-------|-------|---------|--------|
| Source of Variation  | SS     | df    | MS    | F     | P-value | F crit |
| Between Groups       | 117.83 | 4.00  | 29.46 | 26.60 | 0.00    | 2.87   |
| Within Groups        | 22.15  | 20.00 | 1.11  |       |         |        |
|                      |        |       |       |       |         |        |
| Total                | 139.98 | 24.00 |       |       |         |        |

**Interpretation:** As the calculated value (26.60) is greater than the critical value (2.87) at 5% level of significance in Table 2, null hypothesis (H<sub>01</sub>) is rejected and hence it can be concluded that there is significant difference in the debt equity ratio between the sample companies. LIC Housing Finance used a higher proportion of borrowed money whereas HDFC employed very less proportion of borrowed money. Higher the usage of borrowed money, higher is the financial risk for the business undertaking. Based on this, we can firms differ significantly as far as financial risk is concerned.

#### **Return On Capital Employed (ROCE):**

Return on capital employed (ROCE) is a financial ratio which measures a company's profitability and the efficiency with which its capital is employed. A higher ROCE is an indication of more efficient use of capital. ROCE should always be higher than the cost of capital of the company; otherwise it indicates that the company is not employing its capital effectively and is not generating shareholder any value. The following table gives an idea about the ROCE of the sample companies:

| Return On Capital Employed              |         |         |         |         |         |      |      |        |
|---|---------|---------|---------|---------|---------|------|------|--------|
|   | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | Mean | S.D  | C V    |
| LIC Housing Finance                     | 1.72    | 1.61    | 1.73    | 1.53    | 1.62    | 1.64 | 0.08 | 5.08%  |
| Housing Development Finance Corporation | 4.27    | 4.11    | 4.59    | 4.51    | 4.79    | 4.45 | 0.27 | 6.01%  |
| Indiabulls HousingFinance               | 4.55    | 5.21    | 5.86    | 5.51    | 4.92    | 5.21 | 0.51 | 9.75%  |
| PNB Housing Finance                     | 2.42    | 1.53    | 1.43    | 1.5     | 1.71    | 1.72 | 0.41 | 23.62% |
| GRUH Finance                            | 4.27    | 3.42    | 3.08    | 2.73    | 2.51    | 3.20 | 0.69 | 21.55% |

The highest return on capital employed is observed in case Indiabulls Housing Finance and least is noticed in case PNB housing Finance. The variability is found to be maximum for PNB Housing Finance

whereas least variability is noticed in case of LIC Housing Finance. The following ANOVA table gives ideas as to whether these differences can be taken significantly or not:

| One Way ANOVA for RoCE     |           |           |           |          |                |               |
|----------------------------|-----------|-----------|-----------|----------|----------------|---------------|
| <i>Source of Variation</i> | <i>SS</i> | <i>df</i> | <i>MS</i> | <i>F</i> | <i>P-value</i> | <i>F crit</i> |
| Between Groups             | 51.13     | 4.00      | 12.78     | 65.38    | 0.00           | 2.87          |
| Within Groups              | 3.91      | 20.00     | 0.20      |          |                |               |
|                            |           |           |           |          |                |               |
| Total                      | 55.04     | 24.00     |           |          |                |               |

**Interpretation:** As the calculated value (65.38) is greater than the critical value (2.87) at 5% level of significance in Table 2, null hypothesis ( $H_0$ ) is rejected and hence it can be concluded that there is significant difference in the return on capital employed of the sample companies. Hence, it can be noted that return on capital employed is highest for Indiabulls Housing Finance among

the sample companies.

**Return on Net Worth:** This ratio measures how much a company earns in relation to the amount invested by the owner's of the business. It is calculated as earning after tax divided by owner's equity. Higher return on net worth is desirable by equity shareholders.

| Return on Net Worth                     |         |         |         |         |         |       |      |        |
|---|---------|---------|---------|---------|---------|-------|------|--------|
|   | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | Mean  | S.D  | C V    |
| LIC Housing Finance                     | 16.08   | 15.78   | 17.48   | 17.72   | 18.15   | 17.04 | 1.05 | 6.15%  |
| Housing Development Finance Corporation | 21.67   | 19.52   | 19.46   | 19.34   | 20.78   | 20.15 | 1.03 | 5.11%  |
| Indiabulls HousingFinance               | 26.17   | 25.44   | 27.61   | 30.47   | 21.84   | 26.31 | 3.15 | 11.98% |
| PNB Housing Finance                     | 19.36   | 15.21   | 12.4    | 13.88   | 15.01   | 15.17 | 2.59 | 17.10% |
| GRUH Finance                            | 31.21   | 29.71   | 29.14   | 28.64   | 29.16   | 29.57 | 0.99 | 3.35%  |

Return on net worth is found to highest in case of GRUH Finance with least variability. It indicates that GRUH Finance is able to generate wealth on equity shareholder's wealth consistently. It is

lowest for LIC Finance. However, highest variability is observed in case of PNB Housing Finance. Now, to test whether these differences are significant or not, the following table can be referred.

| One Way ANOVA for RoNW |        |       |        |       |         |        |
|------------------------|--------|-------|--------|-------|---------|--------|
| Source of Variation    | SS     | df    | MS     | F     | P-value | F crit |
| Between Groups         | 749.36 | 4.00  | 187.34 | 47.29 | 0.00    | 2.87   |
| Within Groups          | 79.23  | 20.00 | 3.96   |       |         |        |
|                        |        |       |        |       |         |        |
| Total                  | 828.60 | 24.00 |        |       |         |        |

**Interpretation:** As the calculated value (47.29) is greater than the critical value (2.87) at 5% level of significance in Table 2, null hypothesis ( $H_0$ ) is rejected and hence it can be concluded that there is significant difference in the return on net worth of the sample companies. Hence, it can be noted that return on net worth is significantly higher for Indiabulls Housing Finance among the sample companies.

**Return on Assets:** The return on assets ratio shows how effectively a company can

earn a return on its investment in assets. In other words, ROA shows how efficiently a company can convert the money used to purchase assets into net profits. A higher ratio is said to be more favorable to investors because it shows that the company is more effectively managing its assets to produce greater amounts of net income. A positive ROA ratio usually indicates an upward profit trend for the company. The following table gives us an idea the return on assets of housing finance companies in India:

| Return on Assets                        |         |         |         |         |         |      |      |        |
|---|---------|---------|---------|---------|---------|------|------|--------|
|   | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | Mean | S.D  | C V    |
| LIC Housing Finance                     | 1.41    | 1.27    | 1.37    | 1.23    | 1.27    | 1.31 | 0.08 | 5.81%  |
| Housing Development Finance Corporation | 2.46    | 2.48    | 2.4     | 2.35    | 2.45    | 2.43 | 0.05 | 2.17%  |
| Indiabulls Housing Finance              | 3.36    | 3.18    | 3.5     | 3.58    | 3.05    | 3.33 | 0.22 | 6.59%  |
| PNB Housing Finance                     | 1.74    | 1.21    | 1.12    | 1.03    | 1.1     | 1.24 | 0.29 | 23.13% |
| GRUH Finance                            | 2.77    | 2.6     | 2.44    | 2.21    | 2.12    | 2.43 | 0.27 | 11.07% |

It can be seen that Indiabulls Housing finance is getting highest return on its assets among the sample companies whereas the least return on assets is observed in case of PNB Housing Finance. When it comes

to the variability in its RoA, it is again PNB Housing Financing which has maximum variability. The ANOVA table gives us an idea as to whether these differences are significant or not.

| One Way ANOVA for RoA |       |       |      |       |         |        |
|-----------------------|-------|-------|------|-------|---------|--------|
| Source of Variation   | SS    | df    | MS   | F     | P-value | F crit |
| Between Groups        | 15.45 | 4.00  | 3.86 | 91.37 | 0.00    | 2.87   |
| Within Groups         | 0.85  | 20.00 | 0.04 |       |         |        |
|                       |       |       |      |       |         |        |
| Total                 | 16.30 | 24.00 |      |       |         |        |

**Interpretation:** As the calculated value (91.37) is greater than the critical value (2.87) at 5% level of significance in Table 2, null hypothesis (H<sub>01</sub>) is rejected and hence it can be concluded that there is significant difference in the return on assets of the sample companies. Hence, it can be noted that return on net assets is significantly higher for Indiabulls Housing Finance among the sample companies.

### Findings

The statistical analysis of the sample companies shows the significant difference in their performance. Current ratios of the sample companies were found to differ significantly. The best liquidity position was for PNB housing finance whereas HDFC needs to improve its liquidity position. LIC housing finance has highest portion of debt capital which was slightly lower for Gruh Finance whereas HDFC employed lowest amount of debt capital. Higher usage of debt capital signifies higher amount of financial risk. The highest return on capital employed was found in case Indiabulls Housing Finance and least is observed in case PNB housing Finance on an average basis. The fluctuation in return on capital was maximum for PNB Housing Finance whereas least variability is noticed in case of LIC Housing Finance. Sample companies differ significantly on the parameter of return on capital employed. GRUH Finance had highest Return on net worth with least variability which indicates

that the company is able to generate wealth on equity shareholder's wealth consistently. Return on net worth was found to be least in case of PNB Housing finance with maximum variability. Here also, significant difference was noticed. Indiabulls Housing finance generated highest return on its assets among the sample companies whereas the least return on assets is observed in case of PNB Housing Finance. When it comes to the variability in its RoA, it is again PNB Hosuing Financing which has maximum variability. Indiabulls and GRUH Finance outperformed other on the profitability parameters and whereas PNB Housing finance with lower profitability has shown better liquidity position over the period of the study.

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## QUOTES

### Seven Dangers to Human Virtue

*"Wealth without work*

*Pleasure without conscience*

*Knowledge without character*

*Business without ethics*

*Science Without humanity*

*Religion without sacrifice*

*Politics without principle*

**Mahatma Gandhi**

# Barriers To Using Journal Articles By PhD Students In Universities Of India

Stuti Saxena\*

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## ABSTRACT

**Purpose:** The purpose of this paper is to understand the barriers to using journal articles by PhD students in universities of India.

**Design/methodology/approach:** Structured interviews were conducted via email with 134 PhD students based in public and private universities in India.

**Findings:** Five barriers (institutional; task complexity; relevance and application; information quality; technical) have been identified for usage of journal articles by the PhD students in their research work. For instance, there are infrastructural problems and departmental libraries are not there at all. PhD students find it difficult to access the journal articles owing to subscription charges for downloading them because most of the universities have not subscribed to electronic journals. Also, some PhD students do not use journal articles in their research at all and prefer articles which are freely available on the web. Print articles are used by the students but most of these journals are outdated and the journals relevant for their use are not subscribed by the university. Then, there are some PhD students who are pursuing their studies in Hindi medium and journal articles are in English language which is why PhD students do not refer journal articles at all. Finally, PhD students are provided journal articles through informal contacts who arrange the journal articles from their own universities and in some cases, research guides provide few journal articles from their sources.

**Originality:** Hitherto, extant literature focuses on the "usage" of e-library from the perspectives of different stakeholders and most of the research is focused in the West. This is the first systematic study on the "barriers" to tapping journal articles in electronic and print formats as perceived by the PhD students in India.

**KEYWORDS:** Barriers, Library, PhD Students, Journals, E-journals, Print Journals, Universities, India

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## Introduction:

Library and its resources are tapped either physically or virtually for accessing information because "informed users are aware that libraries have more scholarly resources than most web resources available on the internet" (Hamade and Al-Yousef, 2010: 360). While a range of options are

available to the users to facilitate their research including search engines, e-print servers, websites, full-text databases, electronic journals, and print resources; most of the users prefer electronic journals owing to their being easily accessible and readily available for download. For the purpose of conducting research, PhD students refer to journal articles in print or

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electronic forms from various sources and the bottom line is that there should be quality in these resources. Challenges arise when students are not aware of the resources or when they have not been exposed to the valuable resources in the library (Bergart, 2002; Brandt, 1992).

Hitherto, extant literature has focused on information-seeking behaviors of users (researchers, students and faculty) in different contexts (for instance, Cathro et al., 2017; Dukic and Striskovic, 2015; Fidzani, 1998; Leduc and d'Opale, 2015; Majid and Tan, 2002; Masrek and Gaskin, 2016; Nujoud, Shaw and Courtney, 2016; Perpetua, 2005). However, most of the studies are conducted in the West (for instance, Barrett, 2005; Borrego et al., 2007; Boukacem-Zeghmouri and Schopf, 2008; Cooper, 2001; Lafferty, 2006; Nicholas and Huntington, 2006; Olle and Borrego, 2010; Rogani, 2007; Walsh, 2008) and of late, studies in developing countries are proliferating over the years (for instance, Ahmed, 2013; Atakan et al., 2008; Mirza and Mahmood, 2012; Okello-Obura, 2010). Our study seeks to plug this gap and contribute to the extant literature by investigating the research question in Indian context. Second, while different studies have focused on the “use” of electronic resources or e-library for academic purposes, no study has systematically focused on the types of “barriers” (institutional; task complexity; relevance and application; information quality; technical) encountered in getting access to research articles published in electronic as well as print journals with specific focus on the PhD students. This is the second gap which our study seeks to plug by seeking perspectives regarding barriers to using journal articles from 134 PhD students based in four public

universities and one private university in India.

