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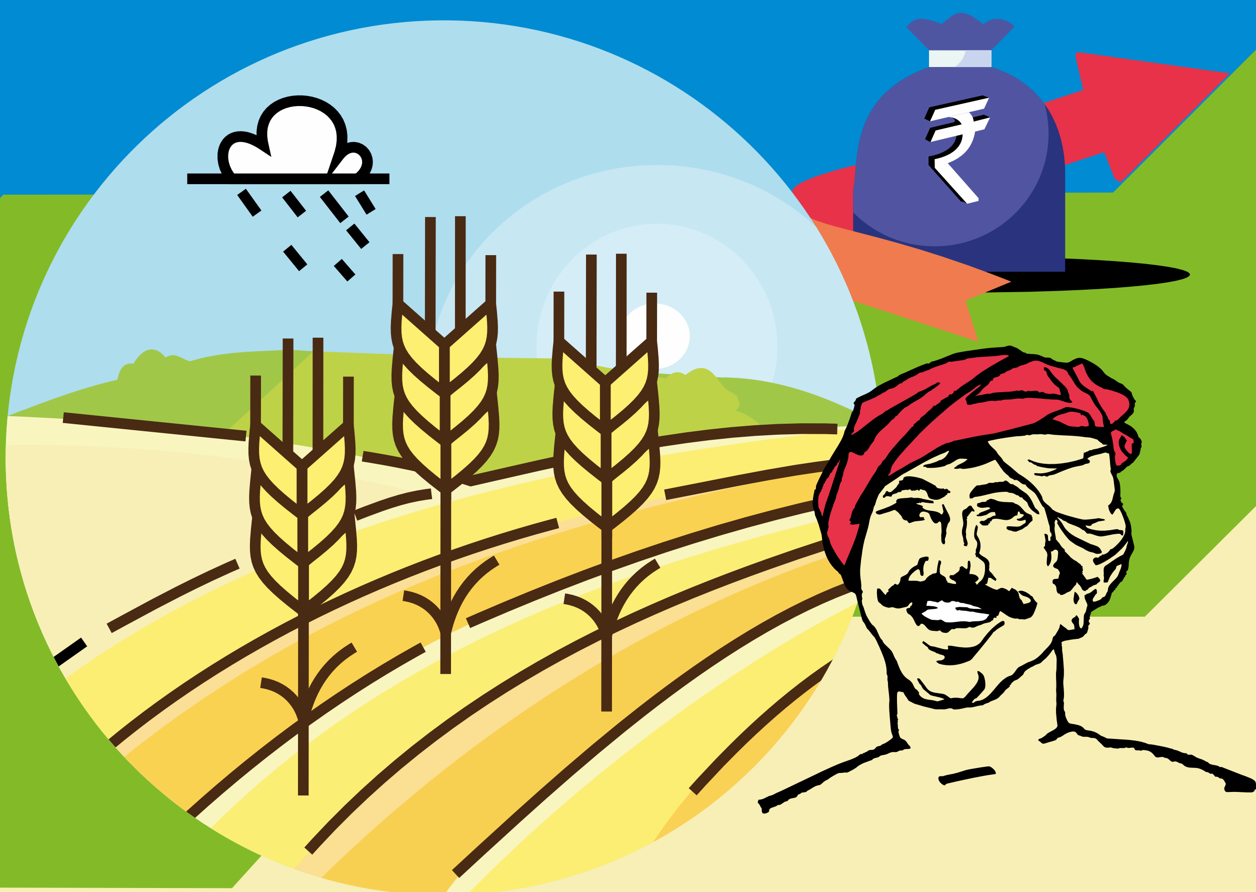
DOUBLING FARMERS' INCOME

STRATEGIES AND PROSPECTS



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- **THE INSTITUTE OF COST ACCOUNTANTS OF INDIA** (erstwhile The Institute of Cost and Works Accountants of India) was established in 1944 as a registered company under the Companies Act with the objects of promoting, regulating and developing the profession of Cost Accountancy.
- On 28 May 1959, the Institute was established by a special Act of Parliament, namely, the Cost and Works Accountants Act 1959 as a statutory professional body for the regulation of the profession of cost and management accountancy.
- It has since been continuously contributing to the growth of the industrial and economic climate of the country.
- The Institute of Cost Accountants of India is the only recognised statutory professional organisation and licensing body in India specialising exclusively in Cost and Management Accountancy.

MISSION STATEMENT

"The CMA Professionals would ethically drive enterprises globally by creating value to stakeholders in the socio-economic context through competencies drawn from the integration of strategy, management and accounting."

VISION STATEMENT

"The Institute of Cost Accountants of India would be the preferred source of resources and professionals for the financial leadership of enterprises globally."

IDEALS THE INSTITUTE STANDS FOR

- *to develop the Cost and Management Accountancy profession*
- *to develop the body of members and properly equip them for functions*
- *to ensure sound professional ethics*
- *to keep abreast of new developments*

Behind every successful business decision, there is always a **CMA**

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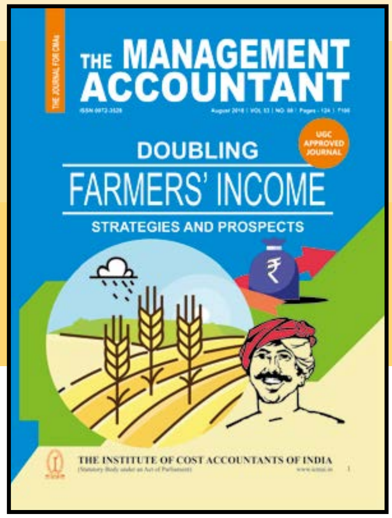

August VOL 53 NO.08 ₹100

INSIDE

COVER STORY

We have expanded our Readership from 1 to 92 Countries

Afghanistan, Algeria, Argentina, Australia, Azerbaijan, Bahrain, Bangladesh, Belgium, Benin, Botswana, Brazil, British Indian Ocean Territory, Cambodia, Cameroon, Canada, Chile, China, Colombia, Croatia, Czech Republic, Djibouti, Egypt, France, Gambia, Germany, Ghana, Great Britain, Greece, Honduras, Hong Kong, Hungary, Iceland, India, Indonesia, Iraq, Ireland, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Lebanon, Lithuania, Malawi, Malaysia, Mauritius, Mexico, Morocco, Myanmar, Namibia, Nepal, Netherlands, New Zealand, Nigeria, Oman, Pakistan, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Qatar, Romania, Russia, Rwanda, Saudi Arabia, Serbia, Seychelles, Singapore, Slovakia, Slovenia, South Africa, Spain, Sri Lanka, Sweden, Switzerland, Syria, Taiwan, Tanzania, Thailand, Turkey, Uganda, Ukraine, United Arab Emirates, United Kingdom, United States, Vietnam, Zaire, Zimbabwe.

The Management Accountant, official organ of The Institute of Cost Accountants of India, established in 1944 (founder member of IFAC, SAFA and CAPA)

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New President

CMA Amit Anand Apte

- *A competent professional with over 20 years of post qualification experience in the fields of Costing, MIS, Finance & Accounts and ERP Systems Implementation.*
- *All India Ranking in the Institute of Cost Accountants of India exams December 1992.*
- *Topped Pune University in Diploma in Taxation Laws Examinations*
- *Qualified Company Secretary.*
- *Central Council Member of Institute of Cost Accountants of India (term 2011-19).*
- *Chairman WIRC of Institute of Cost Accountants of India 2010-11, Chairman, Banking & Insurance Committee (2015-16), Professional Development Committee of Institute of Cost Accountants of India 2016-18.*
- *Global exposure – 3 year overseas stints in UAE & Egypt.*
- *Partner – Joshi Apte & Associates, Cost Accountants.*
- *Director of Levare Consultants Pvt. Ltd. – a KPO company in the fields of Finance, Accounts, Costing & Taxation.*
- *Director of Levare Info Solutions Pvt. Ltd. – an ERP and ITeS Company.*
- *Adventurous – Independent treks to several Himalayan destinations including Mt. Everest Base Camp.*
- *State Level representation and Meritorious Performance at Table Tennis Tournaments.*
- *"Treasurer", Pune District Table Tennis Association during 2006-11.*

New Vice President

CMA Balwinder Singh

CMA Balwinder Singh is a Fellow Member of the Institute of Cost Accountants of India. He is also Fellow Member of the Institute of Chartered Accountants of India, Associate Member of the Institution of Valuers, Licentiate of Insurance Institute of India, Information System Auditor and Certified Arbitrator.

He qualified in the year 1996 and is a leading practising Cost Accountant. He has been actively associated with the Institute in various capacities since the year 1998. He is Central Council Member (2015-19) of the Institute of Cost Accountants of India. Earlier also he has been Central Council Member of the Institute of Cost Accountants of India during the term 2007-11. Earlier to this, he has been Chairman, Chandigarh Chapter of the Institute of Cost Accountants of India during the year 2006-07.

He has been Chairman, Cost Accounting Standards Board during the year 2015-16 and 2016-17.

He has been Chairman (2007-08, 2008-09) of Members Facilities & Services Committee, Chairman (2009-10) of Board for Training of Accounting Technitions and Chairman (2010-11) of Regional Councils & Branches Co-ordination Committee.

He has also been Member, Cost Auditing & Assurance Standards Board, Taxation Committee, Corporate Laws Committee, Finance Committee, Executive Committee, Examination Committee and Member of various other committees of the Institute.

He represented in 17th Board meeting of Confederation of Asian & Pacific Accountants (CAPA) held in May, 2009 at Canada.

He represented in First Accounting Standards Meet for IFAC-International Federation of Accountants in Nov 2010 at Sri Lanka.

He has been Member, Committee of Government of India, Ministry of Corporate Affairs on the revision of Depreciation rates prescribed under the Companies Act during the year 2008 & 2009

He has been Member, Committee on "Effect of IFRS on Indian Railways Finance Corporation", PSU under Ministry of Railways

He has been Member, SAFA: South Asian Federation of Accountants' Committee on Accounting & Auditing Standards, an apex body of SAARC from the year 2008 till 2011. Presently, he is member of SAFA Committee on Professional Ethics Independence since the year 2015-16.

He has been Member of Accounting Standards Board from the year 2008 till 2010.

He is Expert Speaker on Accounting Standards for the last 21 years and has addressed large number of sessions on Accounting Standards, Cost Accounting Standards and IFRS at various professional plaforms and corporate houses.

