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Indexed in  (USA)
www.proquest.com



A Peer - Reviewed Journal

Since 2011

ISSN No. 2231-1904

July - December 2019 *Vol. 9 : Issue 2

January - June 2020 *Vol. 10 : Issue 1

SANKALPA

IMPACT FACTOR : 5.741 (ISRA : JIF)

Journal of Management & Research

SANKALPA : Journal of Management & Research

aims at bringing out the intricacies of Management perspectives, concepts,
and applications. The focus is on Indian Management and its interplay with
Global Management knowledge, best-practices and research.



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Shri Mahavira Jaina Vidyalaya (SMJV or Vidyalaya) has been serving Indian society for 105 years. Established in 1914 with the blessings of eminent Jain Guru YUGDRASHTA ACHARYA SHRI VIJAY VALLABHSURISWARJI MAHARAJ SAHEB, the roots of this premier institution are found in its belief that the education, coupled with followings of basic Jain principles will help the cause of Jain philosophy to create a non – violent, peaceful and prosperous society. In course of its existence of over a century, the SMJV has over 20,000 Alumni spread across the world, most of them well established and leading in their respective fields in India and globally.

Today, the large network of Hostels and a Management Institute owned and managed by SHRI MAHAVIRA JAINA VIDYALAYA is accommodating and supporting more than 1600 students at highly subsidized fees or FREE-OF-COST basis in its 12 hostels (8 boys & 4 girls) in western India at Mumbai, Pune, Udaipur, Ahmedabad, Vallabh Vidyanagar, Bhavnagar and Vadodara. CKSVIM, its Management Institute established since the year 2009 at Vadodara (Gujarat) is a leading Business School approved by AICTE, Affiliated to Gujarat Technological University, and Accredited by Accreditation Council for Business Schools & Programs (ACBSP), USA.

Currently the SMJV Trust is making great strides under the leadership of Shri Sudhirbhai Mehta, Chairman, Torrent Group, one of the most reputed and diversified industry House in Gujarat, ably supported by eminent Board of Trustees, able Executive Council members and some 900 dedicated SMJV Alumni and members. (Visit www.smjv.org)



**Public Viva-Voce of Baser Surya Kailash from GTU under PhD Research Centre on 13 July, 2020
(PhD Guide: Dr Kerav Pandya)**

From the Heart of Founding Director...

Welcome to 2020 - The Perfect Opportunity Year!

2020 offers two-thousand opportunities if you think, but you can list out Top 5 for you, that matters the most in your life.

Here is my wish-list for you – Students, faculties, administrators, managers, entrepreneurs, directors, trustees, CEOs, presidents, chairpersons, corporate governors and even government regulators:

1. Educate yourself well – at school, college or university level, so you can be capable to serve your family, organization, city, nation and the world.
2. Train yourself every day, every year – seek new skills and develop yourself, that should help you earn better money in ethical business, job or social service.
3. Behave well with everyone - politeness, honesty, initiative, action and truthfulness are the top five qualities to gain during lifetime, to gain respect in the society.
4. Once you commit to yourself or others, do not change to your commitment, words or promise to deliver under any good or adverse situation.
5. Take care of yourself, family and friends – to maintain great health, create good wealth, and earn great reputation and respect from everyone you see or touch in life.

2020 is a Year of Opportunity for improving Quality and Accreditation in India, Bangladesh, Vietnam, Nepal, Sri Lanka, Indonesia, Cambodia in South Asia; Saudi Arabia, UAE, Oman in Middle-East; entire Africa, Poland and Eastern European Nations, and South America. At ACBSP, USA, I shall continue to lend my voluntary services as a member of Board of Commissioners, and several Global Committees.

A new Multi-national **Accreditation Cooperation** platform namely **iAccredit** is being formed as an NGO with the Grace of God, my vision and leadership, supported by several distinguished professors and institutions around the world. It shall seek to facilitate preparation and Global Accreditation at affordable cost; and bring international universities and academic institutions on One Platform for collaboration, student and faculty exchange, research and publication.

The world will be a better place to live, work and enjoy with high quality, recognised, Accredited higher education.

Exciting times ahead. Join the Quality Carnival !



Dr. Rajesh Khajuria
Founding Director
CKSVIM (2009-2020)

श्रद्धावाँल्लभते ज्ञानं तत्परः संयतेन्द्रियः । ज्ञानं लब्धा परां शान्तिमचिरेणाधिगच्छति ।।

“One who has faith and who with controlled senses is devoted to
attaining this wisdom is successful in his/her endeavour.
With wisdom and knowledge, he/she quickly attains the supreme peace.”
- Bhagvad Gita

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APPEAL TO THE AUTHORS AND CONTRIBUTORS

The present issue (Vol. 9, Issue 2 & Vol. 10, Issue 1) is the July-Dec 2019 & Jan-June 2020 Issue, which contains research papers / articles in various areas of Management and Research. The bi-annual Journal 'SANKALPA' portrays our strong conviction to disseminate the thinking of academicians and practitioners in the field of Business Management discipline, which they communicate through their 'Reporting' in the form of research papers, articles, study reports, case studies, original conceptualizations with logical vigor and vision.

The members of the Editorial Board appeal to all the academicians and practitioners to communicate their 'Reporting' to the Editor-in-Chief for publication in our subsequent issues, through the e-mail ID : publications@cksvim.edu.in

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From the Heart of Editor-in-Chief...

Dear subscribes and Readers,



Thanks for your continuous support and motivation for doing better and better every time for our team SANKALPA. The Covid-19 Pandemic has brought us all in an unprecedented situation, and we have challenging and uncertain times ahead as far as academics and publication work is concern. The institute is taking enough steps for the safety of its staff and faculty members, and based on their trust, we are able to deliver the best.

This time we came up with a combined issue of SANKALPA: Journal of Management & Research, due to the current prevailing situation (July-December 2019* Vol.9: Issue 2 and January-June 2020* Vol. 10: Issue 1). More than 20 papers were received for publication and some selected papers by our esteemed reviewers are published in this combined issue.

I would also like to take this opportunity to thank all the members of the Editorial Board and Review Committee, including our support staff, for their dedicated service to the journal and for all their cooperation and enthusiastic involvement in this blooming endeavour. The voluntary efforts and devotion to the peer-review process helped the journal towards an authoritative position in the field of Management research and I am sincerely grateful for their contributions to achieve the perfection.

I wish all of you are doing well wherever you are, at home or home town. Covid-19 pandemic has significantly affected our lives. We are witnessing an unprecedented situation, which none of us have ever seen in the past and probably don't expect to see again in the future. Our long-term goal is "to be an institution of excellence for learning & collaborative research in management with a deep commitment to people". We are on the same road with our journal SANKALPA.

Dream * Achieve * Conquer

Stay Safe & Best Wishes,

Dr. Kerav Pandya
I/c Director and Professor
CKSVIM



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Higher Education Forum - Gujarat Chapter



Report

7th Higher Education Forum (HEF) Gujarat Regional Conference 2020

On

13th March 2020 (Friday) @ CKSV Institute of Management, Vadodara
(Time: 9.30 a.m. to 4.30 p.m.)

**Theme: “Role of Accreditation in Higher Education in National
and International Arena”**

Organizers

**Higher Education Forum, Mumbai in Collaboration with SMJV's C K Shah
Vijapurwala Institute of Vadodara**

Knowledge Partner and Sponsors



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About Visionary Organizers

The Visionary Organizers **Higher Education Forum (HEF)**, Navi Mumbai is a voluntary non-profit organization created by **Dr A K Sengupta** and others in 2009. It is promoted as an advocacy group of individuals concerned with issues and challenges in the landscape of higher education in India. Within hardly few years of existence, the forum has emerged as the largest such on-line community on a global scale with more than 4000 members. HEF - Gujarat Chapter was launched on 15th June 2010 by the noble hands of **Late Dr Shri. Dipchandbhai Gardi**, renowned philanthropist and former Chairman of SMJV Trust, Mumbai. **Dr Rajesh Khajuria**, Director, CKSVIM, was appointed as Founder Chairman of the Gujarat Chapter, continued till date. (Visit: www.highereduforum.org)

SMJV's C.K. Shah Vijapurwala Institute of Management (CKSVIM), Vadodara is a premiere Management Institute in the heart of Vadodara city set up in the year 2009 and managed by 104-year-old Shri Mahavir Jain Vidyalaya Trust. It offers AICTE Approved MBA Program affiliated to Gujarat Technological University (GTU). It is the first B-School in GTU and western India to be globally accredited by ACBSP (USA) since 2014-15. It is recently honoured as the 'Best Institute in Management Studies' by Times Icons of Vadodara 2020; Backed 'GOLD Rating' as the 'Best Industry-linked Management Institute in India (2018)', in a survey jointly conducted by AICTE and CII. The other courses offered at the Institute are PG Diploma, BBA and B. Voc. (Visit: www.cksvim.edu.in)

The Conference Theme

India has seen a dramatic increase in the capacity of its higher education sector in the last two decades. Enrolment in higher education has increased four-fold since 2001. India's gross enrolment ratio (GER) in 2018-19 was 26.3% but still far from meeting the Ministry of Human Resource Development's target of achieving 32% GER by 2022. However, many important questions such as the quality of Higher Education Institutions (HEIs) and employment of graduate's merit further examination. Various questions on principles of Access, Inclusion, Quality, Excellence and enhancing employability needs to be brainstormed. In addition to very many innovative initiatives by Governmental and non-governmental agencies, a huge responsibility to assure quality in HEIs rests with the Accreditation agencies. **The 7th HEF Gujarat Regional Conference 2020** envisions to debate, discuss and brain-storm various issues, problems and challenges as well as the role of accreditation agencies in higher education at National and International arena. The 7th HEF Gujarat Regional Conference 2020 Theme is "Role of Accreditation in Higher Education in National and International Arena".

About the Conference

Higher Education Forum (HEF) Gujarat Chapter in collaboration with **SMJV's C.K. Shah Vijapurwala Institute of Management (CKSVIM)** and USA Accredited B-School organized the **7th Regional Conference on 13th March, 2020 @ C K Shah Vijapurwala Institute of Management, Vadodara** Based on the essence of the Theme of the Conference: **"Role of Accreditation in Higher Education in National and International Arena "**, the Conference attracted over **70** participants from State as well as National Level. The Conference had Entire Sitzings of Keynote Speeches and Panel Discussion Forums from National and International Accreditation Agencies, Government bodies, industry, academia and Consultants.

The Conference was graced by **Shri Dharmodhurandhar Vijay Maharaj Saheb Ji, Dr Chandan Chatterjee, Special Guest, Former Director- CED Gandhinagar, Dr. Rajesh Khajuria, Convener, Chair, HEF –Gujarat Chapter & Director-CKSVIM, Commissioner- ACBSP, USA, Shri T Raman, Guest of Honour & Sponsor, SEAA Trust N. Delhi, Mr Bipinbhai**

Shah, Member, Local Management Committee, SMJV's CKSVIM and Blessings from **Dr Satendra Kumar, Patron, Research Head, CKSVIM** and **Dr. A.K. Sengupta, Founder & Convener, HEF- Mumbai**, Panel discussions were also held.. Panel Discussion on '**National and International Accreditation – A Prerequisite for HEIs Holistic Development**' Panelists: **Shri Deepak Prasad, Ex VP-HR, Reliance Industries Ltd. & Visiting Faculty; Dr Vikas Arora, Director-Integrated Campus, Sunshine Group of Institutions, Rajkot; Shri Shyamsundar Choudhary, President/Co-Founder IBTS-Institute for Building Technology and Safety, USA.** Round Table on '**Role of IQAC in Universities as well as Self-financed Colleges**' by Experts **Dr Viral Bhatt, Professor and Founder Director, SAL Institute of Management, Ahmedabad** Prof. **Dr. Subhasish Chatterjee, Principal-HOD, Dept. of Management, Sumandeep Vidyapeeth** were also been undertaken.

Award Categories

Awards were distributed in the valedictory sessions by Prof (Dr) M N Patel, Chief Guest, VC, Parul University, Shri Shyamsundar Choudhary (USA), Dr. Rajesh Khajuria, Convener & Chair, HEF –Gujarat Chapter & Director, CKSVIM, Commissioner- ACBSP, USA The 7th HEF Gujarat Regional Conference 2020 announces Prestigious Awards in FIVE Categories as mentioned below:

- a) **“Vice Chancellor Excellence Awards, 2020**: The ‘Vice Chancellor Excellence Awards, 2020’ is to recognize and honour top Vice Chancellors for inspiring faculties, staff and students and contributing remarkably to improving the overall education ecosystem in the college/ University system in the city/ region of Higher Education Institutions.
- b) **“Principal’s Award 2020”**: The ‘Principal’s Award 2020’ is to recognize and honour top Educationists / Principals/ Trustees/ Directors/ Deans for inspiring faculties, staff and students and contributing remarkably to improving the overall education ecosystem in the college/ University system in the city/ region of Higher Education Institutions.
- c) **“Teaching Excellence Award 2020”**: The ‘Teaching Excellence Award 2020’ is to recognize outstanding faculties/ teachers for inspiring and mentoring students, while ensuring high academic standards and incorporating innovative pedagogic styles and student-centric approaches. The Award is for Teachers who actively engage themselves with students in the teaching-learning process and foster a learning community along with remarkable contributions to the college/ institute development where being employed.
- d) **“Open and Distance Educator Award, 2020”**: The “Open and Distance Educator Award, 2020” is to recognize and honour top distance educators for inspiring faculties, staff and students and contributing remarkably to improving the overall education ecosystem in the college/ University system in the city/ region of Higher Education Institutions.
- e) **“Education Excellence Award 2020”**: The “Education Excellence Award 2020’ is to recognize outstanding Educationalists for inspiring and mentoring students, while ensuring high academic standards and incorporating innovative pedagogic styles and student-centric approaches. The Award is for Teachers who actively engage themselves with students in the teaching-learning process and foster a learning community along with remarkable contributions to the college/institute development where being employed.

The conference started by lamp lighting ceremony followed by three prayers, Navkar Mantra, Saraswati Vandana and Guru Shlok. Welcome address and opening of the conference were done by **Dr Ranjita Banerjee, Associate Professor, CKSVIM**. Keynote address was delivered by **Dr Rajesh Khajuria**, where he gave an insight on how to improve education, various changes which are required in the courses at National and International level, he also gave an insight on “demographic dividend” and need for reformation which are required at University structure, Examinations and at

teaching levels. He was of opinion that students are “Good”, the faculties with the “Education System”. An Educational program at degree/university level should focus on Teaching, Learning and Research and Extension.

Mr Bipinbhai Shah briefed about SMJV Trust and its affiliated institutions, hostels etc. He gave brief about the philosophy of Jain community and SMJV Trust, ie Getting from society and Giving back to society.

Dr Chandan Chatterjee, as special guest of the conference briefed about positive power that is being lacked in today's generation of students. He stressed on the matter that focus on development of knowledgeable and skilled students as India is importing 2/3rd because of “Lack of Knowledge. He also insisted that driving force of any economy is its knowledge base. He stressed on the importance of Accreditation and its vital role in improving quality of Educational Institutions faculties and students at large.

Mr. T Raman as Guest of Honor focused on “Solution not on “Problems”, Value creation and addition, Emphasize on Structured Education, Self-Regulatory – Benchmarking- Continuous Improvement., Humanity to respect, building right and positive attitude, Willingness to understand and Accept things, Knowledge and Wisdom. He also briefed about SEAA and its active role in Accreditation at National and International platforms.

The entire conference was highly blessed enough by the Blessings from **Shri Dharmodhurandhar Vijay Maharaj Saheb Ji**, he enlightened the august gathering by his kind words of wisdom and he threw an insight on ancient style of teaching and the kind of respect students used to have towards their Gurus. He was accompanied by **Mr Deepakbhai Shah, Ex-Senate and Syndicate member, M S University of Baroda**.

Panel Discussion on ‘National and International Accreditation – A Prerequisite for HEIs Holistic Development’ was conducted, in which **Shri Deepak Prasad**, Ex VP-HR, Reliance Industries Ltd. & Visiting Faculty; chaired the session and the discussion was done by **Dr Vikas Arora**, Director-Integrated Campus, Sunshine Group of Institutions, Rajkot and **Shri Shyamsundar Choudhary, USA**.

Round Table on ‘Role of IQAC in Universities as well as Self-financed Colleges’ was conducted and **Dr Viral Bhatt**, Professor and Founder Director, SAL Institute of Management, Ahmedabad, **Prof. Dr. Subhasish Chatterjee**, Principal-HOD, Dept. of Management, Sumandeep Vidyapeeth and **Prof. Ajitsinh Rana**, Professor, Dr. Babasaheb Ambedkar Open University, Ahmedabad actively participated.

Awards & Valedictory

The valedictory session was chaired by **Prof (Dr) M N Patel**, as Chief Guest, Vice Chancellor, Parul University, Vadodara, **Shri Shyamsundar Choudhary (USA)** as Guest of Honour, **Dr. Rajesh Khajuria**, Convener & Chair, HEF –Gujarat Chapter - Director, CKSVIM, Commissioner- ACBSP, USA

The Awards were given in the below FIVE categories:

a) “Vice Chancellor Excellence Awards, 2020

1. **Dr. Prof, Col, Nirmal Sharma**, Vice-Chancellor, Bhagwan Mahavir University, Surat
2. **Dr Nikhil Zaveri**, Provost (Vice-Chancellor), GSFC University, Vadodara

b) ‘Principal’s Award 2020’

1. **Dr G P Vadodaria**, Dean (Engineering), Gujarat Technological University, Gandhinagar & Principal, GEC, Bhavnagar
2. **Dr. Vikas Arora**, Director-Integrated Campus, Sunshine Group of Institutions, Rajkot (Gujarat) India
3. **DR. Viral Bhatt**, Professor and Founder Director, SAL Institute of Management, Ahmedabad

4. **Dr. Pallavi. H. Agarwal**, Principal, Babaria Institute of Technology
5. **Prof. S. Balasubramanian**, Director of GRG Centre for Advanced Studies, Coimbatore
6. **Dr. Swati Padoshi**, Sanpada, Mumbai, Director of Indira Institute of Business Management, Sanpada.
7. **Dr Aloysius Edward J**, Dean, Faculty of Commerce and Management, Professor-School of Management, Kristu Jayanti College, Bangalore
8. **Prof. Dr. Subhasish Chatterjee**, Principal-HOD, Dept. of Management, Sumandeep Vidyapeeth
9. **Dr. Lipsa Rawal**, Principal, MDP- NICM

c) 'Teaching Excellence Award 2020':

1. **Dr. Naheem Mahtab**, Sr Lecturer & Co-ordinator, Independent University Bangladesh (IUB)
2. **Dr. Rahul Kanagat**, Educational Consultant
3. **Dr Stuti Trivedi**, Associate Professor, C K Shah Vijapurwala Institute of Management
4. **Divyesh Patel**, CS, Assistant Professor, C K Shah Vijapurwala Institute of Management
5. **Dr. Damodaran V S**, Associate Professor, XIME, CHENNAI
6. **Dr. Purvi Derashri**, Associate Professor, Faculty of Commerce, Parul University

d) Open and Distance Educator Award, 2020

1. **Dr. Ajitsinh P. Rana**, Professor in Education, Dr. Babasaheb Ambedkar Open University, AHMEDABAD
2. **Dr. Meena I. Rajput**, Lecturer in Education, Dr. Babasaheb Ambedkar Open University

e) "Education Excellence Award 2020":

1. **Shri Sanjay Kothari**, Founder, C.R. Kothari Memorial Charitable Trust, Vadodara

Convenors of Conference

Dr Satendra Kumar, Patron

Dr. A.K. Sengupta, Founder & Convener, Higher Education Forum (HEF), Mumbai

Dr. Rajesh Khajuria, Convener, Chair, HEF –Gujarat Chapter; Director, CKSV Institute of Management, and Commissioner, ACBSP, USA

Dr. Ranjita Banerjee, Co-Convenor & Associate Professor, CKSVIM

Dr Preeti Singhal, Faculty Coordinator & Associate Professor, CKSVIM;

Ms Anjali Bhadsawle, Admin Co-ordinator CKSVIM

Vote of Thanks

Vote of Thanks was delivered by **Dr Ranjita Banerjee**, Associate Professor, CKSVIM and **Dr Preeti Singhal**, Associate Professor, CKSVIM

MOC- Dr Ranjita Banerjee & Dr Preeti Singhal

Report Documentation:

Dr Stuti Trivedi & Mr Divyesh Patel

Photo Courtesy: **Abirami Pillai and Rahul Manjani**

Happy Reading !!!



Measuring and Analyzing Movement of Sectorial Indices of NSE: An Econometric Analysis

Dr. Hiteksha Upadhyay : Assistant Professor, NRIBM, GLS University, Ahmedabad. Email : hiteksha.joshi@glsuniversity.ac.in

Abstract

Volatility is a symptom of a highly liquid stock market. In this study, the sector-based index is designed to provide a single value for the aggregate performance of a number of companies representing a group of related industries or within a sector of the economy. The index is based on a statistical compilation of the share prices of a number of representative stocks. It also creates the basis for portfolio trading by both active and passive investors. The Sector-based index is designed to provide a single value for the aggregate performance of a number of companies representing a sector of the economy.

This study is an attempt to provide an empirical support to identify the risk factors in sectorial indices and CNX Nifty index and also to see the risk relationship in the year 2018.

The data has been taken from the official website of National stock exchange. All the data has been analyzed using econometric analysis. The results show that there is a significant difference in the mean scores of indices. The results exhibit important implications to individual investors and portfolio managers in terms of reducing portfolio risk and enhancing their returns.

Key Words : Sectorial Indices, CNX Nifty, correlation and Econometric Tools

Introduction

Investors were anticipating a more volatile 2018, but few expected the severity and frequency of the swings seen on Wall Street this year. Markets have not seen moves this wild since the financial crisis, according to LPL Financial's Ryan Detrick. If we talk about global scenario, during the last 12 months, the S&P closed above 2,900 for the first time ever but starting in October downdrafts seemed like a daily occurrence. Indeed, 50% of the ten biggest single day gains and declines for the Dow Jones Industrial Average happened in 2018. Everything from Brexit to the trade war tweets to oil prices seemed to spark oversized moves in the stock market.

Understanding dynamics of Indian stock market may be useful for traders, investors and policy makers. The sector-based index is designed to provide a single value for the aggregate performance of a number of companies representing a group of related industries or within a sector of the economy. The index is based on a statistical compilation of the share prices of a number of representative stocks.

These market indices are convenient measurements of the stock market that also indicate the direction of the market over a period of time. By using these market indices, you can compare how well individual stocks and mutual funds have performed against market indicators for the same period.

Literature Review

The National Stock Exchange of India is the exchange with India Index Services & Products Limited (IISL); a subsidiary of NSE selected the blue-chip stocks or good market players in a particular sector and formulated the sectorial indices. The various studies done in different sectorial indices are given here. Various studies are being carried out pertaining to sector level in India and globally. The studies measure the relationship between various macro-economic variables and their impact on sectorial indices.

Poshakwale S (2002) examined the random walk hypothesis in the emerging Indian stock market by testing for the nonlinear dependence using a large disaggregated daily data from the Indian stock market. The sample used was 38 actively traded stocks in the BSE National index. He found that the daily returns from the Indian stock market do not conform to a random walk. Daily returns from most individual stocks and the equally weighted portfolio exhibit significant non-linear dependence. This is largely consistent with previous research that has shown evidence of non-linear dependence in returns from the stock market indices and individual stocks in the US and UK. Yakob, Beal and Delpachitra (2005) examined seasonal effects of ten Asian Pacific stock markets, including the Indian stock market, for the period January 2000 to March 2005. They stated that this

is a period of stability and therefore ideal for examining seasonality as it was not influenced by the Asian financial crisis of the late nineties. Yakob, et al., concluded that the Indian stock market exhibited a month-of-the-year effect in that statistically significant negative returns were found in March and April whereas statistically significant positive returns were found in May, November and December. Of these five statistically significant monthly returns, November generated the highest positive returns whereas April generated the lowest negative returns. In a similar study by Bodla and Jindal (2006) several seasonal anomalies in the Indian stock market utilizing the S&P CNX Nifty index for the period January 1998 to August 2005. For the monthly effect, they did find some significant differences utilizing ANOVA for their sub-period, January 2002 to August 2005. However, they were unable to find any significant differences among individual months.

Kumar R and Dhankar R(2011) in their article titled, "Distribution of Risk and Return: A test of normality in Indian stock market", examined the normality of return and risk of daily, weekly, monthly and annual returns in Indian stock market. They used parametric and non-parametric test to prove these objectives. They have selected Sensex, BSE 100 and BSE 500 indices from Bombay Stock Exchange (BSE) for the period 1996 to 2006. The results show that, the returns are negatively skewed for all the indices over the period. Asymmetry is found in risk and return in case of daily and weekly returns i.e., risk and return relationship seems inconsistent in case of daily and weekly returns. Monthly and annual return, however are found normally distributed for all three indices over the period of time. The study shows the importance of time horizon in investment strategy for the Indian stock market.

Durai R and Bhadurai S(2011) in their article titled, "Correlation dynamics in Equity markets", aimed to analyze the correlation structure of the Indian equity markets with that of world markets. The indices considered for the study are NASDAQ composite (USA), S & P 500 (USA), FTSE 100 (UK) and DAX 30 (Germany) classified as developed markets. KLSE composite (Malaysia), Jakarta composite (Indonesia), Straits times (Singapore), Seoul composite (South Korea), Nikkei (Japan), Taiwan weighted index (Taiwan) and the S & P CNX Nifty (India) are classified as Asian market, for the period 1997 to 2006. The logistic smooth transition regression (LSTR) model results for the conditional time varying correlation of S & P CNX Nifty with six Asian market and S & P CNX Nifty with four developed markets show that there is a significant regime shift in the year 2000 and there is a

considerable increase in integration in the second regime. This indicates that the S & P CNX Nifty index is moving towards a better integration with other world markets but not at a very noteworthy phase.

Scope of the study

This study is an attempt to provide an empirical support to the risk factors across the sectoral indices and S & P CNX Nifty index. Hence, the study proposes to seek answers to the following stated questions:

1. Is there any relationship across the sector in terms of risk?
2. Does the change in any sectoral index cause any impact on other?

Objective of the study

1. To identify whether there is a difference in risk factors across the sectoral indices.
2. To find out if there is any correlation among all sectorial Index.

Sample of the study

NSE CNX NIFTY and its eleven sectoral indices such as NSE CNX Auto, NSE CNX Bank, NSE CNX Energy, NSE CNX Finance, NSE CNX FMCG, NSE CNX IT, NSE CNX Media, NSE CNX Metal, NSE CNX Pharma, NSE CNX PSU Bank and NSE CNX Realty are taken as sample of the study.

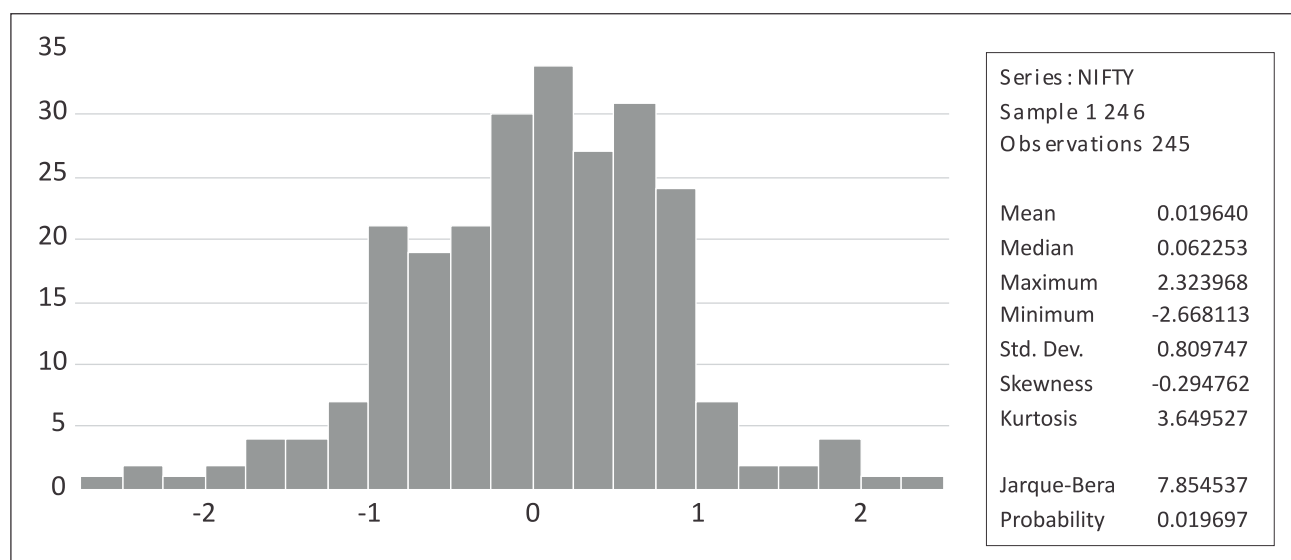
Data Analysis

The NIFTY 50 index is National Stock Exchange of India's benchmark broad based stock market index for the Indian equity market.

A stock market index is created by selecting a group of stocks that are representative of the whole market or a specified sector or segment of the market. An Index is calculated with reference to a base period and a base index value. An Index is used to give information about the price movements of products in the financial, commodities or any other markets

Sector-based index are designed to provide a single value for the aggregate performance of a number of companies representing a group of related industries or within a sector of the economy.

Figure : 1 Histogram and Stats



(Source: Authors' Calculation)

As per histogram and descriptive statistics of CNX Nifty, in the year 2018 mean remains just 0.019 whereas standards deviation was around 0.8097. data is negatively skewed and Jarque Bera concludes that data is not normal. Histogram of other indices are shown in annexure.

Table1: Descriptive statistic of Sectoral indices

	Auto	BANK	FINANCIAL_SER	FMCG	IT	MEDIA	METAL	PHARMA	PRIVATE_SECTOR_BANK	PSU	REALTY
Mean	-0.097598	0.032902	0.050517	0.059897	0.096872	-0.116141	-0.082053	-0.026554	0.039956	-0.052266	-0.150033
Median	-0.061391	0.054934	0.085611	0.018890	0.138129	-0.070586	-0.094977	-0.216105	0.061186	-0.194399	-0.049461
Maximum	4.152390	3.237367	3.438450	2.844018	4.798300	5.499614	4.523397	5.214424	3.349305	7.989195	4.361440
Minimum	-3.904914	-2.827076	-3.437876	-2.942398	-3.162292	-3.984900	-5.023571	-4.120471	-3.454412	-5.435032	-6.171395
Std. Dev.	1.135399	0.965728	1.021850	0.955736	1.220850	1.269498	1.576116	1.362295	1.003876	2.034455	1.645138
Skewness	0.013147	0.060441	-0.092742	-0.046283	0.130894	0.064788	-0.066164	0.393669	-0.028269	0.371752	-0.242648
Kurtosis	4.804039	3.372688	3.768510	3.642892	4.245100	4.313905	3.333769	3.838448	3.696520	3.818900	3.708800
Jarque-Bera	33.09503	1.560676	6.354285	4.289105	16.45787	17.72188	1.310610	13.44944	4.964752	12.43784	7.502081
Probability	0.000000	0.458251	0.041705	0.117120	0.000267	0.000142	0.519284	0.001201	0.083545	0.001991	0.023493
Sum	4.79	8.028006	12.32608	14.61498	23.63686	-28.33834	-20.02101	-6.479136	9.749338	-12.75291	-36.60816
Sum Sq.Dev.	159.99	226.6292	253.7351	221.9636	362.1853	391.6247	603.6468	450.9709	244.8874	1005.779	657.6742
Observations	244	244	244	244	244	244	244	244	244	244	244

(Source: Authors' Calculation)

The descriptive statistics which explains that the distribution is either rightly skewed or skewed towards its left and almost all the indices are leptokurtic and are not normal. The CNX IT index has mean value of 0.0968 & CNX Nifty index has mean value of 0.019. It shows there is no more difference in the mean values of these indices. The CNX Bank index has Standard deviation of 0.96 & CNX FMCG index has Standard deviation of 0.95 which is lowest among all the indices But CNX Nifty has standard deviation of 0.80. There is highest standard deviation in PSU Bank.