The remaining paper is organized as follows: Section 2 provides an overview of related literature and identification of research gap which our study seeks to plug; Section 3 provides details regarding the research methodology adopted for addressing our research objective; Section 4 discusses the findings of the study; Section 5 concludes the study and Sections 6 and 7 leaves trails of limitations of the study, directions for further research and implications for practitioners.

## 1. Related literature

Research on resource “usage” in academic libraries has been done extensively. For instance, Anaraki and Babalhavaeji (2013) investigate the extent to which the medical students from three Iranian universities use e-resources; they conclude that more efforts are required for generating awareness among the students about the utility of e-resources. Okello-Obura (2010) investigate the usage behavior of e-resources by post-graduate students of Library and Information Sciences from Makerere University, Kampala (Uganda) and find that alongside usage of e-resources, there are challenges regarding infrastructure support to facilitate an optimum usage of these resources. In another study, the perceptions and expectations of 143 students from business management discipline at the University of Illinois (Urbana-Champaign) were investigated where the need for information literacy and provision of virtual reference service was being emphasized (Song, 2004). Zhang, Ye and Liu (2011) investigate the usage of e-resources among graduate students and staff in seven Chinese universities and conclude

that while there is ample usage of e-resources for research and statistical analysis, it is important that the quality of services improves over a period of time. Makori (2015) identified the factors which impact usage of e-resources by postgraduate students in Kenyan universities. Usage patterns of Punjab University (Pakistan) were investigated to probe into the variations in usage of e-resources using Transactional Log Analysis (TLA) (Arshad and Ameen, 2015). Finally, Alharbi (2016) has investigated the role of proper ICT infrastructure for facilitating effective e-library use among students of a private university based in Kuwait.

In the Indian context, we identified 17 major studies where the “usage” of information resources has been probed in different contexts (i.e., universities and institutions) (Table 1). We did investigate other studies which have been conducted on “usage” of information resources in the Indian context (for instance, Chand and Arora, 2008; Kapoor, 2010; Khan and Khursheed, 2013; Sumeer, Tariq and Suhail, 2014; Swain, 2010; Tripathi and

Jeevan, 2013; Tripathi and Kumar, 2014) but all of them suffer from the similar limitations as identified in Table 1, therefore, for the sake of parsimony, we did not include them here. While these studies emphasize upon the “usage” patterns of “e-journals” among PhD students, faculty members, social scientists and other researchers, none of the studies covers the “barriers” faced by the PhD students specifically in terms of their accessing journal articles in print as well as electronic formats for their research work. Second, none of these studies seeks to take a sample of PhD students in India which might have been more representative of India. Our study has solicited perspectives from PhD studies pursuing research in management, sciences and social sciences domains across universities (two Central universities, two State universities, and one private university) in India and this provides a more representative sample. Finally, our study is more comprehensive in the sense that we identify the “barriers” in tapping journal articles for research work in a contemporary context.

| Author(s)              | Context   | Research objective(s)   | Findings   | Research gaps identified   |
|------------------------|---|---|--|--|
| Bhat and Ganaie (2016) | Dr. Y.S. Parmar University of Horticulture and Forestry | To probe the searching tools and techniques, gadgets, place of access (home, office or hostel) which are adopted by users at the agricultural university based in Himachal Pradesh. | There is less awareness about usage of search engines and information literacy needs to be furthered among the users.                | Only one agricultural university is investigated; there is more focus on the searching tools rather than the utility of research articles.                             |
| Qasim and Khan (2015)  | Institute of Genomics and Integrative Biology, Delhi    | To investigate the usage patterns of e-journals among scientists.   | Extensive usage of e-journals was identified in the results and there were no technical glitches regarding accessing the e-journals. | Scientists were the main focus of the researchers; only one institute has been covered; there is no inclusion of the significance of print journals for research work. |

| Author(s)                       | Context   | Research objective(s)   | Findings   | Research gaps identified   |
|---------------------------------|---|---|--|--|
| Tripathi and Kumar (2014)       | Jawahar Lal Nehru University                                  | To investigate the usage patterns of e-resources among users on the basis of secondary data of usage statistics made available by the UGC - INFONET consortium. | There is increased usage of e-resources over a period of time and there is variation in usage pattern during different times of the year.  | With a focus on a single university without any delineation among the users on their usage patterns, it is unclear how PhD students are finding it challenging to tap e-resources.       |
| Nisha and Ali (2012)            | Indian Institute of Delhi and University of Delhi             | To find out the usage patterns of e-journals among post-graduate and doctoral students across different disciplines.  | There is increased awareness and usage of e-journals for research work and for acquiring general knowledge.  | Only two institutions have been covered and the sample covers a mix of post-graduate and PhD students; relevance of print journals is not covered.                                       |
| Ali and Nisha (2011)            | University of Delhi   | To determine the usage patterns and awareness of e-journals among research scholars of Central Science Library at University of Delhi.                          | Usage of e-journals is rampant among the research scholars but print journals are favored over e-journals.   | Only one departmental library was taken into account and the focus was more on assessing the awareness levels rather than the obstacles in tapping e-journals.                           |
| Suseela (2011)                  | University of Hyderabad                                       | To assess the usage patterns of e-journals with the help of COUNTER statistics.   | User reports of the library help in gauging the demands of the users and the library may strategize accordingly to renew or cancel journal subscriptions.  | No clue regarding users and the focus is more on usage reports and recommendations for library regarding subscription policies.  |
| Gupta (2011)                    | Kurukshetra University  | To investigate the usage patterns of electronic journals by faculty and research scholars from physics and chemistry departments of the university.             | E-journals are preferred over print journals but open access journals are preferred as well.   | Only technical errors like IP address error, invalid user name and password, and network problems have been identified; only one university is covered and the sample coverage is large. |
| Sharma, Singh and Sharma (2011) | National Dairy Research Institute, Karnal and National Bureau | To investigate the usage patterns of e-resources by teachers and research scholars of the two institutions.   | E-resources are used for teaching, research, entertainment and communication. Problems encountered are linked with slow internet speed, difficulty in retrieving contents and poor design of websites. | Print journals are not covered; sample is expansive; specific problems of research scholars have not been identified.  |

| Author(s)              | Context  | Research objective(s)  | Findings  | Research gaps identified   |
|------------------------|--|--|---|--|
|                        | of Animal Genetic Resources, Karnal                            |  |   |  |
| Madhusudhan (2010)     | Kurukshetra University   | To assess the usage patterns of e-resources among MPhil and PhD students.  | Google search engine is found to be amply used for providing access to e-resources.                             | There is emphasis on e-resources and not e-journals or e-library and print journals are not included at all; problems of usage have not been identified.   |
| Bhatt (2010)           | University of Delhi  | To probe the awareness levels about the UGC - Infonet Digital Library Consortium Resources among the faculty members and research scholars of History and Political Science Departments of the university. | Users are aware of the benefits of the Consortium in terms of ready access and easy availability of resources.. | It is more focused upon the benefits of the Consortium instead of appraising the extent of usage of electronic resources; only two departments of the university have been covered; sample is not focused. |
| Kumar and Kumar (2010) | Engineering, medical and management colleges of Bangalore City | To find out how students and faculty members compare e-sources with print sources and how they perceive the advantages of e-sources and what are the problems for accessing them.                          | Print sources are preferred over electronic information sources.  | Only e-sources available via internet were covered; there was no reference to usage of e-library services by the colleges; sample included faculty and students.   |
| Kaur and Verma (2009)  | Indian Institute of Technology, Delhi                          | To investigate the usage patterns of electronic information services among undergraduates, postgraduates, research scholars and faculty.   | Usage of electronic information services has increased owing to easy accessibility.                             | Only one institution is covered in their study; sample coverage is not focused owing to its expansiveness; no challenges have been identified in accessing electronic information services.                |
| Khan and Ahmad (2009)  | Aligarh Muslim University and Banaras Hindu University         | To investigate the awareness and use of e-journals among research scholars.  | Research scholars are aware and understand the significance of e-journals for their research.                   | Only two universities have been included and the utility of print journals for research work has not been covered in this study.   |

| Author(s)                      | Context                                      | Research objective(s)  | Findings  | Research gaps identified  |
|--------------------------------|--|--|---|---|
| Haridasan and Khan (2009)      | National Social Science Documentation Centre | To assess the usage patterns and user satisfaction of electronic resources among social scientists including faculty members and research scholars.            | There is awareness about electronic resources among the social scientists and the users were satisfied with the electronic resources. | Their study uses the term “barriers” only once in the entire paper and the focus is more upon increasing information literacy and computer skills among the users; sample size is comprehensive and individual problems of research scholars remains uncovered. |
| Chirra and Madhusudhan. (2009) | Goa University                               | To investigate the usage patterns of e-journals among doctoral research scholars.  | Usage of e-journals has increased in comparison to print journals and there are problems of internet access in the university.        | Utility of print journals for researchers has been discounted; only one institution has been probed.  |
| Moghaddam and Talawar (2008)   | Indian Institute of Science, Bangalore       | To probe the usage patterns of electronic journals among users.  | Electronic journals are readily accessible by users and used for research needs.  | Only one institution is covered in their study; sample coverage is too large; print journals’ usage among users is not taken into account.  |
| Madhusudhan, 2008              | University of Delhi                          | To investigate the usage patterns of electronic journals among research scholars and post-graduate students of Department of Library and Information Sciences. | Training in referencing is required and there is a need for subscription to more e-journals.  | Being focused on a single department of a single university, the emphasis is more on identifying the need for training the Library Science students in their domain; the study does not identify the problems faced by  |

Table 1: Research on usage patterns of information resources in Indian context

## 1. Research methodology

Five universities, including one private university and four public universities (two Central universities and two State universities) in India were selected for the purpose of our study. We had informal and formal contacts with the PhD students of these universities hailing from diverse disciplinary backgrounds on account of our

mutual association over a period of time or during interactions in conferences, workshops and seminars in different venues. Implicitly, we used a mix of convenience and purposive sampling for our purpose and we contacted 47 PhD students in all. Convenience sampling implies selection of respondents on the basis of ease with which the respondents are readily available and accessible for securing responses in line

with the research aims (Corbin and Strauss, 2008). Purposive sampling is one where the selection of respondents is based on the criteria set by the researcher in line with the overall research objectives and the questions are focused and specialized on that particular segment of respondents (Oliver, 2006). We emailed the structured interview questions to them and we received responses from 134 PhD students. Wherever clarification was required, we followed up with a return email. The entire process of interviewing was conducted between September, 2016 and January, 2017.

## 2. Findings

In this section, we will provide a snapshot of the interview excerpts before proceeding to present the findings of the study. Our four main questions in the structured interview were:

### a. What is your evaluation of the library facilities regarding the provision of journal articles in print and electronic forms?

Respondents pointed out that there are many problems associated with their libraries. For instance, the university libraries are small and they do not have the requisite resources. Some universities have not subscribed to the journals which are relevant for the students. Likewise, there are very few print journals which are being subscribed by the universities and students have to go elsewhere to get access to journal articles. One of the respondents opined: "In my university, there are only 2-4 print journals in my discipline which are subscribed... I have to visit (other universities and institutions) to get access to e-resources for which I have to pay fees and it is time-consuming process... Because

my university has no access to Springer or Emerald... Mostly, access is denied when I want a particular article... Important journals in my discipline are not subscribed by my university... Some websites do not open at all..."

The library working hours are also problematic in universities. Students are disallowed to access library facilities from home or remote areas. Therefore, they are unable to tap the e-journals if they are not in the university campus. Likewise, even if the universities have subscribed to journals, they are related to current affairs and periodicals which are not related with the main course. Also, there are problems with technological preparedness. Some of the universities are not e-savvy and prefer the paper transactions. For instance, students are disallowed to use their storage devices for accessing and saving articles available on the internet. A respondent from public university said: "In my university library, I cannot use pen-drives on the terminals and workstations provided to browse library catalogue and e-resources... We cannot carry personal laptops in the room where computer terminals are kept... There is no printer attached to the terminals and I cannot take a copy of the articles... So, I have to download the articles in a folder, save it in D-drive or Desktop and then email the same to myself. Print journals are not available in my discipline and most of the other related journals are not current ones." Library facilities are minimal and do not provide a congenial atmosphere to access journals in electronic or print formats. Therefore, technological fundamentals are not sound which inhibit the usage of library facilities. Finally, one respondent pointed out: "My library has not subscribed to a single electronic journal... In fact, there is no OPAC here or other

Library Information System... Our library has books and periodicals but no research journals in print version..." Implicitly, there are infrastructural issues in the universities and the non-subscription of the relevant journals creates difficulties for the PhD students in tapping the same.

**b. What is the role of print and electronic journal articles for your research work?**

Journal articles are mainly used by the PhD students in their doctoral dissertation writing or for writing research papers in conferences, seminars, workshops and other activities for professional development. One of the respondents replied: "Research papers are provided by the teachers. We get photocopy of the articles from print journals if they are suggested by our teachers. We use Internet to get research papers. It is easy to download. Like, we use proxy servers to get research papers for our thesis." Another respondent pointed out: "Certain e-journal papers are paid and it's difficult to access them... But some of these are indispensable for my research study and I send a direct email to the authors to send them to me... In some cases, I am lucky to get the responses from the authors... And, in other cases, I have to rely on the "preview" portion of the articles... Honestly, it is a compromise with my research quality in some way... As for the print journals, to be honest, our university gets only one journal which is useful to my disciplinary research and I refer it on a regular basis."