He is Author of publication on Conceptual Clarity on Accounting Standards (including comparison with IFRS).

EDITORIAL

"Let New India arise...out of the peasant's cottage, grasping the plough; out of the huts of the fisherman, the cobbler, and the sweeper. Let her emanate from the factory, from marts, and from the markets and from groves and forests, from hills and mountains".

-Swami Vivekananda

India has witnessed impressive agricultural growth since independence due to the resilience of its farmers. The country today is not only self-sufficient in respect of many agri-commodities but is also emerging as a net exporter. These impressive gains in production have not however translated into better returns for farmers.

Agriculture development in India has been viewed by and large in the context of increasing the output rather than welfare of the farmers. In the recent past, the sector has been facing regular distress and crisis posing a severe threat to peasants in practicing agriculture as a main source of livelihood. Under this perspective, the Government of India in 2016 announced to double the farmers income (DFI) by 2022 by shifting the focus from agricultural output and food security to income security. The strategy outlined by GOI hinges on several steps such as Per Drop More Crop, creation of a National Farm Market, promotion of ancillary activities e.g. poultry, bee-keeping etc. Credit availability, interest subvention and crop insurance are other steps in that direction and would also propel production growth.

Since Indian agriculture is dominated by small and marginal farmers who have small holdings, raising productivity is likely the single most important factor, if incomes of this group are to be doubled. The problem is compounded by rising input costs. To overcome the problem, there is need for substantive investment in irrigation, seeds and fertilizers and new technology coupled with a shift into high-value commodities such as horticulture, poultry and dairying to double incomes. The modernization of farms and adoption of new technologies like adopting GM crops and using new farm equipment (develop a rental market for farm equipments) could be the new thinking.

Doubling Farmers' Income is today's catch word and the emergence of agriculture start-ups, promotion of agri-entrepreneurship model etc would definitely enhance production. The target of doubling farmers' income requires identification of sources of income growth and enabling conditions for harnessing their growth potential. Diversification of production portfolio towards high-value crops has considerable potential to accelerate growth in agriculture and farmers' income.

To realize the goal of doubling Farmers' Income by 2022-2023, it is important that the sources of growth in income are identified. Irrigation management can bring a substantial growth in output. Micro-irrigation can also bring substantial gains in productivity and resource use efficiency. Likewise, diversification towards high-value crops can bring significant gains to Farmers' Income.

Effective post-harvest management and small scale food processing at household level would facilitate growth in Farmers' Income. Farmers' income can be improved when productivity goes up only if the cost of production comes down and the agricultural commodities produced get a remunerative price through a transparent price discovery mechanism. It can also happen due to improved income from allied activities to agriculture and non-farm sector or even wage employment during the agricultural off season. The strategy must integrate them all. Given the time horizon of six years, doubling of farmers' income must be attempted by creating a framework where all related agencies come together and work in harmony, with a maestro conducting that orchestra.

Food security is one of India's top policy priorities and doubling of farmers' real income is the need of the hour. CMA professionals could assist in bringing greater transparency and also expedite FDI by effective valuation of assets, liabilities, stocks, properties to facilitate investors to make the right financial decisions and fulfil regulatory obligations. A Cost Accountant's perspective of what can be saved must be adopted in all the segments of farming and they can articulate a proper roadmap with timelines to achieve the goal of doubling farmers' income by 2022.

This issue presents a good number of articles on the cover story theme "Doubling Farmers' Income-Strategies and Prospects" by distinguished experts and authors. We look forward to constructive feedback from our readers on the articles and overall development of the journal. Please send your mails at editor@icmai.in. We thank all the contributors to this important issue and hope our readers enjoy the articles.

THE JOURNAL FOR CMAs

THE MANAGEMENT ACCOUNTANT

-: PAPERS INVITED :-

Cover stories on the topics given below are invited for 'The Management Accountant' for the four forthcoming months.

Theme: September 2018 — Professional Scepticism

Subtopics

- *Definitions and Views of Professional Scepticism*
- *Auditor Objectivity and Scepticism*
- *Proper applications and techniques*
- *Preferred Scepticism Skills*
- *Barriers to scepticism*
- *Challenges and the way forward*
- *Global Opportunities*
- *Role of CMAs*

Theme: October 2018 — Global Management Accounting Research

Subtopics

- *History*
- *Emerging areas of research*
- *Use of modern tool s & techniques*
- *Economic sector specific research*
- *Societal contribution*
- *Academic perspective vis-à-vis Practical approach*
- *Institutionalization of research*
- *Indian experiences*

Theme: November 2018 — Skill Development and Employability

Subtopics

- *Innovation in Skills Development and Skills Management that reach SMEs*
- *Strategies for Job Creation, Skills Development and Social Protection*
- *Skill Gaps and Employability: Higher Education in India*
- *Empowering women through skill development: Challenges and Opportunities*
- *Skill development as a sustainable growth strategy*
- *Towards a Reskilling Revolution: A Future of Jobs for All*
- *Role of CMAs*

Theme: December 2018 — Corporate Social Responsibility & Beyond

Subtopics

- *CSR & Social Entrepreneurship*
- *Companies Amendment Act & CSR*
- *CSR initiatives in SMEs*
- *Comparative analysis of CSR initiatives in public v/s private sector*
- *Corporate - NGO partnership for successful CSR programs*
- *CSR Accounting & Audit*
- *Impact Analysis of CSR activities*
- *Business Ethics and CSR*

The above subtopics are only suggestive and hence the articles may not be limited to them only.

Articles on the above topics are invited from readers and authors along with scanned copies of their recent passport-size photograph and scanned copy of declaration stating that the articles are their own original and have not been considered for publication anywhere else. Please send your articles by e-mail to editor@icmai.in latest by the 1st of the previous month.

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PRESIDENT'S COMMUNIQUÉ

Rank does not confer privilege or give power. It imposes responsibility.

Peter Drucker

CMA AMIT ANAND APTE
President
The Institute of Cost Accountants of India

My Dear Professional Colleagues,

At the outset, I take this opportunity to extend my best wishes to all the elected representatives and members of this great Institution as we embark on a journey that began 75 years ago.

All the elected representatives in the past 75 years along with the support and encouragement of our members have laid strong foundations for the institute and we must thank their tireless efforts to ensure relevance of CMA as a recognized profession thereby ensuring continual contribution of our beloved Institute in the development of Cost & Management Accounting practices and regulations that are a cornerstone in the development of our great nation.

I am highly obliged for the faith the present council members have bestowed on me to lead the institute for the year 2018 – 19. I am deeply humbled as I accept the mantle of the President of this esteemed institute. On behalf of CMA Balwinder Singh – Vice President, and myself, I take this opportunity to convey my sincere gratitude to all of my council colleagues for entrusting us with the responsibility to lead the Institute. While it will be our endeavor to build on the solid foundation laid by previous office bearers, I seek the guidance, support and contributions from all the Reginal Council Members, Chapter Managing committee members and the wider professional fraternity and well-wishers.

The Institute of Cost Accountants of India is the 2nd largest Cost & Management Accounting body in the globe and the largest in Asia and it will be our privilege and honour to lead the institute for the next one year. During the year our Council will undertake all efforts possible to further the objectives set by the institute and build on the well-laid foundations.

I am sure that together we can take the Institute and CMA Profession to the next level of success.

I express my earnest gratitude to Immediate Past President, CMA Sanjay Gupta, who has passed on the baton to me with a very sound foundation. I am also grateful to all my seniors, colleagues and the leaders who have all along inspired and motivated me to work passionately for the Institute over the years.

On the national front, significant changes are taking place in the economic policy of the Government. India has emerged as the fastest growing major economy in the world as per the Central Statistics Organization (CSO) and International Monetary Fund (IMF) and it is expected to be one of the top three economic powers of the world over the next 10-15 years. India's GDP is expected to grow 7.6 per cent in 2018-2019.

This year, Government of India is focusing on uplifting the rural economy and strengthening the agriculture sector, healthcare sector, infrastructure and improvement in the quality of education of the country. As per the budget, the government is committed towards doubling the farmers' income by 2022. All-time high allocations have been made to the rail and road sectors. Besides, the Government has also come up with Digital India initiative, which focuses on three core components: creation of digital infrastructure, delivering services digitally and to increase the digital literacy. These structural changes made in the economy would contribute to foster socio-economic sustainability of the nation.

Our Institute is competent enough to formulate and carry out distinct strategies in support of the Government and its initiatives. The Institute can facilitate the regulators in deciding the MSP to our agricultural produce as also fixation of prices /tariff based on reliable and verifiable cost data leading to better regulation of industry keeping in view the interests of the common consumers. Cost Audit Reports are of immense use to the Regulators and various agencies of the Government in areas like, subsidy determination, administered pricing, predatory pricing, check price rigging, cartelization, discriminatory pricing, profiteering, siphoning of funds etc. We will continue our efforts in strengthening the Cost Audit Mechanism.

The Institute is already carrying out several socio-economic activities in line with major initiatives of the Government relating to promotion of GST Awareness, Start up India, Make in India, Digital India, Ease of Doing Business and many more. We are developing an exclusive study report on “Self-Sustainability Model of Panchayats through Capacity Building” based on field survey and would soon submit the same to Ministry of Rural Development.

The Institute has also framed Schemes for Scholarships for girl students, defense students and students from low strata of Society and has outlined a scheme to provide financial assistance to economically challenged – cum – meritorious students. It has also entered into path-breaking MoU with NSDC to educate 2,00,000 students in GST and intends to place more than 5,000 students with gainful employment across India.

There are several landmarks which our Institute and the profession have attained in the recent past which give us more hopes for the future like:

❖ Opened Goods and Services Tax (GST) helpdesk from 1 July to assist professionals acquire proper knowledge about the new tax structure. Institute has also submitted its Suggestions/ Comments on the Models suggested by GST Council for simplification of GST Returns to the Group of Ministers formed by the GST Council. A unique course module on GST has been developed so as to upgrade the knowledge level of members & professionals in a structured and practical oriented manner.

❖ The Insolvency Professional Agency of Institute (IPA of ICAI), a section 8 company incorporated under the Companies Act 2013 has been promoted by the Institute to enroll and regulate Insolvency Professionals (IPs) as its members in accordance with provisions of the Insolvency and Bankruptcy Code 2016, Rules, Regulations and Guidelines issued.