Testing for Nonstationarity and Stationarity

To understand the econometric issues associated with unit root and stationarity tests, consider the stylized trend-cycle decomposition of a time series. An important practical issue for the implementation of the ADF test is the specification of the lag length. Augmented Dickey-Fuller Unit Root test was applied on all sectoral Indices to check stationarity of sample time series.

Annexure shows result of unit

root test for all the sample indices. None of the sample time series were stationary at level but almost all become stationary in first difference excluding CNX Auto. CNX Auto becomes Stationary at second difference.

Table 2: Result of Unit Root Test

Variables	t-statistics	P Value
Nifty	-15.06666	0.0000
AUTO	-9.56776	0.0000
BANK	-16.07780	0.0000
FINANCIAL_SER	-16.16789	0.0000
FMCG	-15.57737	0.0000
IT	-15.42353	0.0000
MEDIA	-13.98465	0.0000
METAL	-16.65748	0.0000
PHARMA	-14.26485	0.0000
PRIVATE_SECTOR_BANK	-16.40785	0.0000
PSU	16.10250	0.0000
REALTY	-13.91476	0.0000

(Source: Authors' Calculation)

Table 3: Correlation Matrix of Sectoral indices

	NIFTY	AUTO	BANK	FINANCIAL_SER	FMCG	IT	MEDIA	METAL	PHARMA	PRIVATE_SECTOR_BANK	PSU	REALTY
NIFTY	1.00	0.79	0.87	0.89	0.70	0.36	0.61	0.63	0.56	0.86	0.58	0.63
AUTO	0.79	1.00	0.67	0.68	0.58	0.12	0.57	0.58	0.49	0.66	0.48	0.66
BANK	0.87	0.67	1.00	0.95	0.55	0.11	0.54	0.53	0.45	0.98	0.69	0.59
FINANCIAL_SER	0.89	0.68	0.95	1.00	0.54	0.11	0.57	0.52	0.44	0.92	0.62	0.59
FMCG	0.70	0.58	0.55	0.54	1.00	0.21	0.41	0.40	0.37	0.54	0.35	0.45
IT	0.36	0.12	0.11	0.11	0.21	1.00	0.16	0.06	0.29	0.11	0.07	0.08
MEDIA	0.61	0.57	0.54	0.57	0.41	0.16	1.00	0.51	0.48	0.53	0.47	0.57
METAL	0.63	0.58	0.53	0.52	0.40	0.06	0.51	1.00	0.44	0.52	0.46	0.61
PHARMA	0.56	0.49	0.45	0.44	0.37	0.29	0.48	0.44	1.00	0.43	0.46	0.48
PRIVATE_SECTOR_BANK	0.86	0.66	0.98	0.92	0.54	0.11	0.53	0.52	0.43	1.00	0.58	0.58
PSU	0.58	0.48	0.69	0.62	0.35	0.07	0.47	0.46	0.46	0.58	1.00	0.52
REALTY	0.63	0.66	0.59	0.59	0.45	0.08	0.57	0.61	0.48	0.58	0.52	1.00

(Source: Authors' Calculation)

Table 3 shows correlation matrix of CNX Nifty and all sectoral indices. Almost all the sectoral indices have positive correlation with CNX Nifty. In selected sample time financial services have highest correlation with nifty. Further all indices related to bank, Financial Services, PSU and Privet sector banks are highly correlated. Reason for the same may be as CNX Nifty is having maximum composition

from Banking and Financial Services. From all the sectoral indices IT sector is least correlated with CNX nifty in the year 2018.

Granger Causality Test

Granger causality (G-causality) analysis provides a powerful method for achieving this, by identifying directed functional interactions from time-series data. G-causality implements a statistical, predictive notion of causality whereby causes precede, and help predict, their effects.

Granger Causality Test was implemented to check whether CNX Nifty Granger Cause any Sectoral Indices Time series. But result shows that there is no any causality relationship between selected variables.

Conclusion

The inter-relationship among sectoral index received a substantial attention in financial literature. This study is an attempt to provide an empirical analysis to the risk factors across the sectoral indices and CNX Nifty index. Along with this the global meltdown also had drastic effects on it in the aftermath years. The tightening of hands by the regulatory agencies and many scams and scandals also resulted in huge ups and downs.

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Financial Inclusion and Digital Finance

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Abstract

This research article is undertaken to contextualize and summarize the role of digital finance in financial inclusion. The underlying objective is to identify how digital finance can aid in efficient and accessible mobility of finances. Fintech has the potential to make a wide range of financial products available to the masses. However, Fintech at the same time should be looked at with some scepticism as we don't know how it will unfold in the times of financial downturn. Therefore light touch regulations are suggested for this sector. Further, an overview of opportunities and challenges associated with digital finance is provided and the issues highlighted in this study have wider implications for greater financial inclusion.

Keywords: Financial Inclusion, Digital Finance, Banking, Fintech

Introduction

The well-being of people is improved by the economic development in a country in which they are living. In order to fetch sustainable development, the progress of a country needs to be spread out uniformly to its entire people. Easy access for poor and marginalized people to quality finance could synergize growth and development in an economy. Inclusive financial system provides equal opportunity for accessing both the credit facilities and other financial services. Financial inclusion has become a paramount concern for many countries and international institutions like World Bank, International Monetary Fund and World Economic Forum. The digital revolution has transformed all sectors of the global economy, to which the banking sector is no exception. Taylor (2012) finds that microfinance has not been successful in eradicating the poverty as paradoxes and internal tension emerges within microfinance institutions so far as social and financial goals are concerned. However, technology has proved to be very helpful in developing nations across the globe by addressing various challenges imposed by financial institutions. The improvement in the accessibility of digital financial services around the globe can comfort poor people to move from traditional financial

transactions to digital financial transactions. Digital finance can provide affordable financial service to underprivileged people in developing countries on secured digital platforms. Fintech (Financial and Technological companies) can prove to be very useful by facilitating financial access to poor people by employing alternative credit assessment, thereby reducing transaction costs associated with availing credit. Thus, digital finance can bring more equality in poor nations by providing a viable alternative to the traditional mode of acquiring credit.

Objectives

The aim of the present study is to provide an in-depth understanding of digital finance, its contributions and strides in financial inclusion besides opportunities and challenges posed by fintech.

Financial Inclusion

Financial inclusion is the use of financial services through formal financial institutions. Beck et al.(2007) argued that financial inclusion results in better growth to the income of underprivileged people than growth in per capita GDP, thus reducing income inequality. Hannig and Jansen (2010) postulates that income inequality reduces as a result of increased financial inclusion. By expanding access to finance, the individuals from lower income group had a significant impact on their economic activity (Bruhn & Love, 2014). The literature reveals that noticeable impact of access to finance was found on people belonging to lower income groups. Further, the easy access to finance helped small and informal business organizations to run their business smoothly. Thus, it acts as a catalyst to cut-down the unemployment rate, promoting saving and investment culture among the people. Prasad (2010) argued that the overall employment gets affected adversely when the small-scale entrepreneurs employing labour intensive techniques are provided inadequate access to credit. Through Financial inclusion, individuals have the option to put their money in safe place to save for future (Han & Melecky, 2013). The authors further argue that financial inclusion can help to foster stability of

banking system as more funds are put in the saving accounts, which contribute to stable deposit base for banking institutions in times of trouble

As revealed by Hannigand Jansen (2010), there is a positive impact of the lower cost of credit on income, expenditure and health which results in pent-up demand for financial services from banking institutions. Ellis and Lemma (2010) found a strong link between access to financial institutions and investments. Lack of financial access to formal financial institutions makes the risk sharing and diversification difficult for households and entrepreneurs (Prasad, 2010).

Shift to digital finance

Lower telecommunication infrastructure has been found to be one of the reasons why some countries of the world have not developed (Norton, 1992). Advances in information technology have led all the old and new players in the banking industry of Europe to adopt internet-based distribution channels given its effectiveness (Barbesino et al., 2005). Research done by Scott et al. (2017) finds that adoption of information and communication technology (ICT) by banks operating in 29 countries of Europe and the United States bring about the substantial positive effect on long-term profitability. Norton (1992) found lowers transaction costs due to telecommunication helps in facilitating economic growth. Kpodar and Andrianaivo (2011) establish that financial inclusion is one of the channels through which economic growth is influenced by the diffusion of information and communication technology.

The use of digital platform based mobile money transfer initially used by urban and affluent people over the time has increased among poor and rural households (Jack & Suri, 2014). Moving from cash to digital payments, the outcome of social programs has improved through targeting recipients in a better manner (Manyika et al., 2016). The aim of the financial services which are rendered through the digital platform is to help in reducing poverty and to offer the benefits of financial inclusion to poor people in developing countries (United Nations, 2016). Digital finance can not only help to achieve greater financial inclusion but also can aid in creating jobs in developing countries since half of the population living in developing world possess mobile phones (World Bank, 2014).

Digital finance can be defined as any financial service which can be delivered through an electronic medium with the help of personal computers, mobile devices, cards etc. As per Gomber et al. (2017) digital finance includes all the financial products,

services and innovative ways of customer communication that are delivered through fintech providers and other financial institutions which operate through innovative ways. Fintech is defined as a technology which is used to deliver financial products and services through computer programs and algorithms. Further, the fintech provider is any individual or firm which provides financial products and services in an improved way by using technology platform. Though there is no consensus among researchers regarding the standard definition for digital finance. However, scholars agree upon the fact that digital finance constitutes all the products and services along with requisite infrastructure which enable firms and individuals for accessing credit, making payments and saving money without physically dealing with the provider of financial services (Ozili, 2018).

Jack and Suri (2014) found that mobile money in Kenya has improved the risk sharing and mitigation for poor households from exogenous shocks. Access to M-PESA (a mobile banking service for financing and transferring money) has improved per capita consumption and lifted 2% of households out of poverty in Kenya and also facilitated efficient allocation of labour by helping women to move out of agriculture and enter into business ventures (Suri & Jack, 2016). Now developing countries having proper technological infrastructure and mobile communication outreach to people can help to overcome the inefficiencies in financial system and cater to the needs of development by fintech (Arner et al., 2015). Nonetheless as per Haddad and Hornuf (2016) many fintech services cannot be availed by using simple mobile phones but requires smartphones for their operation. As per the authors in order to accomplish the goal of financial inclusion, the countries have to provide technological solutions which are economical.

With the use of technology, coupled with wide political support and improved understanding of the behaviour of borrowers, fintech firms can achieve better profits, human development and philanthropy at same time (Gabor & Brooks, 2017). The optimistic point about fintech start-ups is that government and regulatory bodies especially in developing countries have been conducive rather than obstructive. Such support will help countries to foster speedy growth in financial inclusion.

Challenges and Opportunities

Rise in national income

Digital finance facilitates greater financial intermediation by making transactions easier compared to conventional modes of finance. Credit via digital platform is more accessible as there are

plenty of mobile money agents compared to bank branches, thus helps in reducing transaction cost (Jack & Suri, 2014). Ozili (2018) mentions that digital finance has the potential to boost the national income of the country as a wide range of financial products and services are accessible to individuals and small businesses in a convenient way thereby increasing the aggregate expenditure and thus increasing the gross domestic product (GDP) of a country. Ethiopia, India, and Nigeria which belong to lower-income group countries have the largest potential impact for GDP as they stand low in financial inclusion and digital payment (Manyika et al., 2016). However at the same time Haddad and Hornuf (2016) advocates it is worth to find empirically whether fintech firms are more efficient compared to existing financial institutions. Therefore, more research needs to be conducted in this regard.

Managing personal finance

Ozili (2018) counts better control on personal finances, faster payments and swift financial decision making as benefit obtainable to individuals by the use of digital finance. Getting the loan by a mere click on computer or mobile phone can however induce unnecessary loan availing by the impulsive borrower. Also, individuals having lower financial literacy can make themselves worse-off by taking loan since they may not understand the terms and conditions under which financial products operate. Lee and Shin (2018) claims robo-advisers provide personalized service at any point of time to large number of individuals at cheaper price, however it lacks human element which is considered to be of paramount importance in investment services. Therefore, fintech firms need to take calculated decisions regarding man and machine mix.

Trust

Trust along with other factors like distance from a financial institution, account maintenance charges, etc. impede the access to financial institutions (Demircuc-Kunt et al., 2015). Dupas et al. (2016) found withdrawal charges, unreliable services and trust in the banking institution as the main reasons that people don't save in bank account. Further as per the authors when mistrust is established then it remains for a long period of time. Francis et al. (2017) suggest that there is the possibility of trust in reputable telecommunication companies as their products are more frequently used by people as compared to financial institutions like banks and microcredit institutions. However, little is known about how much trust is put in by the people into fintech products and services. Fintech companies should design proper trust strategies for reinforcing the trust in

digital financial products. Greater confidence needs to be instilled by fintech providers among customers living in a country having conservative financial preferences.

Customization of financial products

By making credit-related information of unbanked from 'invisible' to 'visible', alternative ways of credit scoring can help in providing credit to unbanked, who otherwise would not have been given access to formal credit (Aitken, 2017). Fintech firms in order to customize financial products and optimize decisions regarding lending make use of algorithms, some of which have been tested from the perspective of internet-based advertising. Fintech firms have emerged in the financial system to complement the traditional banks and to compete with them in certain areas. Francis et al. (2017) suggests that procedures such as the use of algorithms could also be started by traditional banks for targeted customization. The authors propose that by the use of 'supervised learning algorithms', default risk can be predicted and further updated quickly to adapt for changing lending terms and reducing the risk. The digital financing firms have catered only short term needs of borrowers. Therefore, banks and financing firms can use dynamic incentives on digital credit loans so that the borrower becomes eligible for a bigger loan depending upon the performance of previous smaller loan. However it needs to be mentioned that there are very limited products offered by fintech providers having longer maturity, thereby they cast doubt whether financial inclusion is achieved in the real sense or not.

Lee and Shin (2018) ascertain that generation X and Y are much more tech-savvy, consequently fintech firms need to gear up to provide products which are personalised, convenient and have enhanced accessibility. Now as new variants of fintech are being led by start-ups, which makes it difficult for regulators to trade-off between product innovation and new risks emerging from products, lot of experimentation needs to be done to bring in place innovative approaches for their regulation (Arner et al., 2015). A solution to this is regulatory sandboxes, which allows fintech firms to test their business concepts without having to comply with some of the regulations (Bromberg et al., 2017). According to authors by establishing sandboxes, fintech firms get some relief from regulatory requirements and exemption from licensing while conducting business and innovating services within certain threshold limits for certain period of time to safeguard the interests of consumers and stability of financial system. Once the testing phase is over firms are required to comply with financial regulations completely. The ways in which regulatory sandboxes are designed have direct bearing on how fintech firms come up

with innovative and economical products. The challenge lies with the regulators to trade-off between innovation and regulation through regulatory sandboxes.

Regulatory aspect

There seem to be evolving changes in approach from know your customer (KYC) to know your data in regulation which is beneficial to both fintech firms and regulators as it helps in reducing cost within regulatory framework (Arner et al., 2016). Digital finance has the advantage to reduce fake currency in the circulation given its full-scale adoption by financial regulatory authorities (Ozili, 2018). Doing so would tantamount to applying banking regulation to fintech providers, thereby curbing their growth. Though the market size of fintech segment is small, segments like payment service, marketplace lending and online factoring may soon grow in size and become systemically important (Haddad & Hornuf, 2016). However leaving fintech to work freely would mean rise of shadow banking. It is largely assumed "too big to fail" financial institutions like banks are main cause of systemic risk in financial system, however Magnuson (2018) argues that this assumption has kept the extent to which smaller firms too can destabilize the system out of sight. Compared to big players in the industry smaller financial institutions have greater incentive to engage in risky behaviour, thus posing challenges in following manner:

- First, systemic risk proliferates in situations where firms are susceptible to rapid and adverse shocks. As fintech firms are small, less staffed and usually focus on a single type of financial service, hence without diversification and big size. They therefore are much more vulnerable to shocks compared to their traditional counterparts. Further mushrooming of trifling finance firms are more prone to external shocks compared to traditional players in the financial market as individual fintech firms are fragile, susceptible to information asymmetry in the market which is overall large.
- Second the working procedure of fintech firms is considerably not so obvious compared to traditional financial institutions. Aspects such as hacking of information system and decision making using computer algorithm can amplify the financial shock as these issues have not yet been tested in financial crisis, therefore, rendering it difficult for regulators to monitor their behaviour effectively.
- Third, as fintech firms are usually disaggregated and smaller in size, they are not much constrained by reputational risk compared to banks. Moreover fintech firms are subject to

fewer disclosures compared to other financial institutions, less is known about such entities, thus increasing information asymmetry, hence pose worrisome concerns.

The dynamic nature of financial markets poses a considerable challenge for regulation, given the increased pace with which fintech evolves, "RegTech" (combination of regulation and technology) is needed to aid in regulation by better monitoring and compliance with the help of technology (Arner et al., 2016). Since the regulatory mechanism in fintech industry lags behind innovation in the sector, the fintech firms need to anticipate and prepare for the likely changes that may impact the sector (Lee & Shin, 2018). Research by Haddad and Hornuf (2016) found that countries which are well developed and have accessible venture capital experience increase in number of fintech Start-up, also higher the inaccessibility of loans to companies higher the number of fintech start-ups. They found accessible labour force, subscription to mobile telecommunication and secure internet servers have positive impact of fintech development. Therefore, it is essential for developed and developing nations to provide sustainable technology along with secure and supportive infrastructure in order to digitize financial services.

Conclusion

The main objective of this study was to identify how digital finance can aid in making access to the finance possible in an efficient way. It discusses how financial inclusion can be achieved with the help of digital finance. Further, the use of alternative mechanism employed by fintech firms for providing credit to the poor was also highlighted. The challenges posed by digital finance were also highlighted. It is concluded that digital finance will have a large impact on financial inclusion. Least developed nations will be benefited more as more people would have access to formal financial institutions. Taylor (2012) suggests there is a need to infuse more funds into rural areas to improve the livelihood of poor and that can be attained once there is a policy shift which aims to appreciate the part played by marginal producers in the economy. As there is significant demand for basic financial services from the underprivileged segment of society, the financial institutions should find it profitable to cater to their needs. Financial inclusion should be seen as a business opportunity as well as a social responsibility (Dev, 2006). Apart from viewing financial inclusion as social priority, the private banking institutions shall be provided with proper incentives to take up the task of financial inclusion (Singh, 2010). There is a significant opportunity for governments across the globe to facilitate fintech start-ups so that more people have

access to finance digitally. Further, Ozili (2018) maintains that although the volume of financial transactions is increased by fintech firms in the times of prosperity, thereby helping an economy to grow, however, very little is known as to how the activities by fintech providers can aggravate financial crisis during the economic downturn.

In order to completely understand the dynamics in fintech, the fintech ecosystem needs to be analysed completely. Fintech start-ups, technology developers, incumbent financial institutions, financial customers and government are five components of fintech ecosystem (Lee & Shin, 2018). The regulations in fintech needs to be framed in an evolving setup, the block chain technology and emerging economies challenges the existing regulatory infrastructure, therefore the issues needs to be looked at afresh and with different perspective (Arner et al., 2016). Therefore, in order to ensure transparent growth in the sector, proper policies and governance needs to be matched with speedy innovation in the sector taking into consideration all the elements in fintech ecosystem.

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Retail Supply Chain Performance Expectation : A Model Construct of B2B Customers of HUL-FMCG

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Abstract

Background: The retailer with a strong retail brand and sufficient critical mass in the market place may reach a pivotal point in the development of the supply chain network. The idea to analyze the factors influencing overall satisfaction of retailer as an intermediary in the supply chain network, the research study aims at identifying factors influencing overall satisfaction of retailer as an intermediary in the SCM and constructs the model on the same.

Methodology : The research implicates the analysis of literature as secondary data on HUL's FMCG industry and primary data from the retailers of the same. To study the proposed model CFA and SEM was analyzed using IBM AMOS 22 software, statistical tests are done using IBM SPSS Statistics Version 23 software.

Findings

- Transportation services are the essential trait for satisfaction of retailers as intermediary in the supply chain network (H1 accepted).
- Although the association of good reverses logistics with the satisfaction of retailer could be established but in the research statistical values are rejecting H3.

Research implications : The study emphasized on exploring the supplier retailer relationship with reference to satisfaction as one of the major component by intermediaries after appraising the reviews which can be positively used to give a transformational approach to this relationship.

Key Words : Network Design, Transportation, Inventory, Reverse Logistics, Retailer's Satisfaction.

Introduction

Supply chain model consists of majorly two channels namely active channel & passive channel wherein the wholesale channel is called passive channel and the retail channel is the active channel. Supply chain network when talk about is a vast stream to be studied. Retail supply channel is termed as an active channel since it is in direct contact with the consumer and responds to

their buying behaviour. Retail supply chain is a topic on fire when talked about India's upcoming supply chain industry. Basically it comprises of elements like transportation, inventory holds, reverse logistics and various required marketing tools in the retail supply chain.

Considering the competition in the Indian market a study emphasising the importance of enhancing the retail supply chain experience with innovation in its marketing strategies and process is found to be direly required.

With the same idea in the mind Hindustan Unilever Limited a Legendary Company drew researcher's attention with their unique formula for sustainable competition, coming from the ability of keeping their costs down. Hindustan Unilever Limited is India's largest Fast Moving Consumer Goods Company, touching two out of three Indians with their large brand portfolio. To maintain their market leadership, HUL pursues innovative distribution mechanisms to reach the millions of potential consumers. HUL realized from the onset that its sales and distribution network gave it an edge over the competition.

Study analyzes on the way HUL operates its Supply Chain Management (SCM) of FMCG and tries to build on it, the systems, processes, functioning and ground level operations of the company. The market feedback and best ground level practices have been collected from retailers in Amravati city in Maharashtra State by the market survey technique.

Researcher considered the following Supply Chain Management (SCM) practices to analyze on the industry's best practices viz:

- Servicing Norms
- Credit terms
- S & D infrastructure, Delivery infrastructure
- DS performance measurement & incentivization
- Marketing Tool

These practices can be further more focused in terms of retailer's satisfaction in transportation process, inventory management issues, reverse logistics issues and required marketing efforts on

the same front so as to expect an efficient retail supply chain network design.

Retailer (Intermediary): A key to supply chain network

Supply chain is formed as an outcome of series of relationships among multiple firms. The performance of a supply chain depends largely on efficient coordination of the activities of the chain members or partners. In SCM, distribution and management of the relationships in a distribution chain are critical issues. Coordination is needed to guarantee both the timely flow of information and of materials. The purpose of supply chain management is to efficiently connect the parties in a value chain in order to minimize costs, enhance customer service capabilities, augment the organization's knowledge base, maximize efficiency, and develop barriers to competitors. The retailer's role in such a scenario bridges the gap between the needs of the customer and its articulation. Supply chain management is very important for the retail market as it provides its services directly to the clients. Retail business can enhance service and boost supply chain speed by improving upstream and downstream processes. Therefore an effective supply chain provides competitive advantage for all retailers.

So as to analyze the retailer's satisfaction as very important part of the whole process, the retailers of HUL were interviewed through structured questionnaires to know their satisfaction and the expected modifications.

Factors influencing satisfaction of retailers in the SCM

Awareness for the market

The buyer's in supply chain are not spending their own money and their motivation arises from creating value to their employing company rather than themselves (Hill & Alexander 2006, pp. 55-56). However, the demand the retail buyer ultimately aims to answer, originates from the needs of final consumer – hence it is also important to be aware of what is happening in the market.

Transparency of information

In B2B there is often a need for the companies to educate the customers more than in B2C. Differences between B2B and B2C market can lead to the conclusion that keeping existing customers happy and developing the relationships within the accounts to gain more sales plays an extremely important role in B2B sales.

Satisfaction indicators

The retailer's satisfaction can be expressed on various attributes such as;

- Information satisfaction
- Performance satisfaction
- Personal satisfaction

Information satisfaction expresses how satisfied the buyer is with the information available during pre-purchase and post purchase stages. Performance satisfaction tells how the performance expectations are met on an overall level. Personal satisfaction is related to the satisfaction to the relationship on a subjective level. Customer experiences are typically considered to relate mainly to B2C market environment but there are ways to enhance customer experiences also in B2B context. As B2B relationships are more complex, developing customer experience processes and strategies might be more complicated than in B2C setting but still worth investing in as it may give the company competitive advantage, lead to higher customer satisfaction, reduce cost to serve and increase revenue.

These days the retailer's demand better service from suppliers for example in terms of delivery time and reliability. Companies have pressure to keep their own inventory levels low which means there is more demand towards well-functioning supply chain. Out-of-stock situations can drive the customers to change a store and therefore it is important for retailers to have the products on shelf at right time. Retailers evaluate suppliers by delivery accuracy in terms of quantities and timetable, how the shipping is packed, how reorders are handled, what are the return policies, etc. Logistics links strongly to other parts of marketing mix that can have an effect to the retailer satisfaction.

An overview of HUL's policies on SCM

The marketing mix elements play a role in the retailer decision making process also and therefore effect the customer (intermediaries) satisfaction (Schellhase, Hardock & Ohlwein 1999). (Chai 2009) An important part of the mix in retailing environment is Place which in this context refers to logistics and supply chain.

Distribution function

Hindustan Unilever's distribution network is recognized as one of its key strengths. Its focus is not only to enable easy access to their brands, but also to touch consumers with a three-way convergence of Product availability, Brand communication, and higher levels of brand experience.

HUL's products, manufactured across the country, are distributed through a network of about 7,000 redistribution stockiest covering about one million retail outlets. Hindustan

Unilever services each with a tailor-made mix of services. The emphasis is equally on using stores for direct contact with consumers, as much as is possible through in-store facilitators.

Self-service stores and supermarkets are fast emerging in metros and large towns. To service modern retailing outlets in the metros, HUL has set up a full-scale sales organization, exclusively for this channel. The business system delivers excellent customer service, while driving growth for the company and the store.

3PL's

HUL manages the entire back-end chain of its distributors and has tied up with a third-party logistics service provider for the same. The initiative helps distributors in managing stocks and supply chain. Hindustan Unilever executive director (Sales & Customer Development) Sanjiv Kakkar told in "Economics Daily" that the outsourced function is "a crucial element in the company's distribution chain". "Giving importance to this idea will help the distributor and our teams to focus on customers."

At present, a lot of distributors get constrained by factors like concentrating on the back-end in areas like finance, logistics and space management. The task is to create a distributor organization that is customer facing rather than inward looking. HUL is encouraging its distributors to become entrepreneurs and run the business as a professional distribution house and take on the onus to deliver growth.

HUL offers a wide range of products. Quality clubbed with reasonable pricing and quick delivery made the product of the company stand apart. The marketing campaign focuses on these aspects and is made according to its line. The company sticks to a norm while giving discounts on repeat purchase. This will certainly help in sales promotion in order to create repeat purchase. In order to have a rapid market access, the company includes dealers, if not retailers at the moment. The company introduced some reward schemes so that a person is benefited after the fulfillment and over achievement of the target. Other than emphasis on design, craftsmanship and product quality, the company's unique strength lies in its capability as a fully – Integrated Supply Chain Network.

Literature Review

S.K.Paik, P.K. Bagchi (2007) stated that, to have a successful supply chain management necessitates planning, managing and controlling all the aspects of the four flows through the coordination of the key processes from raw materials producers to manufacturers, wholesalers, retailers and finally offering value

to the ultimate consumers. Retailer plays a very important role working as the intermediary between the consumer and the supplier.

Leigh Sparks wrote: "Retailers are the channel captains and set the pace in logistics" (1998). Retailers have a large role in promoting sustainable consumption and production, occupying a unique position in the lifecycle chain of products as a 'gatekeeper' between producers and consumers. Retailers thus have a direct interest in the logistics systems of their suppliers. If a retailer can integrate its logistics system with that of its suppliers, then a number of problems can be minimized.

As stated by Christopher 1998, retailers have begun to embrace this logistics approach and examine their supply chains; many have realized that to carry out logistics properly, there has to be a transformation of approach and operations. And this transformation approach can be very well be dealt by the retailers

The standard approach to doing business in many industries has been through trade promotions in the form of temporary price discount. Patricia et al (2002) also observed that, critics of trade promotion have raised several concerns that, trade promotions bring about great distortions to information flow within the supply chain which subsequently brings about bullwhip effect which ought to be avoided. Bullwhip effect which is apparently demand order inconsistencies are augmented as you move up the supply chain. There is a dire need to study the linkage of trade promotion in the supply chain so as to reduce this bullwhip effect.

Amit et al (2000) also pointed out that, advertising adds value to the brand whereas trade promotions bring about some amount of impacts or benefits to the trade, only, and only if, retailers share these benefits with their customers as "customer-pass-through where customers are induced with the price reduction to sample the product or forward buy in the case of well-known product to save cost. Thus, if any company wants to benefit, the consumer efforts are required to think about the benefits of the retailers too.

Interestingly, in most cases, it is observed that there are inventories boom, fewer sales and persistence stock-out occurring at the retailers end as a result of the retailers being persuaded or are influenced to make the decisions for lots size buying with just some few promotional funds. In spite of all these problems every day pricing has not come that far to replace promotional buying and that retailers have however constantly patronized this service anytime they are made available to them J. D. Patricia, J. J. Kasulis, and R. G. Richey (2002)

Manufacturers have to work harder to get their promotional offers

accepted by retailers instead of the competitor's promotions. Davies M (1992) argued that, retailers satisfaction do not just offer only a tactical potential but can also be adapted strategically to build and sustain competitive lead. Patricia et al (2002) also argued in the same direction by pointing out to the fact that, a strategic alternative is required to avoid a position in which persistently growing supply chain network is expected to reach.

New management tools are fostering the integration of companies in supply chains to create emergency response capabilities to be more efficient, yet some more important issues ought to be resolved to achieve such an efficient operation of Supply Chains C.F.Bolarín, G.A.Frutos, A.Lisec (2010).

Retailing has emerged as an important area of study in developing country like India owing to the recent 'boom in consumption' in retail markets (Kashyap, 2012) as well as an important means of income and survival (Hammond et al., 2007; Reardon et al., 1998). The study of retailers' buying behavior has generally been neglected in the larger context (Runyan and Droge, 2008). FMCG companies, in India, must also take cognizance to the buying behavior of retailers since they serve as channels for accessing the supply chain market (Aithal, 2012; Balakrishnan, 1978). The "motivation and attitude" of retailers determine the success of the complete retail supply chain (Agadi and Paramashivaiah, 1995). Considering importance to transparency of information with the retailer it is important for the manufacturer to think about the all-round satisfaction of the retailer like Information satisfaction, Performance satisfaction, Personal satisfaction.

Alur and Schoormans (2013) suggested that considering endogenous and exogenous factors which influenced retailers' purchase decisions would make the retail supply chain decisions successful. Existing studies on retail supply chain have substantiated some basic hypotheses, but have not conceptualized their findings in the form of any framework that may result in the construction of a model. To date, no SEM model has been developed of supply chain information integration. Most of the models show antecedent or causal relationships but not a larger structural relationship between the antecedents leading to a successful supply chain network design viz. Transportation, Inventory, Reverse Logistics and Marketing Tools. The proposed structural model is shown in Figure 3 is an effort to show the successful validation of these antecedents with supply chain network design leading to retailer's overall satisfaction.

Keerthana Raj and Sreeramana Aithal (2018) the strategies adopted by HUL leaves no stone unturned in cashing in on the

tiniest niche markets available. Reaching the four billion populations in the base of the pyramid markets has been a topic of research in recent times. HUL has one of the widest and most efficient distribution networks for consumer products. And this has been its biggest strength; this logistics has been retired by other consumer goods companies also. HUL's products are distributed through a network of redistribution stockiest (RS) who sold to shops and sellers.

Such studies on HUL's supply chain efficacy motivated the researcher to consider it as a case in the proposed model.

Conceptual background of the proposed research framework

Study has proposed a theoretical framework to understand the effectiveness of antecedents of overall satisfaction of intermediaries in turn creation of demand.