Another respondent pointed out: "My thesis is on the impact of manual scavenging among the households in India and not many research papers in this theme are available in e-format. Therefore, I rely on the print versions of the articles in

Economic and Political Weekly journal because our university has not subscribed its e-format." Another respondent pointed out: "I do not use print journal articles in my study. I use e-resources for my research as they help me to develop theoretical basis for my study. I have been using e-resources when I have to write research papers. Till date, I have got 3 research papers published in Emerald and 6 international conference participations." Finally, another respondent pointed out: "I rely on research papers from e-library for my research work. Without proper utilization of research articles, it is difficult to do PhD... If I do not get the articles there, I contact my friends in IIMs and IITs to provide them to me."

To sum up, while the significance of research papers is clinched by the PhD students, the problems of access to the research journals remain unresolved.

**c. What are the major advantages and disadvantages of print and electronic journals in your view?**

In the case of print journals, it was pointed out that one of the major advantages is that the print journals may be read anywhere at ease and there is a physical contact with the journal in hand. Flipping the pages as per one's discretion and jotting down notes in a separate notebook is feasible. However, there are problems associated with print journals. A respondent pointed out: "As such, the problem with print journals is that they are very tedious to read... I cannot increase the font size or highlight the portions... I cannot comment on them... They are university property, after all." In the case of electronic journals, the relevance is important but the "open access" journals are not of much relevance for the PhD students. Students do not

prefer open access journals owing to lack of empirical rigor and dubious quality most of the times. Besides, students perceive difficulty in searching for the right article because relevant articles are available against payment and may not be subscribed by the university.

Some students perceive difficulty in accessing articles which were authored long time back and therefore, conceptualization and theory-building is difficult. Literature review becomes all the more difficult given that the original articles are not available and only reviews are available. However, there is no certainty if reviews are accessible online or in print. In the view of another respondent: "We never use e-journals for our study; we have a group of our batch-mates and whenever we require any material, our teachers circulate them in the group. If we ask our teachers if there is any relevant research on a topic, teachers give us. There may be print journals in the library but we do not know about them." Some of the students do not tap electronic or print journals because they rely on textbooks as ready reference. They avow that books are more comprehensive and easy to understand in contrast with the journal articles which are narrowed down to a single research question.

Overall, there are more advantages of e-journals than print journals for the PhD students while there are some who do not perceive utility of either.

**d. Do you face any problems in using print and electronic journals? If yes, please elaborate.**

There are problems regarding accessing the journals. Also, there are personal issues which impact the usage behavior. Some

respondents do not use print journals at all while there are others who prefer print journals only. For instance, some of the respondents preferred to use theses for ready reference and these theses are available in their library or online. Since universities have their own policy regarding thesis writing, students prefer to refer the works of the alumnus. One of the respondents responded: "The problem is where and how to start the search for electronic journal articles... Wiley, SCOPUS, Taylor and Francis, Emerald, Sage and Science Direct have their own "search criteria" and while typing the same key words in one e-resource will provide 5000 articles, others will provide 20000+ articles... Look at print journals. I really prefer electronic formats than print formats and when my Professor gives me a print version of any article, I get it scanned and read the PDF version on my laptop."

Language is another major barrier because students speak and write in regional languages. A respondent pointed out: "I am a PhD student of Education Department and I am writing my thesis in Hindi language. I rarely find any journal in Hindi... Translation of articles in Hindi is difficult for me so I prefer reading books in place of journals." Library rules and protocols in some universities deter the students from borrowing books and journals which are in "reserved" category. Students are unable to borrow print journals also. Besides, there is lack of awareness among the students regarding the journals. One of the respondents pointed out: "We do not know the journals in which researchers' papers are published and due to lack of computer knowledge and internet we do not touch it." Likewise, some students are unaware of the OPAC or library management system and they have not used

it at all. There is inertia on the part of the students to tap the journals owing to personal reasons. Another respondent pointed out: "I come to the university only two days in a month because I have my family to take care of... I don't have the time to read journals articles in electronic versions. I will rely on internet and Google search for my research."

Implicitly, there are personal issues and motivational concerns behind tapping journal articles for research work.

In line with the aforesaid, we may categorize the barriers in using print and electronic journals as: institutional; task complexity; relevance and application; information quality and technical (Table 2).

| <b>Barrier classification</b> | <b>Detail</b>  |
|-------------------------------|--|
| Institutional                 | Lack of Department Library;<br>Inadequate collection of journals;<br>Infrastructural problems;<br>Non-subscription to e-journals and print journals;<br>Time slot fixed for library access;<br>No access to e-resources in remote areas  |
| Task complexity               | Personal issues;<br>Lack of motivation to use e-journals and print journals for research;<br>Difficulty in using OPAC and finding articles;<br>Internet sources are considered easier to use   |
| Relevance and application     | Relevant articles are not accessible and require payment;<br>Print journals are not much relevant;<br>Open access journal articles are not very relevant   |
| Information quality           | Good journals are not subscribed by the university;<br>Open access journals are not of good quality;<br>Quality of articles available in print format is questionable;<br>Quality of articles available in e-journals is not good because they are mostly from poor-quality journals |
| Technical                     | Problems of internet connectivity;<br>Lack of training in using OPAC;<br>Problems in searching, retrieving, storing and printing research articles in e-journals;<br>Problems in getting the latest issues of print journals relevant for the discipline                             |

Table 2: Barriers to using electronic and print journals by PhD students

## 1. Conclusion

The purpose of our study was to investigate the barriers to usage of electronic and print journals by PhD students in five universities in India. After analyzing the interview responses of the respondents, we identified journal usage "barriers" into five categories

(institutional; task complexity; relevance and application; information quality and technical). It may be deduced from our study that while some of the PhD students find ample utility of research articles for their thesis or for participation in conferences, seminars, workshops and other avenues of professional development, other

students are unable to tap the electronic and print journal articles owing to different sets of barriers as identified above. Further, there is more usage of e-journal articles than print-journal articles. Nevertheless, it is important that the utility of both the sources (electronic and print journals) be acknowledged by the PhD students for furthering their progress in research work.

## 2.Limitations and directions for further research

Our study has some limitations. For one, we conducted a qualitative study with a small sample. Future research is required where a larger sample is taken to ascertain the barriers to usage of journals among research scholars in India. Second, it would be interesting to develop a scale to measure the “barriers” in the usage of e-resources. Further research is required to ascertain the differences between barriers in developing and developed countries. Likewise, another study may be conducted to investigate the differences between the barriers encountered in tapping e-journals and print journals in Central versus State universities. Also, there might be personality differences regarding perception of barriers to use of electronic and print journals. For instance, information-seeking behaviors might be different in males than females. Finally, our study has broadly the barriers in terms of using e-journals and print journals for research purposes. Further research may be conducted to expand on each of these barriers and investigate their individual impact on the usage patterns among PhD students in India and elsewhere.

## 3.Practitioner implications

In line with the barriers identified in our study, universities and faculty members should draw lessons as to how the

engagement of PhD students may be increased as far as the usage of electronic and print journals is concerned. There should be a dedicated policy for the university library and departmental libraries should be encouraged. Universities should institute a research climate for PhD students to appreciate the significance of research work. Likewise, it is important that training to the library personnel as well as to the students be provided so that their inhibitions to tap library resources be warded off. Access to e-resources should be provided even remotely for furthering the usage of e-resources. Importantly, universities should increase their subscriptions to journals in print and electronic formats and wherever print version may be available in electronic format, the latter should be encouraged. For PhD students, apart from realizing the significance of tapping library resources for their research purposes, they should prefer writing in English medium and make extra efforts of translating the journal articles themselves or seek help from their colleagues. Finally, the ICT infrastructure should be in place to enable the optimum usage of library resources among PhD students and other stakeholders alike.

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## QUOTES

*"An eye for an eye only ends up making the whole world blind."*

**Mahatma Gandhi**

# Entrepreneurship Development And Economic Development: A Literature Analysis

**Rekha Melwani\***

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## **ABSTRACT**

*Development of entrepreneurship is the one of the sources of economic development. The promotion of micro and small firms leads towards the county's economic growth. The government of India, through Ministry of Micro, Small and Medium Enterprises, is trying to promote the development of micro and small firms in the country by means of the creating opportunities for self employment, enhance the entrepreneurial skill through various training programmes and contributing towards entrepreneurship development. The present study is review analysis of previous research studies on entrepreneurship development and its contribution in the development of economy in the country. The author discussed the GEM conceptual model which focused on economic growth of a country.*

**KEYWORDS:** Economic Development, Entrepreneurship, Entrepreneurs, Entrepreneurship Development Programs

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## **Introduction**

Entrepreneurship is an important element for job creation and economic growth. It is therefore essential to better understand the conditions under which entrepreneurship flourish (Barry A. Friedman 2011). Entrepreneurship has assumed prime importance, both in research and in action, for accelerating economic growth. Entrepreneurship is a methodical innovation which consists of the purposeful and organised search for changes and the systematic examination of the opportunities that such change possibly offers transformation in respect with the society as well as for economy as a whole. Entrepreneurship development programs (EDPs) are designed to help young aspirants who would like to strengthen their entrepreneurial motive by acquiring skills

and capabilities for playing their entrepreneurial role effectively.

Entrepreneurs are the potential future designers of any economy. Entrepreneurship development is a study of the various traits of an entrepreneur who has to continuously supply better prospects for the industrial and economical development. In our country where social system is strong and large variety of intellects has its own scope for the generating new entrepreneurs to the global economy. There is a great scope of entrepreneurship development in the country. Entrepreneurship has been considered the backbone of economic development. It has been well-known that the level of economic growth of a region to a large extent depends on the level of entrepreneurial activities in the region.

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The concept of entrepreneurial development is to prepare a person with essential knowledge and information that are required for building the enterprise and shine his entrepreneurial skills. Presently, entrepreneurial development programmes are treated as a vital tool of industrialisation, and proved a solution of minimization of unemployment in India. Entrepreneurship development programs are considered to be a significant factor in formation of entrepreneurial orientation in individuals. These development programs are positively correlated with entrepreneurship. These programmes are designed in such a manner that helps in enhancing entrepreneurs and their skills. In the context of development of entrepreneurship in India, Ministry of Micro, Small and Medium Enterprises (MSME) has objective to promote micro and small enterprises, creating opportunities for self employment and promote existing and potential entrepreneurs. The Make in India slogan which has recently evolved in the Indian economy can be made successful, only when an objective oriented program is used in developing the new breed of entrepreneurs. According to Schumpeter "economic development is possible if new combinations of factors of production are tried out. The person trying these combinations is known as entrepreneur and the process of doing so is known as entrepreneurship". Peter F. Drucker defined an entrepreneur as "Entrepreneur is one who always searches for change, responds to it and exploits it as an opportunity" and "Entrepreneurship is defined as a systematic innovation, which consists in the purposeful and organized search for changes, and it is the systematic analysis of the opportunities such changes might offer for economic and social innovation". Entrepreneurship is a process through

which an entrepreneur creates the enterprise. Development of entrepreneur and enterprise is a vital part of entrepreneurship development through entrepreneurship process. Entrepreneurial development has all features which help in management and growth of an enterprise (Motihar, 2012).

### **Objective of the Study**

The objective of the study is to review the previous researches and understand the contribution of entrepreneurship development in economic development of the country.

### **Methodology**

The present study is literature analysis and based on secondary sources. The data collected from research journals, relevant websites and reports generated by the concerned ministries.

### **Economic Development**

As per Abianga (2010) development means improvement or enhancement in the available physical resources, progress in the existing resources and it is the process of improvement. As per Hornby (2006) development means ongoing growth which makes something stronger and more advanced. Study by Soba (2005) threw light on economic development and economic growth and which measures in terms of level of output and rise in that.

Economic Development is a process of development and as it is now generally understood, includes the development of agriculture, industry, transport, trade, the way of irrigation, power resources, etc. The improvements in various sectors of economy are the part of the process of development. Economic development, achieved largely through productivity growth, is very important to both developed

and developing nations. However, it is known that higher productivity leads to improved economic outcomes for example, higher income, more choices to the consumers, better quality product (Anil K. Lal et. al).