❖ The Institute has promoted ICMAI Registered Valuers Organisation (RVO), a section 8 company under Companies Act, 2013, which has received the recognition of Insolvency and Bankruptcy Board of India (IBBI) to conduct educational courses for three different asset classes - Land & Building, Plant & Machinery and Securities or Financial Assets.

❖ ICWAI Management Accounting Research Foundation (ICWAI MARF), a Section 8 Company, promoted by the Institute and Indian Railways entered into a path breaking MOU on 2017 wherein the ICWAI MARF will undertake a comprehensive study of existing Costing System in Indian Railway and develop a suitable up-gradation of the existing system to ensure managerial analysis of costing data for efficiency improvements in key performance areas.

❖ The Institute has gained its own expertise over the years to train SHG people with Community Audit concept for financial inclusion and transparency and developed unique model of Community Auditor Training Module in association with West Bengal State Rural Livelihoods Mission (WBSRLM). This experience is extended all over India to make Mission Antyodaya a grand success.

❖ We have partnered with the Skill Development Initiative of GOI through Certificate in Accounting Technicians (CAT) Course. Institute is registered as Project Implementing Agency (PIA) for the various skill development projects offered under Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDUGKY) of GOI.

❖ The Institute has launched new Advanced Studies Courses to cope with the global challenges -

- ❖ Executive Diploma in Business Valuation
- ❖ Executive Diploma in Cost & Management Accounting for Engineers
- ❖ Certificate Course in Arbitration
- ❖ Certificate Course in Goods & Services Tax

❖ Placement Cell is revived to facilitate the placements for both qualified and semi-qualified CMAs with the introduction of several innovative ways of placement activities. The Placement Directorate works closely with Corporate Sector to groom students as per industry requirements.

❖ A massive membership drive has been started last year to expand the CMA family, which will not only give us better visibility but also boost the Brand CMA.

❖ Finally, we have seen a tremendous growth in our student strength this year which is a collective result of all these activities the Institute has been taking in recent past.

Having listed some of the key achievements / contributions by the institute, there is a lot more to achieve and we must remain agile to meet new challenges that the policy and economic environment may throw up. Our primary task must be one of continuity and the Institute will continue to welcome inputs on various aspects on a continual basis and also act upon the same.

I propose the following roadmap for the year 2018 – 19:

- Aspire to become a leading professional body and preferred Institution in the country for producing high quality Cost and Management Accounting Professionals and positioning the Institute as a Premier Centre of Excellence for Multidiscipline Services in the areas of Cost & Management Accounting, Financial Management, Cost Audit, and allied fields

- Formulating effective Standards for Cost Accounting in line with Global Benchmarks and upgrade existing Indian Cost Accounting Standards to suit Indian industrial environment with a Global approach

- Aiming for acclamations in a Global order through Cost Awareness, Cost Consciousness, Cost Governance, Cost Competency and Cost Leadership

- Enhancing the areas of practice for our professionals, upgrading the knowledge of all our members, Strengthening our Regions and Chapters, improving of services to our members and students

- Uphold the values, ethics, ideals and professional image of Cost & Management Accountancy profession. This objective will go a long way to enhance the professional status and credibility of the Institute, its students and members in India and globally

- Promoting Research Study on Important Social Sectors in the Country particularly in the area of Environmental Management Accounting and Developing Global Standards thereof

- Actively participate in socio-economic developmental process of the nation through Capacity Building, Resource Mapping, Social Cost-Benefit Analysis and thus support the governments initiatives of MSP for Agricultural produce, Health care at affordable cost, MSME, Transportation, Education etc.

- Identify, propagate and expand the role being played by the Institute in Promoting the Entrepreneurship and Skill Development Movement in India

- Contribute significantly to the overall skill development target of the Nation, reduce skill gap in the target sectors which will result in employment generation leading to positive growth in the GDP of the country and consequently instigate brand value of the Institute

- Promoting International Federation of Management Accountants as a Global Leader in Management Accounting

- Enter into Strategic Collaboration with Various International Accounting Bodies to explore Global Opportunities for CMAs

While the above may not cover all areas where we can improve as of now, they will definitely serve as a guide for setting achievable milestones for my tenure.

I conclude my communique by sharing a pleasant development; I am pleased to inform that Ministry of Corporate Affairs vide its notification dated July 31, 2018 has released Companies (Accounts) Amendment Rules, 2018 wherein among the other amendments the following clause is inserted after clause (viii) of sub-rule 5 of rule 8 of the principal rules, relating to the Matters to be Included in Board's Report:

"(ix) a disclosure, as to whether maintenance of cost records as specified by the Central Government under sub-section (1) of section 148 of the Companies Act, 2013, is required by the Company and accordingly such accounts and records are made and maintained."

This amendment by the MCA will definitely give better recognition to the Cost Accountants and improve the cost compliance by the companies.

Please feel free to guide us with your suggestions and priorities. We will always strive to continue the development of the Institute through leadership, co-operation and hard work and come up to your expectations and moreover, pledge ourselves to render service to the Institute and profession at large.

Truly stated by ***Ralph Marston,*** *"Concern yourself more with accepting responsibility than with assigning blame. Let the possibilities inspire you more than the obstacles discourage you".*

I wish prosperity and happiness to members, students and their family on the occasion of Independence Day, Parsi New Year's Day, Idul-ul-Zuha, Onam & Raksha Bandhan and wish them success in all of their endeavours.

Thanking you and Namaskaar!!!

Warm Regards,

CMA Amit Anand Apte
President
1st August, 2018

OFFICE BEARERS OF REGIONAL COUNCILS OF THE INSTITUTE FOR THE YEAR 2018 - 19

EIRC

Name	Position
CMA Shyamal Kumar Bhattacharjee	Chairman
CMA Cheruvu Venkata Ramana	Vice Chairman
CMA Pranab Kumar Chakrabarty	Secretary
CMA Dr. Umar Farooque	Treasurer

WIRC

Name	Position
CMA L.D. Pawar	Chairman
CMA P.H. Desai	Vice Chairman
CMA S.N. Mahankaliwar	Secretary
CMA Harshad Deshpande	Treasurer

SIRC

Name	Position
CMA Suresh R Gunjalli	Chairman
CMA Jyothi Satish	Vice Chairman
CMA Sankar P Panicker	Secretary
CMA K Suryanarayanan	Treasurer

NIRC

Name	Position
CMA Sunil Kr Singh	Chairman
CMA Anil Sharma	Vice Chairman
CMA Rajendra Singh Bhati	Secretary & Treasurer

Address by Hon'ble President of India - Shri Ram Nath Kovind

"Minister of State for Corporate Affairs, Learned Justice Shri P P Chaudhary, President, Institute of Cost Accountants of India, Shri Sanjay Gupta, Distinguished Guests, Ladies and Gentlemen, I am happy to be here for the inauguration of the Platinum Jubilee Celebrations of the Institute of Cost Accountants of India. I congratulate the fraternity of Cost Accountants for this milestone which is an important event in our country's corporate and business history.

The Institute of Cost Accountants of India earlier known as the Institute of Cost and Works Accountants of India was founded way back in 1944 as a registered company under the erstwhile Companies Act. It was given the task of promoting, regulating and developing the profession of Cost Accountancy. In May 1959, the Institute was established by a special act of Parliament, the Cost and Works Accountants Act as a statutory professional body. It was responsible for the regulation of the profession of Cost and Management Accountancy. Since then it has contributed to the growth of industry and of the national economy.

Today the Institute of Cost Accountants of India is the second largest such body in the world and the largest in Asia. It has about half a million students and 75000 members spread across the country and in fact the planet. Cost Accountants play a substantial part in enhancing efficiency of processes particularly in manufacturing and of capital use. Indeed Cost Accountants are the best managers of the three Ms of the business organization. These three Ms are men and women who work there, the materials used as inputs and the machines deployed for processing fabrication and creation.

As global manufacturing evolves and as manufacturing in India gets a boost over the coming decade with the maturing of our Make in India programme, Cost Accountants will have a bigger and bigger role. It will be their mandate as it always has been to ensure that products and services are delivered at a competitive price but without compromising on quality. It is for Cost Accountants to ensure that wasteful activities and costs in production are removed. It is for Cost Accountants to help in innovation and improvement of processes and systems to reduce avoidable costs and make each rupee that is invested, go that much further. It is for Cost Accountants to help fight the abrasions of gold plating that may sometimes appear on our business landscape. All these will strengthen the national effort to establishing India as a low cost and competitive manufacturing hub for world class products.