Model constructs on linkages of two variables i.e. Network design elements and Marketing Tools are shown directly towards overall satisfaction. Elaboration on such direct effect was lacking in existing researches. Also existing literature has not discussed about its' interlinking in case of purchases made by retailers. Key elements to be analyzed in supply chain include;

Transportation Network to be analyzed in terms of accuracy, timeliness and content. Inventory Management is analyzed in terms of trustworthiness and believable by the recipients of the goods and able to avoid bottlenecks. Reverse Logistics processes to be followed analyzed from view point of shopkeeper's by researchers as done in a lot many studies. Network Design integration strength and linkages of transportation, inventory management and reverse logistics. Marketing Tools in what way retailers decide how effective to accomplish their needs is, through all its kind. Retailer's Satisfaction and its lead to the decision making process and willingness to act towards an object are considered. Lastly to construct model showing strength of antecedents to the overall satisfaction of retailers. Hence problem for the research considering aforesaid mentioned elements defined in;

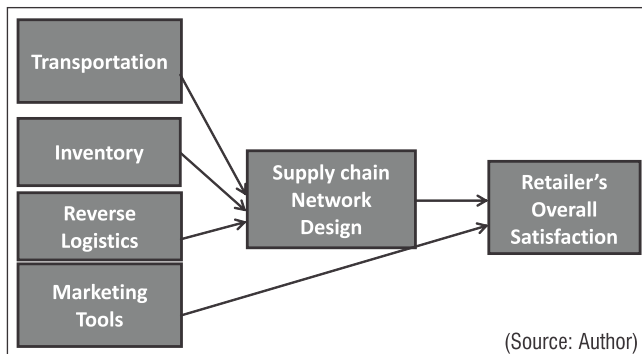
Problem definition: It is essential to know your customers, what they appreciate and how satisfied they are to serve them better. Customer satisfaction is a key element for successful business. For a supplier to get the products to store shelves, they need to know their retailers. It is important to understand how trade customers operate and on what basis they make their decisions. (Ed. Nieminen 2007). While customer satisfaction is quite well-studied subject among consumers, there is not as much literature and research available considering satisfaction in business-to-

business (B2B) context.

This study focuses on a specific industry and provides information on supplier-retailer relationships and factors affecting to retailer's satisfaction on SCM focused on HUL- FMCG industry.

Research frame

Figure 1: Proposed research framework



As depicted in Figure 1 the research framework aims to analyze the linkages of retailers overall satisfaction to the various functions viz. transportation, inventory, reverse logistics and marketing tools on the supply chain network. Where in marketing tools are showing the maximum impact. HUL retailers were interviewed on their experiences with the supply chain and satisfaction associated with it. The questionnaire being the source of primary data were further analyzed by using statistical tools to get the results.

The secondary data being used from the literature available in the research sources by the prominent researchers; is discussed further in the literature review.

Research objectives

Major objectives : The researches aims at identifying factors influencing overall satisfaction of retailer as an intermediary in the supply chain network and construct the model on the same

Minor objectives:

- 1 To study company policy on network elements i.e. transportation, inventory, and reverse logistics, and its connection with retailer's satisfaction.
- 2 To study Impact of Marketing Promotional activities on retailer's satisfaction.
- 3 To understand strength of relationship exogenous and endogenous factors of the model.
- 4 To construct model for retailer's overall satisfaction about SCM.

Research hypothesis

H1-Ingenious Transportation function positively affects network design.

H2-Clever Inventory function positively affects network design.

H3-Well-designed Reverse Logistics function positively affects network design.

H4-Good Network Design builds up positively affects overall satisfaction of Retailers.

H5-Perceptive Marketing tools positively affects overall satisfaction of Retailers.

Research design : The research implicates the analysis of literature as secondary data on HUL's FMCG industry and primary data from the retailers of the same. To execute the objectives of the research Descriptive Research Design is applied.

Primary data collection plan

The sampling is done by working on outlets of HUL's- FMCG category handlers in Amravati in Maharashtra State. This research tries to describe the opinion of the retailers on the S&D practices of the FMCG of HUL. Primary data collection is done with the help of non-probability Convenience Sampling technique.

Around 300 retailers were selected from Amravati city, and were approached for data collection. Some 235 respondents agreed to fill up questionnaire. Out of 235 responses 150 completely filled responses were used for further analysis.

Instrument and measures

Standardized scales are taken by referring to the relevant literature. Multi – item scales are used for measuring the constructs, collecting responses from the participants measured on a four-point Likert scale. The four point scale is anchored from 1 = “Negative Response” to 4 = “Positive Response”. Overall Satisfaction, Network Design, Supporting marketing Tools, Transportation, Reverse Logistics, Inventory functions all are measured by three items, adopted from the pertinent literature.

Data analysis

To study the proposed model CFA (Confirmatory factor analysis) and SEM (Structural Equation Model) was analyzed using **IBM AMOS 22 software**. Measurement model's various statistical tests are done using **IBM SPSS Statistics Version 23 software**.

Construct reliability and validity

Reliability can be defined as a measure of internal consistency of the scale. Therefore in order to gauge the internal consistency the

values of Cronbach alpha and composite reliability are considered. Table -1 show that all the values exceed the recommended level of 0.70 for all the constructs (Hair, et al., 2013 and Garver and Mentzer's, 1999). It is of utmost important to assess the validity of all the constructs for the particular scale.

Table 1: Internal consistency the values of Cronbach α

Sr. No.	Construct	Items	Particulars	Cronbach α
1	Network Design	Question 2	Overall Rating	0.759
2		Question 11	Sale's Man Support	
3		Question 17	Total Quality Management	
4	Overall Satisfaction	Question 6	Overall Rating (SCM Of Company)	0.832
5		Question 12	Loyalty Programme	
6		Question 21	Overall Satisfaction	
7	Transportation	Question 1	Responsiveness	0.702
8		Question 10	Overall Rating	
9		Question 15	Accurate And Timely Delivery	
10	Inventory	Question 8	Building Inventories	0.735
11		Question 13	Store Updates	
12		Question 22	Limited Shelf Space	
13	Reverse Logistics	Question 4	Replacement Policy	0.735
14		Question 7	Rating	
15		Question 9	Documentation	
16	Marketing Tools	Question 5	Credit Terms	0.787
17		Question 18	Schemes	
18		Question 20	Profit Margin	

(Source: Primary data, SPSS)

Measurement model results

To study the proposed model CFA (Confirmatory factor analysis) was done using AMOS 22. Measurement model indicates GFI to be 0.916, CFI is 0.995 and TLI value is 0.993, all the values are acceptable (Hair et al., 2013). RMSEA indicates the badness of fit, the value of RMSEA is .021. It is well within the limits of

acceptable value for RMSEA i.e. .03 to .08. P Close is 0.967 (Hair et al., 2013). This indicates that the model is a good fit.

(Annexure-FIG: 2 Confirmatory Factor Analysis Model of Retailer's Satisfaction in Supply Chain Network)

Structural model results

After the successful validation of measurement model, researchers have evaluated the structural model to test the entire five hypotheses. The model fit indices were found in recommended levels i.e. Chi-square was 129 with 119 degrees of freedom, and normed chi-square was 1.085, GFI is 0.914, CFI is 0.993, TLI is 0.991 and RMSEA is 0.024 and P Close is 0.961. These values show an acceptable structural model. (Annexure-FIG- 3: Structural Equation Model of Retailer's Satisfaction in Supply Chain Network)

Hypothesis testing

Table 2: Path estimates

Path			Estimate	p. value	Remarks
Network	<---	Transportation	1.10	.005	Supported
Network	<---	Inventory	-0.344	.221	Not Supported
Network	<---	RevLog (Reverse Logistics)	0.160	.504	Not Supported
Satisf-action	<---	Network	0.183	.439	Not Supported
Satisf-action	<---	MarTools (Marketing Tools)	1.466	***	Supported

Table 2 reports the standardized β coefficients and significance values for all the constructs. Values indicate that only two hypotheses are supported. Transportation function has significant impact on Network Design (p value < 0.05) hence it supports H1, Inventory function has negative impact on Network Design (p value > 0.05) therefore H2 is not supported, Reverse Logistics also has no significant impact on Network Design (p value > 0.05) hence H3 is not supported. Network Design in turn has not a significant impact on overall satisfaction about SCM (p value > 0.05) this indicates H4 is not supported and Marketing tools has a significant impact on overall satisfaction about SCM (p value almost < 0.05) hence H5 is also supported to a great extent.

Findings

- Transportation services are the essential trait for satisfaction of retailers as intermediary in the supply chain network. Practices of effective, timely, accurate, and efficient logistics management

can be a real point of competitive differentiation also supported by H1 hypothesis (table-2).

- It has also been observed that, up-to-date inventory information is important for retailers. Bringing successful novelties to the market ensures fast turnaround of stock as part of the product management. However limited shelf space adds burden to retailers. Policy on product assortment stress inventory and unnecessary block of capital in dead stock. It affected network design negatively to be hence not affecting the overall satisfaction of the retailer. Hence rejecting our H2 hypothesis (table-2).
- The mission of a supply chain doesn't end when the product reaches the end customer. There are many reasons customer returns the product. At such situations it should be easy for a retailer supported with an effective reverse logistics to check the volume of returns, condition of returned products, percent of sale, etc. Although the associations of good reverse logistics with the satisfaction of retailer could be established but in the research statistical values are rejecting H3 hypothesis (table-2).
- Network Design integrated approach to SCM demands that suppliers need to be familiar with their customer retailer's concepts and their priorities. Gap between the needs of the customer and its articulation is the key. Even though importance is given to the supplier-retailer information transparency since it leads to clarity in the deals but it cannot be considered to be affecting the overall satisfaction of the retailer. As inventory and reverse logistics function and not showing that strength in relationship in proposed model. Hence rejecting our H4 hypothesis (table-2).
- Marketing tools like quality services, transparency in information and other trade promotional activities which can affect the retailer satisfaction. Factors that retailers can use to calculate supplier effectiveness quantitatively includes: net value of merchandise, mark-ups, markdowns, cash discounts and transportation expenses were found to be important and can be considered as factors leading to retailer's satisfaction. Accepting our H5 hypothesis (table-2).

Discussion and implication

The study investigated the effect of different antecedents of attitudinal behavior of retailer about; Network Design, Transportation, Inventory, Reverse Logistics and Marketing tools on Satisfaction on SCM. The study emphasized on exploring this relationship with reference to satisfaction as one of the major component after appraising reviews. The framework proposed in

the study has been empirically tested to fill the existing void in the literature. Previous studies have already supported the relationship between antecedents and network design and subsequently between network design and marketing tools with overall satisfaction. The results of the study thus fall in accordance with the same only for H1 and H5.

So, we hypothesized the relationship between Marketing Tools and Transportation with overall satisfaction on SCM in turn demand creation and proved this association to be significant via H1 and H5 i.e. network design elements and marketing tools can be emphasized to attain overall retailer satisfaction. The study adopted the empirical testing of the relationship between antecedents and satisfaction, which comes out to be significant for H5 and is backed by the existing theory too.

Conclusion

Referring to the output of the study it can be stated that company can work upon to establish the relationship between Antecedents characteristics and overall satisfaction. The study emphasizes on the fact that a successful creation of satisfaction effects purchase behavior of the retailers. On the basis of the same, the study suggests that marketers should understand the relevance of retailer's reviews and should try to showcase relevant customer testimonials for customer - retailer intermediary's encouragement. The study also stresses upon the need to maintain more transparency of information of the products to the retailers.

In B2B trade distribution network affects sales hence a time to time identification of the gaps is required to fill up those gaps. HUL is a leading brand and so as to maintain the lead improved practices need to be framed to assure retailers satisfaction. Companies should focus and enhance the credit terms so that retailers will motivate and will buy more products from distributors. As retailer acts as an important intermediary in the supply chain network companies must concentrate on retailer's productivity, knowledge and capability so that they will reach to proper retail management in the supply chain. As in any relationship, also supplier-buyer relationships may have problem situations, such as default products that buyer wants to return. Dealing with problem situations can influence on customer satisfaction. There are different types of promotional elements retailers use to attract customers, manufacturer may participate to the costs of retailer advertising with marketing support. Depending on the retailer's business idea, using different types of point-of-sales material to increase sales provided by the supplier may be useful.

Suggestions for further studies

This study explored the sales and distribution functions done by HUL FMCG companies. Benchmarking can be applied to S & D of any FMCG goods to measure and evaluate performance of leading brand. A detail and comprehensive model depicting role of Retailer's in the supply chain network can be studied and develop further. This research out of five accepts two hypothesized relationships and concludes that the future researches can be conducted to investigate the underlying micro analysis of cause effect of rejected hypothesis

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Annexures

Figure 2: Confirmatory factor analysis model of retailer's satisfaction in supply chain network.

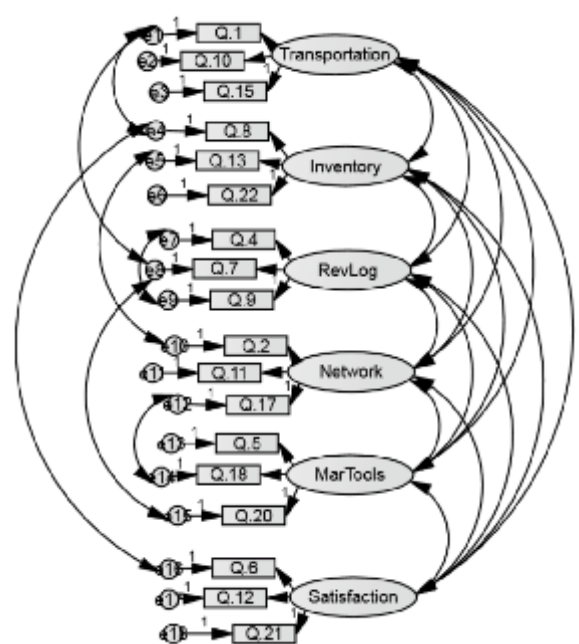
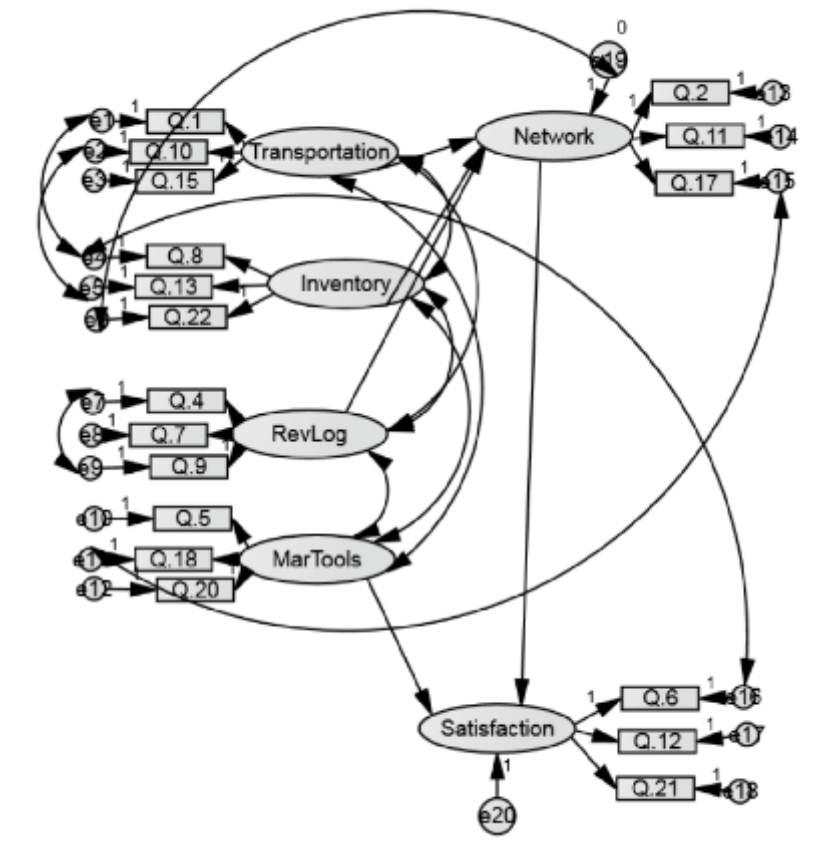


Figure 3: Structural equation model of retailer's satisfaction in supply chain network.





Quality Enhancement of State Private Universities Through NAAC Accreditation Process in Indian Context

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Introduction

As India is headed towards regional and global leadership, there is a renewed focus on our Higher Educational Institutions (HEI). Rightly, HEIs are seen as enablers of knowledge creation as India wants to stretch out its knowledge power, across its frontiers. However, HEIs cannot be seen in isolation. We need to look upon several dimensions of our society, as we attempt to energise our HEIs.

There is a popular law in Economics. i.e. Gresham's law. Bad money drives out good money from circulation. Bad money can be further explained as the money earned through unfair means, profit earned without revealing its tax liability, money that serves to enrich individuals at the cost of community and institutions, bad money that remains unaccounted but is powerful enough to challenge the good money of tax payers. If steps are not taken to control this 'bad money', that is capable of driving away good money, good investors will be discouraged from participating in economic growth. At a time, when black money and unaccounted wealth seemed to have overtaken the economy, measures like demonetization and GST have ensured that good money prevails as the economic driver.

Similarly, when too much of socialism demanded more and more of workers' rights and less and less of their accountability towards productivity, our Public Sector Undertaking companies, reached their nadir in productivity and to the present stage of disinvestment. Fortunately, our early initiatives towards liberalization, privatization and globalization infused private sector to come up in a big way, in manufacturing and service sector both included, and today what we witness is a vibrant Indian economy, portraying global benchmarks in performance.

The Indian Education System- The Genesis

In medical parlance, there are cancerous cells in human bodies; some of them are even beneficial for our detoxification. However, when some of the cancerous cells become uncontrollable and start to multiply repeatedly, they over-power the good cells, and lead us to the inevitable. A much delayed chemo-therapy

administered to kill the cancerous cells may lead to also killing the growing cells and the very patient himself, it aimed to cure. There is a need to isolate our cancerous cells, build our immune system, so that it counters the proliferation of cancer and keep it under check. The same is true of the society which should get rid of its bad influences and bad morals, so that goodness prevails as a practice rather than an exception.

Going by the same analogy, we need to understand Indian education system. India's Taksha-Shila and Nalanda were the world leaders in higher education, centuries back. We have it in our genes to pitch education to its highest glory. In the early years of independence, rightly Government took it upon itself to start premier educational institutions. In the fields of higher education, IITs, IIMs, NITs, Central Universities, State Government Universities were set up. These institutions have remained a benchmark for academic excellence. Over the period, the demand for higher education has outpaced the supply. More and more government educational institutions are being set up, emphasis being on the numbers and not the quality of academics. It is at this point, some of the private players stepped into higher education, with their redefined emphasis on quality, albeit at a very costly tuition fee. For the common man, there was never any reluctance to pay higher tuition fee, so long the education he received gave him the knowledge, gave him opportunities for job and for entrepreneurship.

Unfortunately, here too, the race was lost, because of decreased academic rigour and over-emphasis on numbers by all the Universities. Numbers initially served well, so long as the University degrees were mere eligibility qualifications for entry-level government jobs. But government jobs are becoming extinct gradually. With sapping revenue in the hands of government, the budgetary allocation for education, that too for higher education, dwindled drastically thus leaving the State Private Universities to set up their own standards, so that their students get an entry-level job and survive in the competitive job market.

An integrated education system should add value to all its stakeholders. It must enhance the knowledge, and move along a continuum from....Unknown Known To be known Futuristic. Knowledge creation is swifter and dynamic than changes in the physical world. Also, the knowledge should be updated to remain continuously relevant, for the 'point or period of time' it aims to serve. The curriculum, its delivery and research orientation are all aimed at this aspect of the knowledge. The teaching, learning and evaluation process relates to absorption as well as adaptation of knowledge. In so transferring the knowledge, the teacher is just in an enabling tool amidst the structural and learning resources available beyond the classrooms. Herein, owing to societal background and individual differentiation, the teachers are at different levels of competence. The students also have different levels of absorption. The teaching-learning process has to be customized and made student-specific. Too much of generalization, has withheld many potential students, from achieving their best. The burden of responsibility for bridging the gap between academics and industry expectations has slowly shifted to the students themselves. Teaching can no longer adopt 'take it – or leave it approach', wherein students simply compete for marks amidst uncertainty of their career and educational outcome. I can go on, saying these things, which are obvious, but what is the way out?. Is there a ray of hope, to make our higher educational institutions survive? For academic purpose, I will limit my discussions to 'State Private Universities' which form a major component of our higher education system in India.

Recently, the Regulatory bodies have become more flexible. Among other regulatory bodies, NAAC has emerged as a true enabler of academic excellence.

Scenario of NAAC Rating : As per UGC website, India has 50 Central universities; 409 State universities; 127 Deemed to be universities and 349 State private universities, thus a total of 935 Universities as on 01 Feb 2020. We also have approximately 40,000 affiliated colleges. Ignoring the manual process of NAAC rating prior to 2017, only 1451 Colleges and 72 Universities have gone for NAAC accreditation, as per the Revised Accreditation Framework (RAF) from 01 Jul 2017 to 25 Feb 2020.

State Private Universities : Many of these State Private Universities are capital intensive, land intensive, and infrastructure intensive. Most of them are located in remote districts, not easily accessible by public and private transportation. Yet they were started with a noble thought of

developing educational standards of hitherto 'unvisited remote corners' of the State. Today, rightly said, is not the time for 'Survival of the fittest',... it is neither the time for 'Survival of the fastest'...it is now time for 'Survival of the Survivors' in the Indian education system.

Those of us, who have survived this current educational standards, the promoters, the academic leadership, the teachers, students and every other employee related to academic institutions, must give ourselves a 'wake up call'. We cannot blame everything on the environment. We need to take responsibility for the present state of deterioration. Only, when we accept the responsibility, both individually and collectively, we tend to work towards eradicating our weaknesses. We need to introspect ourselves; hold open-forum in-house, conduct intra and inter institutional discussions, to know where we stand. Let not the competitive external environment tell us, where we stand. Knowing from them will be very painful. Let us decide for ourselves and take some self-regulating initiatives.

In Corporate world, the market forces ensure the quality and price for the products or services. Those who survive the competition, grow bigger and bigger and capture market share, while others just get thrown out of the market, or become extinct. In academic world, especially in Higher Educational Institutions, while those who offer quality education definitely survive and grow, those who are not competitive seem to exist as 'the living-dead'. Let us first revive these mediocre institutions rather than move them out of the environment. How do we revive them is a moot question. It can be done by creating compliance barriers in terms of minimum academic standards that their students must achieve in centrally administered (not internal) exams; their teachers must display academic excellence in some yearly exams or academic competitions or research endeavours; these institutions must show the increasing utilization of revenue earned towards growth of infrastructure and faculty development programmes for their teachers. Teachers must be pitched for providing more than just academic education e.g. health care, fitness-care, career counselling and placements, skill development, entrepreneurship, exposure to activities like yoga, naturopathy, gardening, farming, astrology, technical repairs, automobiles, driving, self-defence etc., the list is endless. Let not bad institutions, drive out some good institutions from existence. Let accreditation process support those who aspire to change to become good.

The way forward....

Before, I ask myself some of the questions, that will enable me to

introspect, let me share a problem that all of us in the State Private Universities are faced with. Most of our students, who join our undergraduate programmes, have mediocre academic performance in their schools. Most of these admissions are through non-counselling route. The only advantage that connects students to State Private Universities is their proximity to the rural set up and their affordable fees. Most of the village parents cannot afford hostel and boarding stay for their children (especially for their girl children), neither can they afford to send their bread-winning children to singularly pursue their academics. This explains lack of attendance, frequent drop-outs and resultant low performance in the final exams. These are issues that must attract the concern of regulatory bodies like, UGC, AICTE etc. It is in this context, NAAC has introduced voluntary accreditation process, for all the HEIs. Most of the government colleges, where flow of government fund is guaranteed, there is no threat to their survival, whether NAAC accredited or otherwise. Most of the Central Universities, IITs, IIMs, NITs, National Law Schools, IIITs, NISER, IISER etc., consider themselves superior to NAAC accreditation process. As pioneers of excellence, they must subject themselves to NAAC accreditation process. Even the new NITs, IITs and IIMs seem to be riding high on the brand name of their older version, without any accreditation. Those of us, who are alumni of IITs and NITs, know it well, that intake-merit of students is major compensating factor, towards some of the short-comings of even IITs and IIMs. I need not explain intake merit of students in terms of the rigour of JEE/NEET/GATE/CAT entrance exams/counselling route. It is the State Private Universities, which are put up with the residual merit of those students, who could not crack these examinations, for reasons beyond their control. In US, the State Municipality commission is one of the parties invited to quote their rates and quality, among many other competing tendering parties. By 2020, all government institutions, in receipt of government funds, must apply for NAAC and tell the environment, as to where they actually stand, in terms of NAAC rating.

I am surprised, lot of State Private Universities and affiliated colleges, although eligible to apply for NAAC accreditation, are reluctant to apply. The latent fear is, if NAAC ranking is low, it will drive in the death-nail upon their Institutions. Why expose oneself to NAAC, when it is non-compulsory. Some status quoists think that, it is better to go on without NAAC, till it becomes mandatory. NAAC is seen with more awe and fear than with confidence. Let me tell you, the NAAC you see today, is in its better form than it

was in its early days. In no other country, you have such a professional outfit that is created to nurture, and support your push towards excellence, as we have in NAAC. I am sharing this, after my interaction with several NAAC professionals, who command enviable professional standing and are of impeccable reputation. Today, I see the situation differently. After a brief introspection, every State Private University and affiliated college should go for NAAC accreditation. It helps them to evaluate their relative standing and launches them on a professional platform to compare and contrast, improve and invigorate, grow and gain stature, in the academic world. I feel, applying for NAAC accreditation should be mandatory, for all educational institutions, private or public, that have completed five years of existence.

A small check-list will enable us to decide, as to whether we should go for NAAC accreditation. Before we go for NAAC accreditation, we must ask ourselves some relevant questions on our preparedness. For the sake of convenience, I have sequenced them, as per the Criteria, enunciated by NAAC.

Curriculum Aspects

Is our programme, Course, Subject curriculum in sync with the current development, in their respective fields? How do we find out our gaps, so as to make them current and job oriented?

Did we add such current development, in our syllabus, question bank, examination and evaluation process?

In terms of CBCS, are we able to offer sufficient courses that enable reasonable choice to students?

Have we identified and imparted value added courses, (Generic for all students; Specific for a particular Programme?) that can improve the job opportunities of students?

Are our Internships jobs oriented? Are our field works likely to generate entrepreneurship or social focus among students?

The answer to these questions will show how our students are fairing in UGC NET exams, GATE, CAT, CLAT and other competitive/job oriented exams...as these exams are based on updated and revised syllabus.

Teaching and Learning

Are our teachers qualified, having academic excellence, teaching experience, paper publications, awards and recognition. Is our work environment, facilitating them to give continuity in their jobs?

Do we have diversity among students, in terms of geographic representations, gender, reservation categories, age profile,

disability etc?

How is the connect between teachers and students, in terms of teaching, learning, mentoring, enabling, special attention and counselling?

Research, Consultancy and Extension

Does the research policy of the institution, encourage teachers and students to take up path-breaking research, so as to benefit knowledge creation and usefulness for the society?

How do we justify the research activities in terms of number of Research scholars, qualified guides, topic-diversity, Projects execution, field-visits, collaborative activities, publications, seminars/conference participation?

Infrastructure and Learning Resources

Are our laboratories, libraries and computer centre adequate (both in size/numbers and quality) for administering our academic programme/courses, that will enhance the teaching learning outcome?

Student Support and Progression

Are we supporting our students, in terms of free ship, scholarship, Educational loans etc?

Are we facilitating special coaching classes for weak students: Competitive examination preparations, Skill development activities; Entrepreneurship development; Alternate career options; Counselling; Internship and placement activities; field/industrial visits; sports and cultural activities?

Are we involving all other stake-holders like parents, alumni, industry and society for students' upliftment?

Governance, Leadership and Management

Are our Vision, Mission and objective clearly aligned towards academic excellence?

Are we adopting ethical practices, in a transparent manner, to ensure compliance of all the regulatory guidelines?

Are we managing our institution in a professional manner, with clear delineation of responsibility and accountability?

Are we using technology, to manage all aspects of admission, examination and evaluation, to include all connected details regarding source and utilization of funds?

Are we carrying out Academic and Administrative Audit (AAA) of our Institution, to identify our gaps and make a roll-on plan for the future?

Innovations and Best Practices

Are some of our best practices relate to Energy saving, Sustainability, Social inclusiveness, Promotion of Universal Human Values and Social developmental programmes of the Government?

How do we demonstrate our Institute's value orientation and distinctiveness?

Stop Questioning - It is Time to Act

My purpose of forcing you to question yourself is for you to see the chinks in your own armour. But let not the answers to the question deter you, from taking the next step. We must ponder over our strength, weakness, opportunities and challenges, but never be inhibited by their uncertainty. Start taking baby steps towards self-evaluation. Start taking small strides towards quality, start marching towards robust practices. The fact that you are moving forward is more important than the momentum of that initial movement. With the passage of time, you will have taken a grand leap, towards academic and administrative excellence. Thereafter, NAAC is just a step away.

Reimagining Indian Universities and educational institutions

I call upon the Promoters of the University/affiliated colleges, to set clear Vision for their institutions, with suitable mandate to execute them. Unlike the industrial products that have a pre-defined gestation period and are in a position to break-even in shorter time-frame, educational investments take a long time, to become sustainable, much less profitable. It calls for a lot of statesmanship to ignore the initial short-term losses, for long term gains. In academic investments, ploughing back the profit is more of a norm than an exception. The growing brand value and reputation for the promoters is greatly rewarding. The emphasis should be on sustainability of the educational venture, across two to three generations of efforts. I strongly feel academic institutions should be run professionally like the Corporate. The tendency to involve close family members to oversight the academic institutions, is simply perpetuating the status quo. Promoters should hire professional, with diverse qualifications and dynamic experience to handle multi-faceted functions of the HEIs. Suitable portfolio management of educational institutions, in terms of varieties of programmes, enlarged diversity among teachers and students, quality orientation in all academic spheres, combined with regional and national level job opportunities, will take us to the next level of excellence. Stand-alone Universities, make very slow progress, when compared to those who have chain of schools and also

chain of industries. Promoters should seamlessly invest on the captive supply chain of students from schools to industries.

I call upon the top Management, Vice Chancellors, Registrars, Finance officers and other officials, to remind themselves of the onerous responsibility they are charged with. Yours is a service rather than an employment. Your office is a public institution of deliverance of knowledge. The aspirations, hope and future of the students are in your hands. Without discounting your responsibility towards the promoters or top management, you need to be a students' champion. While majority of your decision will be as per the laid down policies and guidelines of the promoters, do allow opportunities for exceptions, by extending your humane heart to the well being of the student community. In the long run, your nobility will stand out distinctly, than the profit you generated.

I call upon the faculty members, to remain updated in their field of knowledge. Every faculty member should add value to himself and the institution; he/she is serving, through their Extension works, Paper publication, Conference participation and Research orientation. Each faculty must lead an 'influence group' that contributes to academic and administrative excellence of the institution. Simply confining oneself to academic matters will not suffice. Academic audit is individual as well as collective and is an on-going activity to assess the gaps in our aspirational efforts. The spoken reputation of the faculty members should facilitate increased admissions in subsequent years. The faculty members must become the community ambassadors for the society, as much as they are seen as brand ambassadors of the University.

I call upon the administrative staff to ensure, highest standards of transparency. Pure administrative staff tend to limit their involvement to their narrow domain, whereas the need of the hour is multi-tasking, multi-skilling and multi-disciplinary activities. Every administrative staff must be qualified to take up teaching assignments, as per the dynamic requirement of the institution. There is so much of teaching, outside the four walls of the class-room. Administrative staff should become facilitators of co-curricular activities, industrial visit, field visits, awareness campaign, sports activities, women empowerment etc.