### Linking Entrepreneurship with Economic Development

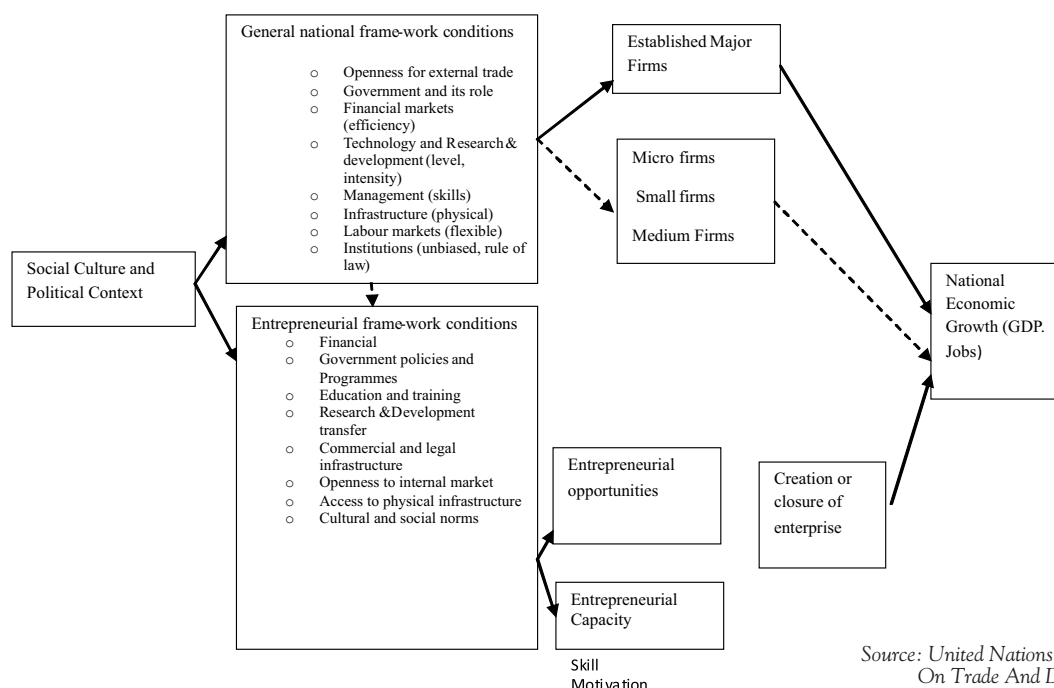
According to Schumpeter, "Everyone is an entrepreneur when he actually carries out new combinations". Entrepreneurship is one of the drivers of economic development. Schumpeter formulated his theory of long waves of business cycles and economic growth. Business cycles are seen as the result of innovation, which consists of the generation of a new idea and its implementation in a new product, process or service, leading to the dynamic growth of the national economy, the increase of employment, and creation of pure profit for the innovative enterprise. The GEM conceptual model (2002) showed that the national level of entrepreneurial activity has a statistically significant association with subsequent levels of economic growth. The GEM data also suggested that there are

no countries with high levels of entrepreneurship and low levels of economic growth (Reynolds et. al) Until now, the GEM data have had to be viewed with caution. It can, however, be assumed that an analysis of more countries over a longer period of time will accumulate evidence of a positive link between high rates of entrepreneurship and economic growth.

### The GEM Conceptual Model

The GEM Conceptual Model suggests that the social-cultural-political context within a country must promote certain "General National Framework Conditions," which can generate not only the opportunities for entrepreneurship but also the ability for entrepreneurship in particular, the skills and motivation which are essential for success.

Economic development is the result of process creation of new firms which are efficient and lead to business dynamics on one hand and to the other hand minimizing the inefficient business firms.



Source: United Nations Conference On Trade And Development

### **A theoretical framework for Entrepreneurship and Economic Development**

Caree and Thurik (1998) studied the effect of small firms on industry output growth and found positive effects between measure of entrepreneurship and growth. The study was based on the manufacturing industry in thirteen European countries. The study examined that the share of small business units and its contribution in the higher output growth in the subsequent years in particular with the manufacturing firms in Europe. The outcome of their study was that share of small firms have impact on industry output, in particularly with that industry, and have better performance than the other countries with the same industry.

Anil K. Lal et. al (2005) studied the role of individual enterprises in relation to economic development in India. The study showed that reforms in market motivate the individual enterprises and a way to higher economic growth. The results of the study concluded that by fostering entrepreneurial activities India can generate additional economic growth. The study by Piyali Ghosh and Rena Cheruvalath (2007) studied the role of female entrepreneurs in the economic development of India. The study depicted that the female entrepreneurs are considered as a catalyst for economic development. The study by Roy Thurik (2009), provided a view on emerging economies and throws the light on the view that Entrepreneurship has emerged as an important element in the organization of economies. Entrepreneurial economy model explained well the entrepreneurship, its drivers and its results. Sander Wennekers et. al (2009) studied the theoretical arguments and gave evidence for a U-shaped association between level of economic development and the rate of

independent Entrepreneurship.

Daniel Smith (2010) studied the entrepreneurship and economic growth in terms of function of entrepreneurship in economic growth. The study confirmed that level of entrepreneurship has positive effect on economic growth in reference with that country. The study was done on seventy seven countries with year 2005 was taken as the base year for measuring the level of entrepreneurship. The economic growth was measured by two variables; one variable was per capita gross national income which was measured through the purchasing power parity. The other variable was gross national income per capita. The study applied the regression analysis and empirically proved that the level of entrepreneurship and economic growth is positively related.

Mike Duru (2011) examined Entrepreneurship opportunities and challenges in Nigeria. The study showed that there is increasing interest on Entrepreneurship by consumers, business people and government officials. It was realized by the author that entrepreneurship quickens the process of industrialization, employment creation and poverty reduction. The paper identified main ingredients that can facilitate entrepreneurship opportunities and challenges faced by the entrepreneurs in Nigeria. The economic growth of a country is closely associated with new business and industrialisation. Entrepreneurs form economic future of nations by generating prosperity and employment opportunities, present products and services and generating tax revenues for government.

Dr. Sangya Shrivastava, Roopal Shrivastava (2013) emphasized on the fact that entrepreneurs help to create new jobs for

the people and hence helped in economic development. Sorin-George Toma, Ana-Maria Grigore, Paul Marinescu (2013) studied the interconnectivity of economic development and entrepreneurship. The paper developed a theoretical model that showed some of the main factors which were connected with the association of entrepreneurship and economic development. The model of the study showed that entrepreneurial practice and teaching are main drivers of the potential of entrepreneurship. The study also highlighted that the institutions, the governmental policies and the legal framework can increase the entrepreneurial initiatives.

The study by Abir Mrabet & Abderrazek Ellouze (2014) provided an analytical review of empirical studies of the impact of entrepreneurship on economic growth. The study tried to analyze the deviation of this impact across different countries, estimation methods, definitions and the way of measurement of entrepreneurship and economic growth. The study applied Meta Regression analysis and found that according to the type of the country the results vary as options of measuring the entrepreneurship and economic development.

Nkem Okpa Obaji et. al (2014) developed a framework that examined the role of government policies and its impact on economic development. The paper reviewed the previous researches and found that creativity and innovativeness, risk taking and start-up motive are three basic attributes for entrepreneurship. Dr. Carl Osunde (2014), studied the importance of entrepreneurship in economic growth and role of government in Nigeria. The government of Nigeria supports

entrepreneurship and assists in the progress of transportation facilities, finance incentives, availability of power supply, development of subsidiaries and other utilities. The study showed that the Entrepreneurship development and Entrepreneurship in Nigeria was at the peak of awareness creation and participation by both the people and government. The study by Jiendra Kumar Jain analyzed the contributions of entrepreneurship in the economic development in India. The study focused on the both sides i.e. positive and negative impact of entrepreneurship on the economy. The study found that entrepreneurship have positive impact on economic development in India as it geared up capital formation, generate huge employment, improve standard of living of the people of the nation.

#### **Major Institutes Promotes Entrepreneurship Development in India:**

##### **National Institute for Micro, Small and Medium Enterprises - Hyderabad**

Ministry of Commerce and Industry, department of Central Government of India, set up an institute for training the small industries in year 1960. Initially, the institute named as National institute of small industry Extension training (NISIET). In year 2006, MSME Act, 2006 was passed and the institute renamed as National Institute of small Industry Extension training (NISIET). The institute focus on training activities and research activities through which educate the potential entrepreneurs and existing entrepreneurs in India. It also provides solution on various problems related with the small and medium enterprise in the form of consultancy. The institute is constantly work on the changing needs of

MSME and designed the training programmes accordingly. It also focuses on specialized need based training programmes, workshops and seminars in accordance with the change in economic policy and environment.

### **Indian Institute Of Entrepreneurship (IIE) Guwahati**

Entrepreneurship development in India is the main focus of this institute. Under the Ministry of Skill Development and Entrepreneurship, Government of India, Indian Institute of Entrepreneurship (IIE) is an independent organization. The objective of his Institute is to design training activities, perform research activities and provide consultancy for Small and Micro Enterprises (SME), and promote entrepreneurship development in India. Originally the institute was established in 1993 by Ministry of Industry, Government of India. In year 2015 it has been transferred to Ministry of Skill Development & Entrepreneurship, Government of India.

### **National Institute for Entrepreneurship and Small Business Development (NIESBUD), Noida**

The national Institute for Entrepreneurship and small business Development was came into existence in year 1983 with the objective to promote entrepreneurship development in India. The institute has objective to promote, support and sustain entrepreneurship in India and work as a top institution in the field of entrepreneurship. The institute works on training activities according o the need of the small industries. It supports in the education for entrepreneurship and proving various kinds of consultancies in the same field. The activities of the institute includes design

syllabi for various target groups for training, designing training strategies, provides assistance to central and/or state government and other related agencies in executive programmes for developing small industries and entrepreneurship in India.

### **Conclusion**

Entrepreneurship plays a key role in economic development of any nation and hence development in Entrepreneurial activities and economic development are interconnected. Today entrepreneurship is widely recognized both by academics and practitioners as a fundamental part of economic development throughout the world.

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**Table 1 : A Glimpse on Literature Analysis on fostering the economic Growth with Entrepreneurship**

| Author  | Title  | Result  |
|---|--|---|
| Anil K. Lal and Ronald W. Lement (2005)   | Economic Development In India: The Role Of Individual Enterprise (and Entrepreneurial Spirit)                                      | The results of the study concluded that by fostering entrepreneurial activities India can generate additional economic growth.  |
| Mike Duru (2011)  | Entrepreneurship Opportunities and Challenges  | The economic growth of a country is closely associated with new business and industrialisation. Entrepreneurs shape economic destiny of nations by creating wealth and employment, offering products and services and generating taxes for government.  |
| Dr. Sangya Shrivastava, Roopal Shrivastava (2013)   | Role Of Entrepreneurship in Economic Development With Special Focus on Necessity Entrepreneurship and Opportunity Entrepreneurship | The study highlighted that the Institutions, the governmental policies and the legal framework can increase the entrepreneurial initiatives.  |
| Nkem Okpa Obaji <i>et. al</i> (2014)  | The Role of Government Policy in Entrepreneurship Development  | The paper reviewed the previous researches and found that creativity and innovativeness, risk taking and start-up motive are three basic attributes for entrepreneurship.   |
| Dr. Carl Osunde (2014)  | Entrepreneurial Development and Interventionist Agencies in Nigeria  | The study showed that the Entrepreneurship development and Entrepreneurship in Nigeria was at the peak of awareness creation and participation by both the people and government.   |
| Daniel Smih (2010)  | The Role of Entrepreneurship In Economic Growth  | The study applied the regression analysis and empirically proved that the level of entrepreneurship and economic growth is positively related.  |
| Piyali Ghosh and Rena Cheruvalath (2007)  | Indian Female Entrepreneurs As Catalysts for Economic Growth and Development   | The study depicted that the female entrepreneurs are considered as a catalyst for economic development.   |
| (Barry A. Friedman 2011).   | The Relationship between Governance Effectiveness and Entrepreneurship   | Entrepreneurship is an important element for job creation and economic growth. It is therefore essential to better understand the conditions under which entrepreneurship flourish  |
| Reynolds, Paul D., William D. Bygrave, Erkkko Autio, Larry W. Cox and Michael Hay (2002). | Global Entrepreneurship Monitor 2002 Executive Report. Wellesley, MA/London: Babson College/London Business School.                | The GEM conceptual model (2002) shows that the national level of entrepreneurial activity has a statistically significant association with subsequent levels of economic growth. The GEM data also suggested that there are no countries with high levels of entrepreneurship and low levels of economic growth |

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## Grading On IPO With Reference To Its Performance Analysis Of Shares At Marwadi Shares & Finance Ltd.

**Richa H. Kesur\***

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### ABSTRACT

*A study of IPO stocks performance assessment is and must always be favourable or unfavourable as long as there are externalities on the market for stocks. This is why stocks perform splendidly well, then experience dangerous price swings, then bubbles and finally crash. A wealth creating IPO stocks and other means of stocks issue should guarantee ideal returns as a form of security for investment over a long period of time if not for the entire life time of the stocks.*

*While later part include the study of Performance Analysis of Shares with Reference to its IPO Grading. The objective of the study is to analyze the relationship and impact of independent variables on dependent variable of Performance Analysis of Shares with Reference to its IPO Grading of the Marwadi Shares and Finance Ltd. in last four years. Also evaluate the various ratios to appreciate their impact on company's performance over the last five years.*

*The research is collected through a sample through a Book-Build sampling, In this research sampling trend will include the IPOs which are the top rated one up to 1-5 per each rank I considered three IPOs. Starting from 2010 to 2014 the number of IPOs studied are 114. Data is collected with the help of secondary sources. Secondary data is being collected with the help of Annual Reports, internet, journals and website.*

*The Findings and Conclusion, is from the whole study what the Performance Analysis of Shares with Reference to IPO Grading. At the time of studying the IPO grade's ability in predicting the liquidity (short term) of the issue, it was observed that the coefficient of the IPO grade with short term liquidity which indicates that higher graded equities show liquidity turnover ratio. This result questions our intuitive understanding that higher graded IPOs would tend to be more liquid.*

*While studying the IPO grade's ability to predict market performance (After 30 days of listing), the study observed that the IPO grade correlate positively to the price performance. However, what would happen if a highly graded IPO turns out to be a fraud and is floating its shares just to raise the funds, only to disappear afterwards? Would the rating agencies be held accountable? On 30th October, 2013, SEBI made IPO grading optional.*

*When the correlation of the IPO grade with initial excess return or under-pricing it focus on that there is positive correlation between them and securities with higher IPO grade are more likely to be under priced. Reason may be high demand for the securities of high grade increases the listing price of securities.*

**KEYWORDS:** Liquidity Ratio, Under- Pricing Ratio and Price to Performance Ratio

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## Literature Review

Kedar Mukund Phadke and Manoj S. Kamat (May 2016), Significant listing day returns for IPOs is a phenomenon that is observed when companies go public. Using a larger time frame (2007 – 2014) researcher attempt to determine the extent to which IPO grading has impacted the first-day marginally adjusted return on opening (MAARO) and the extent to which individual grades impact MAARO. The results indicate that grading helped increase pricing efficiency and reduced opening day returns. Researcher failed to reject the null hypothesis that the level of under pricing for the individual grades or a combination of grades reduces with better grades. Results were mixed compared to a study by Poudyal (2008) who finds that securities with higher IPO grades tend to exhibit under-pricing to a lesser extent.