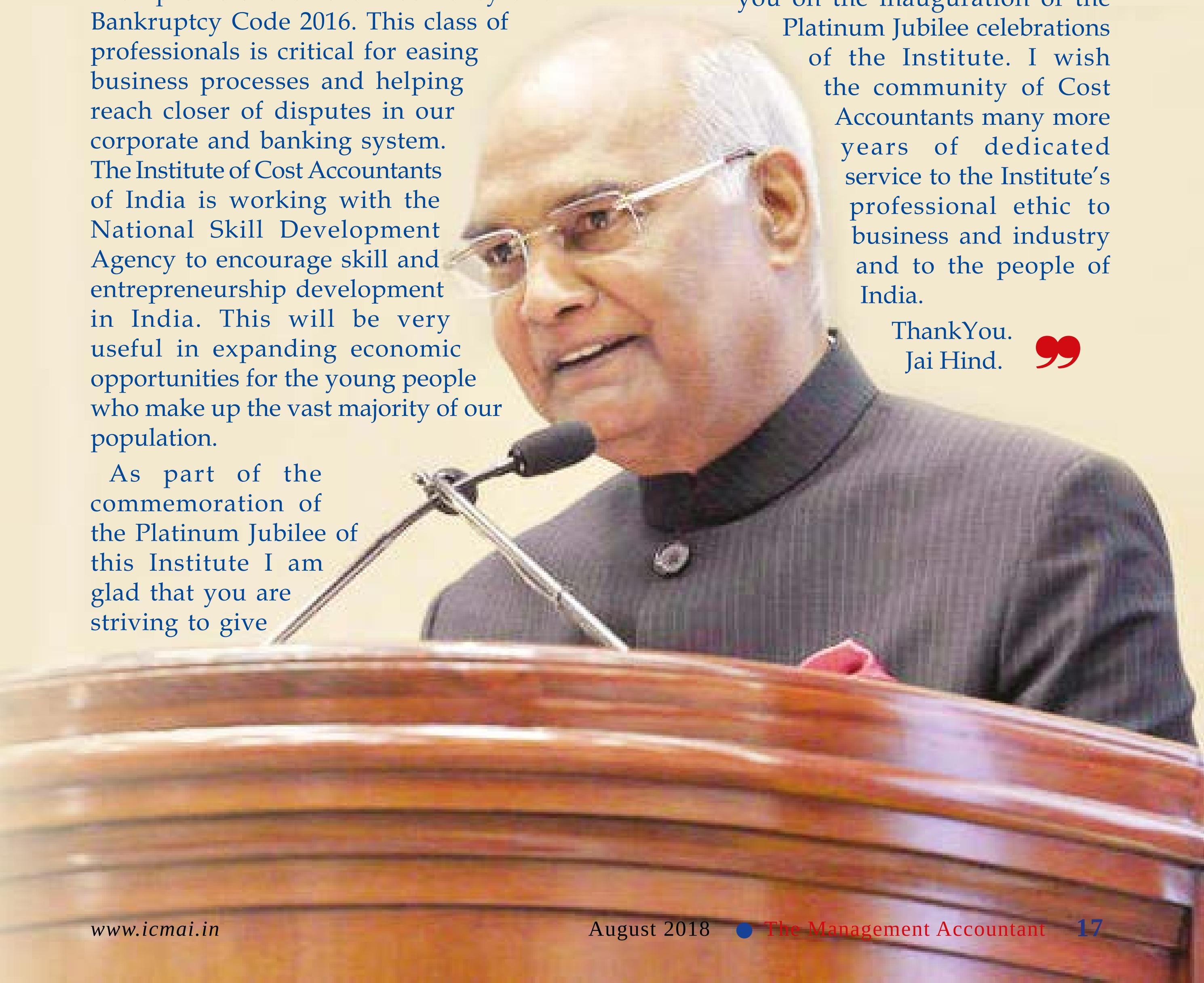
As our economy grows I expect the demand for cost accountants to rise very sharply. It will do so not only in the corporate sector but also in government organizations. State Governments as well as Ministries and departments of the Union Government are making efforts to rationalize expenses and costs. A Section 8 Company promoted by your Institute has entered into a Memorandum of Understanding with Indian Railways to study the existing costing system in Indian Railways and suggest reforms for greater efficiency. In the days ahead this learning can be extended to other fields including defence acquisitions and infrastructure building.

Ladies and Gentlemen, as you are aware the government of India has taken several steps to enhance the ease of doing business, to introduce a simpler and uniform taxation system across the country and to check cases of financial fraud. I am happy to learn that your Institute has supported these measures. For example the Institute has set up a Goods and Service Tax Help desk to enable businesses to comply with the new system and to assist professionals in acquiring appropriate knowledge. The Institute has also submitted suggestions and comments to the GST authorities from time to time. Similarly the Insolvency Professionals Agency of your Institute has begun to enrol and regulate insolvency professionals in accordance with provisions of the Insolvency and Bankruptcy Code 2016. This class of professionals is critical for easing business processes and helping reach closer of disputes in our corporate and banking system. The Institute of Cost Accountants of India is working with the National Skill Development Agency to encourage skill and entrepreneurship development in India. This will be very useful in expanding economic opportunities for the young people who make up the vast majority of our population.

As part of the commemoration of the Platinum Jubilee of this Institute I am glad that you are striving to give back to the society with special scholarships for girl students as well as children of those serving in the armed forces, financial assistance to economically deprived students, GST training sessions for young people and blood donation camps. I would encourage you to help promote financial literacy among women, particularly young women. I have mentioned this on various occasions as well and believe this can go very far in changing attitudes and empowering women in our society. As financial and business professionals you should and must be part of this social change.

With those words I once again congratulate you on the inauguration of the Platinum Jubilee celebrations of the Institute. I wish the community of Cost Accountants many more years of dedicated service to the Institute's professional ethic to business and industry and to the people of India.

ThankYou.
Jai Hind.



Platinum Jubilee Celebrations of the Institute CMA @75: Inspiring Towards Centenary on 14th July 2018 at Vigyan Bhawan, New Delhi


Shri P.P Chaudhary
Hon'ble President of India


Shri Sanjay Gupta
Shri P.P Chaudhary


Shri P.P Chaudhary


The Institute of Cost Accountants of India


THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
Platinum Jubilee Celebrations
CMA@75 : Inspiring Towards Centenary

Platinum Jubilee Celebrations of the Institute CMA @75: Inspiring Towards Centenary on 14th July 2018 at Vigyan Bhawan, New Delhi

CMA Amit Anand Apte, President of the Institute and CMA Manas Kumar Thakur, Past President and council member of the Institute extending greetings to Shri P. P. Chaudhary, Hon'ble Union Minister of State for Law & Justice and Corporate Affairs

CMA Amit Anand Apte, President of the Institute and CMA Manas Kumar Thakur, Past President and council member of the Institute extending greetings to Shri Suresh Chandra, Secretary to the Government of India, Ministry of Law & Justice

CMA Amit Anand Apte, President, CMA Balwinder Singh, Vice-President and CMA Sanjay Gupta, Immediate Past President of the Institute extending greetings to Shri Injeti Srinivas, Secretary to the Government of India, Ministry of Corporate Affairs.

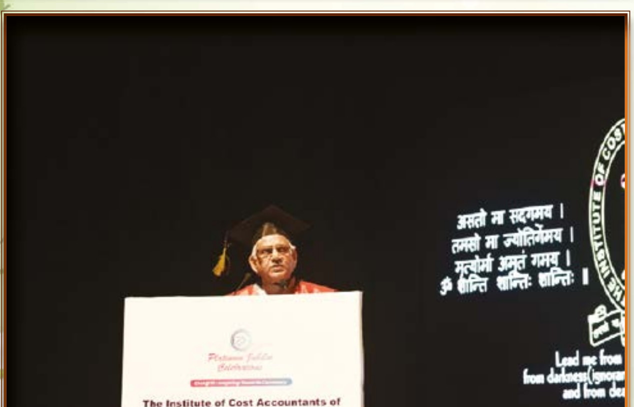
CMA Amit Anand Apte, President of the Institute welcoming CS Makarand Lele, President, ICSI at Delhi office of the Institute

CMA Amit Anand Apte has been elected as the President of the Institute for the year 2018-19

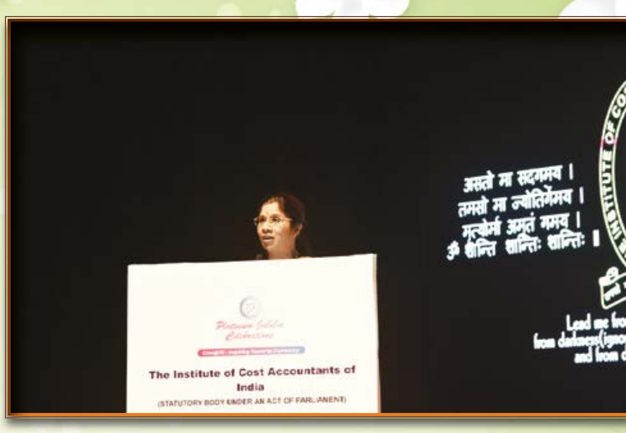
CMA Balwinder Singh has been elected as Vice President of the Institute for the period 2018-19

Newly Elected President of the Institute, CMA Amit Anand Apte and Vice President of the Institute, CMA Balwinder Singh during their visit at Institute's Headquarters, Kolkata

National Students' Convocation 2018



National Students' Convocation 2018



ICAI-CMA SNAPSHOTS

National Students' Convocation 2018

National Students' Convocation 2018

NEW DIMENSION IN INDIAN AGRICULTURE:

NON-TRADITIONAL SECTOR OUTCLASSED TRADITIONAL SECTOR

This article converses about the new dimension in Indian agriculture sector development. It also provides an insight about how allied agricultural sector has outpaced India's traditional agricultural sector. The paper further pointed out the major challenges that the country has to face in coming times. It is an undisputed fact that India has to maintain the higher growth rates in these vital sectors (allied and traditional) to sustain the country's economy, which is still the backbone of Indian economy

Prof. Dr. Badar Alam Iqbal
Emeritus Professor
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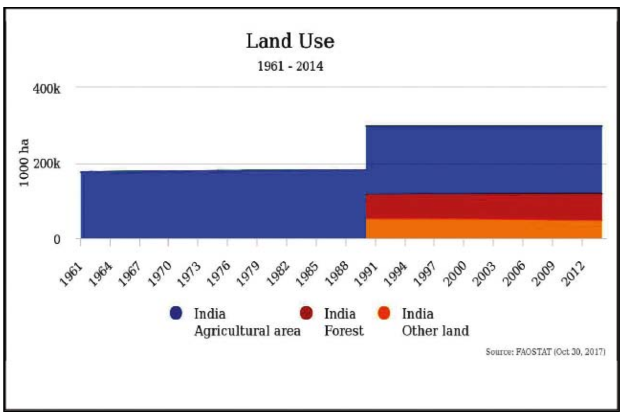
Frederic Bastiat Institute for African Research
Cape Costal Technical University
Ghana (West Africa)

Agriculture, which is the biggest segment of Indian economy, has not been in good shape and facing a crisis of growth and development. This is because of the lowest growth of 1.8 per cent recorded as against the required rate of 4 per cent for sustaining the country's economy.

Prominence of Agriculture

Around 60 percent of India's land area is arable which makes it the second largest country in terms of total arable land in the world after the United States (The World Bank, 2017). Indian agriculture is dominated by a large number of small scale holdings that are predominantly owner occupied (OECD, 2007).

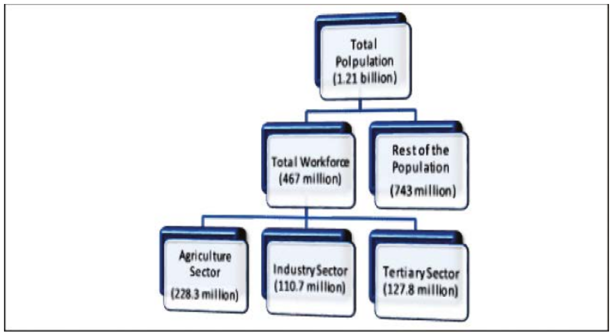
Figure 1. Land Use composition in India



Source: Food and Agricultural Organization of the United Nation

The role of the agriculture sector in the development of national economy is mostly reflected by its share in GDP, foreign exchange earnings, and its role in providing savings and labour to other sectors (Sharma, V.P., 2007).