The students who join the State Private Universities are generally those, who have exhausted their options to secure admissions in premier Government institutions, through merit in the competitive exams/counselling. The economic disparity and social divide have marginalized these students to seek low paying jobs at a very young age. Some among them have also taken up their

higher studies, with varying continuity. To such students, my advice is, not to get disheartened. You can work hard and create a niche for yourself. Many students who studied in average institutions have joined IITs, IIMs, NITs, for their post graduate studies. The huge infrastructure and abundance of learning resources available with State Private Universities will help you realise your ambitions. The institution will go extra length, to make it happen for you. Higher Educational Institutions must initiate multiple support measures, through free-ships, scholarship, educational loan, alumni endowment, crowd sourcing, fund-raising etc, to defray the cost of education, for the needy students.

I call upon the banking and other financial institutions, to enable students to take soft educational loans. For long, Indian banking sector has supported agricultural activities, infrastructure development and housing and car finance. Now it is time to focus attention towards education sector. Students, who are admitted to NAAC accredited institutions should be given soft loans, to pursue their higher education. Their subsequent academic consistency must be treated as collaterals, rather than entry-level merit.

I call upon the industries and entrepreneurs to facilitate students to 'earn when they learn', while the academic institutions must facilitate students' 'learning when they earn'. Round the year internship should be a routine, rather than an exception. The apprenticeship and internship opportunities need to be increased manifold. Continuous credit system should facilitate academic upward mobility of students from Certificate Course to Diploma Course to Graduation Course.

I call upon the regulatory authorities, UGC, AICTE and NAAC, to understand the contextual differences of different educational institutions. Take the case of Navodya Vidyalaya Schools, which took quality education to rural areas. Today, we see many of these rural children excelling in different academic fields. Where are our Navodya Colleges to cater to rural higher education? IITs, NITs, and Government colleges have grabbed all the meritorious students through competitive exams and counselling. Where will the non-meritorious students for their higher education, but to join the State Private Universities, in the close proximity of their villages. Like Navadaya Vidyalaya Samithi schools, there should be some Navodya Vidyalaya colleges/universities (from among the State Private Universities) which are nurtured by NAAC in rural areas where 50% reservation may be provided to rural students (on the earlier model of Regional Engineering Colleges). This will help bridge the gap between the rural and urban students

on one hand and also pave the way for national integration on the other hand. Recognizing some of the quality conscious private institutions as regional Navodya Colleges and Universities, is the need of the hour.

Blaming the Victim. The quality of students in State Private colleges and Universities is a question now. Self-financing institutes depend on the admissions of the students, who have been left out in the competitive educational market. Private educational institutions are struggling to bring up these students, who score low to average marks. Due to internal marks, most of these students pass with higher grade, albeit their shallow theoretical knowledge. To maintain the admission flow of newer intake, these self-financing institutes are liberal in the exit evaluation of students. Here is the catch22 situation. If you fail them, there will be no fresh admissions; if you pass them, they will be seen as unemployable. Perhaps this is the reason why recent studies concluded that among the engineering graduates including IITs, only 18% are eligible for employment. Blaming the students or the Private educational institutions, amount to blaming the victim, of the present education system.

Conclusion

In education sector, intake merit compensates for all other weakness. In the same vein, I dare say intake-mediocrity cannot be a reason for denying the higher education to the masses. I call upon the accreditation agencies for pragmatic approach. In your enthusiasm for merit and quality; do not ignore the baby steps, these institutions are taking towards excellence. Do not set the IIT standards. I call upon the political parties and leadership to redefine your priorities. At a time, when private educational institutions are trying to bring up the rural students as employees, entrepreneurs, social change-agents etc., please support these private institutions, for their distinctiveness; nurture them as catalysts. I call upon the religious institutions, to go beyond roti, kapada, makan (Food, Clothing, Accommodation) and support educational initiatives. You have the support and resources of the masses. Do utilize your resources and support-base, to create chain of educational institutions, for rural students, locally, regionally and globally. Do not thrive on the provisions of Minority institutions. Let your institutions become the national and global hub of religious harmony. Now is the time for the grand leap in the education sector. Now is the time for multi-stakeholders' approach. Now is the time for innovation in education. I call upon individuals, Senior citizens and pensioners, to harness their individual social responsibility with institutional social responsibility of NGOs, Trusts and Foundations, the

priority being Education, Education, and Education.

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Emotional Intelligence : A Key to Effective Leadership

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Abstract

Emotional Intelligence is the ability to perfectly perceive one's own and others' emotions; to understand the signals that emotions send about relationships; and to manage own and others' emotions. We know emotions can drive our behavior as well as others' behavior. It is one of the main components of effective leadership.

Leadership implies values. A leader must have values that are life-giving to society; Emotional intelligence is one of the main value which is directly linked with the effectiveness of leadership for a leader.

The main purpose of the present study is to explore how far the Emotional Intelligence is related to leadership and how emotional intelligence impacts leadership in positive direction. The paper will also highlight as to what is emotional intelligent and how emotional intelligent is valuable for a successful leader?

Key words: Emotional, leadership, values and effective.

Introduction

"Intelligence can come to nothing when the emotions hold sway". It is rightly said by Daniel Goleman (Emotional Intelligence)

Emotional Intelligence (EI) is widely known to be a key component of effective leadership. The ability to be perceptively in tune with oneself and others' emotions, as well as having sound situational awareness can be a powerful tool for leading a team. In other words, it is an act of knowing, understanding, and responding to emotions, overcoming stress in the moment, and being aware of how one's words and actions affect others, is described as emotional intelligence. Emotional intelligence for leadership comprises of five attributes, these are self-awareness, self-management, empathy, relationship management, and effective communication.

Emotional intelligence states the capability of a person to control and manage his or her emotions and hold the ability to control the emotions of others as well.

Emotional Intelligence is the ability to accurately perceive one's own and others' emotions; to understand the signals that emotions send about relationships; and to manage own and others' emotions. Emotions can drive our behavior and people's behavior.

Whereas leadership is an ability to influence, motivate and enable others to contribute to the effectiveness and success of the organizations to achieve a predetermined goals of the organization. Leadership is a transactional process. A leader affects and is affected by followers. Now here arise a question what is leadership? Leadership is transitional activity which involves influence in a group with a common purpose. Leadership involves attaining goals and directing a group of individuals to achieve. It is the process of influencing the activities of an organized group toward the achievement of predetermined goals.

People who take initiative, who have a vision, and who can strategize, plan, and accomplish goals to achieve their vision are considered good leaders. They display those skills when working in a team setting and, hopefully, their team members are appreciative of those skills but skills that contribute to your ability to work well with others and to lead your team to success?

Effective leaders: An effective leader is a person with passion and zeal for a cause that is larger than themselves. They are the ones with a dream and a vision for the betterment of the society.

There are certain qualities which makes leader successful:

Qualities of effective leaders which they possess emotional intelligence traits:

- Assertive
- Alert and proactive to social environment
- Achievement orientated
- Adaptable
- Cooperative
- Decisive

- Dependable
- Dominant
- Energetic
- Persistent
- Self-confident
- Stress Management capability
- Willing to take responsibility

Along with these qualities there are certain skills which supports to develop leadership qualities:

- Intelligence
- Conceptual skill
- Creative
- Tactful
- Communication skill
- Organizing skill

Review of literature

Review of literature helps to justify the scope, role and need of study. The following studies have been done on emotional intelligence:

Emotional Intelligence was popularized after the publication of Danile Goleman's best-seller book "Emotional Intelligence" (1995), which highlighted EI as a best forecaster of work and life success (Goleman, 1995; 1998).

In the published study of Sehwat A and Sharma T (April 2014), they had studied that there is the correlation between sub-scales of emotional intelligence - self-awareness, self-management, Social awareness and social skills and had concentrated on six styles of leadership - pioneering, strategic, management/administrative, team, pastoral and encouraging. The results showed significant influence of EI on strategic, management/administrative, team, pastoral and encouraging styles of leadership. (Anil Sehwat Tanu sharma, April 2014).

Koman, E. S., & Wolff, S. B. (2008) "Emotional intelligence competencies in the team and team leader: A multi-level examination of the impact of emotional intelligence on team performance". This study endeavored to examine the relationships between the EI competencies of team leader and team performance. The study was conducted on 349 aircrew and maintenance military team members participated representing 81 aircrew and maintenance teams. Result of the study showed that team leader EI is significantly related to the presence of

emotionally competent group norms. Leaders with better EI capabilities not only enhance their own personal performance but also of the teams they lead.

Goleman (1998) "Working with emotional intelligence". Competency research in over 200 companies and organizations worldwide shows that about one-third of the difference is due to technical skill and cognitive ability while two-thirds is due to emotional competence.

Bar-On's (1997) "The Bar-On Emotional Quotient Inventory (EQ-I): A test of emotional Intelligence". The study depicts social responsibility and empathy as definite interpersonal skills. Goleman's 1995 model includes the same empathic awareness and attunement, this is the skill required to recognizing emotions in others. Knowing these varying EI models the study of the relationship of EI to moral and ethical behavior and to values has been unpredictable. The moral/ethics/values dimensions are often described as part of the basis for educational programs involving EI a well-designed empirical research in this area is very much a necessity.

Objectives of the study

Objectives guide or provide path to researcher. The main purpose of the present study is to explore how far the Emotional Intelligence is related to leadership and how emotional intelligence impact on leadership in positive direction.

Content of emotional intelligence:

- **Self-Assessment** : This can be defined as having the ability to recognize one's own emotions, strengths, weaknesses, values and drivers and understanding their impact on others.
- **Self-regulation**: Self-regulation means self-discipline. It means controlling or redirecting our disruptive emotions and adjusting to change circumstances in order to maintain positivity in the team.
- **Empathy and Compassion**: Empathy is the ability to put oneself in someone else's shoes and understand how they may feel or react to a certain situation. When one is empathetic, one is open to the feeling of compassion. The emotion that we feel in response to sorrow that stimulates a desire to help.
- **Relationship Management** : You can't make deep connections with others if you're distracted. Many of us have families, other obligations, and a crazy to-do list, but building and maintaining healthy and productive relationships is essential to one's ability to gain higher emotional intelligence.
- **Effective Communication** : Misunderstandings and lack of

communication are usually the basis of problems between most people. Failing to communicate effectively in a workplace leads to dissatisfaction, conflicts, and confusion among employees. Effective communication can eliminate hindrances and encourage stronger workplace relationships. When role ambiguity is removed and employees know their role within the organization and understand how their performance is connected to the overall goals and vision, there is a sense of value and achievement. Thus, sound communication results in alignment and a sense of common purpose. (Gleeson, 2015, June 2)

Emotional intelligence linked to effective leadership

Daniel Goleman, an authority on emotional intelligence in the workplace, notes that 'no matter what leaders set out to do, their success depends on the strategy they adopt. Even if they get everything else just right, if leaders fail in this primal task of driving emotions in the right direction, nothing they do will work as well as it could or should'. At such workplace, it's easier to simply do the minimum to receive the remunerations. And when employees feel that way, they won't essentially be happy in their roles, resulting in decline in productivity and the overall efficiency will decrease. It will be more challenging for that team to do what needs to be done. Effective leaders must have a sound understanding of how their emotions and actions impact the people around them. The better a leader relates to and works with his team, the more successful he or she will be. The leader should spare time to work on self-regulation, self-awareness, empathy, motivation and social skills. Emotional intelligence for leadership comprises of the following five attributes: self-management, self-awareness, empathy, relationship management, and effective communication. Emotional Intelligence has to do with one's ability to both identify and control his or her own emotions, while managing emotions appropriately as situations requires. One of the benefits of emotional intelligence in employees is that it helps them understand their own strengths and weaknesses. These employees are able to take feedback and use it in a positive way to improve and grow as an individual. A high EI helps individuals to communicate better, manage stress, resolve conflicts, develop better relationships, empathize with others, and effectively overcome challenges and crisis. Our emotional intelligence affects the quality of our lives since it influences our behavior and relationships.

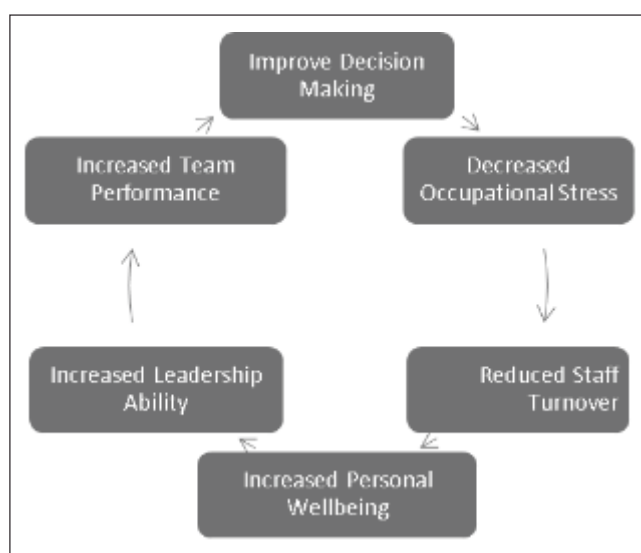
The process how emotional intelligence correlated to effective Leadership:

- They work to inspire and motivate those around them

- They focus on collaboration between team members, which creates synergy and a better experience for employees
- They "walk the talk," or act with integrity and honesty with every team member
- They build trust, which stems from consistently acting with integrity and honesty
- They develop and support others, and they always celebrate the successes of their employees and encourage them to learn more and develop their skills
- They always build relationships, which communicates that each team member is valued, and that their concerns are important and will be addressed.

Some of those methods include focusing on opportunities and possibilities instead of problems, celebrating successful events, being curious about individual employees' career aspirations and helping them to achieve them. Figure 1 is showing how emotional intelligence helps to grow a leader.

Figure 1: Emotional intelligence creating a leader



(Source: <https://www.6seconds.org/2020/07/06/emotional-intelligence-leadership-research/>)

Being a leader of a group of people is to have a very important Relationship with those people. In the HBR, Goleman writes: The most effective leaders are all alike in one crucial way: they all have a high degree of what has come to be known as emotional intelligence. Technical skills are also very essential for the success of a leader. But such skills are the entry-level requirements for executive positions. Recent studies clearly shows that emotional intelligence is the prerequisite for leadership. Without it, a person can have the best of training, a razor-sharp, analytical mind, and various smart ideas, but he still

won't make a great leader.

Correlation of EI

On the flip side, appreciation, respect, and enthusiasm, coupled with emotional support and validation, can be contagious. Positivity begets positivity. Because emotions are strongly correlated with performance and productivity, teams whose members feel emotionally supported and appreciated through their challenges and successes will likely be happier and more productive. They will want to celebrate their successes, so they will work harder and more effectively together to be successful.

This dynamic applies to many job settings—wherever there's a leader. That could be a foreman on a factory floor, a chief executive in a boardroom, or a high school teacher in a classroom. Effective emotional understanding and management will help team members develop cohesiveness and be more productive and feel more valued and understood.

Traditionally business leaders were focused on performance potential rather than emotional aspect. Being professional meant keeping one's emotions in check. But today, being professional is all about recognizing that there is a human element to things. Employees at workplaces are, after all, human, possessing human emotions. So the ability to recognize when one's emotions are driving the decisions—all while reading the teammates' emotions to help lead them more effectively

—is what will set a leader apart as an exceptional leader.

But there's a dramatic sea change underway. Leaders who understand that emotion and performance are inseparably linked are leading their teams more effectively, and providing irreplaceable value for their organizations. The slow dawning that began with forward-thinking leaders is on its way to becoming standard operating procedure in companies all over the world—and once you spend a little time digesting the theories and data, it's easy to see why. (Program, 2018)

High EI transforms into cultural and institutional authority, which results in greater impact on the organization. It has become clear that high-EI leaders foster an environment for happier, more productive employees and create ground for the growth of new leaders.

To Conclude....

Emotional intelligence is widely known to be a key component of effective leadership. Understanding how the human brain operates and how the emotional response system works should also be a factor to be thought upon. Being able to relate behaviors

and challenges of emotional intelligence on workplace performance which will provide an edge in building an exceptional team. A leader lacking in emotional intelligence is not able to effectively measure the needs, wants and expectations of those they lead. Emotional intelligence is a powerful tool critical for goal achievement, improving critical work relationships, and creating a healthy, productive workplace and organizational culture. Leaders who react from their emotions without checking them can create mistrust amongst their team members and can seriously hamper their working relationships. Hence, it is essential that good leaders must be self-aware and understand how their verbal and non-verbal communication can affect their team.

Scientific findings on emotional intelligence support the notion that emotions are functional when the information they provide is attended to, interpreted accurately, integrated into thinking and behavior, and managed effectively. According to emotional intelligence theory, the cognitive, physiological, and behavioral changes that accompany emotional responses are adaptive to situations and these changes prepare us to respond to the event that caused the emotion to occur (Lazarus, 1991). The theory also asserts that emotions serve important social functions, conveying information about other people's thoughts, intentions, and behavior (Ekman, 1973; Keltner & Haidt, 2001).

All leaders must excel at personal proficiency. Without trust and credibility, leaders cannot ask others to follow them. To summarize one can conclude that EI is a vital trait to be an effective leader who can lead the team towards success and achieve the predetermined goals and objectives of the organization.

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Improving Value of Indian Rupees through Study on Exchange Rate between INR and USD- Reasons, Strategies and Outcome

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Abstract

A weak currency is a signal to the weak economy. The depreciation in the value of rupee against the strongest currency of the world i.e. USD (USD) affects a lot of economic growth indicators such as reducing the inflow of foreign capital, rise in the external debt pressure, grows India's oil and fertilizer bills. This study analyses in detail the macro economic variables affecting the exchange rate. A regression model for analyzing this relationship is also developed. To extend the scope of the study, the short term and long term measures for strengthening the rupee are also highlighted.

Key Words: Currency, Economy, Exchange Rate, Export, Import

Introduction

Exchange rate between two currencies is that rate at which one currency will be exchanged with another currency. It is also known as a foreign-exchange rate, forex rate. It is regarded as the value of one country's currency in terms of another currency (Grewal, 2013). Currency fluctuations are a natural outcome of the floating exchange rate system that is the norm for most major economies. Exchange rate of one currency versus the other is influenced by numerous fundamental and technical factors including relative supply and demand of the two currencies, economic performance, outlook for inflation, interest rate differentials, capital flows etc (Singh et al, 2016).

In 1947, post-independence, one US dollar (USD) was equal to one Indian rupee and there were no foreign borrowings. After the introduction of Five year plan in 1951, Indian Government started foreign borrowings to finance welfare and development activities and the exchange rate was 1US\$ = INR4.8 (Narang, 2014). The historical background suggests that from 1950 to 1973, Indian rupee was linked to British pound. Rupee devaluation in 1966-67 was attributed to high trade deficit, increase in inflation, war with Pakistan in 1965, increase in defense expenditure during 1965-66 and draught in the same period resulting to higher prices. On 24th September 1975, the connection between Indian rupee and pound was broken (Soni and Parashr, 2013). Following, a series

of economic reforms since the early nineties, exchange rate regime shifted from fixed to flexible exchange rate. The Forex rates are determined by market forces and are based on demand and supply of these currencies. If supply exceeds the demand, the value of the currency depreciates and vice-versa (Grewal, 2013).

In the period 2000–2007, the value of the rupee against US dollar was ranging between 1 USD = INR 44–48. In late 2007, rupee became stronger touching a record high of Rs.39 per USD, on account of sustained foreign investment flows into the country. However, appreciating rupee was a concern for major exporters, IT and BPO firms. The trend has reversed lately with the 2008 world financial crisis as foreign investors transferred huge sums out to their own countries (Yadav and Ali, 2013).

The significant depreciation of Indian rupee against US dollar happened in the year 2013 when rupee touched a record low of Rs. 68.7 amid fear that the US will scale back stimulus measures. Even in 2018, due to rising oil prices, rupee closed at 69.00 against US dollar (4/07/2018). Current USD to INR exchange rate equals Rs 74.9130 per 1 US Dollar. (As on July 2020). Thus, the Indian rupee, which was at par with US dollar at the time of independence in 1947, has depreciated by almost 69 times against the greenback in the past 71 years.

Consequently, Indian rupee has seen many ups and downs over a period of time. The study takes in to consideration the value of Indian Rupee against the USD since 1999 for quantitative analysis. This research is an attempt to look at the volatility of Indian rupee against USD quantitatively and qualitatively. The study identifies the independent factors that influence the value of Indian rupee through regression analysis. The strategies for stabilizing the value of rupee against the US dollar are also identified in the study.

Research Objectives

Following research objectives were framed for the study:

1. To comprehend the key indicators of Indian Economy and its impact on the exchange rate.

2. To develop a regression model to statistically evaluate the relationship between various indicators and the foreign exchange rate.
3. To suggest the strategies to mitigate the forex risk and modus operandi to attain exchange rate parity.

Research Methodology

The research design adopted for the study was conclusive descriptive research. It was a single cross-sectional type of research design. The nature of the study was quantitative and time series data was used. The sampling procedure and technique adopted in the study, was non-probability and judgmental respectively. At the start of the research, sampling duration was fixed in the range, from 1947 (Independence Year) to 2018 (latest year), but due to non-availability of data with respect to all the indicators, the consistency in the data collection could not be maintained. The macro economic factors were chosen after conceptually understanding the efficacy of the same. The data used for regression was from the year 1999 to 2016, with a yearly frequency, with respect to India only. The sample size consisted of the data cells spread across 18 years and 11 parameters with 198 cell counts. The description with respect to the parameters and unit of measurement of data is described

in Table 1.

Table 1: Indicators Used in the Study

Parameter	Unit of Measurement
Exchange Rate	Rupees
CPI	Points
BSE Sensex	Points
Unemployment Rate	Percentage
Gross Domestic Product (GDP)	US Billions \$
Forex Reserves	US Mn \$
Remittances	US Bn \$
Foreign Direct Investment (FDI)	US \$
Interest Rates	Percentage
Budget Balance Ratio	% of GDP
Exports (Goods and Services)	US Billions \$
Imports (Goods and Services)	US Billions \$
Variables at Inception and Removed Later On	
Balance of Trade	US Billions \$

Broad Money	US Billions \$
Net Foreign Portfolio Investment (FPI) or Foreign Institutional Investment (FII)	US Mn \$
Government Debt to GDP	Percentage
Crude	US \$
Gold	Indian Rupees

(Source: Authors' Compilation)

Primary reason to drop the variables from the study was a close correlation with the other variables such as balance of trade resembles difference between exports and imports, which is already included in the study. Broad money could be replicated to the amount of forex reserves and remittances. FIIs data creeps in the investment in Sensex. Government Debt to GDP was being covered under Budget Balance Ratio. Crude and Gold prices are affected and interwoven with many factors, which if included would not provide proper results. These two factors at times play a role of dependent factor, instead of independent factor.

The scale used in the study was non-comparative. The scale measurements of the data were ratio in nature. Major sources of secondary data collection and literature were websites such as Moneycontrol, BSE etc. Paid portal of Global Economy Website was also accessed for collecting the data. Data was processed in Excel and E-Views. Basic test statistics that were applied were Augmented Dickey Fuller Test, Ordinary Least Squares Regression (OLS), Correlation Statistics, Breusch-Godfrey Serial Correlation LM Test, Breusch-Pagan-Godfrey Test and Jarque-Bera Test.

Online and offline sources such newspaper articles, research papers, research reports of the equity firms etc were referred to understand the concept and its inter-linkages with the exchange rate mechanism.

Indian Economy at a Glance : Key Indicators

During the journey of 71 years of Independence, India has seen many changes in the socio-economic landscape. Currently, India ranks fourth out of 25 nations in the Asia-Pacific region, on an index that measures their overall power, with the country being pegged as a "giant of the future" (The Economic Times, 2018).

In 1947, when India became independent from the British Empire, the economy, which had just taken a beating from the Second World War, had to once again withstand the repercussions of Indo-Pak partition. At this point of time, the country had to deal with large scale refugee camps, poverty, illiteracy, health hazards and many social and economic problems. To combat these

issues, the new government (headed by Late Shri Pandit Jawaharlal Nehru) adopted a socialistic view. This saw the birth of large scale Public Sector Undertakings (PSUs) foraying into capital intensive businesses such as transportation, road, mining, steel, heavy electrical, among others that are crucial for economic growth (Priya, 2017).

India always believed in planned economic development since 1951 with the inception of First Five year plans. The first few plans focused on the growth of the agriculture sector along with strengthening of the manufacturing sector. Social development i.e. housing and poverty alleviation, was also the focal point in those plans. Over the years, India saw a changing composition of its economic structure: agriculture which initially comprised of 60% of the GDP now comprises around 17% and services comprise a massive 54% of the GDP as on 2016-17.

The 1990s saw landmark changes in India's economic policy when a severe balance of payment crisis, at the beginning of the decade, triggered wide-ranging reforms in economic policy. In 1991, India was left with foreign exchange to barely support two weeks imports. In response to this situation, certain radical changes in the economy were introduced such as delicensing, massive tariff reductions, Foreign Direct Investment (FDI) cap relaxations and gradual convertibility of the current account followed by the capital account. The liberalization process started in the early nineties has seen massive growth, especially in the services sector (Mukharjee, n.d.). The liberalization was aimed at ending the license-permit raj by decreasing the government

intervention in the business, thereby pushing economic growth through reforms. The policy opened up the country to global economy. It discouraged public sector monopoly and paved the way for competition in the market (Rao and Kadam, 2016).

These reforms brought about a swift turnaround in India's external sector and catalysed an unprecedented spurt in economic growth during the five years from 1992–1993 to 1996–1997, coincident with the "Eighth Plan" period. Unfortunately, the program of policy reforms lost momentum after 1995 due to deterioration in the international economic environment. As a result, the early partial success with fiscal consolidation was reversed after 1996.

Since 2003 there has been renewed optimism about the growth prospects of the Indian economy. The "Tenth Plan," published in early 2003, projected an overall growth of 8 percent for the period from 2002 to 2007. A boom in software exports and remittances (together with reduced import needs of a somewhat sluggish industrial sector) has increased the country's foreign exchange reserves to unexpectedly high levels (exceeding U.S.\$100 billion) (Acharya, n.d.).

Each successive government pushed forward the series of economic reforms and as a result of this, India today has emerged as a key player in the global space. Table 2 gives a glimpse of the comparison among the key economic indicators for India. Table 3 explains the theoretical inter-relationship between exchange rate and indicators.

Table 2: Highlights of Key Economic Indicators at five years interval

Economic Indicators	1990	1995	2000	2005	2010	2015
GDP (Million US\$)	326608	366600	476609	834214	1708458	2048517
FDI (Million US\$)	236	2143	3584	7269	27396	33871
Exports of Goods and Services as a percentage of GDP (%)	7.13	10.96	13.13	19.82	22.59	19.94
Imports of Goods and Services as a percentage of GDP	8.55	12.16	14.06	22.66	27.10	22.25
BSE Sensex	2633.65	5117.12	411537	9617.74	20184.74	25406.33
Unemployment Rate (% of Labour Force)	4.3	4.0	4.3	4.4	3.5	3.6
Inflation (CPI)	13.71	9.69	3.48	5.57	9.47	6.32

(Source: Compiled by the Researchers)

Table 3: Theoretical Inter-Relationship between Exchange Rate and Indicators

Parameter	Type of Relationship
Consumer Price Index	CPI Rises: Rupee Depreciates CPI Falls: Rupee Appreciates
Sensex	Sensex Rises: Rupee Appreciates Sensex Falls: Rupee Depreciates
Unemployment Rate	Low Unemployment rate: Rupee Appreciates High Unemployment rate: Rupee Depreciates
Gross Domestic Product	High GDP: Rupee Appreciates, Low GDP: Rupee Depreciates High GDP: High Imports: Rupee Depreciates
Foreign Exchange Reserve	More Dollars: Rupee Appreciates Less Dollars: Rupee Depreciates
Remittance	Rise in Remittance: Exchange Rate appreciates and vice-versa Spending of Remittance: Rupee Depreciates
Foreign Direct Investment	Higher FDI: Rupee Appreciates Lower FDI: Rupee Depreciates
Interest Rate	Higher Interest Rate: Rupee Appreciates and vice-versa
Budget Balance Ratio	High Budget Balance Ratio: Rupee Appreciates and vice-versa
Exports	High Exports: Rupee Appreciates, Low Exports: Rupee Depreciates
Imports	High Imports: Rupee Depreciates, Low Imports: Rupee Appreciates

(Source: Authors' Compilation)

Gross Domestic Product (GDP)

The economic growth of a country can be measured with the help of GDP. GDP gives the total worth of the goods and services produced in a country in one particular year. As mentioned in Table 2, GDP of the country has increased from US\$3,26,608 Million to US\$ 20,48,517 Million, registering a growth of 527% since 1990. In dollar terms, India's GDP stood at US\$ 2,848.231 Billion in the year 2018. National income and employment are positively affected by positive and sustained economic growth. This further translates in to higher living standards. Besides, it stimulates government finances in the form of enhanced tax revenues. This leaves a room for government to earn extra income and make expenditure for the further development of an economy.

Foreign Direct Investment (FDI)

One critical variable responsible for the economic growth of the country is FDI. After LPG movement, there has been a continuous upward movement in the flow of FDI to India. UNCTAD, in its

Global Investment Trend Monitor report said that the global foreign direct investment remained flat in 2019 at \$1.39 trillion, a 1% decline from a revised \$1.41 trillion in 2018. The Report said that South Asia recorded a 10% increase in FDI to \$60 billion. The growth was driven by India, with a 16% increase in inflows to an estimated \$49 billion. The majority went into services industries, including information technology. In the second five-year plan of 1956-61, main focus was on imports from foreign investments and loans; to focus on the rapid industrialization in India. Furthermore, the inflow of foreign direct investment was encouraged in the period of sixth five-year plan 1980-85. Before 1991 the inflow of foreign investment in India was mainly in the form of borrowing. FDI inflow was encouraged after 1991 for ensuring rapid industrialization in the country. Apart from capital, foreign investments also introduce technical expertise, machinery, capital goods which are scarce but essential for the economic growth of developing economies. The FDI has a positive relationship with the growth of the GDP because of the increased volume of production in the country (Chauhan and Giri, 2016).

Since 2014, the Modi government opened up "conservative" sectors like rail infrastructure and defense. FDI reforms were also carried out in financial sector, medical devices and construction sectors. FDI rules were radically overhauled across sectors such as broadcasting, retail trading and air transport. In the last three years, the government has eased 87 FDI rules across 21 sectors to accelerate economic growth and boost jobs. The country has now become the topmost attractive destination for foreign investment.

Exports and Imports

The high GDP growth rate can be in part attributed to the growing contribution of the export sector to the economy. During 1950s, exports did not play a vital role in the overall economic growth due to restrictive international trade policy and heavy reliance on developing domestic industry. Moreover, India's exports also suffered because export incentives were only available to a limited number of manufacturing industries and selected agricultural exports.

Before 1947, agricultural products were the prominent ones in export. Over the last seven decades, the Indian economy has completely revolutionized. The exports now cover a wide range of traditional products like coffee, cocoa, bauxite, gypsum etc. Similarly, the non-traditional products like bakery products, dairy products; alcoholic, non-alcoholic beverages, limestone, furniture and mineral fuels also constitute a major part of exports

from India. Whereas imports mainly consist of capital goods, petroleum products, gold, raw materials, intermediates and chemicals to meet the ever increasing industrial demands (Chauhan and Giri, 2016).

The liberalization of the Indian economy following the balance of payment crisis resulted in major policy and exchange rate changes, which had a favourable impact on India's trade. Table 2 shows an increase in the share of exports and imports between 1990 and 2005. During this period, share of exports in India's GDP increased from 7.13 % to 19.82%, while the share of imports rose from 8.55% to 22.66% in the same period. However, Share of imports as a percentage of GDP was always higher than the share of exports as a percentage of GDP leading to foreign exchange crisis.

With the collapse of large investment banks around the world coupled with high oil prices and rising inflation in 2008, India's trade deficit dampened in 2009-10 with a negative import growth 0.78 percent for the first time in more than two decades while exports were also impacted, registering a negative growth rate of 2.9 percent in 2008-09. However, the trade policy reforms in India initiated in 1991 have been instrumental in orchestrating the transition of the Indian economy from a protectionist approach to an open market conducive for higher volumes of international trade (Mukherjee and Mukherjee, 2012).