Kenneth S. Choie (January 2016), The study examines why the degree of under pricing of IPOs in Korea is much greater than in the U.S. The analysis shows the IPO price low the mean of the probability distribution of initial market price that both the issuing firm and its underwriter tend to set. The magnitude of IPO under pricing depending positively on the uncertainty of the initial market price and the marginal cost of making after market and negatively on the size of underwriter's spread. The structural differences in factors explain the observed difference in the IPO data of the U.S. and Korea.

Mani Jindal, (March 2016), The Initial Public Offering is the sale of shares to the public for the first time through stock exchanges. This research was done to analyze the IPO pricing performance from the first day of listing to different time frames short run and long run conducted

during 2011 to 2013. The sample of 59 IPOs were taken for analyses whether it is overpriced and underpriced. To achieve the objective of this study, returns level, beta and three models were used to find out the return and risk simultaneously. The beta was also used to evaluate the risk measurement. The three measures were Sharpe's, Treynor's and Jensen's measures. It found that from the IPOs return calculations that the IPOs has underperformed.

Marzieh Khodavandloo and Zukarnain Zakaria, (2016), In this study, IPO is described as asymmetric information and basic risk. Basically the issuer of IPO must leave enough "money on the table" to reduce investors uncertainties about the share's value to attain sufficient interest. The study investigates the effects of IPO's under pricing on the aftermarket liquidity based on 80 qualified initial public offerings are listed at Tehran Stock Exchange during the nine-year period from 2001 to 2010. The relationship between IPO under pricing and after market liquidity has been investigated in three periods: 30, 120, and 240 trading days after the initial public offering for specifically after the initial return period. Using multiple regression analysis it was found that there is a significant relationship positive relationship between IPO under pricing and after market liquidity measured using turnover ratio.

Yakup Ergincan, Fatih Kiraz, (2016), This study examines that most of the 60 BIST (Borsa Istanbul) listed large industrial firms in this study have improved their relative ranks after their IPOs and when compared to their own large competitors most of which are not listed in BIST. These ranks are available in the Turkey's TOP 1.000 Industrial Enterprises annual lists and they are officially assigned by the ICI (Istanbul

Chamber of Industry) according to firms' sales revenue figures. Thus, they provide us with the single and clear window to observe.

#### IPO Grading Criteria for Evaluation

SEBI's guidelines suggest that the grading of IPOs is a service aimed at facilitating assessment of equity issues offered to the public. The Grade assigned to any individual IPO is an assessment of the "fundamentals" of the issuer concerned on a relative grading scale, in relation to the other listed equity securities in India. The grading is assigned on a five-point point scale with a higher score indicating stronger fundamentals and vice versa as below.

IPO grade 1: Poor fundamentals

IPO grade 2: Below average fundamentals

IPO grade 3: Average fundamentals

IPO grade 4: Above average fundamentals

IPO grade 5: Strong fundamentals

The Grading exercise emphasizes on evaluating the prospects of the industry in which the company operates, and the company's competitive strengths that would allow it to address the risks inherent in the business. In case the IPO proceeds are planned to be used to set up projects, either Greenfield or Brownfield, the grading evaluates the risks inherent in such projects, the capacity of the company's management to execute the same, and the likely benefits accruing from the successful completion of the projects in terms of profitability and returns to shareholders.

Accordingly, IPO Grading methodology examines the following key fundamentals:

- ü Business and Competitive Position - The alignment is taken industry opportunities, the company's strategy and objectives.

- Financial Position and Prospects - Forward looking assessment of key

financial indicators such as ROE, EPS, P/E, growth in profit, relevant for an equity investor.

- Management Quality – An evaluation of the ability of the management to handle uncertainty in terms of capitalizing on future business opportunity and mitigating the impact of contingencies.
- Corporate Governance practices – An evaluation of the company's governance architecture to determine if it is structured such that the risks and rewards of business are equally available to all shareholders.

IPO grading is a onetime assessment done prior to the IPO issue and relies significantly on the draft prospectus filed with SEBI. Normally, grading is done looking at roughly a three year time horizon and would involve an in-depth assessment of the various quantitative and qualitative parameters of the issuer. While growth prospects of the industry and financial strength are some of the quantitative parameters, qualitative parameters such as management capability also provide critical input in determining a grade.

It is worth noting that IPO grading is NOT a recommendation to buy, sell or hold the securities. Similarly, it is NOT a comment on the valuation or pricing of the IPO nor is it an indication of the likely listing price of the securities.

#### Is IPO Grading Necessary?

To assess the necessity, it is prudent to first look at the views of the various stakeholders. The primary stakeholders in this context are SEBI, the rating agencies, the firms aspiring to issue an IPO, and the investors.

### **SEBI's View:**

An investor may find it challenging to appropriately assess, on the basis of the information available on the prospectus, a firm's business prospects and risks. SEBI's belief is that an IPO grade provides an additional input to investors, in arriving at an investment decision. In recent times, with the stock market participation of new and foreign investors increasing in India, SEBI contends that there is need for greater value-added information on companies tapping the capital market and their intrinsic quality. In this context, IPO grades, being simple, objective indicators of the relative fundamental positions of the issuers concerned, helps in both widening and deepening the market.

SEBI has further said that as the IPO grading does not take into consideration the pricing of the security, it is not an investment recommendation. Rather it is only one of the inputs for the investor to aid in the decision making process. To that effect, SEBI's view is that all other things remaining equal, a security with stronger fundamentals would command a higher market price.

SEBI believes that it has taken a pioneering role in safeguarding investors' interest by increasing disclosure levels by entities seeking to access equity markets for funding. This has caused India to be amongst one of the more transparent and efficient markets in the world. A majority of retail investors do not read the offer document (prospectus) and even when they do, they may not fully disseminate or comprehend the implications of the disclosures made. Therefore, SEBI's belief is that there is a vital need to rate equity offerings, helping investors separate good floats from risky ones.

**Grading Exercise Optional to Mandatory**  
When first introduced in April 2006, SEBI kept the IPO grading as an optional exercise. This meant that issuers were not required to get their IPO graded, but in the event that they obtain a grading, they are required to disclose it in the prospectus. However, despite more than 40 IPOs expected to hit the market in the first half of 2006-07, only four companies approached the agencies for their rating. Incidentally, they did not accept the ratings awarded to them as the ratings did not match up to their expectations.

Additionally, there was no incentive for the companies to rate their IPOs. A tricky situation prevailed where in a good company would not go for the rating fearing that if it gets a bad rating, its issue might suffer despite strong fundamentals. Similarly, a bad company too would not go for the rating fearing that its cover ups might get exposed with a poor rating. Looking at these uncertainties, SEBI decided to make IPO grading a mandatory exercise effective as of May 1, 2007.

### **Rating Agencies View**

Until now, research has been available to equity investors only in the form of investment advice (buy/sell/hold recommendations). Rating agencies contend that an IPO grade brings an independent, unbiased assessment of the fundamentals of the IPO issuing firm. The fundamentals, as stated earlier, can be looked at in terms of factors such as competence of management, competitive edge, operating efficiency and profile of promoters.

Although there are some reservations regarding the degree of unbiased nature of the IPO grade, which I shall look at later in

the paper, the rating agencies believe that the assessment is in no way influenced by the issuer and therefore brings fresh perspective to the market.

Rating agencies further substantiate that the IPO grade summarizes the voluminous data in the prospectus and its implications, which a lay investor may not be able to comprehend. In response to the fact that there isn't a lot of clarity in the market as far as what an IPO grade indicates, the credit rating agencies point out that the investors should not misconstrue an IPO grading to be an investment decision. Rather, it is only one of the inputs to the investor decision making process. It needs to be read together with the disclosures made in the prospectus as well as the price at which the shares are offered

The rating agencies compare the fundamentals of the IPO firm to those of other listed firms in the primary and the secondary market. This is done with an understanding that if IPO grading is to meet investors' needs, the relative comparison set of potential IPO companies must include all companies that are potential investment equity options for the investor. Doing so benefits the issuer company by benchmarking itself with its peers.

Additional benefit of the IPO grade, in the eyes of the rating agencies, is particularly significant for the smaller firms. While the large and well-known companies would not find it difficult to raise funds, the middle rung companies would like their equity to be graded such that they could access funds without much track record of their performance. "Rating will certainly facilitate those companies which are not very well known, to tap the markets" said Mr. Naresh Takkar, Managing Director, ICRA Ltd.

### Other Stakeholders Views:

Along with SEBI and the rating agencies who are advocates of the IPO grading system, there are other stakeholders, some of whom believe in the merits of the IPO grade, while others oppose it.

Initially, SEBI sources had disclosed that the cost of the grading would be borne by the Investor Protection Funds administered by the stock exchanges, or by Investor Education Protection Funds (IPF) administered by the Ministries of Companies Affairs. However, the onus of bearing the cost of obtaining the grade has since been transferred to the companies themselves. There does not seem to be any justification for having shifted the cost responsibilities from IPF to the companies. Due to lack of justification on this, some in the finance industry have suggested that the IPO grading has increased the cost of raising funds in the capital market. The other argument is that given the details of the company's projections in terms of target growth, Price to Earning (P/E) ratio, already available in the prospectus, which is subject to SEBI's approval, the need for an IPO grade is not justified. Moreover, if a good company is given poor rating, the company's IPO plans might get shelved. Contrary to the rating agencies' view that small companies benefit from the IPO grade, some argue that vulnerable are the small and medium enterprises (SMEs) as most rating agencies are known to treat SMEs with little respect, and thus could assign them poor grades. Even though the IPO grading process is to be carried out in parallel along with other pre-issue activities, there is belief that one more layer of deliverable has led to the delay in the overall IPO process. The IPO grading is required to be completed and disclosed in the final prospectus; therefore

until the grading is complete, the filing of the final offer document to the registrar of companies (RoC) remains pending.

### Process of Obtaining IPO Grade

The grading agencies that are approved by SEBI to carry out the grading are as follows:

- ◆ Credit Analysis & Research Ltd (CARE)
- ◆ Credit Rating Information Services of India Limited (CRISIL)
- ◆ FITCH Ratings
- ◆ ICRA Limited

To initiate the process of obtaining an IPO grade, the company first contacts one of the grading agencies. The steps involved in the grading process are as follows:

**Step I:** The issuer shares the required information with the grading team of the rating agency.

**Step II:** Rating agency follows up with detailed management meetings with the

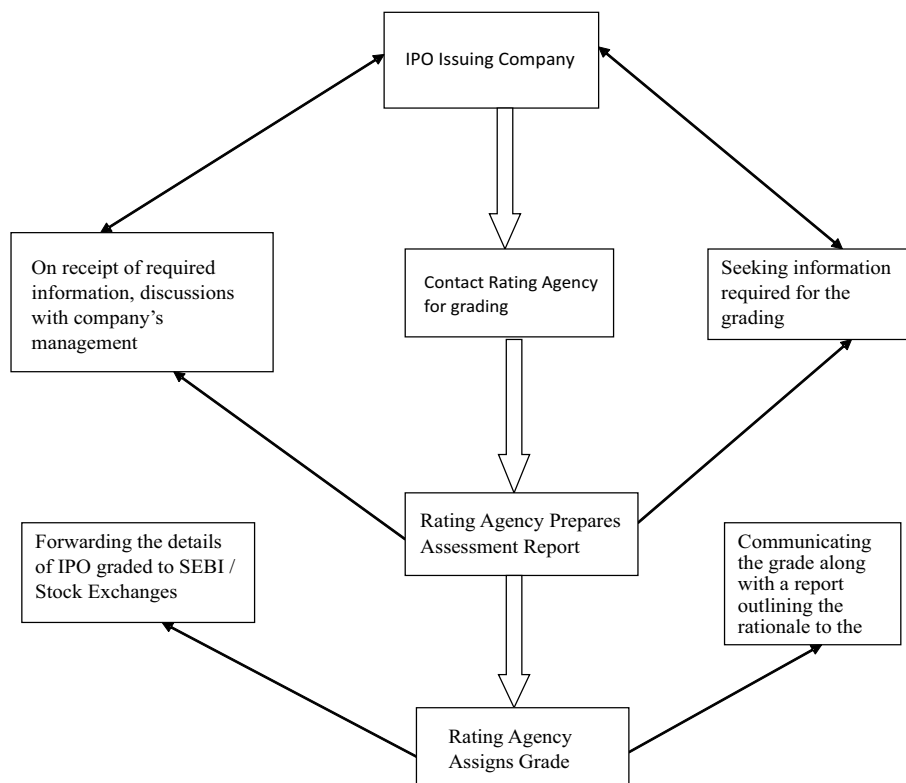
CEO, CFO, and the board of directors, and further follows up with subsequent site visits.