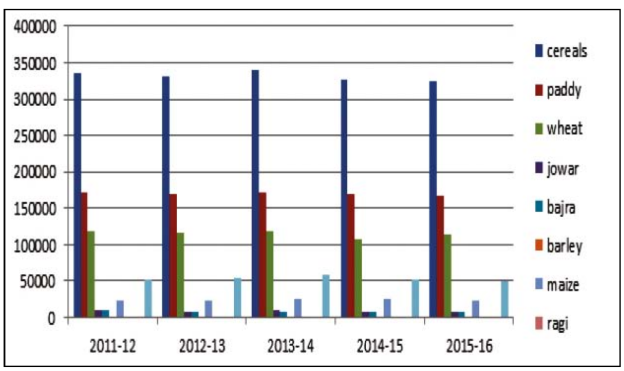
Figure 2. Share of Key Sectors in terms of Employment



Source: National Sample Survey Organization (NSSO), Federation of Indian Chambers of Commerce & Industry (FICCI), 2015.

Agriculture and allied sectors like forestry and fishing accounted for 17 percent of total Indian Gross Domestic Product and employed about 228.3 million of the country's workforce (NSSO & FICCI, 2015). Agricultural products which are having significant economic contribution comprises of cereals, paddy, wheat, jowar, maize, etc.

Figure 3: Crop Wise value of Output (2011-2016) (at constant price 2011-12 in Rs. Crore)



Source: Ministry of Statistics &Programme Implementation, Government of India

As per the Second Advance Estimates for 2016–17, the gross value added by agriculture, forestry & fishing in India is estimated to be 1,687,064 crore, recording an increase of 4.4 percent over previous year (Ministry of Statistics &Programme Implementation, Government of India, 2017).

State-wise Trends in Agriculture Growth:

It is rightly observed that, among the major agricultural states (Table 1), Gujarat has witnessed the highest growth rate i.e. 8 per cent per year. This is even higher than India's overall growth rate of 3.3 per cent. The most revealing fact has been that Gujarat contribution in country's agriculture GDP was higher than that attained by State of Punjab during the Green Revolution (1971-85) i. 5.7 per cent per annum.

Table 1
Trends in State-wise Agriculture Growth rates 2003 to 2017

State	Growth rates in %
Gujarat	8.0
Madhya Pradesh	7.6
Rajasthan	6.2
Jharkhand	5.9
Chhattisgarh	5.7
Maharashtra	4.8
Himachal Pradesh	4.5
Andhra Pradesh	4.4
Karnataka	4.2
Haryana	3.9
India	3.3

Source: Compiled by the author from MOSPI.

The most alarming trend has been that even Uttar Pradesh has registered a growth rate of less than India's growth rate. The other states like Uttarkhand, Tamil Nadu, Jammu and Kashmir, Odisha have performed better than Uttar Pradesh. The worst is that Punjab has been at the lowest of the ladder recorded just 2 percent.

Production and Exports Trends:

The then Prime Minister, Atal Bhari Vajpayee had take the bold and historic decision in regard to commercial use of Bt cotton and that decision has pushed production and exports of cotton on an increasing trends. It is pertinent to point out that that decision had benefited the Gujarat most. This could be testified from the fact that 90 per cent increase in the area under cultivation of BT cotton by the end of 2014. In the year 2000-01 the all India cotton output was 14 million bales and this figure touched upon almost 35 million bales in 2016-17 an increase of more than 2.5 times. Similar trends have been in case of exports of BT cotton (Table 2). During the year 2000-01 India's exports of Bt cotton was US $ 14 million and this figured has touched a level of Us $ 1535 million. These trends have made out India as the second biggest producer and exporter of Bt cotton in the world.

Table 2
Trends in India's Cotton Output and Exports 2001-2002 -2016-17

Year	Output (Million bales)	Exports (Millions US $)
2000-01	14.0	14.0
2001-02	15.8	6.0
2002-03	13.6	10.0
2003-04	17.9	165.0
2004-05	24.3	80.0
2005-06	24.1	637.0
2006-007	28.0	1350.0
2007-08	30.7	2190.0
2008-09	29.0	624.0
2009-10	30.5	2886.0
2010-11	33.9	2866.0
2011-12	36.7	4258.0
2012-13	37.0	3659.0
2013-14	39.8	3528.0
2014-15	38.6	1847.0
2015-16	33.8	1829.0
2016-17	35.1	1536.0

Source: CCI and MOC, New Delhi

Agriculture during UPA vs NDA:

In a recent article [Gulati & Roy 2017), has advocated Gujarat Model of agricultural to implement in the entire country. The Gujarat Model basically depended upon the provision of best technologies to the farmers and thereafter gives them much needed access to markets to ensure better prices for their crops.

According to agricultural economists, India needs at least 4 per cent of growth rate in agricultural sector to sustain the rural India in particular and Indian economy in general, which Indian economy attained during 2013-14 when the UPA Government was in power. During the three years of NDA Government, growth rate in country's agricultural sector has declined considerably at 1.8 per cent which is a matter of concern for all.

Under the Gujarat Model, the Gujarat had recorded an all time high figure of 8 per cent per annum from 2002-03 to 2013-14 which was much more than all India growth rate in agriculture at 3.3 per cent. It was expected that Gujarat Model will extended to other state of the country. But unfortunately, it did not happen because of one reason or the other. The marginal growth of just 1.8 per cent during the last three years was attributed to deficient rain in major producing states of the country in the year 2014-15 and 2015-16. Although during 2016-17, country witnessed bumper harvest; yet country's farmers suffered a lot due to crush in agri-prices.

Table 3
India's Agricultural Growth under UPA and NDA Governments

Period	% Growth rates
2004-05 to 2013-14 (10 Years) UPA	3.7
2011–12 to 2013-15 (# years) UPA	4.0
2014-15 to 2016-17 (3 Years) NDA	1.8

Source: the Indian Express; New Delhi; October 9, 2017. P. 9

Data set out in Table 3 reveal that India's agricultural growth was much better during the rule of UPA Government in the year 2013-14, the growth rate of Indian agriculture was 4 per cent which India needs to achieve every year in order to sustain rural India in particular and Indian economy in general. Unfortunately, under the NDA Government agricultural growth rate went down considerably and touched a lowest growth rate of 1.8 per cent affecting rural India in big way and Indian economy too.

During the period 2003 and 2014, Gujarat state registered the highest growth rate as high as 8 per cent, followed by MP, Rajasthan, Jharkhand, Chhattisgarh, Bihar, Maharashtra, Hp, AP, Karnataka, and Haryana. These states were having higher growth rate as compared to all India growth rate. The remaining sates such as Uttar hand, Tamil Nadu, Jammu and Kashmir, Uttar Pradesh, Assam, West Bengal, Punjab and Kerala were recorded less than all India growth rate in Agriculture. It is being predicted that the estimate for 2017-18 may not be higher and may be around 2 per cent. This will result into keeping more pressure on Rural economy in particular and Indian economy journal.

Indian rural sector including agriculture is in doldrums and required immediate action plan for boosting the agricultural food. For this, the Government must make considerable investment in irrigation; power and rural roads. It must be kept in mind the country's economy will not reap the fruits of growth and development without ensuring higher growth rates in agriculture and allied sectors of the economy especially in rural sector.

Allied Sector Outpaced Traditional Sector:

The most astonishing fact and trend is that India's allied sector has outpaced country's farms sector in terms of value. According to Central Statistical Organization (CSO), the premier institution for providing data on the activities of India economy pointed out that India's farm crops or food grains value during 2014-15 amounted to Rs. 4.86 lakh crore as compared to Rs. 4.95 lakh crore generated by milk production. In the year 1999-2000, the scenario of India's agriculture and allied sector was reversed of 2014-15. In the same year, the total value of Paddy output was Rs.2.3 lakh crore and Rs. 1.3 lak crore was the value of wheat.

During 1999-2000, the value of India's milk output was Rs. 8.8 thousands and this figure was not even 2/3rd of food grains amounted to Rs. 1.34 lakh crore. In the year 1999-2000 the total value of output of paddy was Rs.70 thousand crore and the output value of wheat was amounted to Rs. 46 thousand crore [Table 4]. The fact is that milk has outpaced commercial crops in terms of output value and Indian farmers are taking milk as a full time operation and accordingly, the farmers are cultivating fodder instead of commercial crops.

The above mentioned data indicate that the value of output generated by milk (white revolution) has outclassed the value out comes from the farm sector (green revolution). There are so many reasons that are being attributed to these trends and situation which are as follows:

1) We don't consider milk as a crop. This is due to fact that milk is brought out from the animals and not from the farm land;

2) Milk output basically dependent on the supply of fodder which is cultivated by the framers on land and consumed by the cows and buffalos;

3) Famers sell out milk through the year, whereas agricultural crops are cultivated only during nine months;

4) Milk is measured in terms of litres, while farm crops are measured in terms of quintals;

5) Farmers sell out milk throughout the year, whereas the farm crops are sold out on the session;

6) Indian planners and policy makers consider milk is a allied operation, while crops like paddy, wheat, sugarcane are considered as commercial ventures.

Table 4

Trends in Output Value of Milk and Other Commercial Crops 1999-2000 and 2015-16

(Output Value in Rs. Crore)

Item	1999-2000	2015-16	% Change
Milk	88.0	495	462.5
Fruits & Vegetables	86.3	451	
Cereals	134.0	413	
Meat	21.9	154	
Fish	22.3	136	
Oilseeds	28.6	127	
Sugarcane and Gur	24.5	96	
Spices	15.5	73	
Pulses	18.2	73	
Cotton	11.6	71	
Total (includes all crops, livestock & fisheries)	534.7	2462	

Source: CSO, Calcutta 2017.

It is undisputed fact that, Indian agriculture transformation is not confined only to milk. Data released by CSO, opined that value output of fruits and vegetables has been more than the value of out of cereals i.e. the rise has been more than 5 times between 1999-2000 and 2014-15.