BSE Sensex

The foreign exchange market and the stock market are vital for any well-defined financial system of a country. The changes in the capital market bring transformation in the entire economy of the country. The boom and depression of the capital market are reflected in all sectors of the economy.

Among the various factors, say experts, the primary factor for the positive correlation between the rupee and the Sensex is Foreign Institutional Inflows (FII) flows. FII inflows and outflows may often reflect a nation's economic and political stability. As a direct consequence of FIIs pouring in money, the market rises. Since FIIs need the Indian currency to invest in the Indian market, the demand for the rupee goes up, in turn, boosting the currency. A stronger market leads to a better outlook for the rupee leading to further inflows and thus to the rupee's appreciation. This is a mutually beneficial, positive cycle. But the reverse too is very much a possibility. For instance, in bad times, when there are FII outflows, the markets go down and the rupee depreciates (Khatri, 2017).

Along with some of the Emerging Market Economies (EMEs) like

Brazil, China and Korea, India witnessed a preponderance of portfolio flows due to liberal investment regimes, rapid growth of economy and strong macro-economic fundamentals (Dhingra et al, 2016). While the FII inflow which was just Rs. 3677.9 crore in the year 2002 it reached as high as Rs. 1,79,673.9 crore and Rs. 1,63,347.9 crore respectively in the year 2010 and 2012. Further, in the year 2017, the FII inflow touched the pinnacle of Rs. 2,00,048 crore. Foreign investment flows to the Indian capital market have surged after the global financial crisis due to continuous stimulus measures from the US Federal Reserve in the form of quantitative easing. There has been an exponential growth of 865%, in the BSE Sensex from the year 1990 to 2015. From the period 1993 to 2017, there has been a growth of 76 times in the FII inflow in Indian economy. Thus, with the surge in the FII inflow, the capital market in India has also moved upwards, keeping other factors constant.

Unemployment

Providing enough employment opportunities in India with a population of 1.34 billion is not an easy task. Besides, the fact that half of the population is below the age of 25 and will soon enters the job market, will only make matters more difficult. The unemployment rate in India in the year 1990 was 4.3% which was reduced to 3.6% by the year 2015. The unemployment rate for January 2020 was 3.6%. The same was 3.52% in the year 2017. Unemployment and exchange rate are related. An exchange rate appreciation causes a slower growth of real GDP because of a fall in net exports and a rise in the demand for imports. A reduction in demand and output may cause job losses as businesses seek to control costs. Some job losses are temporary – reflecting short term changes in export demand and import penetration. Others are permanent if imports take up a permanently higher share of the domestic market. Thus a higher exchange rate can have a negative multiplier effect on the economy (Mukherjee and Kapoor, 2017).

Inflation (Consumer Price Index-CPI)

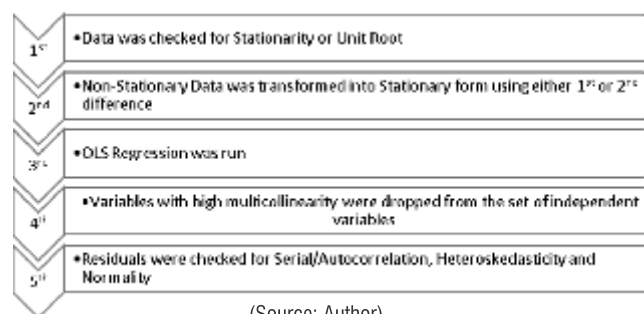
Inflation is more likely to have a significant negative effect, rather than a significant positive effect, on a currency's value and foreign exchange rate. A very low rate of inflation does not guarantee a favorable exchange rate for a country, but an extremely high inflation rate is very likely to impact negatively, the country's exchange rates with other nations. After the reforms of 1991, there was a fall in inflation rates as reforms pushed up production of goods and services resulting in either prices falling or remaining constant. Competition also helped to keep inflation in check. The CPI which was in double digit (13.71%) in 1990

was lowered to single digit (6.32%) in 2015. The lowest CPI was observed in the year 2000 i.e. 3.48%. The inflation can be controlled by adopting monetary policy measures such as increase in the interest rate, fiscal measures targeting government revenue and expenditure and price control.

Developing the Regression Model

Regression model tries to analyze the relationship between dependent (forex exchange rate) and multiple independent variables. Following steps were followed for developing a regression model.

Figure 1: Process of Regression Modelling



Stationarity Check

Augmented Dickey Fuller Test (ADF) was run in E-views to understand whether the data is stationary or not. H_0 : Data has a unit root. H_1 : Data does not have a unit root. The p-values for the entire dependent and independent variables were noted greater than 0.05, which indicated that the data has a unit root. So, the first and second differences were taken to convert the non-stationary data into stationary data. The outcome of the same is described in table 4.

Table 4: Outcome of the Stationarity Test

Parameter	Stationarity At	Parameter	Stationarity At
Exchange Rate (EX)	Second Difference	Consumer Price Index (CPI)	Second Difference
Sensex (SEN)	First Difference	Unemployment Rate (UNR)	First Difference
Gross Domestic Product (GDP)	Second Difference	Foreign Exchange Reserve (FXR)	First Difference
Remittance (REM)	Second Difference	Foreign Direct Investment (FDI)	First Difference
Interest Rate (INR)	First Difference	Budget Balance Ratio (BBR)	First Difference
Exports (EXP)	Second Difference	Imports (IMP)	Second Difference

(Source: Authors' Compilation)

After applying the first and second difference to the respective variables the p-value (<0.05), which meant that H_0 was rejected and H_1 was accepted i.e. data does not have a unit root.

H_2 : None of the independent variables (11) are significant predictors of the dependent. H_2 : At least one independent variable is a significant predictor of the dependent. Thereafter, the regression analysis was run with the foreign exchange rate (dependent variable) and CPI, SEN, UNR, GDP, FXR, REM, FDI, INR, BBR, EXP and IMP (independent variable). On running the regression with the above variables only one of the independent variable (GDP) was noted to be statistically significant. Therefore, the multi-collinearity was checked. Highest correlation coefficient (r) was noted between exports and imports at 0.80 value. The decision was taken to drop that variable which had the highest p-value. Based on the corresponding p-value for EXP (0.85) and IMP (0.06), it was decided to drop EXP, as it had the highest p-value.

OLS was re-run after dropping EXP. H_3 : None of the independent variables (10) are significant predictors of the dependent. H_3 : At least one independent variable is a significant predictor of the dependent.

Table 5

Dependent Variable: DEX Method: Least Squares Date: 06/27/18 Time: 15:07 Sample (adjusted): 2001 2016 Included observations: 16 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.189892	0.535716	0.354463	0.7375
DCPI	0.678152	0.356729	1.901028	0.1157
DSEN	0.000798	0.000276	2.894588	0.0340
DUNR	-2.797672	2.462816	-1.135964	0.3075
DGDP	-0.052621	0.010919	-4.819379	0.0048
DFXR	-5.08E-05	3.03E-05	-1.675931	0.1546
DREM	-0.000277	9.12E-05	-3.037244	0.0288
DFDI	0.102368	0.069785	1.466901	0.2023
DINR	0.799633	0.370792	2.156553	0.0836
DBBR	1.286547	0.489815	2.626600	0.0467
DIMP	0.085656	0.029929	2.861960	0.0353
R-squared	0.955673	Mean dependent var	0.073125	
Adjusted R-squared	0.867020	S.D. dependent var	3.705030	
S.E. of regression	1.351090	Akaike info criterion	3.651550	
Sum squared resid	9.127223	Schwarz criterion	4.182705	

Log likelihood	-18.21240	Hannan-Quinn criter.	3.678749
F-statistic	10.77992	Durbin-Watson stat	1.598841
Prob (F-statistic)	0.008538		

(Source: E-Views Output)

It may be inferred that the p-value (0.00) < 0.05, which means that H_{03} was rejected and H_{13} was accepted, i.e. At least one independent variable is a significant predictor of the dependent. The R-squared value was 0.95 i.e. 95% of the fluctuations in foreign exchange rate could be explained jointly by ten variables, as listed above. Balance 5% of the fluctuations could be explained by other factors known as residuals. Since the R-square value is greater than 60% the model is the good fit.

H_{04} : The specific independent variable is not the significant predictors of the dependent. H_{14} : The specific independent variable is a significant predictor of the dependent. It may be noted that out of the input of ten variables, five variables whose p-value was less than 0.05 were significant. The significant variables with their corresponding p-values (mentioned in the parenthesis), were SEN (0.03), GDP (0.00), REM (0.03), BBR (0.05) and IMP (0.04). Thus, 50% variables of the input variables were significant, which indicates that all the five variables individually could influence the fluctuations in the foreign exchange rate.

In order to prove the efficacy of the model, it was further tested for the residuals on the E-views software. Breusch-Godfrey Serial Correlation LM Test was performed to check out the serial correlation, if any. H_{05} : There is no serial correlation in the residuals. H_{15} : There is a serial correlation in the residuals. The observed R-squared was 3.48 and Prob. Chi-Square (p-value) was 0.18 > 0.05, so the H_{05} was not rejected, i.e. There is no serial correlation in the residuals, which is good for the regression model. A good model is one in which the residuals does not have heteroscedasticity, which was further tested through the E-views software. H_{06} : There is no heteroscedasticity in the residuals. H_{16} : There is heteroscedasticity in the residuals. The observed R-squared was 2.27 and Prob. Chi-Square (p-value) was 0.99 > 0.05, so the H_{06} was not rejected, i.e. There is no heteroscedasticity in the residuals. In other words the residuals have homoskedasticity. Lastly, the residuals were checked for normality, through the Jarque-Bera Test, performed on the E-

views software. H_{07} : Residuals are normally distributed. H_{17} : Residuals are not normally distributed. The Jarque-Bera was 2.94 and Prob. Chi-Square (p-value) was 0.23 > 0.05, so the H_{07} was not rejected, i.e. Residuals are normally distributed.

Once the residuals were assured for no serial correlation, no heteroscedasticity and normality, the regression model was confirmed for the perfect fit. Based on this the regression equation could be framed as under:

$$Y = a + bX_1 + bX_2 + bX_3 + bX_4 + bX_5.$$

$$Y = 0.1898 + 0.0007(\text{Sensex}) - 0.0526 (\text{GDP}) - 0.0002(\text{REM}) + 1.2865(\text{BBR}) + 0.0856(\text{IMP})$$

The sign of the co-efficient also followed either the economic theory or expectation or intuition, which could be understood from the theoretical inter-relationship between exchange rate and indicators.

Impact of fluctuations in Rupee Movement against US Dollar

With the rupee depreciating to a record low of 69 (28/6/18), a host of sectors and companies, which either import raw materials or have foreign borrowings, or both, are set to see pressure on their bottom-line in the coming days (Mudgil, 2018).

A strong rupee is an indicator of the "economic muscle" of India and thus one indicator of its international prestige. A stronger rupee translates in to bolstering exports, cutting down sharply on imports and paving the way for more foreign investments. The strengthening rupee is of great benefit to importers and to Indians travelling abroad but exporters gain out of the falling rupee (Nag, 2014). Being an Indian everyone wants the dollar to become equal to a rupee or wants rupee to be stronger than a dollar. Because it is believed that the greater the value of the currency, greater the economic strength of the nation. And every Indian wants India to be economically stronger than other countries of the world.

If one rupee becomes equal to one dollar (Rupee-Dollar Parity), the situation will not be all rosy. The pros and cons of rupee-dollar parity have been highlighted as below:

Rupee Dollar Parity and its Positive Impact

- All imported goods (including luxurious goods) would be cheaper, as one would shell out fewer rupees to make the payment of imported goods.
- Precious commodities such as Crude Oil and Gold, being the imported commodity, will be available at the cheaper rate, which will curb the inflation in the economy.

Rupee Dollar Parity and its Negative Impact

- It would terribly hit the exports, as the Indian products would be priced equivalent to one dollar and hence it would be expensive when compared to the products of other nations.
- The existing domestic industries would be in trouble, as residents would prefer to buy imported goods due to lower prices and craziness for imported goods. This would kill the tiny, micro, small and medium enterprises (MSMEs) of India. No sales by MSMEs would result in the job losses of the workers, leading to unemployment and rise in poverty.
- Major incentive to set up industries in India is the cheapest labour, which would be an unattractive factor, if there is a rupee-dollar parity. Hence, there would be no FDI.
- Service Sectors like Business Process Outsourcing (BPOs), Information Technology (ITs) and Knowledge Process Outsourcing (KPOs) would also come to halt, as Indian labour would turn out to be costly when compared with the other countries. Intellectual workers like Engineers, Teachers, Accountants and Designers etc would lose their job.
- Existing foreign companies would either shut-down or shift their operations out of India as their take home profit would steeply go down, on account of currency parity and high labour cost.
- In case of companies which could not shift their business, would rely on automation instead of humans to perform the task and reduce the cost. As result of automation in main and ancillary industries, the unemployment rate would rise. Human oriented sectors such as restaurants, cafes, retail shops, tourism, airlines, house-keeping etc would be badly affected.
- The employed incumbents on receiving less pay would not be in a position to pay their Equated Monthly Installments (EMIs) and would default on bank loan, which would eventually make banks bankrupt.
- If India decides to boycott the imported products then under the protectionism policy, other countries too would boycott our products, the net result of this episode would be that India would earn lesser amount of foreign exchange reserve, which in turn would depress the Indian imports.
- If the Indian manufacturers have to export their products at throwaway price then they need to pay attention to the cost of production. Production cost could be lowered with the usage of advanced technology, world class infrastructure and increase the production manifold to attain the economies of scale.

- No remittances would flow in India, as it would turn out to be costly.
- Agriculture yield would drop due to no imports of fertilizers and other chemicals.
- Made in India products would not be in much demand.
- If there are no jobs in the economy, domestic companies would be out of business, which lead to fall in national savings ultimately causing a tumble for Indian banks and financial markets.
- When people lose domestic and foreign jobs, the income stream of government would dry up very quickly as no income means no taxes. As a result government would cut on spending or they may start borrowing heavily to spend. Defense and business relying on subsidies, farmers, common man, infrastructure companies, and foreign multinationals thinking to expand in India would terribly suffer.
- Purchasing power would rise with the rise in the rupee and as a result to control inflation RBI would raise the repo rate and reverse repo rate.

Considering, the above mentioned positive and negative impact of rupee-dollar parity, it is not desirable to expect this situation. RBI takes due care that rupee does not become too strong, as it is to India's disadvantage that 1\$ equals to 1 rupee. A weak rupee keeps exports high, wages high and imports low, which is beneficial for the economy. Further, falling rupee may not always lead to increase in exports. This is because the demand for Indian goods overseas may be "inelastic", which means that sales abroad may not be so sensitive to price reductions (Nag, 2014).

Impact of Fall in Rupee on ITES/BPO/KPO and Pharma Sector

Exports account for 20 percent of India's annual GDP. Services exports account for roughly 56 percent of country's total exports. While differentiated services' demand may not be elastic to currency movements, undifferentiated services' demand such as ITES/BPO/KPO certainly is (Goenka, 2017). Thus, several large IT and pharma companies' earnings are highly inversely related to the rupee's strength. IT major Infosys Ltd, for instance, estimated in 2016-17 that every 1% appreciation in the rupee would push its operating margin lower by 50 basis points. Pharma major Lupin Ltd, despite estimating that its bottom line would have dropped by Rs 25.1 crore for every additional 1% strength in the rupee in financial year 2016-17, has been continuously reducing its exposure to short dollar forward contracts from \$333 million in financial year 2014-15 to \$96 million in financial year 2016-17 (Patra, 2017).

Falling Rupee and Impact on Corporate Debt

Falling rupee against dollar, has led to debt service burden on corporate India. Years of low-interest-rate policies from the Fed have encouraged companies in these fast-growing economies to borrow dollars because they could do it more cheaply than if they took out loans in their local currencies, like the Indian rupee. The interest burden would increase on foreign currency denominated debt. For companies that have availed foreign currency loans for implementation of projects, the rupee depreciation will stretch their balance sheets. As the value of the dollar rises, the companies will need more of their local currency to pay back the dollars that have since then gained in value.

Falling Rupee and Consumers

Because of falling rupee, the consumers of India are also severely affected. Foreign travel and education will become costlier as a result of falling rupee. The expenses incurred towards university fees as well as the cost of living financed through domestic avenues will put huge burden on the students. A weak rupee will increase the burden of Oil Marketing Companies (OMCs) and this will surely be passed on to the consumers as the companies are allowed to do so following deregulation of petrol and partial deregulation of diesel. If the OMCs increase fuel prices, there will be a substantial increase in overall cost of transportation which will stoke up inflation (Sofat, 2018).

Stronger Rupee and Imports

As rupee strengthens it reduces the landed costs of imports and therefore there is a threat of domestically manufactured goods being replaced by cheaper imported substitutes. This hurts domestic industries i.e. local manufacturers. According to the Balassa Samuelson framework, if the appreciation of the rupee is accompanied by productivity gains which lower the domestic cost of manufacturing, then those gains would offset the adverse impact of currency appreciation. For example, government extended sops to exporters in the form of cheaper financing, by running various export promotion schemes such as duty drawback, extending tax breaks etc. However, now these means are limited as India is a signatory to the WTO, which entails gradual phasing out of such sops.

The government can mitigate the threat of cheap imports flooding domestic markets through import tariffs such as increasing customs duty or imposing anti-dumping duty but that too is viewed negatively by trade partners and is considered as protectionist.

Strategies to mitigate the risk

Foreign exchange intervention by the RBI can help curb rupee strength but there is a risk of trade partners labelling persistent intervention as currency manipulation. Besides, bringing down real interest rates is one of the factors that can discourage hot speculative money coming in. However, since India runs an overall trade deficit, if capital account flows also turn negative, it could put the balance of payments and rupee under pressure and add to inflation (Goenka, 2017). The most efficient way to keep rupee depreciation under check is to keep inflation under control. Once inflation is down, the currency would improve. For this to happen, the study suggests few measures for curbing the downward movement in the value of rupee.

Reducing the coal import bill

Other than petroleum and gold; coal imports account for a major part of India's import bill. A reduction in the import bill can reduce the demand for dollars and thus control the value of the rupee. India sits on one of the largest reserves of coal in the world. Yet, India is one of the largest importers of coal.

After two years of falling, the country's coal import grew 8.1 per cent in 2017-18. There was sustained demand for coking coal from the steel sector and for steam or thermal grade coal from the power and cement sectors. Data from the Centre for Monitoring Indian Economy (CMIE) shows the import at 213 million tonnes in FY18, up from 195 mt in FY17 (Dash, 2018).

Coal is imported because the Indian production is inferior. It has a lot of fly ash content. International prices of coal are also likely to remain high because of taxes which are being imposed by several coal producing countries, including Australia and Indonesia.

Since the public sector Coal India has a near monopoly in production of coal, one of the first things that the government is expected to do is to part-privatize this corporation. Further, state-run Coal India, which meets over 80 percent of the domestic requirement, is battling with problems including delays in regulatory clearances, law and order etc. to augment the production. Foreign investment will be allowed big time into the sector that might raise the domestic production and the quality of coal. This will lead to more usage of domestic coal and moderate the coal import bill (Nag, 2014).

Reducing the import of Gold

The import of Gold, the yellow metal, stood at 74 metric tonnes (MT) in FY2017-18, increasing from 62 MT in FY2016-17, an increase of 19% year-on-year (as reported in Times of India, 3/4/18). Gold is bought and sold internationally in dollars. India

produces very little gold of its own and hence has to import almost all the gold that is consumed in the country. When gold is imported into the country, it needs to be paid for in dollars, thus pushing up the demand for dollars. Hence, for strengthening the rupee against dollar, there is a need to reduce the import of gold.

It may be possible to decrease gold import by increasing duty but then importers would import it in unethical ways. But even if the duty is increased, gold import comprises of 15-20% of the total bill so it will not make a big impact unless the oil bill is reduced, which is explained in the next point.

In fact in 2013, Shri Chidambaram had clamped a 10% duty on gold imports and tied the imports to exports via strict rules. This moderated gold imports. However, increase in gold purchases from overseas last year is also accounted by the lack of confidence in the Indian economy. Domestic wealth holders do not want to hold rupees-expecting the currency to depreciate; instead they favoured gold as a store of value.

As an effective measure, buying of gold jewelry may be avoided. Investing in Gold bonds could be a best option in lieu of gold jewelry for the gifting purpose.

Reducing the import of oil

The import bill mostly comprises of oil and gold (almost 60%). The energy demand of a developing country always grows. For making rupee strong, we may trade in rupees with the countries exporting oil, but that too is highly unlikely, which leaves only one way that is to produce our own energy by solar, wind and nuclear.

Usage of battery operated, electrical vehicles should be encouraged so, that the usage of petrol could be curtailed to a considerable extent. Some incentive should be provided to the manufacturers and users.

One day in a month should be kept as No Petrol Day, where in public transport (such as railways, buses etc) usage should be emphasized.

Mobile Application should be developed for efficient search for Car Pooling and Pillion ride.

For all this to happen, we will have to invest in the INFRASTRUCTURE. We could also get dollars by encouraging FDI. However, that too would happen if we could provide good infrastructure to the foreign companies. China has created excellent infrastructure and due to quick approval of investment proposals, China is able to attract more FDI as compared to India. Hence, the need of the hour is to build rock solid infrastructure in India to grow rupee stronger which is a long term measure.

Buying Swadeshi (Locally produced) goods:

Preferring Swadeshi (Local products i.e. products manufactured in India) over foreign products will help a great deal. Buying products manufactured in foreign countries, puts our money in their economies. In line with this, Make in India, a type of Swadeshi movement covering 25 sectors of the economy, was launched by the Government of India in 2014 to encourage companies to manufacture their products in India and also increase their investment. The benefits of the campaign to the economy at large will be felt in the long term.

In addition to making India a manufacturing hub, there is a need to spend more in R&D activity to become more technologically advanced, so that the Indian quality products could be sold at high prices in the international market, due to demand sustainability.

In fact, we can save lot on foreign exchange, if the Indian consumers can be motivated to buy Fast Moving Consumer Goods (FMCG) made by Indian Firms, instead of using imported items in this segment. The table 5 gives an overview of how households can support Indian economy in saving upon the foreign exchange.

Table 5: Supports Expected From Households

Items	Do's	Don'ts
Cold	Domestic drinks like lemon juice, lassi,	Pepsi and Coke
Drinks	Fruit juice, Patanjali Health Drinks etc	
Soaps	Cinthol, Santoor, Medimix, Neem, Godrej, Patanjali	Lux, Lifebuoy, Rexona, Liril, Dove, Pears, Hamam, Camay, Palmolive
Toothpaste	Neem, Babool, Vicco, Dabur, Patanjali	Colgate, Close Up, Pepsodent, Cibaca
Toothbrush	Prudent, Ajanta, Promise, Patanjali	Colgate, Close Up, Oral-B, Pepsodent, Forhans

(Source: Authors' compilation)

Promoting Exports and Reducing the Imports

The government has made a new manufacturing policy, 2012 to boost exports. Under this, the government is taking steps to boost exports and manufacture our imports locally. For example, India imports Urea. Therefore, the government is now issuing licenses to manufacture Urea in India totally. The entire produce of such factories will be bought by the government in a bid to encourage people to bid for these licenses and manufacture.

Indian farmers must turn to organic farming, this will wipe out the

need of fertilizers (imported commodity) and they will be able to produce A-one quality products which would fetch considerable monetary value. Export of agriculture commodities, dairy products should be encouraged on a massive scale. Tiny and micro enterprises involved in handicraft and handmade articles should be provided marketing intelligence support to export their products.

However, all the imports are not bad. If we purchase the advanced technologies or machineries from the developed nations, this will improve the productivity of the economy and thereby aid in the growth of GDP. However structural (chronic) trade deficits cannot be good. They are a sign that the economy is underperforming and some changes may be needed.

Competitive financial sector

Strong currencies attract large inflows due to the strength of their financial sector. Countries like the U.S., have very strict (albeit complicated) financial regulations that allow for investors from around the world to easily invest in the world's largest single debt market - i.e. the U.S. Treasury market. The principals behind paying back debt investors at all costs were founded with Alexander Hamilton 250 years ago. Maintaining this commitment would help India develop this area.

In fact, government of India has been gradually dismantling capital controls as a part of its broad financial strategy. In April 2018, RBI increased the bond investment limit for foreign portfolio investors (FPI) by a percentage point in two phases-a move that will allow foreigners about Rs 1.4 trillion of extra play in Indian bonds by the end of FY20 (Roy, 2018). This would further help in attracting foreign capital inflow which would have significant impact on domestic money supply, stock market growth, liquidity and volatility. However, to ensure a sustained international interest, the current regulatory framework needs simplification and rationalisation based on sound principles of governance.

Competitive services

India has a highly-educated labour force. Its service sector could easily outrun other Asian countries in areas such as information tech, programming and creative endeavours. Cost effective labour accompanied by talented, smart and hardworking people is essential to consistently attract the outsourcing work from abroad. We may aim at enhancing the productivity of the people by skilling workers in a better way. In fact, the Skill India initiative of Government of India, launched in 2015, is aimed at increasing the employability of youth of the country by providing them

training across 40 diverse sectors. If properly implemented, we may capitalise upon the skills such as English, maths and soft skills where India has a competitive advantage over other countries in the world. This would help us attracting knowledge process outsourcing work and drive up the demand for rupee.

Attracting global talent

If the domestic currency is strong, it would help attract talented workforce across the world. The strongest currencies in the world such as USD, tend to attract world class talent and retain them. They keep their best talent rather than let it get siphoned off to other nations.

Over the years, millions of young talented Indians from various disciplines have left soil in search of better opportunities, phenomenon known as Brain Drain. It adversely affects the quality and quantity of human capital formation, which is the bedrock of modern economic development. A higher number of Indian students, professionals, doctors, and scientists are working abroad now than ever before. On the other hand, the money they are sending back to our country (as remittances) is declining. This trend can be reversed when we emphasise on top-quality / creative education, providing best opportunities and then attracting great companies to headquarter here.

Encouraging Tourism

Tourism can bring many economic and social benefits. Tourism is an important source of foreign exchange earnings in India. This has favourable impact on the balance of payment of the country. Visitor exports (Spending within the country by international tourists for both business and leisure trips) are a key component of the direct contribution of Travel & Tourism.

According to report of World Travel and Tourism Council Report, in 2016, India generated INR1,529.3bn in visitor exports. In 2017, this is expected to grow by 5.4%, and the country is expected to attract 9,450,000 international tourist arrivals. By 2027, international tourist arrivals are forecast to total 17,284,000, generating expenditure of INR2, 901.7bn, an increase of 6.1% pa.

In India, the potential of wellness systems, developed through centuries of wisdom of this ancient civilization should be fully tapped. This may be done by positioning India as a centre of Ayurveda, Yoga, Meditation, Sidha, Naturopathy, etc. together with the spiritual philosophy that has been integral to the Indian way of life. Many world class universities and institutions that educate, promote and propagate the knowledge and practice of the ancient science of yoga, leading to self-betterment, self-

awakening and self-realization; have flourished in India.

In sum total, India is a country with rich cultural and traditional diversity. This aspect is even reflected in its tourism. Indian government should to continue to adopt policies that encourage travellers, such as the new visa regime, enable investment in vital infrastructure and allow companies to do business.

Conclusion

The study is an attempt to look at the macroeconomic variables affecting the volatility of Indian rupee against US dollar. The Indian rupee, which was on a par with the US dollar at the time of Independence in 1947, has depreciated by a little more than 69 times against the greenback in the past 71 years. The Indian rupee has witnessed huge volatility over this time period. The rupee dollar parity is, however, neither possible nor desirable.

Economists point out the rupee value depends on both the fundamentals of the economy and sentiments. There is not a single factor which affects the movement of Indian rupee. In fact, it is the co-integration among various quantitative and qualitative factors that directly or indirectly affect the movement of Indian rupee. As per the findings of the present study, factors such as Sensex (capital market), GDP, Remittances, Budget balance ratio and Imports; will be significant in explaining the variations in the movement of Indian rupee against US dollar in the long term. The study suggested various measures in relation to these significant factors such as reducing the import of coal, gold, oil; promoting the exports & reducing the imports, encouraging the tourism industry in India, creating competitive financial market, attracting global talent, strengthening competitive service segment etc. There may not be immediate effect of these measures on the economy of the country, however, in the long term, if they are supported by good programs, good governance and proper implementation of the policies; they may attract more investment and help keep a check on the inflation and thus help in the overall recovery of the fall in the value of Indian rupee.

Acknowledgement

'Gratitude is the memory of the heart'. We are heartily thankful to Dr. Rajesh Khajuria (Director- SMJV's C K Shah Vijapurwala Institute of Management, Vadodara) and Shri Surendra Kapur, for supporting our research work.

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Exhibit I: Operational Construct

Foreign Exchange Rate: An exchange rate is the rate at which one currency will be exchanged for another. It is also regarded as the value of one country's currency in relation to another currency. In the present study, INR VS USD exchange rate is taken in to consideration.

Sensex: Sensex, otherwise known as the S&P BSE Sensex index, is the benchmark index of the Bombay Stock Exchange (BSE). It is composed of 30 of the largest and most actively-traded stocks on the BSE, providing an accurate gauge of India's economy.

Unemployment Rate: Unemployment refers to the share of the labour force that is without work but available for and seeking employment. To calculate the unemployment rate, the number of unemployed people is divided by the number of people in the labour force, which consists of all employed and unemployed people.

Balance of Trade: The balance of trade is the difference between the value of a country's imports and exports for a given period.

The Consumer Price Index: It is a measure that examines the weighted average of prices of a basket of consumer goods and services, such as transportation, food and medical care. It is calculated by taking price changes for each item in the predetermined basket of goods and averaging them.

Gross Domestic Product: It is the monetary value of all the finished goods and services produced within a country's borders in a specific time period. GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources.

Money Supply (Broad Money): The money supply is the total amount of currency and other liquid instruments circulating in the economy. The indicator represents the broad money that include currency outside banks; demand, time, saving, and foreign currency deposits of resident sectors other than the central government; bank and traveler's checks; and other securities such as certificates of deposit and commercial paper.

Budget Balance Ratio: Budget balance, also referred to as fiscal balance, and is calculated as the difference between a government's revenues (taxes and proceeds from asset sales) and its expenditures. It is often expressed as a ratio of Gross Domestic Product (GDP). If the balance is positive, the government has a surplus (it spends less than it receives). If the

balance is negative, the government has a deficit (it spends more than it receives). Fiscal balance as a percentage of GDP is used as an instrument to measure a government's ability to meet its financing needs and to ensure good management of public finances.

Foreign Direct Investment: It is an investment made by a firm or individual in one country into business interests located in another country. Generally, FDI takes place when an investor establishes foreign business operations or acquires foreign business assets, including establishing ownership or controlling interest in a foreign company. Foreign direct investments are distinguished from portfolio investments in which an investor merely purchases equities of foreign-based companies.

Imports (Goods and Services): Imports of goods and services represent the value of all goods and other market services received from the rest of the world. They include the value of merchandise, freight, insurance, transport, travel, royalties, license fees, and other services, such as communication, construction, financial, information, business, personal, and government services. They exclude compensation of employees and investment income (formerly called factor services) and transfer payments.

Exports (Goods and Services): Exports of goods and services represent the value of all goods and other market services provided to the rest of the world. They include the value of merchandise, freight, insurance, transport, travel, royalties, license fees, and other services, such as communication, construction, financial, information, business, personal, and government services. They exclude compensation of employees and investment income (formerly called factor services) and transfer payments.

Foreign Exchange Reserve (including Gold): Total reserves comprise holdings of monetary gold, special drawing rights, reserves of IMF members held by the IMF and holdings of foreign exchange under the control of monetary authorities. The gold component of these reserves is valued at year-end (December 31) London prices.

Gold Prices: The price at which gold is being traded in the gold market. The price of gold is moved by a combination of supply, demand, and investor behaviour.

Net Foreign Portfolio Investor: Portfolio equity includes net inflows from equity securities other than those recorded as direct investment and including shares, stocks, depository receipts (American or global), and direct purchases of shares in local

stock markets by foreign investors.