**Step III:** The grading team prepares a detailed note and grading committee assigns the grade.

**Step IV:** Grading agency publishes a grading rationale outlining the reasons for the assigned grade.

**Step V:** Grading agency sends the grading report to SEBI, stock exchanges, and to the company.

The issuing company then discloses the IPO grade on the prospectus that it files with the RoC (Registrar of Companies). Please see Exhibit 1 for an example of a prospectus with a disclosed IPO grade. The flow diagram in below depicts the IPO grading process:



The entire process depicted in above is expected to take anywhere from 3 to 6 Weeks.

## Why IPOs?

### For Funding Needs

- Funding Capital Requirements for Organic Growth.
- Expansion through Projects.
- Diversification.
- Funding Global Requirements.
- Funding Joint Venture and Collaborations needs.
- Funding Infrastructure Requirements, Marketing Initiatives and Distribution Channels.
- Financing Working Capital Requirements.
- Funding General Corporate Purposes.
- Investing in businesses through other companies.
- Repaying debt to strengthen the Balance Sheet.
- Meeting Issue Expenses.

### For Non-funding Needs

- Enhancing Corporate Stature.
- Retention and incentive for Employees through stock options.
- Provide liquidity to the shareholders.

## IPO Grading Process:

IPO grading is a service aimed at facilitating the assessment of equity issues offered to public and is mandatory as per SEBI Regulations:

- Aimed at providing an independent assessment of fundamentals to aid comparative assessment.
- Intended to serve as an Information and Investment tool for investors.
- IPO grading does not take cognizance of the price of the security. It is not an investment recommendation.

- The Issuer must first contact one of the grading agencies and mandate it for the grading exercise. The agency would then follow the process outlined below:
  - Seek information required for the grading from the Issuer.
  - On receipt of required information, have discussions with the company's management and visit the company's operating locations, if required.
  - Meetings with the promoters and independent directors separately.
  - Prepare an analytical assessment report.
- Present the analysis to a committee comprising senior executives of the concerned grading agency. This committee would discuss all relevant issues and assign a grade.
- Review SEBI observations and update their report if required.
- Communicate the grade to the company along with an assessment report outlining the rationale for the grade assigned.
- Though this process will ideally require 2 – 3 weeks for completion, our initial interaction with Credit Rating Agencies indicates that it may be a good idea for Issuers to initiate the grading process about 6 – 8 weeks before the targeted IPO date to provide sufficient time for any contingencies.
- IPO Grading is required prior to marketing of the IPO and needs to be disclosed in the RHP and Prospectus.

- The Credit Rating Agencies have to forward the names and details of IPOs graded by them on a monthly basis to SEBI / Stock Exchanges for uploading on their Website for public information.

### Fixed Price Issues

**Offer Price:** Price at which the securities are offered and would be allotted is made known in advance to the investors.

**Demand:** Demand for the securities offered is known only after the closure of the issue.

**Payment:** 100 % advance payment is required to be made by the investors at the time of application.

**Reservation:** 50 % of the shares offered are reserved for applications below Rs. 1 lakh and the balance for higher amount applications.

### Book Building Issues

**Offer Price:** A 20 % price band is offered by the issuer within which investors are all old to bid and the final price is determined by the issuer only after closure of the bidding.

**Demand:** Demand for the securities offered, and at various prices, is available on a real time basis on the BSE Website during the bidding period.

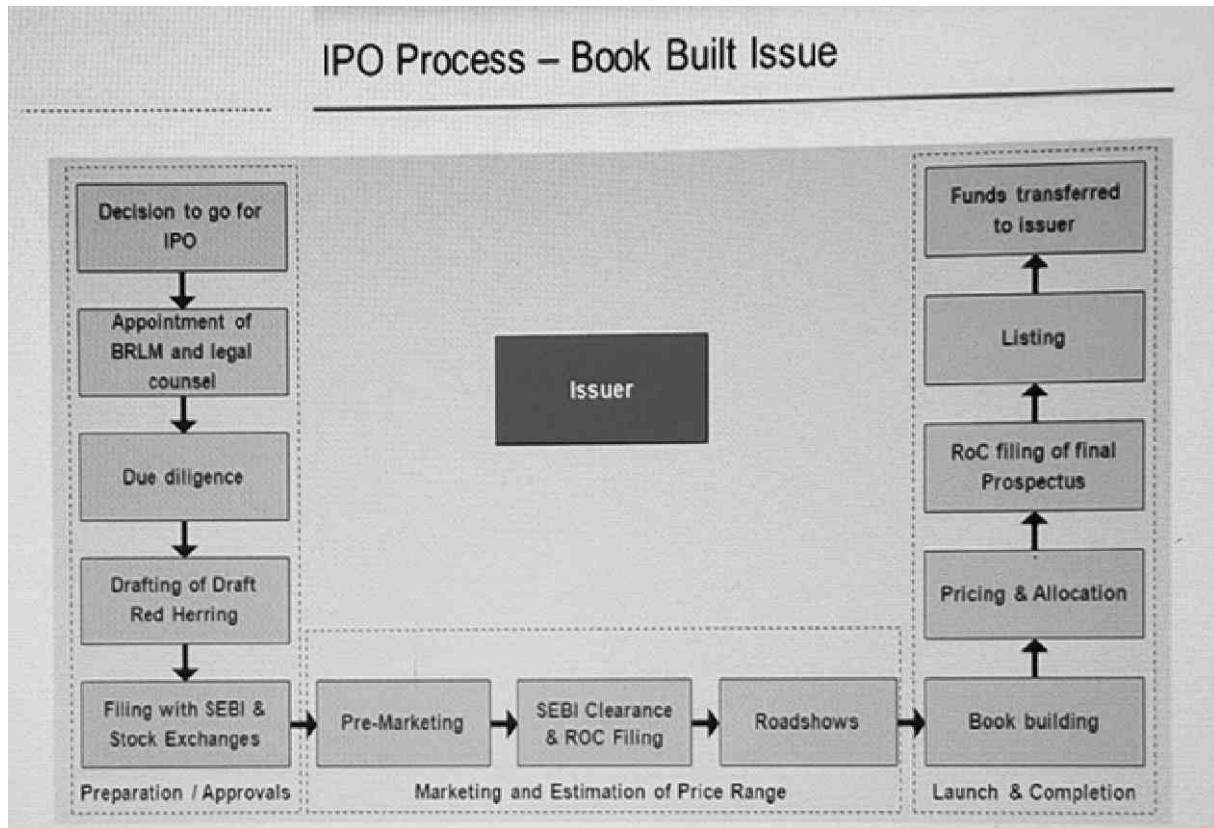
**Payment:** 10 % advance payment is required to be made by the QIBs along with the application, while other categories of investors have to pay 100 % advance along with the application.

**Reservations:** 50 % of shares offered are reserved for QIBs, 35 % for small investors and the balance for all other investors.

### Book Building Process:

- The Issuer who is planning an offer nominates lead merchant banker(s) as 'book runners'.
- The Issuer specifies the number of securities to be issued and the price band for the bids.
- The Issuer also appoints syndicate members with whom orders are to be placed by the investors.
- The syndicate members input the orders into an 'electronic book'. This process is called 'bidding' and is similar to open auction.
- The book normally remains open for a period of 5 days.
- Bids have to be entered within the specified price band.
- Bids can be revised by the bidders before the book closes.
- On the close of the book building period, the book runners evaluate the bids on the basis of the demand at various price levels.
- The book runners and the Issuer decide the final price at which the securities shall be issued.
- Generally, the numbers of shares are fixed; the issue size gets frozen based on the final price per share.
- Allocation of securities is made to the successful bidders. The rest get refund orders.

## IPO Process – Book Built Issue



## Execution Process Timeline

| Activity   | IPO Process 23 Ieks |        |
|--|---------------------|--------|
| <b>Preparation Phase</b>                           | 2                   | Weeks  |
| <b>Due Diligence</b>                               | 4-5                 | Weeks  |
| <b>Filing of Draft Document</b>                    | 1                   | Weeks  |
| <b>SEBI Observation</b>                            | 4-8                 | Weeks  |
| <b>Finalization &amp; filing of offer Document</b> | 2-3                 | Weeks  |
| <b>Issue Period</b>                                | Mini.               | 3 Days |
| <b>Post Issue Activities</b>                       | 2-3                 | Weeks  |

**IPOs Special Issues:**

- ✓ Employee reservation is now capped at up to 5% of the post issue capital instead of 10% of issue size (as under the DIP Guidelines), application size for and value of allotment to an employee under employee reservation capped at Rs 1 lakh, retail discounts to employees in the reservation portion also limited to application size Rs 1 lakh.
- ✓ ASBA Process introduced on July 30, 2008 as an alternate mode of payment for Retail Individual Investors expanded in 2009 to all categories of bidders excluding QIB.
- ✓ Pre Ipo Allotment/Transfer: Under ICDR regulations capital structure must be frozen at DRHP stage and details of any pre IPO allotments/transfers must be disclosed.
- ✓ The ICDR Regulations introduced the concept of anchor investors in 2009 allowing up to 30% allocation at price equal to or above issue price to QIBs buyers applying for shares of a minimum value of Rs 10 crore in a book built public issue.

**Analysis of IPO Grading**

The analysis of the IPO grading is to investigate the efficacy of the IPO grade,

among other complex set of signals available to the investors at the time of IPO offerings by firms. The study discusses the relative effectiveness of IPO grades in determining liquidity, under-pricing, market performance of IPOs as dependent variables.

The data is collected comprises of 283 companies that have issued IPOs from the period 2010 to 2015. The databases are screened for IPOs and only those IPOs, which are graded by at least one of the rating agencies.

**Problem Statement**

An Initial Public Offering (IPO) is the financial instrument by which a company offers stocks to the general public for the first time and formally becomes a publicly traded company. As per SEBI's requirement, a company planning to get its issue graded before offering it to the general public. IPO grading shows the fundamentals of IPOs and contains five point scales ranging from 1 to 5. This scale shows score indicating stronger or weaker fundamentals of company which is going for IPO. IPO grading is often miss-understood by the potential investors, where high grade is considered as profitable company and vice-versa. The study was undertaken to know the impact of the IPO grade on the performance of the company in the market.

**Research Variables**

| <b>Dependent Variables</b>                                 | <b>Independent Variables</b>  |
|--|---|
| <b>LIQUIDITY – Turnover Ratio</b>                          | <b>IPO-GRADE - IPO Grade</b>  |
| <b>UNDERPRICE – Under pricing or Initial Excess Return</b> | <b>ISSUESIZE – IPO issue size in Rs. Crore (Rs. 10 million)</b>   |
| <b>PERFORM – Price performance of Issue post IPO</b>       | <b>PRICETOBOOK – Price to book ratio (Ratio of listed share price to book value of share reported in the company balance sheet)</b> |

## Research Objectives and Hypothesis for Correlation & Regression

### Model 1: FOR Liquidity

| Objectives  | Null Hypothesis   | Alternative Hypothesis   |
|---|---|--|
| 1. To study the relationship between Ipo -Grade, Issue Size and Price-to-Book on Liquidity.       | H0: There is no significant relationship between Ipo -Grade, Issue Size and Price to Book on Liquidity. | H1: There is significant relationship between Ipo -Grade, Issue Size and Price to Book on Liquidity. |
| 2. To study the significant impact between Ipo -Grade, Issue Size and Price to Book on Liquidity. | H0: There is no significant impact between Ipo -Grade, Issue Size and Price to Book on Liquidity.       | H1: There is significant impact between Ipo -Grade, Issue Size and Price to Book on Liquidity.       |

### Model 2: FOR Under-Pricing

| Objectives  | Null Hypothesis  | Alternative Hypothesis   |
|---|--|--|
| 1. To study the relationship between Ipo-Grade, Issue Size and Price to Book on Under-Pricing of shares.        | H0: There is no significant relationship between Ipo-Grade, Issue Size and Price to Book on Under-Pricing of shares. | H1: There is significant relationship between Ipo -Grade, Issue Size and Price to Book on Under-Pricing of shares. |
| 2. To study the significant impact between Ipo -Grade, Issue Size and Price to Book on Under-Pricing of shares. | H0: There is no significant impact between Ipo -Grade, Issue Size and Price to Book on Under-Pricing of shares.      | H1: There is significant impact between Ipo -Grade, Issue Size and Price to Book on Under-Pricing of shares.       |

### Model 3: FOR Price-Performance

| Objectives   | Null Hypothesis   | Alternative Hypothesis   |
|--|---|--|
| 1. To study the relationship between Ipo -Grade, Issue Size and Price to Book on Price-Performance of IPO Scripts.       | H0: There is no significant relationship between Ipo -Grade, Issue Size and Price to Book on Price -Performance of IPO Scripts. | H1: There is significant relationship between Ipo -Grade, Issue Size and Price to Book on Price -Performance of IPO Scripts. |
| 2. To study the significant impact between Ipo -Grade, Issue Size and Price to Book on Price-Performance of IPO Scripts. | H0: There is no significant impact between Ipo -Grade, Issue Size and Price to Book on Price-Performance of IPO Scripts.        | H1: There is significant impact between Ipo -Grade, Issue Size and Price to Book on Price-Performance of IPO Scripts.        |

## Calculation of Variables:

### Liquidity

Here, the effect of the IPO grade in predicting the turnover ratio of the issue. Liquidity in the market is measured through turnover ratio and it is calculated as:

$$\text{Liquidity (Turnover Ratio)} = \frac{\text{Qty of shares traded}}{\text{Qty of shares issued}}$$

The turnover ratio is calculated by on the first day of listing, and day 2 to day 60 of listing. Since the sampling distribution of the turnover ratio (LIQUIDITY), issue size (ISSUESIZE) and price to book ratio (PRICETOBOOK) exhibit excessive variability. The following correlation is used:

$$\text{Log (LIQUIDITY)} = \beta_0 + \beta_1 \text{ IPO-GRADE} + \beta_2 \text{ Log (ISSUESIZE)} + \beta_3 \text{ Log (PRICETOBOOK)}$$

### Under Pricing

The effect of the IPO grade in predicting the under-pricing (UNDERPRICE) of the issue. The measure of under-pricing, which is also the realized initial excess return, is calculated as the return on listing adjusted for the overall market index (SENSEX) performance during the corresponding period.

$$\text{Under-Pricing} = \frac{\text{Listing Price} - \text{Offer Price}}{\text{Listing Price}} - \frac{\text{Index on listing day} - \text{Index on offer day}}{\text{Index on offer day}}$$

Where, offer price for book built IPOs are calculated on the last day of the offer, while offer price for fixed price IPOs are calculated on the first day of the offer. Similarly, the index on offer day for book built IPOs is on the last day of the offer, and index of offer day for fixed priced IPOs

is on the first day of the offer.