Key Challenges Faced by Indian Agriculture

Agriculture is still the livelihood for major population in Indian economy, as more than 50 percent of the population directly depends on it. However, looking on the graph from previous few years, its growth is declining, because of the challenges coming across its way like

- Ecological issues like Weak or delayed monsoon, leading to loss of production, loss of soil fertility, draught conditions.
- Fragmentation of land holding due to increase in population leading to only 0.2 hectares of land per head of rural population
- Farmers are usually at the mercy of traders. The better the crop the lower would be the price.
- Increasing debt burden and suicide case among farmers because of the declining farmer income.

Conclusion

Agriculture sector inhabits a conspicuous position in Indian economy not only because of its contribution towards the GDP but also because of the large fraction of the population is still dependent on the sector for its livelihood. The green revolution immensely increased the production of vital food grains and introduced technological innovations into agriculture. This progress is manifested in

India's net trade position, which has changed since 1990 from imports to net exporter of agricultural food products. Further, introduction of high-yield variety seeds, better use of fertilizers and upgraded water management systems, reforms to land distribution will surely. MA

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RISK MANAGEMENT IN AGRICULTURE THROUGH COMMODITY FUTURES

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The economic functions of derivatives are two-fold. Primarily, derivatives market helps in hedging or transference of risk. The transfer of risk may be between two hedgers; or hedger to speculator; or between two speculators. Secondary function of derivatives market is price discovery function. Historically, there is a consensus amongst the financial economists that derivatives market is informationally more efficient compared to spot market. Commodity Derivatives market provides a mechanism through which diversified opinions of the market experts about the future price of the underlying asset, is processed and reflected through a numeric value i.e., price of the futures.

Spot market also performs price discovery function provided the market is active and sufficient liquidity is maintained always. But, price discovery in spot market is confined to current market prices only. On the other hand, futures market assist in efficient discovery of expected future price of the underlying asset.

One of the positive externalities of price discovery functions is it engenders inter-temporal resource allocation. Inter-temporal resource allocation refers to allocation of resources by market participants between immediate sale and storage of commodity for the future sale. Derivatives market facilitates fair comparison of current and future prices of the commodity and thereby, facilitates better inter-temporal resource allocation. Rational inter-temporal resource allocation tends to reduce abrupt price fluctuations in the market. Finally, as the market price of derivatives is disseminated on real time basis, it fosters informational efficiency of the overall market.

Present Scenario of Indian Agriculture Commodity Market

Indian agriculture sector witnessed secular growth since independence. Earlier, Indian agriculture sector was driven by domestic demand. Now the sector is advancing towards internationalization of its business and many of the Indian agriculture products have demand in international market. Indian commodity market is rapidly integrated with rest of the world. In this context, the demand for agricultural products is influenced by both domestic and international market conditions. It made the prices of agricultural products more volatile necessitating the need for risk management in the agriculture sector. Derivatives can be used to manage risk in the agriculture sector. Though, forwards like over-the-counter derivatives are present in the market for centuries in this sector, they had limited liquidity by virtue of their inherent limitations. In the course of time, futures on agricultural products were introduced on various commodity derivatives exchanges in India. The historical view of the futures trading on agriculture commodities is puzzling. The trading of agriculture commodity futures is abused for causing more volatility in agriculture commodity prices defeating the fundamental purpose of exchange-traded derivatives.

Futures Trading on Soya Bean

Soya bean is most largely used oilseed in the world. Internationally, Soya bean production accounts for more than 50% of total production of all types of oilseeds in the market. Soya bean seeds are crushed to extract crude Soya oil. India is the net importer of Soya oil. After crushing and refining the soya bean, it yields only 18% refined soya oil while the remaining 82% is soya meal. Soya meal is one of the major ingredient of animal feed. Government of Indian also announces Minimum Support Price (MSP) for soya bean.

As exports and imports are involved in soya bean trading, the price of soya bean is influenced by both domestic and international market conditions. In the light of it, futures trading on soya been has gained its importance. On NCDEX, trading of Soya bean futures was introduced in the year 2004. The top five countries that produce soybean are the U.S., Argentina, Brazil, China and India. From the trading perspective, soybean futures are highly liquid contracts and have tremendous potential to make profits.

Review of Literature

Aviral Chopra et. al., (2005)1 empirically tested the price discovery in black pepper spot market through the futures traded on the same underlying commodity. The study found ambiguous evidence with respect to information content of nearby month and far month futures in predicting the spot price of the pepper. Golaka C. Nath et. al., (2008)3 found that volatility in urad as well as pulses prices was higher during the period of futures trading than in the period prior to its introduction as well as after the ban of futures contracts. The results of the study unfold that futures activity has a significant and direct causal influence on urad prices and volatilities whereas the same has not been statistically significant in the case of gram. Meenakshi Malhotra (2013)4 argued that the role of derivatives in price discovery and price risk management is equivocal. The author has opined that to make Indian commodity futures market on par with its counterparts, there is a need for strengthening the research on commodity market in the areas like transaction processing, study of market microstructure, role of market participants, regulators etc. Nidhi Aggarwal et. al.,(2014)5 found that futures prices discover information relatively efficiently, but helps to manage risk less efficiently. Apart from it, study highlights the perennial problems confronted by hedgers in commodity futures market in India.

Research Gap

The literature review identifies that in the recent past there were very few studies on the price discovery role of commodity futures in general and agriculture commodity futures in particular. Soya bean is one of the largely traded agriculture commodities in the Indian market. Hence, in the present study, futures traded on soya bean are analyzed to assess their role in price discovery in the spot market.

Objectives of the Study

The objective of the present study is to analyze the role of commodity futures traded on soya bean in efficient price discovery in spot market.

Hypothesis of the Study

Null Hypothesis: Commodity Futures do no play 'price discovery' role in spot market of soya bean

Alternative Hypothesis: Commodity Futures play 'price discovery' role in spot market of soya bean

The Period of the Study

The period of the present study is from January, 2015 to May, 2018

Data and Methodology

The data relating to spot price and futures price of soya bean has been collected from the website of National Commodity & Derivatives Exchange Ltd.(NCDEX). The behaviour of spot price and futures price of soya bean has been studied by employing descriptive statistics like mean, standard deviation, skewness, kurtosis etc., The Price Discovery function of Soya Bean futures has been examined by subjecting the log values of spot and futures price of soya bean to econometric analysis. Stationarity of the series has been tested by employing Augmented Dickey Fuller (ADF) Test. As both spot price and futures price are integrated at the same order, Johansen Co-integration test has been employed. After analyzing the Cointegration relationship between the two variables, the 'Vector Error Correction' has been performed to test the short run distortions to long-run equilibrium relationship. Finally, causal relationship between spot price and futures price has been analyzed for short-run as well as for long-run.

Discussion of Results

Descriptive Analysis of the Spot Price and Futures Price of Soya Bean

In the present section, descriptive analysis of the spot price and futures price of Soya Bean has been made by graphical presentation as well as by using descriptive statistics.

Chart 1: Spot Price and Futures Price of Soya Bean[01-01-2015 to 31-05-2018]

Source: Drawn from the Data Compiled from NCDEX Website

Chart 1 shows the trend in the movement of spot price and futures price of Soya Bean from 1st January, 2015 to 31st may, 2018. As shown in the graph, both the variables move very closely throughout the study period. The peak point can be observed at Rs. 4293 for spot price on 20th april, 2016 and Rs. 4290 for futures price on 21st april, 2016. On the other hand, lowest point was Rs. 2729 for spot price on 31st October, 2017 and Rs. 2,666 for futures price on 2nd June, 2017

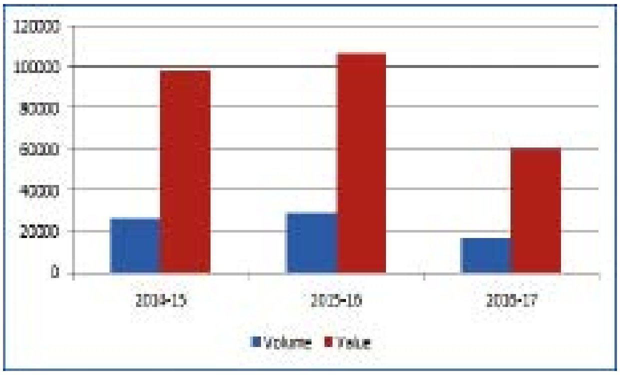
Table 1: Descriptive Statistics of Spot Price and Futures Price of Soya Bean [01-01-2015 to 31-05-2018]

Descriptive Statistic	Soya Bean Spot Price	Soya Bean Futures Price
Mean	3427.762	3382.522
Median	3405.000	3368.000
Maximum	4293.000	4290.000
Minimum	2729.000	2666.000
Std. Dev.	403.1034	405.4273
Coefficient of Variation(CV)	11.76%	11.97%
Skewness	0.116013	0.072567
Kurtosis	1.585001	1.610714
Observations	669	669

Source: Computed from the Data Compiled from NCDEX Website

Table 1 shows the descriptive statistics of the spot price and futures price of Soya bean for the period ranging from January, 2015 to May, 2018. Mean spot price is higher than futures price during this period and also minimum and maximum spot prices were also higher than that of futures price. However, there is marginal difference in the coefficient of variation of the two variables. It indicates that fluctuations in the spot price and futures price are in similar magnitude. Skewness of the distribution is positive for both spot price and futures price which implies that majority of the observations in the two data series are lower than their mean value. Kurtosis is platykurtic which points out that values in the distribution are widely spread around the mean and distribution is light-tailed relative to normal distribution. In other words, the data distribution of two variables has lower probability of having extreme values compared to normal distribution.

Chart 2: Volume and Value of Trading of Soya Bean Futures on NCDEX



Source: Drawn from the Data Compiled from NCDEX Website

Chart 2 shows the trends in Volume and Value of trading of Soya Bean futures on NCDEX. The chart shows that in the year 2014-15, volume of trading is 26,661 and its value is Rs. 98,131 crores; in the year 2015-16, volume of trading is 28,730 and its value is Rs. 1,06,706 crores; and in the year 2016-17, volume of trading is 16,707 and its value is Rs. 59,569. Though, in the year 2016-17, there was drastic fall in the volume and value of trading in soya bean futures, still, it is relatively more than that compared to futures trading on other agriculture commodities on NCDEX.