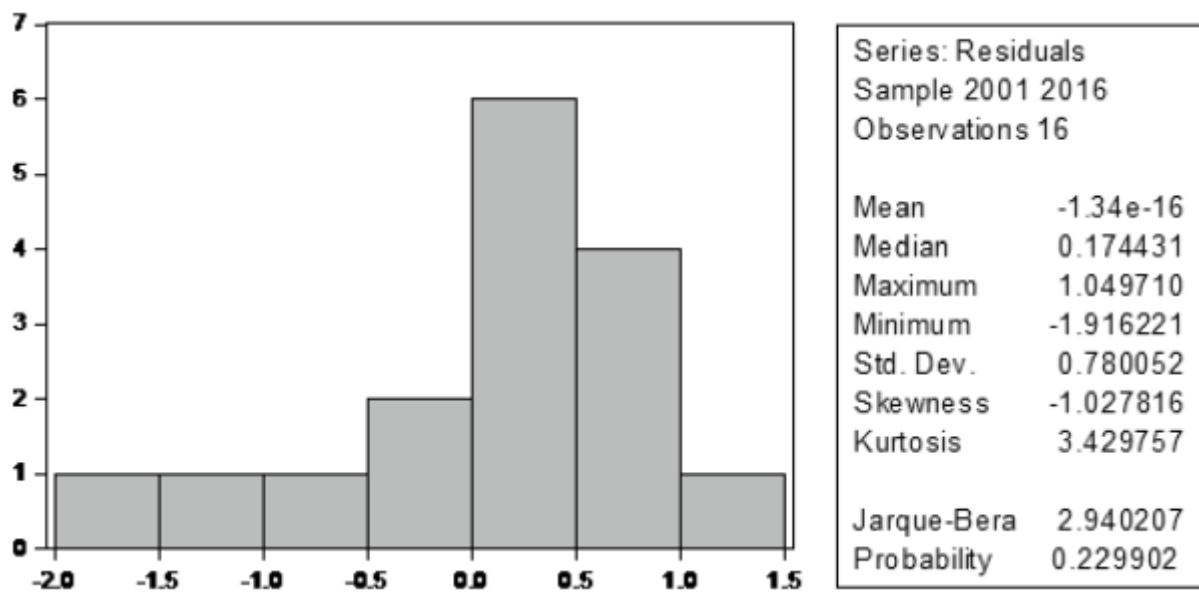
Exhibit II: Output of Auto Correlation/Serial Correlation Test

Breusch-Godfrey Serial Correlation LM Test: Null hypothesis: No serial correlation at up to 2 lags				
F-statistic	0.417899	Prob. F(2,3)	0.6917	
Obs*R-squared	3.486305	Prob. Chi-Square(2)	0.1750	
Test Equation: Dependent Variable: RESID Method: Least Squares Date: 06/27/18 Time: 15:14 Sample: 2001 2016 Included observations: 16 Presample missing value lagged residuals set to zero.				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.079970	0.720020	0.111066	0.9186
DCPI	0.250954	0.495918	0.506039	0.6477
DSEN	0.000134	0.000392	0.342067	0.7549
DUNR	-1.610360	3.320898	-0.484917	0.6609
DGDP	-0.006468	0.016059	-0.402799	0.7141
DFXR	-1.62E-05	3.93E-05	-0.413652	0.7069
DREM	-6.06E-05	0.000134	-0.451431	0.6823
DFDI	-0.024955	0.086794	-0.287520	0.7924
DINR	0.229128	0.521671	0.439219	0.6902
DBBR	-0.052372	0.562646	-0.093081	0.9317
DIMP	0.023558	0.043114	0.546421	0.6228
RESID(-1)	0.170375	0.803490	0.212044	0.8457
RESID(-2)	0.888195	1.231676	0.721127	0.5229
R-squared	0.217894	Mean dependent var	-1.34E-16	
Adjusted R-squared	-2.910530	S.D. dependent var	0.780052	
S.E. of regression	1.542558	Akaike info criterion	3.655785	
Sum squared resid	7.138456	Schwarz criterion	4.283513	
Log likelihood	-16.24628	Hannan-Quinn criter.	3.687930	
F-statistic	0.069650	Durbin-Watson stat	1.844907	
Prob (F-statistic)	0.999717			

Exhibit III Output of Heteroskedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey				
Null hypothesis: Homoskedasticity				
F-statistic	0.082687	Prob. F(10,5)	0.9994	
Obs*R-squared	2.270506	Prob. Chi-Square(10)	0.9938	
Scaled explained SS	0.269374	Prob. Chi-Square(10)	1.0000	
Test Equation:				
Dependent Variable: RESID ^ 2				
Method: Least Squares				
Date: 06/27/18 Time: 15:15				
Sample: 2001 2016				
Included observations: 16				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.379654	0.584242	0.649823	0.5445
DCPI	-0.211394	0.389042	-0.543370	0.6102
DSEN	-9.23E-05	0.000301	-0.307208	0.7711
DUNR	0.883379	2.685901	0.328895	0.7556
DGDP	0.005064	0.011908	0.425264	0.6883
DFXR	1.14E-05	3.31E-05	0.343855	0.7449
DREM	1.60E-05	9.94E-05	0.161200	0.8782
DFDI	0.024050	0.076106	0.316010	0.7648
DINR	-0.204046	0.404379	-0.504592	0.6353
DBBR	-0.050169	0.534183	-0.093917	0.9288
DIMP	-0.021922	0.032640	-0.671621	0.5316
R-squared	0.141907	Mean dependent var	0.570451	
Adjusted R-squared	-1.574280	S.D. dependent var	0.918363	
S.E. of regression	1.473474	Akaike info criterion	3.824972	
Sum squared resid	10.85562	Schwarz criterion	4.356126	
Log likelihood	-19.59977	Hannan-Quinn criter.	3.852171	
F-statistic	0.082687	Durbin-Watson stat	1.376437	
Prob (F-statistic)	0.999441			

Exhibit III Output of Normality





Determining Accreditation Measures in Higher Education Through New Measurement Tool: Balanced Scorecard

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Abstract

The institutions of higher learning strive for better accreditations and rankings in a bid to show quality which they either have, or do not. Quality is the buzzword of the 21st century, as it vouches for the institutions that are high up on accreditation and ranking- the deciding factor for picking up the best institutions. The criteria for accreditation and ranking are different depending on the governing agencies. However, irrespective of criteria for accreditation and ranking agencies, higher education institutions (HEI's) must adhere to a process that can ensure better quality each time. This can be possible by falling back on to certain management concepts that have shown results by getting better rankings globally. The answer lies in the implementation of the Balanced Scorecard (BSC) which is a management concept put forth by Kaplan and Norton in 1992 (Kaplan & Norton, 1992). Universities worldwide have used BSC and have been successful in getting accredited globally and hence, Indian universities and HEI's can give BSC a try for organisational development through organisational change management, to achieve higher and diverse objectives.

Keywords: Quality in Higher education, Balanced Scorecard, Accreditation and Ranking

Introduction

Quality in higher education institutions and quality in education has become the prime concern and propounded in a very continuous and comprehensive manner by the present government (MHRD, 2018). Though the objective of quality improvement was always in the minds of the various governments, their initiatives were in bits and pieces, which is evident from various committee/ commission reports. Ranking and accreditation have set the criteria for showcasing quality across the length, breadth and depth of educational institutions. However, the truth is that many institutions either do not get the desired accreditation or rank. The coveted outcome is possible only when there is a concentrated effort for improvement at each level (levels desired by accreditation and ranking authorities). In

this direction, the HEI's and universities must follow the management concepts and practices which have been endorsed by other institutions in their urge to bag global rankings, and the answer lies in the implementation of the balanced scorecard.

Research methodology of the study

This is a qualitative study; hence, the research design is exploratory. For this study, the data collection was done through secondary sources i.e. through websites, journals, Indian committees/ commissions reports, government websites.

Objectives of the study

- 1.To explore the criteria fixed by various agencies for accreditation and ranking of HEIs and universities.
- 2.Exploring possibilities to implement the management concept, Balance Scorecard, as a strategy to gain better accreditations and rankings.

Challenges of the higher education system

The government of India has taken many initiatives to bring fundamental changes in higher education, so that the institutions bag the best ranks globally. But aspirations meet the challenges in a bid for survival, sustainability, and success. The conflicting and troubling factors as discussed in the MHRD, 2018 report are: lack of access of higher education to socio-economically disadvantaged populace, education system cramping teachers' innovation, career management programs not being performance- but seniority based, missing research orientation and funding. Other lagging factors include the ineffective governance and leadership that is another major blow to the system. Many fake colleges have been allowed to thrive, stifling creativity and innovation (MHRD, 2018).

Various Committees and Commissions to improve quality of Higher education

The historical account

Committees and Commissions formed on Higher Education since independence talk about the structural changes in higher education; incorporating Human Resource Management

practices in Higher Education could be seen in bits and pieces at best. Those few Committees and Commissions that were formed post-independence in higher education talked about the human resource practices viz., training- Radhakrishnan Education Commission, (1948); Kothari Commission, (1964); Yashpal Committee, (2009); Kelkar Committee, (1976); C.S Jha Committee, (1978); National Policy on Education, (1986); P.V. Indiresan Committee, (2000); manpower planning- S.S. Bhatnagar committee on Technical Education, (1947) and recruitment and retention of teachers- P. Rama Rao Committee, (2002-04). The L.S. Chandrakant Committee (1971) did highlight the autonomy in higher education, however, in the absence of any training to deal with autonomous status becomes futile (Bhatnagar Shanti Swarup, n.d.; Saha & Ghosh, 2012; MHRD, The Committee to advise on Renovation and Rejuvenation of Higher Education, 2008; Modern Education, Progress of Education after independence, Introduction, n.d.; MHRD D. o., n.d.).

Recommended enhancing effectiveness of teachers' and teaching quality

The Sarkar Committee (1945) and the Radhakrishnan Commission (1948-49) stressed on improving the quality of teaching by research, industry visits, proper students-teacher ratio, professional and vocational training to teachers. To aid in the enhancement of quality of teaching, the Radhakrishnan Education Commission (1948-49), recommended a merit-based recruitment and promotion of teachers. But however, in (1976), the Kelkar Committee recommended to organizing special programs to bring changes in attitudes of the senior personnel. Further to this, the ninth five-year plan (1997-2002) emphasized the need for conducting workshops for college principals. The Gnanam Committee (1987) focussed on the appointment of vice-chancellors for universities to care of administration of universities. This shows that a vice chancellor not only needed to be an academician albeit a good administrator (Shivappa, 2011).

Recommendation on training and development of teachers

The Damodaran Committee (1970), Kelkar Committee (1976), C.S. Jha Committee (1978), P. Rama Rao committee (1995-99), Mashelkar Committee (1996-98), P.V Indiresan Committee (2000) and NPE (2016) recommended training and re-training of faculty through industrial training. CABE (1992), NPE (1986), Nayudamma Committee (1986), Ramamurti Committee (1990), CABE (2005), Yashpal Committee (2009) and the University Grants Commission (1956) suggested initial and in-service training for faculty members and orientation/ induction for a

period of 6-8 weeks and refresher courses at least once- in- 5 years (Ministry, 2016; MHRD, Report of Central Advisory Board of Education (CABE) Committee on Autonomy of Higher Education Institutions, 2005; Jain, 2018; Ramamurti, 1990; MHRD G., 2018; MHRD D. o., n.d.).

What is Accreditation?

Accreditation is defined by the International Organization for Standardization (ISO), as a formal third-party attestation to conduct specific assessment tasks. Accreditation was introduced in Australia in 1947, to strengthen industrial development vis- a- vis quality. Accreditation is an objective process and the most transparent and widely accepted measure (Yong, Unger, & Jianhua, 2017).

Accreditation as a measure to improve the quality in Higher education

Time and again, committees and commissions on higher education underscored various recommendations to improve the quality of education through structural changes and through training and development of teachers. To shape up those recommendations, the Indian government decided to do accredit the HEIs and universities. Therefore, the National Board of Accreditation (NBA) (1994), The National Assessment Accreditation Council (NAAC) (1994) and the Accreditation Council for Business Schools and Programs (ACBSP) (1988), were established to focus on quality of higher education through grading system by accreditation.

NAAC Accreditation: For this, the council encouraged teamwork, workers' participation in management, promotion of quality circles, leadership and top-level commitments by doing self-evaluation, benchmarking, innovations to improve quality in higher education. The National Policy on Education (NPE), 2016 focussed on the fair recruitment and selection of teachers, merit-based appointments of Vice-chancellors and conducting training programmes for teaching and communication skills. Therefore, the NAAC's evaluation criteria are based on Curricular aspects, Teaching-Learning Evaluation, Research, Consultancy and Extension, Infrastructure and Learning Resources, Student support and progression, Governance, Leadership and Management, Innovations and Best practices, (Society; MHRD, National Assessment and Accreditation Council, n.d.).

NBA Accreditation: Accreditation under NBA encompass: Vision, Mission and Program Educational Objectives, Program Outcomes, Program Curriculum, Student's performance, Faculty contributions, Facilities and Technical support, Academic

support units and teaching-learning process, Governance, Institutional support and Financial resources, and Continuous improvement.

ACBSP Accreditation: Core Values and concepts at Accreditation Council for Business Schools and Programs (ACBSP) embrace: Learning-centred Education, Leadership, Continuous Improvement and Organizational Learning, Faculty and Staff participation and Development (Human Resource Planning, Employment practices, Faculty qualifications, work load and coverage, Faculty Deployment, Faculty size and load, Faculty Evaluation, Faculty Operational Procedures, Policies, Practices and Development), Partnership Development, Design Quality, Management by Fact, Long-range view, Public responsibility and Citizenship, Fast response, and Results-orientation (Programs).

Ranking as a measure to improve the quality in Higher education

The National Institutional Ranking Framework, NIRF, September, (2015) being the ranking authority gives rewards to institutions and universities in India. The criteria for ranking are compartmentalized into five factors:

1. Teacher- Learning and Resources, viz., student strength including doctoral students (SS), Faculty-student ratio, combined metric for faculty with PhD and experience, financial resources and their utilisation.
2. Research and Professional Practice, viz., combined metric for publications, combined metric for quality of publications, IPR and patents: published and granted, footprints of projects and professional practice.
3. Graduation Outcome, viz., combined metric for placement and higher studies, metric for university examinations, median Salary, metric for number of PhD students graduated.
4. Outreach and Inclusivity, viz., percentage of students from other states/ countries (region diversity), percentage of women (women diversity), economically and socially challenged students (ESCS), facilities for physically challenged students (PCS).
5. Perception, viz. peer perception: employers, peer perception: academic peers (MHRD, 2015).

Comparison of Accreditation and Ranking Criteria

Annexure- A shows comparison between the various criteria of accreditation and ranking. NIRF highly underscores the student and research criteria, whereas ACBSP gave more importance to

the faculty. The student criteria were considered trivial by ACBSP. Research and consultancy are on the agenda of NIRF and NAAC, but not considered by NBA and ACBSP. The stakeholders are given more significance by NIRF and ACBSP. Institution and governance related criteria are given equal importance by NAAC, NBA and ACBSP however, NIRF gives some importance to finance criteria. Thus, it is seen that the accreditation agencies give equal stress on all almost all criteria whereas ranking agency, NIRF, gives more weightage to students. Hence, it can be concluded that ranking is usually done by students who decide the best institute/ university to get into, in which accreditation agencies judge the institutions and universities on other criteria rather than just the student centric criteria (Programs; HRD, 2016).

Role of accreditation in Higher Education in National and International Arena

The focus of successive governments, especially National Education policy, 2019, has always been to achieve "Access, Equity, Quality, Affordability and Accountability". Substantiality of the quality education goes beyond the silhouette of curriculum aspects and teaching-learning processes. Accreditation takes care of the institution in its entirety: research, students, faculty, and stakeholders, who are the life and blood of any institution. Quality assurance is important for improving the higher education sector, so a single solution may not endorse the improvement in quality across higher education institutions (Press Information Bureau, Government of India, Vice-President's Secretariat, 2019; Sanyal & Martin, 2006).

The quality assessment requires institutions certain accreditation criteria: mission, governance and administration, human resources, educational programmes, academic standards, quality of learning opportunities, quality management and enhancement, research and other scholastic activities, community involvement, consolidated development plans. The ISO 9000 standard was created to ensure that the higher education provided by a country is globally recognized and accepted, without which the higher education sector would be spineless (Sudirman, 2012).

Why institutions fail to get higher rankings and accreditation from government and non- government agencies

- Lack of regular accreditation of higher education institutions i.e. once in every three years.
- To speed up the accreditation process, the institutions try to fill in the data as they feel it should be rather than how it should be.

Therefore, lack of training to give judicious data based on facts become difficult.

- In India, with the government interference in higher education, developing quality of HEI's is quite challenging. To overcome this, external agencies focus on upgradation of HEI's with a focus on quality and imposing penalty on non-performing higher education institutions. The accreditation process conducted by private entities in US, UK, Finland, Germany, Japan is successful due to the non-interference of government.
- The accreditation process is not qualitative. It is rather more quantitative and hence, many universities and institutions that provide education to much larger population of students are compared with the institutions that provide education to fewer students.
- Lack of training of the external agencies in conducting the accreditation process (Gopal, 2015).

Solutions to get better accreditation and rankings

The National Assessment and Accreditation Council (NAAC) to improve upon quality of higher education set up globally, has signed a memorandum of affiliation with the Council for Higher Education Accreditation (CHEA), which is the International Quality Group. The duo will be exchanging resources, expertise, case studies in addition to the best practices followed by both in assessment and accreditation amongst 40 countries. This would further boost their performance (NIRF) in term of placements and enrolments (Kohli, 2017).

Methods to improve quality of higher education institutions through balanced scorecard

One of the methods that can be used in Strategic planning is balanced scorecard, which is a performance measurement tool that measures the outcome against the plan (Fooladvand, Yarmohammadian, & Shahtalebi, 2015). Earlier it was applied in business and industries and profit organisations. It has gained massive interest in not for profit sector as well, viz. universities and government agencies in countries outside India (Pietrzak, Paliszkiwicz, & Klepacki, 2015). The balanced scorecard method was introduced by Robert Kaplan and David Norton in 1992. It elaborates on four perspectives (Kaplan & Norton, 1992). The balanced scorecard helps in setting goals for quality, performance, service and time and translates goals into specific measures. BSC, thus, focuses on customer perspective, internal business perspective, innovation and learning perspective, financial perspective. The balanced scorecard strikes a balance

between financial and non-financial measures which are the leading and lagging factors respectively.

Reasons to implement BSC

The balanced scorecard is a performance measurement tool that links to strategies. The goals and key performance indicators are decided in advance and are measured, as 'what is measured gets managed'. The balanced scorecard is a new means of measuring performance in this new age. It provides a solution to the problems linked to strategy implementation. It strikes a balance between past performance indicators by taking financial measures/ leading factors into consideration and future performance indicators by considering non-financial measures/ lagging factors (Rangarajan & Mishra, 2014). The Baldrige Criteria, (1987), (Malcolm Baldrige National Quality Award (MBNQA), n.d.) for performance excellence for both business and education require that organisations have a leading and lagging performance indication. Balanced scorecard helps align such performance indications. The lagging and leading factors are in congruence with the strategic objectives of the organisation (Karathanos & Karathanos, 2005). Umashankar & Dutta (2007) stated that the current stature of universities and colleges is such that the application of balanced scorecard provides an opportunity for the institutions to translate the mission into coherent, comprehensive and communicable network for external stakeholders and internal staff. Molina, Forencio, Gonzalez and Gonzalez (2014) stated that the BSC improves communication that builds trust within and outside the institutions of higher education. They further stated that it helps administrators/ leaders to clearly communicate the goals to the subordinates, who avoid ambiguity and hence, improve appraisals. The balanced scorecard puts strategy and vision at the centre and puts together all other perspectives to enable managers to understand the various inter-relationships to help them in problem-solving and improved decision-making. It helps to improve the organisational climate, commitment levels and employee satisfaction and helps in the growth of human resources in an organisation (Molina et al., 2014). The balanced scorecard takes the organisation forwards rather than backwards (Kaplan & Norton, 1992). It provides a roadmap to the top management by giving them information about the organisational performance and helping them identify goals and form a strategy (Ahmad & Soon, 2015). Implementation of balanced scorecard creates an improved working environment where human resources grow, adding commitment and satisfaction to the organisation.

Opportunities and Challenges in implementation of Balanced Scorecard

The balanced Scorecard has been used as a measurement of managerial performance in corporates that are profit driven. However, government run higher education institutions are exceptional and profit-making is not their objective. Therefore, the challenges of implementation of the balanced scorecard is to coincide with the performance of institutions in terms of financial aspects that would probably lead people to think of education system differently.

There is a dearth of study on the implementation of Balanced scorecard in higher educational institutions in India. On the contrary, Balanced Scorecard has been implemented in various foreign universities with high world rankings; University of California (31st global rank), San Diego in 1993, which is the first university to implement the balanced scorecard. Other universities that rank high in the 2020 world rankings and have implemented the balanced scorecard are: University of Pennsylvania (US) ranked 11th, Yale university (US) ranked 8th, University of California, Los Angeles (US) ranked 17th, University of California, Berkeley (US) ranked 13th, Cornell University (US) ranked 19th, University of Edinburgh (UK) ranked 30th to name a few (World University Rankings, n.d.) and (Balanced Scorecard Institute: Strategy Management Group, n.d.).

Limitations and future scope of the study

As this study is based on secondary data, the outcome of the study remains hypothetical and therefore, in future the study can be conducted by implementing Balanced Scorecard in either university or self-financed institutions and study the outcome in the form of accreditation and rankings.

Managerial Implication

Though accreditation agencies and ranking agencies have led

down various criteria for providing grading and ranking respectively, few institutions have learnt the art of providing the data in a manner that they receive the desired accreditation and better ranking. However, the other institution needs to change for organisation development to get good accreditation and ranking. The implementation of the balanced scorecard in higher educational institutions upscales teaching. In addition to this, it also helps in creating a conducive working environment, increases commitment levels of employees, helps in strategy formulation and implementation in accordance with the mission/vision of organisation. The Balanced scorecard will help the educationists and strategists to formulate strategies that would help the institutions to grow in terms of quality, which will benefit students. As the education industry is a non-profit sector it does not indulge in profit making but aims at customer (students) satisfaction by getting world class rankings and better grading.

Conclusion

The committees and commissions that were formed on technical and higher education (post and pre-independence) focussed on the structural changes rather than procedural changes. The balanced scorecard, a performance measurement tool, due to its increasing significance and application in profit and non-profit sector, will benefit colleges/institutions. The balanced scorecard was first introduced by Kaplan and Norton in 1992 and focusses on four perspectives: learning and growth, customer, internal process and financial perspectives coupled with the fifth perspective which is, sustainability, making it a comprehensive performance measurement tool for better organisational outcomes (Kalender & Vayvay, 2016). Balanced Scorecard helps to translate mission and vision of the organisation to its stakeholders and staff in a very comprehensive and communicable manner (Umashankar & Dutta, 2007).

Annexure-A

Criteria on which accreditation and ranking is done by various agencies

Criteria	Accreditation Agencies			Ranking Agencies
	NAAC (1994)	NBA (1994)	ACBSP (US) April, 1988	NIRF (2015)
Students	Curricular Aspects, Student support progression, Teacher-learning Evaluation	Students' performance, Teacher- learning process, Program outcomes and Curriculum, Facilities and Technical support, Academic support units	Learning- centred education, Results orientation	Teacher-learning and resources Students strength including Doctoral students Faculty - student ratio, Graduation Outcomes: Combined metric for placement and higher studies.

Criteria	Accreditation Agencies			Ranking Agencies
	NAAC (1994)	NBA (1994)	ACBSP (US) April, 1988	NIRF (2015)
				Metric for university examinations Median salary Metric for number of PhD students graduated, Outreach and Inclusivity: Percentage of students from other states/ countries (Region diversity) Percentage of women (Women diversity) Economically and socially challenged students Facilities for physically challenged students
Institution	Governance, Leadership and Management, Infrastructure and Learning resources, Innovations and best practices	Vision, Mission and Program Educational Objectives, Governance, Institutional support and financial resources, Continuous improvement	Leadership, Management by fact, Continuous Improvement and Organisational learning, Design quality, Long-range view, Fast response	Financial resources and their utilisation
Faculty		Faculty Contributions	Faculty and Staff participation and Development: Human resource Planning, Employment practices, faculty qualifications, workload and coverage, faculty deployment, faculty size and load, faculty evaluation, faculty operational procedures, policies, practices and development.	Combined metric for faculty with PhD and experience.
Research	Research, Consultancy and extension			Research and professional practice Combined metric for publications. Combined metric for quality of publications IPR and Patents: published and granted Footprints of projects and professional practice
Stakeholder			Partnership development, Public responsibility and Citizenship	Perception: Peer perception: Employers Peer Perception: Academic peers

(Source : Accreditation Council for Business Schools and Programs (ACBSP) for schools located outside the United States, n.d.; Accreditation, n.d.; MHRD, National Institutional Ranking Framework, MHRD, 2015; MHRD, National Assessment and Accreditation Council, n.d.).

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What Is Cryptocurrency: 21st-Century Unicorn- Or The Money Of The Future?

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Abstract

Calling bitcoins, the "next big thing since the internet and computing" themselves are real articulations to make. Bitcoin and different cryptographic forms of money may not be quite a bit of a danger fiat cash today in India. Digital forms of money are a sort of advanced cash that depend on circulated arranged and shared exchange records to join the center thoughts of cryptography with a financial framework to make a mysterious, traceable, secure and conceivably stable virtual money and it will be compelling in India. Bitcoin and Ethereum are two very troublesome digital forms of money hoping to use blockchain advances to drive development over various businesses in India. Concerning the Blockchain, India can't be disregarded. It is an unfathomable nation with in excess of a billion people who as of late experienced demonetization. That is around the time that an expansive number of Indians started putting their cash in Bitcoin. That is the time that various Indians began promoting their trade out Bitcoin and continue to owe them now. This spike drove some technically knowledgeable subjects of the India to buy Bitcoins and in addition achieve something with the blockchain convention itself in India. One can contend that while Satoshi Nakamoto developed Bitcoin, it is India that may well be the primary nation to dig in its validity as an other money related framework. Consistently, we have seen the crypto arrange developing at a quick pace. Aside from that, there is nobody who comprehends Indian purchasers superior to anything local organizations. In a nation like India, where we esteem everything by its money related worth, the beyond any doubt shot approach to beat money is to make cash that is more important than cash. A crypto trade and a wallet that would permit countless nationals of the India to end up some portion of the crypto economy will be an incredible jump for the whole blockchain network. The objective of this paper is to comprehend the eventual fate of cryptographic money in India, to assess the view of bitcoin as the future cash and to break down the likelihood of sanctioning of bitcoins in India.

Keywords: Digital currency , Bitcoin , Issues in Cryptocurrency , Blockchain

The Emergence of Cryptocurrency

A Cryptocurrency alludes to a virtual or advanced money utilizing cryptography (it alludes to putting away information as figure message that can be perused just by those for whom it is expected) to guarantee security. This element makes it hard to fake a digital money. It has a natural nature which recognizes it from all other customary monetary forms. It isn't made or controlled by any focal foundation, accordingly making it invulnerable to administrative obstruction and control.

Since cryptographic money isn't controlled by any association, so its exchanges are very mysterious in nature. This makes them the most appropriate for a wide range of odious exercises like tax avoidance and tax evasion. Scarcely any individual knows that cryptographic forms of money rose as a side result of another creation. Satoshi Nakamoto, the obscure designer of Bitcoin, the first and still most critical digital money, never proposed to imagine a cash.

In his declaration of Bitcoin in late 2008, Satoshi said he built up "A Peer-to-Peer Electronic Cash System." His objective was to concoct something; numerous individuals neglected to make before computerized money. The absolute most critical piece of Satoshi's development was that he figured out how to fabricate a decentralized computerized money framework. In the nineties, there have been numerous endeavours to make advanced cash, yet they all fizzled. Subsequent to seeing all the concentrated endeavours fizzle, Satoshi attempted to assemble an advanced money framework without a focal element. Like a Peer-to-Peer arrange for document sharing.

This choice turned into the introduction of cryptographic money. They are the missing piece Satoshi found to acknowledge advanced money. The motivation behind why is somewhat specialized and complex, however in the event that you get it, you'll find out about cryptographic forms of money than the vast majority do.

In this way, how about we attempt to make it as simple as could be allowed. To acknowledge computerized money you require an instalment coordinate with records, adjusts, and exchange. One noteworthy issue each instalment organize needs to comprehend is to keep the supposed twofold spending: to keep that one element spends a similar sum twice. More often than not, this is finished by a focal server who keeps record about the equalizations. In a decentralized system, you don't have this server. So you require each and every element of the system to carry out this activity. Each companion in the system needs a rundown with all exchanges to check if future exchanges are legitimate or an endeavour to twofold spend. Yet, in what capacity can these elements keep an accord about these records? In the event that the companions of the system differ about just a single, minor adjust, everything is broken. They require a flat-out agreement. Normally, you take, once more, a focal expert to proclaim the right condition of equalizations. In any case, how might you accomplish agreement without a focal specialist?

No one knew until the point that Satoshi developed all of a sudden. Actually, no one trusted it was even conceivable. Satoshi demonstrated it was. His significant advancement was to accomplish accord without a focal expert. Digital forms of money are a piece of this arrangement – the part that made the arrangement exciting, captivating and helped it to move over the world.

Different types of cryptographic forms of money/virtual monetary standards

Bitcoins are the most looked for after cryptographic money in the market. Anyway there are a few different monetary standards which have picked up force as far back as the idea has been presented.

The following are some other of cryptographic forms of money that exist:

- **Ethereum:** Ethereum is the second most renowned name in the virtual money showcase. It to some degree like the idea of bitcoins anyway it has some extra traits. It is simply a blockchain based stage. What makes it uncommon is the Ethereum Virtual Machine. The blockchain in ethereum is utilized not to store the information of the exchange but rather to ensure smooth keep running of a decentralized application.
- **Ripple:** Ripple is more in the idea of an instalment convention made and created by an organization named Ripple, which depends on the idea of Real time Gross Settlement. It was at

first discharged in the year 2012.

- **NEM:** Similar to bitcoin, NEM is likewise a distributed blockchain stage propelled in the year 2015. It utilizes the special Proof-of-Importance calculation, an approach to approve exchanges and accomplish the disseminated consensus.
- **Litecoin** – Initially presented in the year 2011, bitcoin is for the most part indistinguishable to bitcoin. What influences it to emerge is the utilization of Segregated Witness and the Lightning Network.

Transactional properties

- **Irreversible :** After affirmation, an exchange can't be switched. By no one. Also, no one means no one. Not you, not your bank, not the leader of the United States, not Satoshi, not your excavator. No one. On the off chance that you send cash, you send it. Period. Nobody can encourage you, in the event that you sent your assets to a con artist or if a programmer stole them from your PC. There is no wellbeing net.
- **Pseudonymous:** Neither exchanges nor accounts are associated with true personalities. You get Bitcoins on purported addresses, which are haphazardly appearing chains of around 30 characters. While it is generally conceivable to break down the exchange stream, it isn't really conceivable to interface this present reality personality of clients with those addresses.
- **Fast and worldwide:** Transaction are spread almost immediately in the system and are affirmed in two or three minutes. Since they occur in a worldwide system of PCs they are totally impassive of your physical area. It doesn't make a difference in the event that I send Bitcoin to my neighbor or to somebody on the opposite side of the world.
- **Secure:** Cryptocurrency reserves are secured an open key cryptography framework. Just the proprietor of the private key can send digital money. Solid cryptography and the enchantment of huge numbers makes it difficult to break this plan. A Bitcoin address is more secure than Fort Knox.
- **Permissionless:** You don't need to request that anyone utilize digital currency. It's only a product that everyone can download for nothing. After you introduced it, you can get and send Bitcoins or different cryptographic forms of money. Nobody can forestall you. There is no guard.

What are Cryptocurrencies truly?