Since the sampling distribution of the initial excess return (UNDERPRICE), the subscription rate (SUBSCRIBE), issue size (ISSUESIZE), and price to book ratio (PRICETOBOOK) exhibit excessive variability. The following correlation is used:

$$\text{Log (UNDERPRICE)} = \beta_0 + \beta_1 \text{ IPO-GRADE} + \beta_2 \text{ Log (UNDERPRICE)} + \beta_3 \text{ Log (ISSUESIZE)}$$

### Price Performance

The effect of the IPO grade in predicting the price performance (PERFORM) of the issue, 30 days after the list date. The measure of price performance, in terms of capital gains, is calculated as the performance of the stock adjusted for the overall market index (SENSEX) performance during the corresponding period.

$$\text{PERFORM} = \frac{\text{Listing Price day 30} - \text{Listing Price day 0}}{\text{Listing Price day 0}} - \frac{\text{Index day 30} - \text{Index day 0}}{\text{Index day 0}}$$

Where, day 0 corresponds to the issue list date, and day 30 correspond to 30 days after the issue list date.

Since the sampling distribution of the age of the issue size (ISSUESIZE), and price to book ratio (PRICETOBOOK) exhibit excessive variability. The following correlation is used:

$$\text{PERFORM} = \beta_0 + \beta_1 \text{ IPO-GRADE} + \beta_2 \text{ Log (ISSUESIZE)} + \beta_3 \text{ Log (PRICETOBOOK)}$$

**Correlation Analysis:****Table No. 1: Correlation Analysis between Liquidity Ratio and Independent Variables**

| <b>Correlations</b>   |                            |                        |                  |                   |                      |
|---|----------------------------|------------------------|------------------|-------------------|----------------------|
|   |                            | <b>Liquidity Ratio</b> | <b>IPO Grade</b> | <b>Issue Size</b> | <b>Price To Book</b> |
| <b>Liquidity Ratio</b>  | <b>Pearson Correlation</b> | <b>1</b>               | <b>-.259**</b>   | <b>-.114</b>      | <b>-.073</b>         |
|   | <b>Sig. (1-tailed)</b>     |                        | <b>.003</b>      | <b>.114</b>       | <b>.220</b>          |
|   | <b>N</b>                   | <b>114</b>             | <b>114</b>       | <b>114</b>        | <b>114</b>           |
| <b>IPO Grade</b>  | Pearson Correlation        | <b>-.259**</b>         | <b>1</b>         | <b>.341**</b>     | <b>.302**</b>        |
|   | Sig. (1-tailed)            | <b>.003</b>            |                  | <b>.000</b>       | <b>.001</b>          |
|   | N                          | <b>114</b>             | <b>114</b>       | <b>114</b>        | <b>114</b>           |
| <b>Issue Size</b>   | Pearson Correlation        | <b>-.114</b>           | <b>.341**</b>    | <b>1</b>          | <b>.338**</b>        |
|   | Sig. (1-tailed)            | <b>.114</b>            | <b>.000</b>      |                   | <b>.000</b>          |
|   | N                          | <b>114</b>             | <b>114</b>       | <b>114</b>        | <b>114</b>           |
| <b>Price To Book</b>  | Pearson Correlation        | <b>-.073</b>           | <b>.302**</b>    | <b>.338**</b>     | <b>1</b>             |
|   | Sig. (1-tailed)            | <b>.220</b>            | <b>.001</b>      | <b>.000</b>       |                      |
|   | N                          | <b>114</b>             | <b>114</b>       | <b>114</b>        | <b>114</b>           |
| <b>**.</b> Correlation is significant at the 0.01 level (1-tailed). |                            |                        |                  |                   |                      |

**Interpretation:**

There is Negative relationship with IPO Grade which is (- 0.259).  
 There is significant impact of with IPO Grade on Liquidity Ratio.

There is Negative relationship with Issue Size which is (-0.114).  
 There is no significant impact of Issue Size on Liquidity.

There is Negative relationship with Price-To-Book which is (- 0.073).  
 There is no significant impact of Price-To-Book on Liquidity.

**Table No. 2: Correlation Analysis between Under Pricing Ratio and Independent Variables**

| <b>Correlations</b>  |                            |                            |                  |                   |                      |
|--|----------------------------|----------------------------|------------------|-------------------|----------------------|
|  |                            | <b>Under Pricing Ratio</b> | <b>IPO Grade</b> | <b>Issue Size</b> | <b>Price To Book</b> |
| <b>Under Pricing Ratio</b>                                   | <b>Pearson Correlation</b> | <b>1</b>                   | <b>.100</b>      | <b>.029</b>       | <b>.043</b>          |
|  | <b>Sig. (1-tailed)</b>     |                            | <b>.145</b>      | <b>.381</b>       | <b>.324</b>          |
|  | <b>N</b>                   | <b>114</b>                 | <b>114</b>       | <b>114</b>        | <b>114</b>           |
| <b>IPO Grade</b>   | Pearson Correlation        | <b>.100</b>                | 1                | .341**            | .302**               |
|  | Sig. (1-tailed)            | <b>.145</b>                |                  | .000              | .001                 |
|  | N                          | <b>114</b>                 | 114              | 114               | 114                  |
| <b>Issue Size</b>  | Pearson Correlation        | <b>.029</b>                | .341**           | 1                 | .338**               |
|  | Sig. (1-tailed)            | <b>.381</b>                | .000             |                   | .000                 |
|  | N                          | <b>114</b>                 | 114              | 114               | 114                  |
| <b>Price To Book</b>   | Pearson Correlation        | <b>.043</b>                | .302**           | .338**            | 1                    |
|  | Sig. (1-tailed)            | <b>.324</b>                | .001             | .000              |                      |
|  | N                          | <b>114</b>                 | 114              | 114               | 114                  |
| **. Correlation is significant at the 0.01 level (1-tailed). |                            |                            |                  |                   |                      |

**Interpretation:**

There is Positive relationship with IPO Grade which is 0.01.

There is no significant impact of IPO Grade on Under Pricing Ratio.

There is Positive relationship with Issue Size is 0.029.

There is no significant impact of Issue Size on Under Pricing Ratio.

There is Positive relationship with Price-To-Book which is 0.043.

There is no significant impact of Price-To-Book on Under Pricing Ratio.

**Table No. 3: Correlation Analysis between Price Performance Ratio and Independent Variables**

| <b>Correlations</b>  |                            |                                |                  |                   |                      |
|--|----------------------------|--------------------------------|------------------|-------------------|----------------------|
|  |                            | <b>Price Performance Ratio</b> | <b>IPO Grade</b> | <b>Issue Size</b> | <b>Price To Book</b> |
| <b>Price Performance Ratio</b>                               | <b>Pearson Correlation</b> | <b>1</b>                       | <b>.044</b>      | <b>-.085</b>      | <b>.108</b>          |
|  | <b>Sig. (1-tailed)</b>     |                                | <b>.320</b>      | <b>.184</b>       | <b>.127</b>          |
|  | <b>N</b>                   | <b>114</b>                     | <b>114</b>       | <b>114</b>        | <b>114</b>           |
| <b>IPO Grade</b>   | Pearson Correlation        | <b>.044</b>                    | <b>1</b>         | <b>.341**</b>     | <b>.302**</b>        |
|  | Sig. (1-tailed)            | <b>.320</b>                    |                  | <b>.000</b>       | <b>.001</b>          |
|  | N                          | <b>114</b>                     | <b>114</b>       | <b>114</b>        | <b>114</b>           |
| <b>Issue Size</b>  | Pearson Correlation        | <b>-.085</b>                   | <b>.341**</b>    | <b>1</b>          | <b>.338**</b>        |
|  | Sig. (1-tailed)            | <b>.184</b>                    | <b>.000</b>      |                   | <b>.000</b>          |
|  | N                          | <b>114</b>                     | <b>114</b>       | <b>114</b>        | <b>114</b>           |
| <b>Price To Book</b>   | Pearson Correlation        | <b>.108</b>                    | <b>.302**</b>    | <b>.338**</b>     | <b>1</b>             |
|  | Sig. (1-tailed)            | <b>.127</b>                    | <b>.001</b>      | <b>.000</b>       |                      |
|  | N                          | <b>114</b>                     | <b>114</b>       | <b>114</b>        | <b>114</b>           |
| **. Correlation is significant at the 0.01 level (1-tailed). |                            |                                |                  |                   |                      |

**Interpretation:**

There is Positive relationship with IPO Grade which is 0.044.

There is no significant impact of IPO Grade on Price Performance Ratio.

There is Negative relationship with Issue Size which is (-0.085).

There is no significant impact of Issue Size on Price Performance Ratio.

There is Positive relationship with Price-To-Book which is 0.108.

There is no significant impact of Price-To-Book on Price Performance Ratio.

## Regression Analysis

**Table No. 4: Model Summary Liquidity Ratio**

| <b>Model Summary</b>                 |                         |                 |                          |                                   |
|--------------------------------------|-------------------------|-----------------|--------------------------|-----------------------------------|
| <b>Model</b>                         | <b>R</b>                | <b>R Square</b> | <b>Adjusted R Square</b> | <b>Std. Error of the Estimate</b> |
| <b>1</b>                             | <b>.259<sup>a</sup></b> | <b>.067</b>     | <b>.059</b>              | 14.98630                          |
| a. Predictors: (Constant), IPO Grade |                         |                 |                          |                                   |

**Interpretation:**

The model summary provide correlation coefficient  $R = 0.259$  and coefficient of determination  $R^2 = 0.067$  for the regression model.  $R^2 = 0.059$  suggest that there is 5.9% variability in Liquidity Ratio due to IPO Grade.

**Table No. 5: Anova for Liquidity Ratio**

| <b>ANOVA</b>                           |            |                       |           |                    |          |                         |
|--|------------|-----------------------|-----------|--------------------|----------|-------------------------|
| <b>Model</b>                           |            | <b>Sum of Squares</b> | <b>Df</b> | <b>Mean Square</b> | <b>F</b> | <b>Sig.</b>             |
| 1                                      | Regression | 1810.443              | 1         | 1810.443           | 8.061    | <b>.005<sup>b</sup></b> |
|  | Residual   | 25153.987             | 112       | 224.589            |          |                         |
|  | Total      | 26964.430             | 113       |                    |          |                         |
| a. Dependent Variable: Liquidity Ratio |            |                       |           |                    |          |                         |
| b. Predictors: (Constant), IPO Grade   |            |                       |           |                    |          |                         |

**Interpretation:**

ANOVA table tell us whether a regression model explains a statistical significant proportion of the variance. It compare how linear regression model predicts the outcome. Here in ANOVA the significant value is 0.005 which is less than 0.05 so I can say that the model can have an accurate prediction.

**Table No. 6: Coefficient for Liquidity Ratio**

| <b>Coefficients</b>                    |                    |                                     |            |                                  |          |             |
|--|--------------------|-------------------------------------|------------|----------------------------------|----------|-------------|
| <b>Model</b>                           |                    | <b>Un standardized Coefficients</b> |            | <b>Standardized Coefficients</b> | <b>T</b> | <b>Sig.</b> |
|  |                    | <b>B</b>                            | Std. Error | Beta                             |          |             |
| 1                                      | <b>(Constant )</b> | <b>18.279</b>                       | 4.053      |                                  | 4.510    | .000        |
|  | <b>IPO Grade</b>   | <b>-3.907</b>                       | 1.376      | -.259                            | -2.839   | .005        |
| a. Dependent Variable: Liquidity Ratio |                    |                                     |            |                                  |          |             |

**Interpretation:**

Regression Model:

$$y = \alpha + \beta x$$

(Where,

y = dependent variable,

 $\alpha$  = constant, $\beta$  = value in regression analysis,

x = independent variable (IPO Grade)

$$y = \alpha + \beta x$$

$$\text{Liquidity Ratio} = 18.279 + (-3.907)$$

**Results and Finding****Objective 1:****For Liquidity Ratio**

The coefficient associated with IPO grade has a negative sign, so on that basis it can be concluded that IPO grade is negatively (strongly) correlated with liquidity ratio. However, there may be a negative relation between them because of high grade could allow companies to

demand a better premium which adversely reduces the demand in the market.

The issue size also shows a negative correlation with liquidity ratio at 1% significance, which indicates that if float (issue size) is very large, liquidity (turnover) ratio would be low either because a large number of shares are issued or because the list price is too high to induce strong investor demand.