Testing the Stationarity of the Log Values of Spot Price and Futures Price of Soya Bean

Stationarity is the precondition for the time series variable which is subjected to econometric analysis. As non-stationary variables do not exhibit mean-reverting behavioural, they are not suitable for econometric analysis. Hence, in the present section, stationarity of the log value of spot price and futures price of Soya Bean has been tested.

Table 2: Stationarity of Log Values of Spot Price and Futures Price of Soya Bean [Augmented Dickey Fuller Test]

Variable	Original Values		First Differenced Values	
	ADF Test Statistic	'p' Value	ADF Test Statistic	'p' Value
Soya Bean –Spot Price (Log Values)	-1.418587	0.5741	-21.35517	0.0000
Soya Bean-Futures Price(Log Values)	-1.467194	0.5498	-24.11127	0.0000

Source: Computed from the Data Compiled from NCDEX Website

Table 2 delineates the results of Augmented Dickey Fuller (ADF) test which is applied to test the stationarity of the two variables viz., log values of spot price and futures price of soya bean. Firstly, the ADF has been conducted on log values of spot price and futures price in their level form (i.e., original form). The results highlight that the two variables are not stationary in their level form. First differencing of the variables has been done by calculating the difference between current day value and previous day value for each observation in the two data series. The ADF test has been applied on first differenced values of both the variables. The results reveal that both the variables are stationary in their first differenced form.

Testing the Long-run Equilibrium Relationship between the Spot Price and Futures Price of Soya Bean

As both the log values of spot price and futures price have become stationary at same order i.e., at first differencing, Johansen Cointegration test is the appropriate test to analyze long-run equilibrium relationship between the two variables.

Lag-Length Selection

In order to apply Johansen Cointegration test, appropriate lag length has to be decided, because the results of the test are sensitive to lag length applied for the variables. Lag length selection has been done by applying the relevant criteria. All the lag length selection criteria manifests that lag two is the appropriate lag length, Johansen Cointegration test has been performed at the lag length of two for both the variables.

Johansen Cointegration Test

Johansen Cointegration Test has two parts viz., 'Trace Test' and 'Maximum Likelihood Test'.

Table 4: Johansen Co-integration Test - Trace Test

Null Hypothesis	Alternative Hypothesis	Eigenvalue	Statistic value	Critical Value	Prob.
r=0	r>0	0.027730	20.54202	15.49471	0.0079
r<=1	r>1	0.002719	1.813219	3.841466	0.1781

Table 4 shows the results of trace test. The purpose of trace test is to test series of null hypotheses till it is accepted. At the first instance, the null hypothesis is no Cointegration relation and it is followed by testing the null hypothesis of Cointegration relations are less than or equal to 1; less than or equal to 2 and so on. The alternative hypothesis is number of Cointegration relations are more than zero, more than one and so on.

In the present case, null hypothesis is rejected at the first instance, but in the second instance, it is accepted. So, it can be inferred that there is a possibility of having one Cointegration relation. As the trace test does not confirm the exact number of Cointegration relations, we perform maximum likelihood test. The results of the test are as follows.

Table 5: Johansen Co-integration Test - Maximum Likelihood Test

Null Hypothesis	Alternative Hypothesis	Eigenvalue	Statistic value	Critical Value	Prob.
r=0	r=1	0.027730	18.72880	14.26460	0.0092
r<=1	r=2	0.002719	1.813219	3.841466	0.1781

Table 5 presents the results of maximum likelihood test. Just like trace test maximum likelihood test is also used to test series of null hypotheses till it is accepted. At the first instance, the null hypothesis is there is no Cointegration relation as against the alternative hypothesis of one Cointegration equation. In the subsequent stages, the null hypothesis will be Cointegration relations are less than or equal to one as against the alternative hypothesis of two Cointegration relations and so on.

In the present case, null hypothesis is accepted in the second instance and alternative hypothesis is accepted only in the first instance. It can be inferred that there is one Cointegration relation between the spot price and futures price of soya bean.

Having established the long-run equilibrium relationship between spot price and futures price of soya bean, short run distortion to the long-run relationship have been analyzed by employing Vector Error Correction Model (VECM). The results are presented in the following table.

Table 6: Vector Error Correction Model (VECM)

Variables	Estimates	Dependent Variable	
		Soya Bean Spot Price	Soya Bean Futures Price
Error Correction Term(ECT)	Coefficient	-0.0322	0.0362
	Standard Error	0.0179	0.0245
	t-statistics	-1.7965	1.4760
	Prob.	0.0729	0.1404

Source: Computed from the Data Compiled from NCDEX Website

Table 6 shows the results of Vector Error Correction Model (VECM). The value of Error Correction Term(ECT) for spot price of soya bean is -0.0322 with a standard error of 0.0179. The t-statistic value is significant at 10% level of significance. It means 3% of the short-run disequilibrium converges into long-run equilibrium before the next day and remaining 97% will sustain. On the other hand, the Error Correction Term for futures price of soya bean is 0.0362 with a standard error of 0.0245. The t-statistic value is not significant. Positive value of the coefficient of error correction term indicates that short-run distortions never converge into long run equilibrium relation. The insignificant 'p' value indicates that short-run distortions are not statistically significant.

Testing the Causal Relationship between Spot Price and Futures Price of Soya Bean

After establishing long-run relationship between spot price and futures price of soya bean, the study proceeds with the testing causal relationship between the two variables. Short-run causality is tested by applying 'Wald' test, while long run causality is tested by applying Granger Causality test.

Table 7: Estimation of Short-run Causality from Futures Price to Spot Price of Soya Bean [Wald Test]

Test Statistics	Wald Statistic	Df	Prob.
F-statistic	29.71591	(2, 660)	0.0000
Chi-square	59.43183	2	0.0000

Source: Computed from the Data Compiled from NCDEX Website

Table 7 shows the results of short-run causality test applied to test the significance of causal relationship from futures price to spot price of soya bean. The Wald test has been used to test the null hypothesis that coefficients of first differenced futures price of soya bean at first lag and second lag jointly are zero. When those two coefficients are jointly zero, it can be inferred that there is no short-run causality from futures price to spot price of soya bean.

The results of the test reveal that null hypothesis is to be rejected as 'p' value is less than 0.05. It can be inferred that jointly coefficient values of the first differenced futures price at lag one and lag two are not equal to zero. So, there is significant short-run causality from futures price to spot price of soya bean.

Table 8: Estimation of Short-run Causality from Spot Price to Futures Price of Soya Bean [Wald Test]

Test Statistics	Wald Statistic	Df	Prob.
F-statistic	0.476620	(2, 660)	0.6211
Chi-square	0.953241	2	0.6209

Source: Computed from the Data Compiled from NCDEX Website

Table 8 shows the results of Wald test which is conducted to test the short-run causality from spot price to futures price of soya bean. The null hypothesis of the test is the coefficients of first differenced spot price of soya bean at lag one and lag two are jointly zero. The null hypothesis is accepted as the 'p' value is more than 0.05. So, it can be inferred that there is no short-run causality from spot price to futures price of soya bean.

Table 9: Estimation of Long Run Causality between Spot Price and Futures Price of Soya Bean – Granger Causality Test

Null Hypotheses	Lag Length	N	F-Statistic	Prob.
DSPOT does not Granger Cause DFUTURES	1	667	0.16240	0.6871
DFUTURES does not Granger Cause DSPOT			69.9546	4.E-16
DSPOT does not Granger Cause DFUTURES	2	666	0.69826	0.4978
DFUTURES does not Granger Cause DSPOT			34.1186	8.E-15
DSPOT does not Granger Cause DFUTURES	3	665	1.04249	0.3731
DFUTURES does not Granger Cause DSPOT			22.5059	7.E-14
DSPOT does not Granger Cause DFUTURES	4	664	0.44533	0.7758
DFUTURES does not Granger Cause DSPOT			18.3817	3.E-14
DSPOT does not Granger Cause DFUTURES	5	663	0.51019	0.7687
DFUTURES does not Granger Cause DSPOT			15.1165	5.E-14

Source: Computed from the Data Compiled from NCDEX Website

Table 9 shows the results of granger causality test conducted between the first differenced values of spot price and futures price of soya bean. The test has been conducted at different lag lengths from lag one to lag five. At all the select lag lengths, causality is present from futures price to spot price, but not in reverse direction as indicated by the 'p' values associated with the F-statistic.

Conclusion

The descriptive analysis of spot price and futures price brings to light the fact that there is lower possibility of having extreme values in the distribution of spot price and futures price. So, it can be concluded that there are no abrupt extreme changes in the spot price and futures price of the soya bean. The results of Johansen Cointegration reveal that spot price and futures price of soya bean have exhibited long run equilibrium relationship. Vector error correction model (VECM) suggests that short run distortions very poorly converge into long run equilibrium relationship. The results of 'Wald' test unfold that there is unidirectional short run causality from futures market to spot market of soya bean and granger causality test also confirms the same in the long run. It can be concluded that futures market is playing pivotal role in efficient price discovery in the spot market. Absence of causal relationship from spot market to futures market implies that spot price does not have information content about the futures price while futures price is the indicator of spot price.

Effective integration of spot market with futures market helps in commercialization of agriculture sector. Though, speculators drive the derivatives market in any country, orderly controlled speculation infuses liquidity into the market which in turn makes the markets more informationally efficient paving the way towards efficient price discovery in the spot market. Though, Indian Commodity Derivatives market is burgeoning in the recent past, still there are many hurdles in this market. Indian agriculture sector will become vibrant only when 'modernization' and 'commercialization' of the sector is given top most priority by the policy makers while framing the agriculture policy. As the results of the study reveal that commodity derivatives helps in price discovery in the spot market, the policy makers should promote the orderly growth of the agriculture commodity derivatives market. MA

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DOUBLING FARMERS' INCOME :

OBSTACLES AND INTERVENTIONS

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Doubling Farmers' Income (DFI) is a well discussed issue at present scenario in Indian economy. In February 2016, Honourable Finance Minister, Mr. Arun Jaitley has announced this concept in budget 2016.[1] Different Government Organisations have published various reports regarding agricultural farming. Government of India (GOI) has taken different initiatives to enhance the level of income of the farmers but in reality failed to achieve the goal. Practically, most of the farmers are suffering from lack of income. In recent times, the unfortunate incidence of suicide increases with great concern. In this article, attempt will be made to identify the causes behind low level of income and will try to design the policy suggestion to improve the wellbeing of the Indian farmers.