Digital money was conceived out of the requirement for secure

correspondence in the Second World War. A characterizing highlight of a cryptography, and seemingly its most charming appeal, is its natural nature, it isn't issued by any focal expert, rendering it hypothetically safe to government impedance or control. A digital money is an advanced cash that utilizes cryptography for security. It is likewise called virtual cash. Cryptographic money is a type of advanced cash that is intended to be secure and much of the time mysterious. Digital money is related with the web that utilizes cryptography. Cryptography is the way toward changing over neat data into a relatively uncrackable code, to track buys and exchanges. Digital money is an approach to anchor correspondences, data and cash on the web. It has developed in the computerized time with components of scientific hypothesis and software engineering.

Blockchain technology

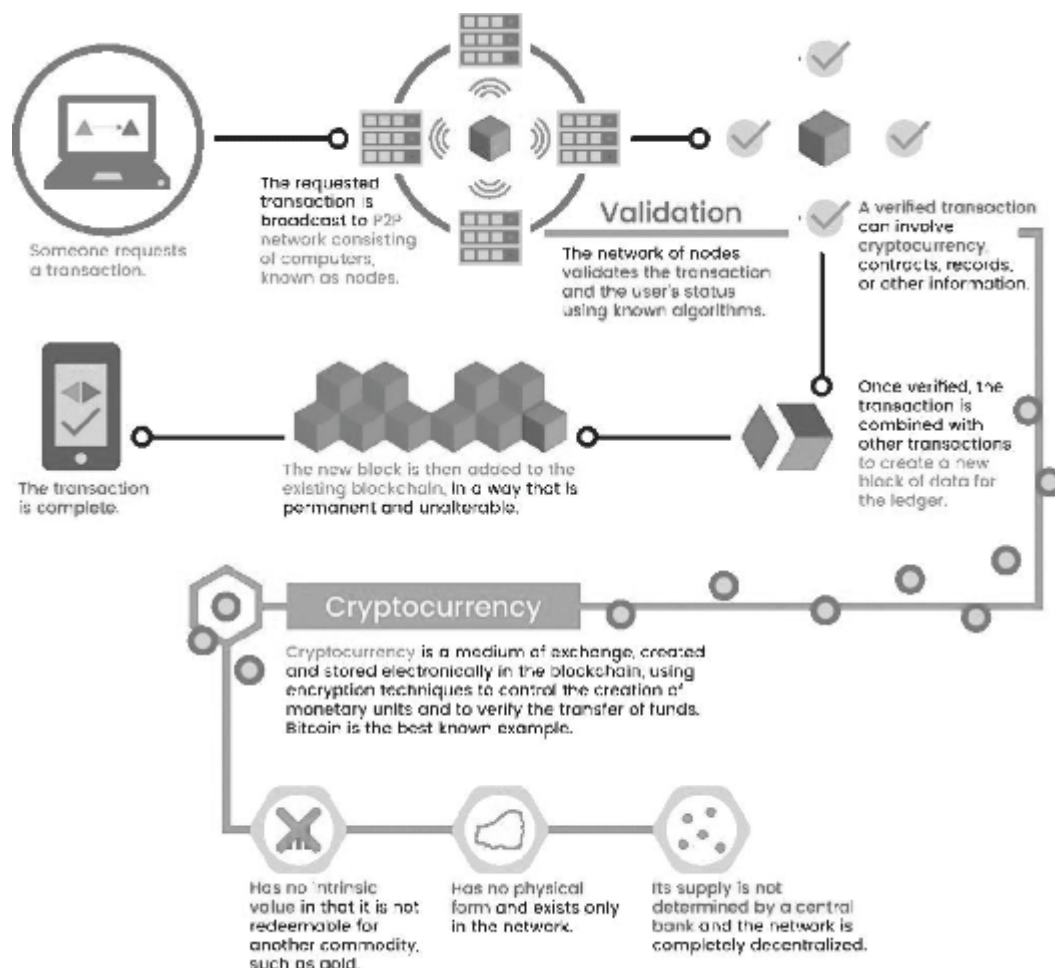
Most digital forms of money depend on blockchain innovation. In

basic terms, it is a framework to exchange and store information or data that is created while executing in a cryptographic money. An ongoing Whitepaper on Blockchain has separated the idea of blockchain innovation in detail.

According to the paper, "a Blockchain may be described as a tamper-evident ledger shared within a network of entities, where the ledger holds a record of transactions between the entities. To achieve tamper-evidence in the ledger, Blockchain exploits cryptographic hash functions."

Blockchain innovation is at the core of how digital forms of money function. It dodges any probability of misrepresentation and makes any sort of altering infeasible for the clients. It is an emotionally supportive network for the scrambled cash, whereby the exchanges are recorded and put away on the record. So regardless of whether the clients are unknown, despite everything it winds up troublesome for anybody to potentially

Figure 1: Cryptocurrency



(Source: <https://bitcoin.org/>)

What is Bitcoin?

Bitcoin is a digital currency and overall instalment framework. Bitcoin is a computerized cash made in 2009 by Satoshi Nakamoto. It in view of the thoughts set out in a white paper by the strange Satoshi Nakamoto whose genuine distinguish presently can't seem to be verified. Bitcoin regulate and create units of money utilizing the principles of cryptography. It is likewise called as decentralized advanced money. The exchange expenses of customary online instalment instruments are more than the exchange charges of bitcoin exchange. This transaction is worked by a decentralized specialist dissimilar to officially sanctioned monetary forms. Bitcoins are totally virtual coins intended to act naturally contained for their esteem. There is no requirement for bank to move and store cash.

Bitcoins are not physically present, with the goal that lone adjusts are kept on an open wallet in the cloud. All bitcoin exchange is checked by a gigantic measure of processing power. An individual database that you can store on your PC drive, on your cell phone, on your tablet or some place in the cloud is called wallet. Bitcoins are exchanged starting with one individual wallet then onto the next. Currently 1 Bitcoin is INR 712243 (as in June 2020)

Cryptocurrency in India

In India bitcoins has been accessible since 2012 and in India there are 11 exchanging stages and around 1 million clients of bitcoin. RBI has prohibited the exchange of bitcoins in India. So one can't utilize the digital money for the instalments of good and administration. As of late 2018 amid the association spending declaration the Indian government proclaimed that digital currencies, for example, bitcoins were not a legitimate delicate. There is no security accessible to those utilizing and exchanging them or managing in them.

As indicated by the Indian government individuals utilizing these kind of monetary standards should take certain alert on the grounds that there is no legitimate security for these monetary forms. Also, no assistance can be picked up by the general population from the administration side if some misrepresentation is looked by the general population.

For the eventual fate of digital currencies in India a specialist committee was additionally constituted to quantify the hazard engaged with it. This committee will inspect the activity of cryptographic forms of money and discharge the report in couple of months. A few nations are tolerating the cryptographic forms of money while some are not, some of them are yet to settle on

their choice. Cryptographic forms of money has its own particular arrangement of complexities.

Bitcoin Legalization in India

Expanding exchanging volumes and Bitcoin exercises by noteworthy edges are the underlying effect expected after the authorization of Bitcoin in India. Sanctioning is probably going to empower Bitcoin new companies to report worries over security and dangers starts because of Bitcoin as, in the end, it work towards the change of its foundation. Further, sanctioning aides in dispensing with worries around its consistency for the normal Indian buyer. Though, there are a few reports of Bitcoin exchanging Proportional to tax evasion that proliferates the financing of psychological militant outfits. With a specific end goal to get a murmur of help from these apprehensions, Bitcoin new companies in India are executing numerous security checks. Government-confirmed address records a Permanent Account Number (PAN) or an Aadhaar Number mandatory taken as a legitimate ID evidence from clients by all Bitcoin organizations.

Scope: Bitcoins and Cryptocurrency

With the choice of the legislature to authorize it, the specialist organizations of Bitcoin can extend the extent of use. By and by, Bitcoins are valuable in making buys through portable applications, purchase blessing vouchers, for broadcast appointment top up, and notwithstanding to pay bills. With the assistance of Bitcoin, it'll turn out to be anything but difficult to send a little settlement back home and spare a charge up to billions paid to outsiders for a nation, similar to India - known as the biggest settlement showcase on the planet at over \$60 Bn every year. In a nation, similar to India, the time is immaculate to use the Bitcoin unrest, particularly through the rooftop, when Bitcoin costs are surging. Hardly any months prior, every past record have been Bitcoin broken out - as the new point of reference is accomplished. For the specific first time ever, the ascent in the estimation of Bitcoin - achieving \$2,000 per coin

India's Government and Cryptocurrency

The Reserve Bank of India (RBI) has been steady to notice nationals of the hazard related with cryptographic forms of money and merchants of its dangers, Indian Prime Minister, Sh. Narendra Modi, in a roundabout way advanced Bitcoin, on July, 2, 2015, with his driven Digital India. Plans included digitizing government information, enhancing India's computerized foundation, and improving its online availability. The Finance Minister in the nation has marked cryptographic forms of money are not being legitimate delicate.

Lately an open deliberation has risen inside the nation in the matter of whether benefits from crypto exchange ought to be burdened or not. The advisory group recommended the accompanying, that digital forms of money ought to be administered by the Reserve Bank of India Act of 1934, that Bitcoin speculators ought to be burdened, that rules for purchasing and putting resources into cryptographic forms of money ought to be drafted. Amid the run-up to the monetary allowance, there have been discussions that the legislature could turn out with a guide to control the cryptographic money advertise. There has been rising furore among financial specialists to put in their well-deserved cash into the profoundly unpredictable cryptographic money showcase setting off alerts in the administration.. There have been reports that few banks have solidified record cryptographic money trades in India, while the enlistment center of organizations (ROC) has quit enrolling organizations planning to go about accordingly trades.

Indian organizations utilizing Bitcoin

As per CEO and the fellow benefactor Sathvik Vishwanath numerous traders in the Bengaluru region acknowledge bitcoin through the Bangalore-based Unocoin which is one of the biggest in the nation and furthermore gives dealer administrations. Five of India's biggest organizations including Dell acknowledged the cryptographic money as instalment. The number develops step by step. In India Bitcoin is a long way from prevalent and most Indians incline toward fiat cash yet an ongoing Forbes article reports Bitcoin's rage is getting on and that, to date, there are in excess of 600,000 clients in the nation. As of late two Indian organizations bounced into Bitcoins business, they thought of Wallet Exchange idea and they acknowledge Indian Rupee: Zebpay and Unocoin

Expert Views

Specialists over the world are arriving at the conclusion that digital forms of money are digging in for the long haul. The specialists say the best way to convey an incentive to the digital currency is by issuing the genuine cash rather than it. The specialists likewise discuss the hazard exchanging cryptographic forms of money in light of the fact that here is no law on the misrepresentation done in these kinds of advanced monetary forms and furthermore the digital wrongdoing can be its greatest negative mark as everything works on the web. As indicated by the specialists and numerous examination papers the duplicate of cryptographic money can be made and a false exchange should be possible so the exchanging would not be a sheltered one. There is still a ton and part of investigation to be

done on this and a sound outcome would turn out from it which would reveal to us a short thought regarding the utilization of digital currency its upsides and downsides, and why it can swap the physical cash in the market.

Types of Cryptocurrency

Table 1: Types of Cryptocurrency

SR	NAME	SYMBOL	PRICE (USD)
1.	Bitcoin	BTC	6465.40
2.	Ethereum	ETH	466.10
3.	Ripple	XRP	0.47
4.	Litecoin	LTC	85.59
5.	Cardano	ADA	0.148

(Source: <https://letsreachsuccess.com/types-of-cryptocurrency>)

The names in Table 1 are a few kinds of cryptographic money where their particular images are expressed in the following segment and their cost in USD is additionally expressed straightaway. The cost in USD changes each second, the qualities in the table are at some minute and appeared for a harsh thought of their esteem.

Mining of Cryptocurrency

Bitcoin, Litecoin, Ethereum, and different cryptographic forms of money don't simply drop out of the sky. Like some other type of cash, it takes work to deliver them. What's more, that work comes through mining.

Be that as it may, how about we make a stride back. Satoshi Nakamoto, the organizer of Bitcoin, guaranteed that there could ever just be 21 million Bitcoins in presence. He (or they) achieved that figure by ascertaining that individuals would find, or "mine," a specific number of squares of exchanges every day.

At regular intervals, the quantity of Bitcoins discharged in connection to the past cycle gets lessened by half, alongside the reward to excavators for finding new squares. Right now, that reward is 12.5 Bitcoins. Thus, the aggregate number of Bitcoins available for use will approach 21 million yet never will really achieve that figure. This implies Bitcoin will never encounter swelling. The drawback here is that a hack or cyber attack could be a calamity since it could delete Bitcoin wallets with little any desire for recovering the esteem.

Concerning mining Bitcoins, the procedure requires electrical vitality. Diggers take care of complex scientific issues, and the reward is more Bitcoins created and granted to them. Excavators

additionally confirm exchanges and avert misrepresentation, so more mine workers rises to speedier, more dependable, and more secure exchanges.

Super intense PCs called Application Specific Integrated Circuit, or ASIC, were created particularly to mine Bitcoins. But since such a significant number of excavators have participated over the most recent couple of years, it stays hard to mine heaps. The arrangement is mining pools, gatherings of diggers who unite as one and are paid with respect to their offer of the work.

Key Issues of Cryptocurrency

Problems

The cryptographic money showcase is by all accounts developing in ubiquity consistently. With the cosmic ascent of digital forms of money like Bitcoin and Ethereum, there is by all accounts a convergence of individuals into the market. Numerous digital money trades can't bear to have their record creation include open constantly. Such is the interest for section into the market that exchanging account creation for new clients is intermittently handicapped. The normal day by day exchanging volume of the market is for the most part in trillions of dollars. The aggregate market top of the whole market remains at the greater part a trillion dollars which is a shocking accomplishment considering the market is not as much as 10 years old. However, regardless of these expansive numbers, there are various significant issues that torment the market. To utilize these numbers exclusively as an examination record of the condition of the market would exhibit a false story. There are auxiliary and utilitarian issues that influence the market.

These issues originate from an assortment of reasons, for example, the baby idea of the market, absence of comprehension of the digital money space, and some unconventional financial matters of cryptographic forms of money just to give some examples.

Price Manipulation

By a long shot the greatest issue in the digital currency showcase is the unnecessary instability. The costs of cryptographic forms of money on trade stages rise and fall drastically finished a brief timeframe. At the point when a tradable resource can drop by as much as 49 percent in under 24 hours, at that point the unpredictability of the market is high.

The activities of Cybercriminals

The cryptographic money showcase has ideal from its origin been assailed by the exercises of programmers and

cybercriminals. There have been various prominent digital currency hacks and heists that have brought about a huge number of dollars being stolen. Dealers and speculators have lost assets and a few stages have stopped to work. In the result of these hacks, the cost of specific cryptographic forms of money has dropped extensively.

In an offer to counter the exercises of these cybercriminals, brokers and stage administrators need to take various careful steps. While a portion of these measures are without a doubt accommodating, they make bottlenecks that hamper the digital currency exchanging process. This at that point makes an exchange off amongst security and productivity. Take for example, the need to give sufficient security to digital money held in wallet stockpiling. Because of the exercises of programmers, a few dealers want to store the greater part of their cryptographic money property in disconnected wallets. This implies whenever they wish to exchange, they need to move from disconnected capacity to online capacity before taking part in the exchange. This constitutes another problem in an officially convoluted exchanging condition.

Exchanges on a blockchain are unchanging and thus if stores get stolen, there is minimal possibility of regularly recuperating such supports. Cryptographic money exchanging stages always need to enhance their security structure keeping in mind the end goal to remain in front of the programmers and cheats. A considerable lot of these updates likewise influence the exchanging to process significantly more lumbering with all the validation steps that should be done.

Absence of Price Uniformity

Cost diagramming is a fundamental piece of benefit/product exchanging. Usually important to create value graphs with a specific end goal to do speculation examination and create exchanging systems. The issue here is the cost of a digital currency can shift extensively on the diverse trade stages. With such outrageous value contrasts for a similar digital currency, cost outlining turns into a troublesome undertaking. Add to this, the sheer level of instability in the market and the issue turns out to be considerably more exacerbated.

Exchange Delays

The digital currency advertise is tormented with a reiteration of deferrals crosswise over relatively every kind of exchange. From opening an exchanging record to checking your personality and having the capacity to make stores and withdrawals, the framework is by all accounts very moderate. Blockchain

innovation should influence exchanges to happen quicker yet it appears to take perpetually for exchanges to be endorsed on the different chains.

Issues doing with versatility have been distinguished by specialists just like the reason for exchange delays. As the blockchains turn out to be longer, more exchanges are being held up in the line anticipating endorsement. The market is unstable and in that capacity, postponements can be exorbitant. Merchants wind up passing up a major opportunity for ideal positions on the grounds that the exchange didn't get posted on time.

Spoofing payment information and phishing

Issues like plain robbery spur up....suppose you're exchanging cash to a companion. You duplicate his wallet address precisely, yet malware replaces the address in the clipboard with another. Few out of every odd client is watchful and twofold checks an address in the wake of duplicating it. Particularly if the address is a long clutter of characters. Or on the other hand take phishing, for another case. Similarly as with common e-cash, clients can be deceived into heading off to a phishing site where they transfer their crypto wallets and enter a watchword.

Obviously, clients of a conventional bank or instalment framework can likewise keep running into issue with cyber thieves. In any case, with a customary framework there is dependably a genuinely decent shot of dropping the exchange.

Hacking a payment gateway

Over that, notwithstanding utilizing a veritable instalment door with the right address can bring about lost cash. In June 2017, the most prevalent Web wallet for the Ethereum Classic digital money, with the first address <https://classicetherwallet.com/>, abruptly began taking cash from clients' wallets. Turned out, programmers had utilized social-building techniques to persuade the facilitating supplier that they were the genuine space proprietors.

Fortunately, the system those programmers utilized wasn't the best — they supplanted the payees promptly, in this way rapidly ruining their disguise and figuring out how to take as it were \$300,000 in a few hours. On the off chance that they had gathered the wallets and held up a while, they would have stayed undetected for a great deal longer, and the harm presumably would have been far more terrible.

In all decency, great money related administrations can likewise fall prey to that sort of assault. For instance, in Brazil this year, programmers seized an entire bank.

User address error

The former cases were run of the mill electronic-cash issues, yet as we've just stated, cryptographic forms of money include their own particular wrinkles. For instance, there is a hazard that is quite certain to cryptographic forms of money - loss of cash because of a mistake in the deliver to which the cash exchange is made. On account of Ethereum, if the last digit of the address wasn't replicated, the cash would vanish like a phantom. Or then again it would go where it should, yet the sum you expected to exchange would be it increased by 256.

That blunder isn't significant to Bitcoin; its framework has worked in address approval. Be that as it may, in Bitcoin, you may send cash to a puzzle beneficiary — how does losing 800 bitcoins strike you? (that is about \$3.2 million at the swapping scale on September 28, 2017.

Loss of a wallet file

There's one more issue that is regular of cryptographic forms of money: misfortune or burglary of a wallet. Most clients store their cryptographic money wallet records on their PCs. Thus, they can be stolen utilizing malware or lost if the hard plate crashes. So most developed clients make printed versions of their mystery key and buy USB equipment wallets. Be that as it may, the quantity of such clients is little.

The circumstance with "incorporated" e-cash is obviously better at show. It's the uncommon Internet bank that doesn't require two-factor verification and affirmation of exchanges utilizing SMS with one-time-utilize passwords. Furthermore, on account of partnerships or huge sums, the utilization of a USB token is obligatory.

Advantages of Cryptocurrency

Calling bitcoins, the "following huge thing since the web and registering" themselves are significant articulations to make. The worldwide economy is unavoidably moving towards an advanced eco-framework. From speculation to cash exchange, everything is going paperless. The freshest and most encouraging expansion to the computerized instalment part is digital currency. A cryptographic money is a medium of trade like typical monetary standards, for example, USD, yet intended to exchange advanced data. Cryptographic money is characterized by Investopedia.com as a decentralized "computerized or virtual cash that utilizes cryptography for security" making it hard to fake. Since it isn't issued by a focal expert, governments can't remove it from you. In the course of the most recent few years, advanced cash has been quickly picking up the general

population eye. Here are some great purposes for it.

Extortion verification: When cryptographic money is made, every affirmed exchange are put away in an open record. All characters of coin proprietors are encoded to guarantee the authenticity of record keeping. Since the cash is decentralized, you possess it. Neither government nor bank has any control over it.

Identity Theft: The record guarantees that all exchanges between "advanced wallets" can compute an exact adjust. All exchanges are checked to make sure that the coins utilized are possessed by the present high-roller. This open record is likewise alluded to as an "exchange blockchain". Blockchain innovation guarantees secure computerized exchanges through encryption and "keen gets" that make the substance essentially unhackable and drained of extortion. With security like this, blockchain innovation is ready to affect about each section of our lives.

Instant Settlement: Blockchain is the motivation behind why digital money has any esteem. Convenience is the motivation behind why digital money is sought after. All you require is a keen gadget, a web association and right away you turn into your own bank profiting exchanges.

Open: There are more than two billion individuals with access to the Internet who don't have rights to use to conventional trade frameworks. These people are enlightened for the digital money showcase

You are the owner: There is no other electronic trade framework out which your record is possessed by you

Fate of Cryptocurrency

The market of cryptographic forms of money is quick and wild. Almost consistently new digital forms of money develop, old kick the bucket, early adopters get well off and speculators lose cash. Each cryptographic money accompanies a guarantee, for the most part an issue on everyone's mind to turn the world around. Hardly any survive the primary months, and most are pumped and dumped by theorists and live on as zombie coins until the point that the last sack holder loses trust ever to see an arrival on his speculation.

A cryptographic money is a computerized cash that is made and overseen using propelled encryption strategies known as cryptography. Digital currency made the jump from being a scholarly idea to (virtual) reality with the production of Bitcoin in 2009. While Bitcoin pulled in a developing following in ensuing years, it caught huge financial specialist and media consideration in April 2013 when it crested at a record \$266 per bitcoin in the

wake of surging 10-overlap in the former two months. Bitcoin donned a market estimation of over \$2 billion at its pinnacle, yet a half dive presently started a furious level headed discussion about the eventual fate of cryptographic forms of money as a rule and Bitcoin specifically. All in all, will these elective monetary standards in the long run supplant customary monetary forms and move toward becoming as omnipresent as dollars and euros sometime in the not so distant future? Or on the other hand are cryptographic forms of money a passing prevailing fashion that will fire out a little while later? The appropriate response lies with Bitcoin.

The Finance Minister's announcement in Budget 2018 that cryptographic forms of money are not substantial delicate, thrown down any expectations of the nation's developing digital currency showcase, which had been campaigning for acknowledgment and direction. The Reserve Bank of India had over and over issued alerts against interests in cryptographic forms of money, expressing that computerized monetary standards posture budgetary and legitimate dangers. In any case, regardless of the hazy area in which it works, the segment kept on developing floated by the rising costs of the monetary forms. India has 15 around cryptographic money trades, and a couple of new companies in the nation have started to finance themselves utilizing introductory coin contributions

Cryptographic forms of money like bitcoins are quickly transforming into genuine cash that will give a solid rivalry to the distinctive monetary standards issued by the unified representing bodies. Bitcoins current value climb could mirror a splendid future along these lines, it can be plainly observed that Bitcoins has a brilliant future ahead. Cryptographic money is likewise called as advanced cash in any instalment framework, for example, the focus we get in some irregular stores can be called as computerized cash or digital currency since it can be utilized rather than physical cash for instalment. The honest to goodness digital currency is the decentralized. Digital money will have an enormous degree ahead, anyway this new type of cash does not benefits all frameworks of influence and control that are as of now set up. It's difficult to tell what battle will be placed up keeping in mind the end goal to control digital money and the snags that should be defeated to cement its quality in regular daily existence. It can possibly be the world's money in future there will be no compelling reason to keep a particular cash for each individual nation constantly. With a sort of money which is hard to control, which is decentralized, that anyone can utilize and that wipes out the trade rates over the world makes the eventual fate of the world

by being a unified cash over the world. This recommends the idea one world one cash.

National banks are gradually touching base to the conclusion that cryptographic money is setting down deep roots. What's more, as indicated by different research papers and financial expert the estimation of computerized monetary standards, for example, bitcoin is advertised but still there is a considerable measure of investigation to be finished with respect to the impact of digital money in future. Further, talking of digital money: Ether (ETH), Litecoin (LTC), Bitcoin; in these "Ether" is the second biggest digital currency as far as market top. Litecoin empowers speedier square time around 2.5 minutes while, bitcoin needs 10 minutes so Litecoin empowers quicker trade between clients.

Conclusion

As far as creation, Bitcoins are certainly one of the best developments of man. Most banks nowadays are attempting to utilize the blockchain innovation and since the legislature has not approved Bitcoins, it has chosen to present its own particular digital currency named " Lakshmi". This data was uncovered by RBI's official executive Sudarshan Sen who additionally specified that the board that proposed this thought is in its procedure of research.

On fifth July, 2018, RBI due date to banks to stop any association with digital currency. Anyway, this isn't the demise of cryptos in India as RBI has just restricted banks from partnering with digital money.

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A Study on Goods and Services Tax (GST), Comparison with Past Tax Structure & It's Impact on Various Industry

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Abstract

Goods and Services Tax (GST) is defined as the indirect tax structure designed to support the economic growth of the country. More than 150 countries have implemented GST. There are mixed response, argument and opinion among the traders, manufactures and society about the GST to be implemented by the government of India from 1st July 2017. GST process is an important event in Indian tax system. It changes the country into one united common market. It will reduce the existing complexity of taxes as it contains VAT, Excise duty, Service tax and Sales tax. The present paper is based on secondary sources of data. Here in this research paper we have tried to compare the existing tax structure with the past tax system and measure the effect with the illustration. We have also tried to measure the impact of GST on Indian Economy.

Keywords: Goods and Service Tax (GST), VAT, Excise Duty, Service Tax, Sales Tax etc.

Introduction

Introduction of the Value Added Tax (VAT) at the Central and the State level has been a major step – an important step forward – in the globe of indirect tax reforms in India. If the VAT is a major improvement over the pre-existing Central excise duty at the national level and the sales tax system at the State level, then the Goods and Services Tax (GST) is indeed an additional important perfection – the next logical step – towards a widespread indirect tax reforms in the country. Initially, it was conceptualized that there would be a national level goods and services tax, however, with the release of First Discussion Paper by the Empowered Committee of the State Finance Ministers on 10.11.2009, it has been made clear that there would be a “Dual GST” in India, taxation power – both by the Centre and the State to levy the taxes on the Goods and Services. Almost 150 countries have introduced GST in some form. While countries such as Singapore and New Zealand tax virtually everything at a single rate, Indonesia has five positive rates, a zero rate and over 30 categories of exemptions. In China, GST applies only to goods

and the provision of repairs, replacement and processing services. GST rates of some countries are given in Table 1.

Table 1: GST Rates of Countries

Country	Rate of GST
Australia	10%
France	19.6%
Canada	5%
Germany	19%
Japan	5%
Singapore	7%
Sweden	25%
New Zealand	15%

(Source: <https://economictimes.indiatimes.com/>)

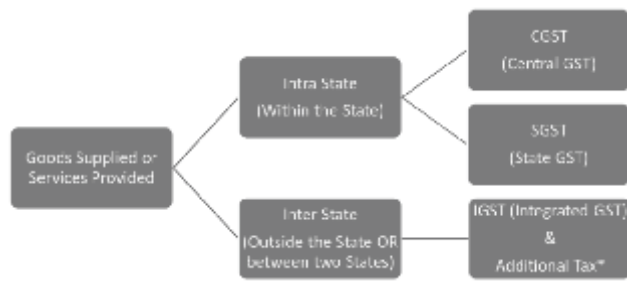
World over in almost 150 countries there is GST or VAT, which means tax on goods and services. Under the GST scheme, no distinction is made between goods and services for levying of tax. In other words, goods and services attract the same rate of tax. GST is a multi-tier tax where ultimate burden of tax falls on the consumer of goods/ services. It is called as value added tax because at every stage, tax is being paid on the value addition. Under the GST scheme, a person who was liable to pay tax on his output, whether for provision of service or sale of goods, is entitled to get input tax credit (ITC) on the tax paid on its inputs. The GST is ruled by a GST Council and its Chairman is the minister of finance of India. Under GST, goods and services are taxed at the following rates, 0%, 5%, 12% and 18%.

Figure 1: Past Tax Structure



(Source: <https://economictimes.indiatimes.com/>)

Figure 2 : GST Tax Structure



(Source: <https://economictimes.indiatimes.com/>)

Literature Review

Ramya N and Sivasakthi D (2017): GST is termed as biggest tax reform In Indian Tax Structure. It will not be an additional tax; it will include central excise duty, service tax additional duties of customers at the central level, VAT, central sales tax, entertainment tax, octroi, state surcharge, luxury tax, lottery tax and other surcharge on supply of goods and services.

Kumar P (2017) presents an outline of GST concept, explains its features along with its timeline of implementation in India. The paper is more centred on comparison between the Past Tax Structure and Current GST Tax in India.

Nayyar A and Singh I (2018): The primary objective behind development of GST is to subsume all sorts of indirect taxes in India like Central Excise Tax, VAT/Sales Tax, Service tax, etc. and implement one taxation system in India. The GST based taxation system brings more transparency in taxation system and increases GDP rate from 1% to 2% and reduces tax theft and corruption in country.

Sankaran M and Sreelatha A (2018) opined that in the event that the VAT is a noteworthy change over the pre-existing Central extract obligation at the national level and the business assess framework at the State level, at that point the Goods and Services Tax (GST) also will for sure be an additional imperative flawlessness – following logical step – towards a broad roundabout duty reforms in the nation.

Kankipati A (2017): In developing countries like India, the taxation system plays a very crucial role in the development of revenues of the country. But India tax system is difficult to understand and in fact for calculation too in case of both direct tax as well as indirect tax. In order to overcome the problems of the government of India tries to simply the direct tax as well as indirect tax, the government made the proposal of introducing GST (goods and services tax) instead of all indirect taxes and DTC (direct tax

code) instead of direct tax. But fortunately, GST won the first place in the purview of implementation. The government of India committed to replace all the indirect taxes levied on the services and goods by state and central government in the month of April 2017. This paper tried to explain the level of impact of this GST (goods and services tax) on the growth of the economy, and benefits for the business and government and for the consumers.

Research Objectives

- 1.To study of the concept& Implementation of GST in various Industry.
- 2.To Compare the Past Tax Structure and Current GST Tax.

Research Methodology

The research paper is an attempt of research, based on the secondary data sourced from journals, Internet, articles, previous research paper which focused on the various aspects of goods and service act. According to the requirements of the objectives of the study the design is descriptive type. The accessible secondary data is used only for study.

Features & Benefits of GST

- GST will subsume central indirect taxes like excise duty, services tax etc and also state levies like VAT, Octroi, entry tax, luxury tax etc.
- It will have two components, central GST levied by Centre and State GST levied by the States.
- Only Centre may levy and collect GST on supplies in case of inter-state trade and collection of tax will be divided between centre and state.
- A two-rate structure will be adopted. It means lower rate for necessary items and goods of basic importance and a standard rate for goods in general. There will also be a special rate for precious metals and a list of exempted items.
- Over-lapping of tax, tax on tax will be eliminated with GST.
- Both Goods and Services are taxed in same manner in chain of supply till they are reached to consumer. They are not distinguished under GST.

Benefits of GST

- GST provide comprehensive and wider coverage of input credit set off, you can use service tax credit for the payment of tax on sale of goods etc.
- CST will be removed and need not pay. At present there is no input tax credit available for CST.
- Many indirect taxes in state and central level included by GST,

you need to pay a single GST instead of all.

- Uniformity of tax rates across the states
- Ensure better compliance due to aggregate tax rate reduces.
- By reducing the tax burden the competitiveness of Indian products in international market is expected to increase and there by development of the nation.
- Prices of goods are expected to reduce in the long run as the benefits of less tax burden would be passed on to the consumer.