## Objective 2:

### For Under Pricing Ratio

There is a positive relation between IPO grade and under pricing ratio. From result it can be conclude that higher the grade, higher will be under pricing ratio. Reason may be because of high grade, demand for the shares of that company high which increases the listing price and result in under pricing of shares. Another reason may be companies are unable to predict what investors are ready to pay for shares issued by them.

Issue size has also positive relation with under pricing ratio. This may because when IPO size is large, investor may have positive perception about the company and they demand share at high price which turned to under pricing of share of company.

Objective 3: For Price Performance Ratio  
IPO grade has positive correlation with price performance ratio. Here price performance ratio is calculated on the basis of price of share after 30 days of listing. From positive correlation, it may be conclude that higher IPO grade will result in profit (positive returns) after 30 days of listing.

As the IPO grade does not recommend whether to buy, sell or hold the securities, it might not be appropriate drawing a correlation between the grade and the market performance of the securities. Issue size has negative correlation with Price performance ratio which means when the Issue size is large, price performance ratio is not much good as when issue size is small. When IPO size is large, Price performance ratio is poor and vice-versa. There is strong correlation between IPO

grade & issue size. From this, it can be conclude that company come with large issue size has the high grade and company with small issue size has the low grade. IPO grade has also strong correlation with price to book ratio.

Issue size has also strong correlation with price to book ratio.

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# Conjoint Analysis

Sumeet Manerikar\*

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Conjoint analysis is a powerful market research technique that measures how people make decisions based on certain features of a product or service. It decodes their purchasing behaviors helping you predict how your product or service will perform in the market.

Conjoint measurement tasks are very flexible, ranging from evaluation of attributes, to ratings of products, to selection of preferred products from a choice set. Conjoint analysis provides answers to many critical managerial questions like the following:

- What is the best possible design for a new product?
- What is our value compared to our competitors?
- How can an existing product be improved?
- How important is our brand name?
- How much market share can a product hold?
- What is the price sensitivity of the product?
- What is the price value of each feature?

Not all research problems can be tackled with Conjoint Analysis. Conjoint works best when the value of a product can be approximated by the sum of its parts, such as mobile phones, cars, computers, ski holidays, and financial product. Conjoint works less well with emotional variables or interacting combinations, such as advertising messages or food combinations.

To conduct a Conjoint Analysis project you need: access to suitable software (to design and analyze the questions), and a design that meets the rules for conjoint analysis (e.g. covering the important Attributes, proper rotation of the question elements, and avoiding interactions).

Conjoint Analysis requires more preparation than most forms of quantitative market research and the analysis takes longer – which tends to make the whole project slower and more expensive than a simple quantitative test. Conjoint Analysis is used when simpler/cheaper options are unlikely to provide a useful outcome.

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## BOOK REVIEW

**Title** : Spiritual Guidelines for Managerial Excellence  
**Author** : Dr. A Jagan Mohan Reddy  
**Publisher** : Tattvaloka, Chennai, 2017  
**Pages** : 200 pages  
**Price** : Rs 125/-



"Spiritual Guidelines for Managerial Excellence" is a book of collection of articles published in Tattvaloka magazine. The author, Dr. A Jagan Mohan Reddy is a seasoned Human Resource Management Professional with vast experience in Industry and the teaching field and it will be a pleasure to read the book for anyone in the corporate world.

The book will be a treat for the people interested in Indian mythology. In author's perspective all the existing managerial issues can be solved using the ancient wisdom and he acclaims solution for each of the issues with an implied story derived from various epics for managerial excellence. In the discussions, the author highlights the ongoing issues in the present world and keenly shows the path to counter it with ease.

The beauty of the presentations binds the audience with great interest. Dr. Reddy discusses most of the problems faced by the Work force, Leaders and Managers during their tenure in the organizations. He emphasizes that Organisation and the people managing it should abide by the core values without any compromise on the standards.

There is no duty greater than adherence to the truth. The author has explored deep into Indian Heritage and diversified cultures. Importance of ethics and values is addressed at large in most of the articles. Foregoing the short term gains and focussing on the long term development of overall society should be the ideal for any organisation and this is exemplified by the Tata's core values.

Today's corporate work force is plagued with anxiety, depression, and lack of self esteem. Other factors include anger and negative influences. Manager needs to know all these and how to bridge the gaps and have visionary perspective at the work. The author explains how to be unattached to these and to treat the failure/success as part of the game and to treat them evenly. The author explains how not to worry about the fruits and rather focus on the work, as focussing on the results will lead to irrational behaviour.

The ever changing world exerts new challenges to the managers & the author informs on how to adopt oneself with the change. No matter how efficient you are, the fear factor can kill your confidence. Managers should be intelligent risk takers for organizational success and emotionally strong. The author shows how it can yield positive results when we guide the work force with clear vision in a compassionate way.

Delegation is the spirit of sharing & Managers have to master the art of delegation. The author emphasizes that a manager need to delegate wisely by looking into individual competencies. The author asserts how to gain relative freedom by allowing others to be what they are and to honour the deserving candidate.

"Leadership is taking more than your share of blame and less than your share of credit". The author calls for this to be practiced at all the levels. Humans crave for appreciation and anyone will accept it as a great gift. Art of appreciation binds the people to organization and will focus on solving the issues in better way rather than competing with the rivals.

The other core values which we can learn from the book are empathy, being flexible to change, power of effective communication and sharing of wealth and knowledge. These articles will bring us a lot of peace at work and our family life and saves us from distractions. To build a sustainable society, the author insists that the Organization should imbibe ethical, legal values of the community around us.

The book will definitely help youngsters to become a humane manager, as it enlightens values for corporate managers, team leaders and the work force to perform better and lead better. And I strongly recommend, irrespective of age, all the managerial personnel to have a look at this book, which is a repository of ancient wisdom synchronised with modern management. The fact that Dr MB Athreya chose to write a foreword adds further value to this book

**Reviewed by:** Mr K Udaya Kumar, Assistant Manager  
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## BOOK REVIEW

**Title** : A Journey Forever...  
**Author** : Dr. Vijay Haribhakti  
**Illustrations** : Dr. Shekhar Bhojraj  
**Pages** : 174 pages  
**Kindle Price** : \$2.79



This is my first book which I read on Kindle (borrowed from my cousin brother who had come over from Bangalore for work). My spine surgeon, friend and co-trustee of our NGO Nina Foundation and extremely renowned Dr Shekhar Bhojraj informed me about this book stating that he had drawn the illustrations. This peaked my curiosity to read it immediately. The author Dr Vijay Haribhakti is a reputed cancer surgeon heading the oncology service at Sir HN Reliance Foundation Hospital in Mumbai. This book was written way back in 1979 during his rural internship in a village called Poynad. The original was handwritten in a copybook with rough sketches. Subsequently his friend and classmate Dr Bhojraj sketched the illustrations onto a typed manuscript. There has been no changes made in the book released recently.

The entire story is an allegory for life and what each one of us encounter in our respective journeys. Through the central character of a snail the author unfolds what most of us experience at some juncture in our lives; fear, failure, herd mentality, follow the beaten path, stick to our knitting, uncomfortable to explore new horizons, conformity and sameness. The reader will identify with the story with all the doubts and dilemmas that we undergo throughout our lifetime. Moreover it resonated a great deal with me personally as having met with a paragliding accident which resulted in a permanent and incurable spinal cord injury 22 years ago -the travails of the snail, the hero of the story echoed what many of us experience post a disability.

There are some huge life lessons in the book. Why is it important to sometimes go beyond laws and customs, not to stick to similar things but also accept and embrace differences and it's okay to be disapproved once in a while. The biggest learning is to love, simply love without reasons.

Dr Haribhakti (at a very young age) what he has penned 37 years ago resonates even today and will forever. The expressions are beautiful. The brevity of words almost verse like, with plenty of breathing white space on each page that allows us to soak each word and sentence. The simple, black-and-white, freehand illustrations by Dr. Bhojraj makes the essence of the book come to life and they compliment the written word wonderfully. Visuals add a special emotional connect with the reader and stay with you long after you have finished reading the book.

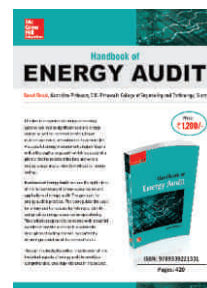
While turning the pages of the book, it reminded me of my all-time favorite "Jonathan Livingston Seagull" by Richard Bach. This book is in that league!

This book is meant for all; children and youth, working professionals, adults, the elderly, the disabled, everyone. Wish there is a paperback edition launched soon. Those who possess a Kindle go ahead and download the free copy. I recommend it to be read by one and all soon!

**Reviewed by:** Dr Ms Ketna L Mehta,  
 Editor & Management Advisor SP Mandali's Prin. L N Welingkar  
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## BOOK REVIEW

**Title** : Handbook of Energy Audit  
**Author** : Dr. Sonal Desai  
**Publisher** : Mc Graw hill  
**Pages** : 420 pages  
**Kindle Price** : Rs.1200/-



“Let's all make a better world that optimizes energy potential and conserves nature as well!!”, is Desai's parting request of the reader in the Preface. The book content has been designed to enable the readers to fulfill this request. The book is a guide for energy audit processes by helping to identify and prioritize energy conservation opportunities. There are sample calculations at various locations and case studies to estimate energy saving for a suggested change or retrofit in the system. Theoretical background is combined with industrial experience and outcome is presented here as systematic approach of audit, supported by detailed presentation of technical material.

**Handbook of Energy Audit** contains the right blend of the fundamentals of energy conservation and applications of energy audit. The approach for energy audit is practical. This book guides the users for energy audit processes by helping to identify and prioritize energy conservation opportunity. Theoretical background is combined with industrial experience and the outcome is a systematic description of audit processes, supported by detailed presentation of its technical basics. Through this book, the author tries to cover all the important aspects of energy audit to provide a comprehensive, one-stop reference in the subject.

Author is Professor and Head of Mechanical Engineering Department, CKPCET, Surat. She is a Certified Energy Auditor and a Green Building Consultant. She is associated with many professional associations which are working in the field of Energy Conservation, to name a few - South Gujarat Chamber of Commerce and Industries (SGCCI), Surat; Indian Society of Heating Refrigerating and Air-Conditioning Engineers (ISHRAE); American Society of Heating Refrigerating and Air-Conditioning Engineers (ASHRAE); ISTE, New Delhi; South Gujarat Productivity Council (SGPC), Surat; and Indian Cryogenic Council (IGC).

She has over 20 years' experience in teaching at college level. She received her Doctorate Degree from VNSGU (SVNIT). She has conducted several energy audits and national level technical programs in this field; has guided several projects for Energy Audits, Energy Management, and Thermal System Designs. She has been also engaged in designing curriculums, laboratory manuals and tutorials of different subjects. She is awarded by honorable Union Cabinet Minister for Science, Technology & Earth Sciences, Shri Harsh Vardhan in *Young Woman Professional Making Grass-Root Impact – Education category* At InWENA Awards.

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## POEM

### In my always temple

Salil Chaturvedi\*

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**In my always temple**

there are 184,000 deities  
open skies  
old ruins  
fresh expressways  
mountain trails  
whale killings  
gunfire  
cricket matches  
play schools  
feverish love  
mad desires  
quiet saints  
dance competitions  
discarded condoms  
wheat fields  
and ELEPHANTS ROAMING WITHOUT  
CONTEXTS

**In my always temple**

Say cheese  
Jet streams  
forests on fire  
bullet wounds

Bullet wounds  
Shrapnel  
French kisses  
Full moons  
radiant sunflowers  
armoured trunks  
space shuttles  
thatched huts  
and CLOTHES DRYING ON A CLOTHESLINE  
TIED TO A TREE

**In my always temple**

there are lost people trying to find their  
bamboo clumps  
bitter gourds  
book launches  
giant redwoods  
railway tracks  
grenade launchers  
sit-down dinners  
open-pit mines  
algae  
AND NAKED TRIBAL WOMAN BATHING IN  
STREAMS

**In my always temple**

there are animal-shaped pencil boxes  
flower arrangements  
radars  
dance gurus  
comic book artists  
fighter jets  
forested valleys  
monsoons  
mud huts  
and a KITE CIRCLING OVERHEAD

**In my always temple**

it's always prayer time.  
bring some flowers.  
wild.  
blue.

---

\* **Salil Chaturvedi** met with a car accident, when he was 16 years old. He is an international wheelchair tennis player, actor, sailor, poet and fiction writer. He has won World Weavers poetry contest in 2015. His Haiku and Haibun have been published in various journals. **Email:** sal\_chat@yahoo.com

## Core valueS

**1. Passion:**

The soul of Welingkar blossoms in our heart, mind and body.

**2. Breakthrough Thinking:**

We foster academic rigour in an environment conducive to innovation.

**3. Result oriented, Process driven Work Ethic:**

We adopt dynamic quality processes to ensure accountability and exceptional performances.

**4. We Link and Care:**

We support and collaborate with all our stakeholders through mutual trust and respect.



## Quality policY

We are committed to give our students Quality Management Education in tune with the changing needs of business and industry.

We shall endeavor to do this by:

- Providing the best learning resources.
- Making the environment conducive for students to develop their creativity, Leadership skills and ability to learn continuously.

We shall follow a data oriented factual approach to Quality Management leading to continual improvement of our processes culminating in total customer satisfaction.



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