Concept of GST and Comparison with past tax structure

GST (Goods and Services Tax) is applicable on supply of goods and services. It replaced the current taxes of excise, VAT and service tax. In past times there are different VAT laws in different

states. Most businesses had to pay and comply with three different taxes – excise, VAT, and service tax. GST brings uniform taxation across the country and allows full tax credit from the procurement of inputs and capital goods which can later be set off against GST output liability. Current GST system makes equal balance to the big enterprises as well as SMEs. The main objective of GST is thus to simplify tax hurdles for the entire economy.

Past Tax System and Rates

Before GST India's tax system comprises a multitude of indirect taxes, applied at the central and state levels. Table 1 summarizes the central tax rates before GST in India and Table 2 and Table 3 summarizes the Central and State tax rates before GST in India respectively.

Table 2: List of Past Central Tax Rates

Sr. No.	Central Taxes	Rate
	Central Value Added Tax (CENVAT) or Central Excise duty	
1.	Tax levied on the production of manufacturing goods.	12.36%
2.	Service Tax Tax levied on provided services.	15%
3.	Central Sales Tax (CST) Tax on cross state trade.	2%
4.	Countervailing Duties (CVD) Additional import duty on imported goods which are produced in India in order to 'level the playing field' between domestic and foreign producers. Additional CVDs might be applied to offset the effect of concessions and subsidies granted by an exporting country to its exporters.	12.36%
5.	Special Additional Duty of Customs (SAD) Additional import duty to counterbalance the sales or value added tax payable by local manufacturers.	4%

(Source: <https://economictimes.indiatimes.com/>)

Table 3: List of Past State Tax Rates

Sr. No.	State Taxes	Range Rates
1.	Value Added Tax (VAT) Tax levied on the production of manufacturing goods.	10% - 14.5%
2.	Sales Tax Additional tax levied on the production of manufacturing goods. It was replaced in most states by VAT, but not all.	0% - 15%
3.	Entry Tax Tax on the entry of goods for consumption, use or sale in that state.	0% - 12.5%
4.	Luxury Tax Tax on luxury goods and services that include hotels, resorts, and halls used for weddings, conferences, etc.	3% - 20%
5.	Entertainment Tax Tax on feature films, major commercial shows and private festivals and foreign producers.	15% - 50%

(Source: <https://economictimes.indiatimes.com/>)

GST Rates Structure under New GST Tax System

GST slabs are pegged at 5%, 12%, 18%, and 28%. According to the GST council, the tax structure for common-use goods and services are as under:

Table 4: GST Rates Structure

Tax Rates	Products and Services
0%	Milk, Eggs, butter milk, curd, natural honey, fresh fruits and vegetables, Unpacked Food grains, unpacked Paneer, Gur, Unbranded Natural Honey, Unbranded Atta, Unbranded Maida, Besan, Prasad, Salt, Kajal, Education Services, Health Services, Children's' Drawing or Colouring books.
5%	Sugar, Tea, Edible Oils, Domestic LPG, PDS Kerosene, Cashew Nuts, Milk Food for Babies, Fabric, Spices, Coal, Life-Saving Drugs, Packed Paneer, Coal, Raisin, Roasted Coffee Beans, Skimmed Milk Powder, Footwear(Rs.500), Apparels(Rs.1000), Coir Mats, Matting & Floor Covering, Agarbatti, Indian Sweets, Coffee (except instant).
12%	Butter, Ghee, Almonds, Fruit Juice, Packed Coconut Water, Computers, Processed Food, Mobiles, Preparations of Vegetables and Fruits, Nuts or other parts of Plants including Pickle, Murabba, Chutney, Jam, Jelly, Umbrella, Services on Non-AC Restaurants.
18%	Hair Oil, Toothpaste, Soap, Pasta, Corn Flakes, Soups, Capital Goods, Industrial Intermediaries, Ice-cream, Toiletries, Computers, Printers, Staplers, Aluminium Foils, Restaurants serving alcohol.
28%	Small cars (+1% or 3% cess), High-end motorcycles (+15% cess), Consumer durables such as AC and Fridge, Luxury & Sin items like BMWs, Cigarettes and aerated drinks (+15% cess).

(Source: <https://economictimes.indiatimes.com/>)

Impact of GST on pricing of products as compared to past tax structure:

Let us take an example to understand this clearly.

Past Tax System	
Product sold from Delhi to Mumbai (Price = Rs.20,000/-)	
VAT@10% = Rs.2000	
Product sold from Mumbai to Chennai (Cost = Rs.22,000, Profit = 5000, selling price=27,000/-)	
CST@10% = Rs.2700	
Total Cost of product = 29,700/-	

GST System	
Product sold from Delhi to Mumbai (Price =Rs.20,000/-)	
CGST@5% = Rs.1000 and SGST@5%=Rs.1000	
Product sold from Mumbai to Chennai (Cost =Rs.22,000, Profit = 5000, selling price=27,000/-)	
IGST@10% = 2700 - CGST(1000) - SGST(1000) = 700	
Total Cost of product = 26,300/-	

(Source: <https://taxguru.in/goods-and-service-tax/>)

Past Indirect Tax Structure V/s GST Tax

1. One Tax for both Good and Service

- Past tax structure had different tax for transactions related to Goods and services separately.
- Under GST- there is one tax for both Good and Service.

2. Broad scheme

- Past tax structure had various laws like Central excise Act, Service Tax, Central state laws, State VAT laws from.
- Current tax structure has one law i.e. GST. Under GST there will be CGST, IGST, and SGST.

3. Registration Number

- In Past tax structure registration number are called as TIN
- In GST Registration number is called GSTIN

4. Tax burden

- In past scenario- tax burdens were very high.
- Under GST- Tax burden would be less

5. Tax rates

- In Past tax structure different tax rates levied across products and across states. Different tax rates across states leads to economic distortions
- Current GST system has one CGST rate and a uniform rate of SGST across all states and IGST for interstate.

6. Inter-State Transactions

- In Past tax structure all interstate transactions for goods are covered under CST while all interstate transactions for services are comes under Service tax.
- Under GST all the interstate transactions for both goods and services will be charged under IGST.

An illustration of supply chain (Manufacturer, Wholesaler, Retailer and Customer)

- The impact with and without GST with relevance of saving of customer on one item:

Case 1: Manufacturer to Wholesaler

Particulars	Without GST	With GST
Cost of Production	10,000	10,000
Add:- Manufacturer Profit Margin	1000	1000
Manufacturer Price	11,000	11,000
Add: - Excise Duty (12%)	1320	–
Total	12,320	11,000
Add: - VAT@10% + 2.5 %	1540	–
Add: - CGST@ 9%	–	990
Add: - SGST@ 9%	–	990
Invoice Value	13,860	12,980

Case 2: Wholesaler to Retailer

Particulars	Without GST	With GST
Cost of Goods to Wholesaler	12,320	11,000
Add:- Profit Margin @ 10%	1232	1100
Total	13,552	12,100
Add:- VAT@10% + 2.5 %	1694	–
Add:- CGST@ 9%	–	1089
Add:- SGST@ 9%	–	1089
Invoice Value	15,246	14,278

Case 3: Retailer to Consumer

Particulars	Without GST	With GST
Cost of Goods to Retailers	13,552	12,100
Add:- Profit Margin @ 10%	1355	1210
Total Value	14907	13,310
Add:- VAT@10% + 2.5 %	1863	–
Add:- CGST@ 9%	–	1198
Add:- SGST@ 9%	–	1198
Total Price of item that reaches to customer	16,770	15,706
Cost Saving (in Rs.)	–	Rs. 1064

It is concluded that on one item, customer save Rs1064, on applying GST.

Impact of GST on the Indian Economy : Advantages and Challenges of GST Implementation :

Impact of GST on the Indian Economy : GST will impact the overall taxation system of the Indian economy. It will improve the country's GDP ratio and also control inflation to a certain extent. However, the reform will mainly be advantageous to the manufacturing industry, but will make some things challenging for the service sector industry.

GST is expected to raise the GDP growth from 1% to 2%, but these figures can only be analyzed after successful implementation. Some countries have faced a mixed response in growth like New Zealand saw a higher GDP as compared to countries like China, Thailand, Australia, and Canada.

GST rate is implemented in various slabs like 5%, 12%, 18%, and 28%, which will automatically provide great tax increments to the government and the manufacturing sector will face immense growth with reduction in tax rate. There is something good for everyone. Various unorganized sectors which enjoy the cost advantage equal to tax rate which will be brought under GST. This will make various sectors like Hardware, Paint, Electronics etc.

under the tax slab. GST requires everything to be planned meticulously for organized rate of taxation. There are still lots of sectors which are to be discussed under GST and this requires proper planning. For the common man and different companies, the collection of Central and State taxes will be done at point of time when sales originate, both components will be charged on manufacturing costs and price of the product will downgrade and consumption will thereby increase.

Impact of GST on Various Sectors : Goods and Services Tax (Taqvi, Srivastava, & Srivastava, 2013) will unite the Indian economy into one common market under a single umbrella of taxation rates, leading to easiness of starting and doing businesses, leading to increase in savings and cost reduction among various sectors. Some industries will be empowered by GST because of reduction in tax rates, while some will lose because of higher rate of GST interests.

In this section, we discuss various sectors and elaborate the impact of GST on them:

IT Companies : GST will allow more implementation of digital systems and services. GST will increase the rate of tax from 14 - 15% to 18%, which will increase the cost of electronic products like mobile phones, laptops, etc.

FMCG Industry : GST will have a significant impact on the FMCG sector. Some food items are exempted under GST like grains and cereals, milk, meat, fish, fruits and vegetables, candy etc. Before GST, FMCG companies paid 24-25% tax including Excise Duty etc. With GST, the rate of return would be 17-19% leading to strong impact in production and consumption.

Online Shopping : With the introduction of GST, various Ecommerce companies will face much burden of work in rate of filling taxes and cost will be increased.

Telecom Sector : With the current VAT charges of 15% being replaced by 18% GST rate, the price of mobile calling, SMS, and broadband services would be impacted. This will have a negative impact for big telecom giants like Airtel, Vodafone, Idea, etc.

Automobiles : GST will provide reduction on on-road price of vehicles to max by 8% as per the latest report. Lower prices mean various automobile companies can boost up volumes and sales and have tremendous opportunities for expansion in India.

Small Scale Enterprises : There are three categories: (a) below threshold, need not register for GST, (b) between threshold and composition turnovers will have the option to pay a turnover based tax or opt to join the GST regime, (c) above threshold level, will be within the GST framework. Manufacturers and traders will

pay less tax after GST Implementation.

Entertainment : With GST, taxes can go down by 2 - 4%, but the rate of tax for cinema lovers will be increased. GST will soon comprehend with demands and bring best for boosting up the film industry's business.

Challenges of GST Implementation : The following are some of the major challenges for GST implementation in India.

- **Nature of Taxes :** In India, there are various taxes like Central Excise, VAT, CESS, and other state level taxes which will all be removed and come under one tax, that is, GST, but still lots of states and union territories have other taxes out from GST which has to be worked upon.
- **Types of GST :** As GST would be of two types: Central GST and State GST and further division is required based on utmost necessity and property based like need, location, geography, and resources which has to be worked upon.
- **Rates of Tax:** Still the tax rate is not fully finalized, and a lot more has to be worked upon considering the standard of living of people, etc.
- **Tax Management and Technology Infrastructure:** It is utmost necessary that proper management of tax and infrastructure is required to implement proper policies and plans.

Conclusion

Primarily, the concept of GST was introduced and proposed in India a few years back, but implementation has been done by the current BJP government under the able leadership of Prime Minister Shri Narendra Modi on July 1, 2017. The new government was in strong favour for the implementation of GST in India by seeing many positive implications as discussed above in the paper. All sectors in India - manufacturing, service, telecom, automobile and small SMEs are bearing the impact of GST. One of the biggest taxation reforms- GST binds the entire nation under a single taxation system rate. As forecasted by experts earlier, GST should improve tax collections and boost up India's economic development and break all tax barriers between Central and State Governments. No doubt, GST will give India a clear and transparent taxation system, but it is also surrounded by various challenges as discussed in this paper. There is need for more analytical based research for successful implementation.

Limitations of the Study and Scope for Future Research

The following are the limitations of the study:

- GST is still in maturity phase, so tax reforms can occur from

time to time via GST council meetings regarding finalization of tax rates and even imposition of new rates and even deduction of existing rates. There is still a lot of confusion for some strata final conclusions may vary considering different perceptions.

- GST implementation calls in for requirement of modern technology-based infrastructure like GSTNET for successful monitoring of taxation system as well as the GST Council should regularly conduct meetings for change in tax reflections. These areas can be covered by researchers in future studies.

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Talent Management and Employee Performance

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Abstract

In today's competitive labour market, a key concern of organizations is the need to achieve high level of performance through people. Hence, talent management is fast gaining a top priority for organizations across the world. To attract and retain the best talent anywhere in the world, an organization must have a strong and positive employer brand. Talented individuals drive companies forward through their outstanding competence and ability. The performance of each organization depends on the performance of their employees. If the employees have distinctive competencies that the competitors cannot replicate, the organization automatically gains a competitive edge over its competitors. So, for managing this distinctive human capital, the organizations are focusing on making effective systems and processes for talent management. The organizations also are attempting hard to retain their top/key talent because if they leave, the complete repository of knowledge is also gone out of the hands of the organization. The purpose of the study was to seek out the impact of talent management on employee performance for selected banking organizations in the Vallabh Vidyanagar city.

Keywords : Talent management, Competencies, Talent attraction, Learning & Development, Talent Retention, Employee Performance

Introduction

In today's difficult business environment of going global and competition becoming intense, organizations have mounting pressure to perform higher than before. Over the years, creation and preservation of knowledge has become a key tool in fast fight and enhancing structure capabilities to retort to promote changes (Bryan, 2004), whereby employees' skills and personalities are suitably deployed to optimize performance, is a vital and difficult task. Furthermore, identifying and developing executives who have leadership potential, like every other vital strategic function, is an exigent process that's equal parts of Arts and Science (Klein and Miles, 2003).

Talent management is recognizing employees' personal skills,

abilities and providing them a suitable job. Its primary responsibility of Human Resource Management is to use right talent at right place. It will increase the productivity of the organization. Therefore talent management is crucial for each of the organization and its employees. It will increase productivity of the organization and develop the personal talent of employees.

Talent management refers to the process of integrating new workers, developing and retaining the present workers and attracting highly skilled personnel to work for your company (Chugh and Bhatnagar, 2006). The management of talent is acknowledged as a great challenge for organizations and the topic is gaining popularity across all industries. With high turnover, multi cultural workforces and large growth, service industries are gradually making talent management a top priority (Lewis and Heckman, 2006). It's indispensable for survival and sustainable development of any business organisation. Neglect of talent management is suicidal for the organisation particularly within the current business scenario of high competition. Opportunities for qualified and talented employees are abundant in India because of expansion of higher education and arising of an outsized number of institutes promoting professional courses in various streams (Joerres and Turcq, 2007). The efficient management of talent within the organisation increases the commitment level of the workers, which in turn enhances their effectiveness and place them consistent with their suitability, aptitude and interest, in order that the ill consequences of putting a square peg in a round hole - which leads to distortion in the organizational structure and low productivity - could be avoided (Julia and Rog, 2008).

Literature Review

Oladapo (2014:24) states that talent management is the systematic attraction, identification, development, engagement, retention and deployment of those individuals who are of explicit worth to an organization, either visible of their high potential for the long run or as a result of their fulfilling business/operation-critical roles.

Talent management can be defined as the strategic management of the flow of talent through an organisation (Duttagupta, 2005). It comprises the processes from recruiting the best to retaining the best. Talent management is a systematic and holistic approach to management in an organisation, which ultimately develops into organizational culture and creates competitive advantage (Lockwood, 2005). Cohn et al. (2005) stated that those who are not giving enough attention to human resource management and development will go down in the long run. Identifying talents in the organization is a responsibility that lies not only with organizations' HR executives, but also with its line managers (Cohen et al., 2005).

According to Berger and Berger (2004:98), talent management has three main goals namely:

- To identify, choose and cultivate employees that demonstrate superior performance and who inspire others to perform at an equivalent altitude;
- To find, develop and position extremely qualified backups for key positions within the organization; and
- To allocate resources, particularly compensation; training; coaching; job assignments and alternative incentives, to employees supported their actual or potential contribution to excellence.

Mensah (2015:544) affirms that in an organization where talent management is in place, workers are more committed and place forth a lot of effort. Hence, there is a positive relationship between effective talent management and employee performance. Lehmann (2009:159) postulates that though talent management practices could also be applied in organizations, they will solely contribute optimally to employee performance if each top management and employees are aligned to its objectives and implementation.

The diverse aspects of the engagement and development of talent in an organisation may consist of highly valued, cross functional training, project assignments, continuous feedback, mentoring, externships, and international exposure (Branham, 2005). Together with the likelihood of executive education these aspects make up a talent programme. It is important however to acknowledge that the term talent management is used loosely and often interchangeably across a wide array of terms (Rothwell, 2005). It could refer to recognizing and developing the top percentile of performers in an organisation or refer to specific programs initiated for fast tracking high potentials or it could be strategic processes and people development (Duttagupta, 2005;

Rothwell, 2005). With a shift from replacement planning to succession planning, talent management has become a strategic planning tool (Kur and Bunning, 2002). According to Rothwell (2005) succession planning assist in detecting training and development needs in identifying and utilizing talents and intellectual capital by providing opportunities for individuals to grow and develop in the organisation and help in optimum utilization of the capital spend on human resource management (Rothwell, 2005:20-30).

The service industry is highly people oriented with its regards to the proper management of employees who are working in the sector. The success of any industry is depending on employee's contribution and commitment (Baum and Kokranikal, 2005). The growth and success of a company cannot be measured alone on the profits which it earns. In today's highly competitive and complex business environment, the talent which an organisation possess in the form of its employees effectiveness i.e. their skills and competencies decide its success (Lockwood, 2006).

Generally, performance is related to an employee's ability to understand work goals, fulfil expectations, attain job targets and accomplish standards that are set by their organization (Melaletsa, 2014:9). Ntonga 8 (2007:6) highlights that performance is related to the positive contribution of an employee to the general success of the organization. In keeping with Van der Merwe (2008:9), the construct of performance is predicated on the belief that if performance levels of people increase, higher organizational performance can follow as an immediate result of the advance.

Factors Determining Successful Talent Management

• Attraction, Deployment, Development and Retention

Attraction and retention of workforces in organizations have become one of the major features of making organizational competences to certify continuous competitive advantage. Therefore, investing on resources associated with attraction, deployment, retention and development of human resources can lead to organization competitive advantage (Boxall and Steenveld 1999). Statistic shows that 43 percent are engaging in key role talent recruitment, while 55 percent are still developing talent in-house and 35 percent are likely to recruit in-house and there is also a greater emphasis on retention of current talents. Turnover and employee engagement is the new concern of organizations, so it is strongly recommended to focus on talent strategies (Rowland, 2008).

• Attracting Talents

Attracting external talents depends on the organization's values and how the potential candidates view the organization; it depends on whether the corporation carries a high value in the existing industry that they function in or they just function to survive. Therefore, Employer brand is one of the most important and crucial issues that can attract external talents easily. It is clear that all the talents seek growth and advancement; they cannot find it unless they look for high performance companies, which have good reputation. This issue can be supported by some researcher's quotes such as: The invention of an attractive employer brand is a critical issue in attracting external talent (Iles *et al.*, 2010a). Recruiting right people obliges strategic HR thinking and formulation of SMART entry requirement for selecting the right talents (Pruis, 2011). Attracting external talents has a direct relationship with 'employer brand' (Glen, 2007).

Some believe that attracting and retaining talents, focused on exclusive-people model, are the two fundamental necessities of talent management (Iles *et al.*, 2010a). Therefore, the first step that the talent management should focus on is "talent pool", which can be both internal and external to the organization. Thus, the "employer brand" and "employee segmentation" is to emphasize on attracting talent management (Iles *et al.*, 2010b). Talented people join organizations, which they observe to be attractive and add leverage to themselves (Glen, 2007).

Accordingly, building a superior brand for the company can be very challenging so the firms should be creative to make a high-quality brand and also they need to have commitment to bring the best in the organization. Most of the top firms in the world recruit all the time. They look for talents continuously, it means that they don't recruit just when a position opens; they recruit when they find a talent. It doesn't mean that they don't focus on talent development; they may recruit talents whenever they find them and train within the company for the high positions (Chambers *et al.*, 1998).

• Developing Talents

In order to achieve high potential in the organization, it requires achieving the potential of talents. Talent development should be associated with further learning and development plans. Suitable learning and development associations are needed at related steps in a career for talented workforce to achieve their greatest potential. Talent development might be useful for a company, which grows slowly but may be even risky for those with high

growth. To develop talent, organizations need both informal and formal learning involvements (Ahmad Yousef Areiqat, 2010). In addition to skills and knowledge, talent development depends on alterations in performance, perception and conduct (Charan, Drotter, Noel, 2001). It is necessary that talent management continuously develops their high performers for potential new positions, recognize their knowledge gaps and implement initiatives to boost their competencies and certify their retention (Carins, 2009).

Training and development refers to the process of training employees with an aim to develop their skills and increase overall productivity, usually in the form of multiple planned and systematic activities which increase the level of skill, competency, and knowledge vital to performing assigned duties well within the organization (Gordon, 1992). Numerous studies have shown that proper training of employees positively influences their performance and enhances their skills, knowledge, and ability to perform their tasks (Appiah, 2010). Training and development also has a positive effect on the satisfaction levels of employees, especially when it has resulted in improving their competencies to perform their duties well (Martensen & Gronholdt, 2001). It also lends to increasing the self-worth and confidence in employees, since they believe they are important to the organization when they are being invested in (Jun, Cai, & Shin, 2006).

In Europe and US, corporate universities have become one of the most significant source of corporate development and training and corporate universities are recognized as a core aspect in the strategic creation of talent management in the organization (Holland and Pyman, 2005). Basically, a corporate university is an "in house" training, which is formal learning and creation of knowledge in the organization, therefore as Holland and Pyman mentioned in their article, corporate universities are a catalyst of strategic human resource development and the emergence of corporate universities highlights its importance in the area of strategic human resource development which leads to the success of talent management in the organizations (Holland and Pyman, 2005). The truth is that in spite of the organization's development and assessment programs, most of the truly talented people remain unknown to their organizations; consequently, the organizations need to implement an effective development and assessment plan which can lead to identifying opportunity as the main component of talent management for achieving their mission, and also they need to capitalize on great on-the-job development opportunity and provide not only

effective mentoring and coaching but also high quality assessment activities (Glen, 2007).

Putting the people in position before they expect it, which is another developing system, proves to be a very effective development method. The last but not the least is feedback and coaching that are very essential issues of developing talents (Chambers et al., 1998). Williamson (2011) believed that a new concept toward developing talents can be through talent matrix. It means that by rating your employees to A, B, C and D players, you should individualize development opportunities. For example, offering A players the highest level of development, B players' development should focus on interactive skills, C players should be given hard goals and they should be observed carefully and there should be a clear path of separation for D players (Williamson, 2011).

• Retaining Talents

There are several factors that contribute to talent retention. For example, hygiene factors like benefit, compensation, location which has a direct effect on career success, while career success and intrinsic rewards indirectly reduce talent loss (Whelan & Carcary, 2011).

As mentioned before, some believe that attracting and retaining talents are the two fundamental necessities of talent management (Iles et al., 2010a). The others believe that they just need to attract and develop talents and they don't even pay attention to the subject of retaining. These groups invest on talent but when it is time to gain returns on their investment, the talents leave their organization. They need to recognize why their talents leave the company and look for the solution. There are some similarities and differences among organizations' strategies in the purpose of retaining talents or keeping them once they had been recruited.

A research conducted on retention of employees stated that culture cannot be static rather it's dynamic which should be reframed and reformed as per the business environment. New ideas, new theories and new believes can be implemented. The organizational culture is vital factor to retain employee so the organization always strive for the betterment of the working culture. New policies and practices can be implemented there. (Vlachos, I.P, 2009)

A study on employee retention and engagement stated that good leaders plays very key role in the success of an organization because their quality motivated and induce the sub-ordinate to do well. And retain for longer periods of time. For example, Leaders and subordinates are so much correlated with each other to

discuss their level of engagement (Elicker, J. D, 2006). Transforming leaders with a great vision about their followers generally creates history in the field of subordinate retention (Schaufeli, W. B., & Salanova, M., 2008).

• Succession Planning

What does succession-planning mean? There are different perspectives about succession planning but almost all of them hold a common root. Some consider it as a process of planning for succession of choosing the next senior team. For other groups, it is an adequate pool of proper talents for in-house recruitment. Some succession planning is a "future-proofed" strategy that enables the organization to grow and perform in the future successfully (Hills, 2009). In these three different explanations, a unique basis can be found, which is; "have the right people in the right jobs at the right time" (Hills, 2009). For example, Charan, Drotter & Noel, (2001) defined succession planning as a procedure of developing and classifying in-house workforce with high potential to supply vital leadership positions in the organizations. Succession planning provides opportunity to fulfil key positions by capable and knowledgeable employees when they are needed. Successful succession planning is a series of activities for fulfilling leadership pipeline and movement (Charan, Drotter, Noel, 2001). Horet al. stated that succession planning has the potential to become the most fundamental discipline of all organizations in the next decade and it will be essential for organization's future competition. Therefore, succession has become the primary goal of Human Resource Management. Hills believed that succession strategy inexorably is a mix of buying-hire in key skills and building talents. Although buying talents acquires high cost but its existence in the currently challengeable market demand is vital and it's a quick way of bringing new ideas and skills. However, in other ways, by building talents, the organization can save money and enhance career promotion and commitment within the existing workforce but less opportunity to bring new ideas and knowledge into the organization (2009).

Succession planning has different definitions according to various organizational strategies (Horet al., 2010). The main concern of organizations that traces succession planning is forecasting future organizational needs, which is completely different from replacement planning. Succession planning protects human resource needs and guarantees stability and achievement of organizations. Consequently, some organizations define Succession planning as "identification and development of future leaders", the others define it as a logical

effort to venture leadership necessities, or to classify a source of high skill and knowledgeable talents. Thus, an organization should recognize, choose and develop talents who are the best candidates for the right leadership positions. So, they don't need to discover who is next, rather they need to classify high potentials according to essential training and experience that they need in order to become a Talented Manager. In this way, they can develop their own talents (Horet *et al.*, 2010).

Objectives

The paper mainly focuses on to study the relationship between components of Talent management and Employee Performance which are as under:

- To ascertain the relationship between talent attraction and employee performance
- To ascertain the relationship between training & development and employee performance.
- To ascertain the relationship between talent retention & employee performance.

Research Methodology

Research Design & Sample

The descriptive research design is employed to conduct this study. Sample size of 107 private bank employees of ICICI bank, HDFC bank, AXIS bank and Kotak Mahindra bank were chosen to conduct this study. The researchers used convenience sampling techniques for information assortment through personal interview. The survey engulfed questions designed to assess talent management and its relationship with employee performance.

Measurement of Variable : The main component of Talent management is strategic employee planning, talent acquisition and retention, performance management, learning and motivating, compensation, career development and succession planning. In this study the researchers have chosen three major variable i.e. Talent attraction, Training & Development and Talent Retention.

Data Analysis Techniques : The Statistical Package for Social Science (SPSS version 16.0) package is employed to computes the collected information. Each descriptive statistics like frequency, Pearson correlation is employed for analysing the information and to check the hypothesis.

Findings and Analysis

Table 1: Characteristics of Respondents

Characteristics	Classification	Frequency	Percentage
Gender	Male	89	83.2
	Female	18	16.8
Age	21 to 30	96	89.7
	31 to 40	8	7.5
	41 to 50	3	2.8
Education Background	Graduate	61	57
	Post Graduate	46	43
Work Experience	Less than 1 year	40	37.4
	1-3 year	44	41.1
	3-5 year	13	12.1
	More than 5 year	10	9.3
Job Position	Accountant / Teller	4	3.7
	Sales Manager	63	58.9
	Relationship manager	28	26.2
	Other	12	11.2

(Source : Primary data)

Table 1 depicts the demographic profile of respondent. Given the 107 sample size 83.2% are male whereas 16.8% respondents are female. Majority that is 89.7% respondents fall in 21-30 age categories followed by 7.5% in 31 to 40 and 2.8% are of 41-50 years of age. 57% completed their graduation where as 43% have completed their post graduation. 41.1% respondents have 1-3 years of experience where as 58.9% have Sales manager job.

Regression Analyses and Hypothesis Testing

H1: There is significant relationship between Talent attraction & Employee Performance

H2: There is significant relationship between Training & Development & Employee Performance

H3: There is significant relationship between Talent Retention & Employee Performance

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.795 ^a	.632	.622	.29611

a. Predictors: (Constant), Talent Retention, Training & development, Talent Attraction

The "R" column characterizes the value of R, the multiple coefficients. Here the value of R is .795 which specifies a good level of prediction. The R square column denotes the coefficient of determination which is the proportion of variance in the dependent variable that can be explained by the independent

variable. The R square value in above table is .632 which signifies that independent variable i.e. talent attraction, training & development and talent retention explain 63% of the variability of dependent variable "employee performance."

Table 3: ANOVA^b

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.538	3	5.179	59.069	.000 ^a
	Residual	9.031	103	.088		
	Total	24.570	106			

a. Predictors: (Constant), Talent Retention, Training & development, Talent Attraction

b. Dependent Variable: Employee performance

Table 3 of ANOVA reflects that whether the overall regression model is good fit for data or not. In above table p value is .000 which is less than .05 so we can say that model is significant.

Table 4: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		
1		B	Std. Error	Beta	t	Sig.
	(Constant)	.935	.240		3.890	.000
	Talent Attraction	-.165	.094	-.199	-1.754	.082
	Training & development	.718	.093	.794	7.714	.000
	Talent Retention	.189	.083	.214	2.288	.024

a. Dependent Variable: Employee performance

Regression analysis is used to test the hypothesis. The regression analysis result in Table 4 shows that talent attraction has not significant relationship on employee performance in Vidyanagar region ($\beta = -.165$, $t = -1.754$ and $p = .082$) therefore, this findings does not support H1. Training & Development has significant relationship on employee performance ($\beta = .718$, $t = 7.714$ and $p = .000$) therefore H2 is supported, whereas the values on talent retention column ($\beta = .189$, $t = 2.288$ and $p = .024$) shows significant relationship between talent retention and employee performance of bank employees in vidyanagar region therefore H3 is supported.

Conclusion

Now day's talent management is a critical and challenging task of each and every organization. Talent Management Plays vital role in organization development which in turn enhances employee performance. The study revealed that how component of talent

management is associated with employee performance. The researchers had taken three component of talent management to find out the relation with employee performance, and it is concluded that training development and talent retention have significant relationship with employee performance whereas talent attraction have no relationship with employee performance. If bank follows appropriate learning and development strategies, uses competitive compensation system with attractive non-monetary rewards then employees are highly motivated to work effectively and efficiently which can increase their productivity manifold. They would feel more involved in achieving their job target. The success and failure of the organization fully depends upon their employee's competencies and employee competencies can be enhanced through training and development.

Thus, effect of talent management plays a very dominant role in organizational development recruitment, training and development as well as retention of talent. Any organization that aspires to grow on the global stage should have the ability to put the right person at the right place. It should make an effort to expedite this process at basic level. Though organizations are claiming since a long time that employees are their best assets, but making the most of the potential talent has acquired a new urgency. Organizations can pull capital, information technology equipment, world class processes, state of art technology, but in the end it is the people who matters most. They are the ones whose contribution will have significant impact on organizational success as well as its survival. In future, organizations will become expert at minimizing the job insecurities of employees, by helping them to maintain up-to-date skills and enhance their marketability with continuous as well as personalized development and support. Employment enhancement opportunities will be a regular part of employee value proposition, giving the employees the tranquillity of mind that comes from maintaining job market value.

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- The research papers/ case-studies/ book reviews and interviews on Management and allied fields submitted must be original and unpublished work containing up-to-date practical information.
- Each paper should start with a brief **abstract of about 150 to 200 words and with 3-4 key-words, compulsorily.**
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