The Indian agricultural sector has 17.32% contribution in Gross Domestic Product (GDP) in 2016-17.[2] According to Economic Survey- 2018, 50 % of total employment in India is occupied in agricultural sector.[3] The annual average growth of agro based Gross Domestic Products (GDP) is 3.1%, whereas the overall GDP is 7.1% during 2008-09 to 2014-15.[4]

But, farmers are at abysmal condition. 22.50% of them are lying below the poverty line. The average income of the agro based household sector was Rs. 6,426 per month as against their consumptions of Rs. 6,223 from July 2012 to June 2013.[5] The stress of the farmers could be perceived from the index of suicide. More than 12000 people commit suicide every year since 2013.[6]

In this context, increase of income of the farmers, is a social necessity keeping in mind the welfare of the society. Government of India (GOI) in recent time is with the opinion of Doubling Farmers' Income (DFI) and has announced that GOI has its target to double the farmers' income by 2022. Accordingly, the state is with the opinion to increase of agricultural output, provide good quality of seeds, better fertilisers etc. But, this policy understanding couldn't be achieved unless the specific reasons behind the crisis are identified and appropriate measures could be prescribed accordingly.

In this paper, an attempt will be made –

i. To identify the stages of post - harvest supply chain i.e. a movement from production unit to the point of consumption.

ii. To identify the factors, imbedded in the supply chain, for which the farmers are at the low level of income.

iii. To find out appropriate policy suggestion to improve the situation, i.e the notion of DFI could be achieved.

Strategic Review

DFI Committee suggested diversification and development market linkages for the purpose of improvement of income of the farmers.

The DFI Committee has adopted the basic equation,

Net Return = Gross Return - Cost of Production.

They also realised the intervention of Minimum Support Price (MSP) for increasing agricultural income.[7] The major recommendations of the Committee are:

Minimisation of post-harvest loss (PHL), particularly in the case of vegetables and fruit products.

More investment is essential for improvement in integration of cold-chain mechanisms.[8]

Indian Council of Agricultural Research (ICAR) identified the cost factors responsible for this poor state of affairs.

Method of Study:

In this paper, following the Neo Classical micro model, the basic revenue – cost ($\Pi = R - C$) model will be used to capture the problem.

To improve the situation of the farmers, either we have

i. to maximise revenue subject to a given level of cost or
ii. for a given level of revenue we have to minimise cost.

Now, R = PF * Q
Where, R = Total Revenue;
PF = Price of the agricultural output realised by the farmers;
Q = Output.
C = w. L + r. K
Where, C = Total Cost
w = Wage Rate
L = Size of employment of agriculture labour
r = rental rate of capital
K = size of capital.

Identification of the Problems and Possible Solutions:

Strategy -I

Diagnosis of the Problem - The root cause behind the problem of low income is the low price $P^{F'}$, realise by the farmers. The GOI, has detected the problem and suggested measures to eradicate the crisis through fixing the price of agricultural product at the level of MSP. But in reality, the farmers in most of the occasions are not in a passion to realise the MSP. Because in ground reality, it is the trader (*the intermediary, popularly known as the fare community*), who are actually purchasing the significant proportion of the harvest from the field itself, at a price which is extremely low. Considering the socio - economic condition of the farmers they are also in a position to sell their products at this price, technically which is known as *Distress Sell*. Prevalence of imperfection, in the determination of agriculture price is the main reason for low level of income of the Indian farmer. This imperfection could be analysed as follows:

Five different prices are playing at different levels -

(i) P^F = Price of the agricultural output realised by the farmers.

(ii) P^M = Price at Mandi or Regulated Markets.

(iii) P^W = Wholesale Price.

(iv) P^R = Retail Price i.e. Price paid by the Consumers in the retail market.

(v) P^S = Minimum Support Price (MSP) fixed by GOI.

Here, $P^F < P^M < P^W < P^R$

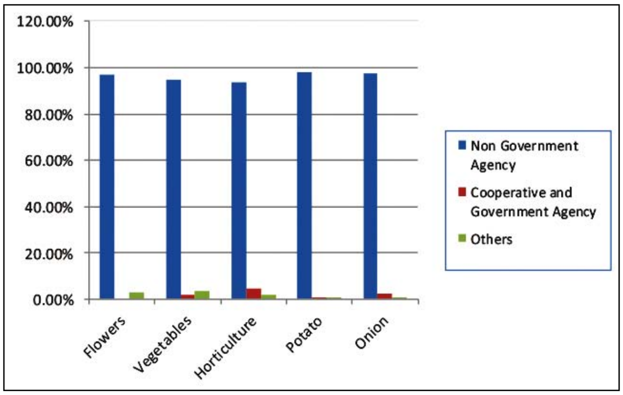
Therefore, price realised by the farmer is low enough in comparing to the price offered by the consumer in the retail market. Here the fallacy is, only one extreme farmers' are getting their price, critically, at a low level and on the other extreme the consumers are also purchasing the products at a higher price from the retail market and are facing inflationary pressure. A significant proportion of this price differential (PF~ PR) is being appropriated by the private non-government players. From table 1, one can have a snapshot of the pattern of procurement.

Table 1: Selling % of Agricultural Commodities by Farmers to Different Agencies in India

Commodities	Non-Government Agency	Cooperative and Government Agency	Others
Flowers	96.84%	0.00%	3.16%
Vegetables	94.72%	1.96%	3.32%
Horticulture	93.43%	4.58%	1.99%
Potato	98.03%	0.59%	0.86%
Onion	97.47%	2.16%	0.38%

Source: Computation by the DFI Committee from unit level data of NSSO, 70 Round (2012-2013)9

Chart 1



From the table and or chart it is clear that only an insignificant proportion of total agricultural product is being shared by the government, at a price, technically known as MSP. GOI is fixing the MSP at a comfortable level but in reality it is not percolating to the farmer. So, the farmers are with the clutch of private traders at different levels. This degree of exploitation leads to a situation where the farmers are under the pressure to accept suicide.

Intervention

Just by fixing MSP at the policy level, the problem could not be solved. In this article, our concrete suggestion is to develop a marketing network starting from the farmer to the cold storage where an arrangement of mobile procumbent mechanism should be evolved to purchase the agricultural products from the field itself by government or any agency on behalf of it at a price which is equal to MSP.

This redesigning of supply chain logistics has its double benefits –

i. Income of the Farmers' will increase which will lead to the higher level of welfare of the agricultural community.

ii. Consumers, in the retail market will also enjoy relatively a lower price for the same agricultural products and therefore wellbeing of the consumers also increases.

Therefore, maximisation of revenue subject to a given level of cost could be achieved through the replacement of private traders by government regulated mobile marketing network. The major policy suggestion at the operational level is to ensure higher level of income of the farmers. Block based Mobile Procurement Network (MPN) along the facility of cold-storage should be considered as a composite package to rehaul the agricultural scenario in India.

Strategy -II

Problem: If we try to make insight to the issue of minimisation of cost for a given level of revenue then the following factors will be surfaced immediately –

In most of the occasion, farmers are borrowing money from the local Mahajans, who are charging exorbitant rate of interest for the fund require by the farmer. Considering the prevailing socio-economic condition, the farmers are not in a psychological state, to approach the formal financial system. In many occasion farmers are borrowing money from the mahajans again and again both for their consumption and production purposes and that lead to debt trap.

The cost of seeds, fertilizers, and irrigation should be restricted at a reasonable level through extension of need based agriculture subsidy.

Intervention

GOI has different rural credit institutions, like, Co-operative Credit Society, Land Development Bank, National Bank for Agriculture and Rural Development (NABARD), Regional Rural Banks etc. to provide loans to the small and marginal farmers. But farmers are incapable to reach them due to the formalities as well as lack of waived loan facilities. Sometimes the officials are giving importance to the rich farmers. In this context, our objective is to remove the mahajan community and suggested measures to extent Mobile Banking for easy loan / financing facility at minimum cost. GOI should develop infrastructure for the purpose of execution of the project.

Strategy –III

Allied Supporting Systems: Besides different suggested policies and mechanisms, following observations are also helpful to increase the income of the farmers:

Build up a transportation network for compulsory transfer of unsold stock of agro products from the state where the product is surplus to the state where it has its shortage.

Increases various awareness programmes regarding fulfilment of different formalities to grab the opportunities of different government policies for increasing farmers' income.

Introduction of computerised storage systems of agricultural products.

Conclusion:

The agricultural sector has its valuable contribution in the share of GDP in India. But, the farmers are at low level of income. The attempt of the GOI is to increase the income of the farmers. All the states are also with the attitude to enhance the level of income. But, in spite of the policy announcement, the states of affairs of the Indian farmers are at a low. In this paper we have tried to identify the problems at first and accordingly, policy interventions at the operational level were suggested to ensure DFI. MA

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DOUBLING FARMER'S INCOME

CHALLENGES AND THE WAY FORWARD

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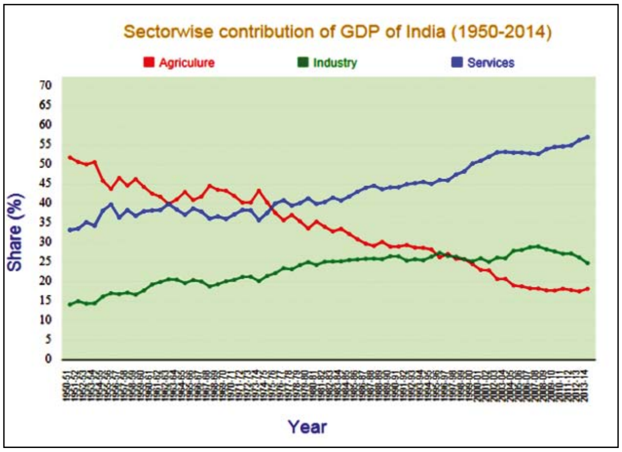
Agriculture is the back bone of our Economy and it is one of ancient, essential and foremost important occupation. It is the first occupation to satisfy the basic needs of human life. The disparities *between agriculture yield increase and increase of input cost, labor cost and fuel cost is a huge factors affecting Indian agriculture. The input cost for cultivation has increased significantly over the past decades and as the net income for the farmer has not increased in the same way.* Now, even after helping hands from Government, agriculture is facing many challenges and since independence, the contribution of agriculture and allied sector to GDP is declining in trend and gives an alarming signal for *food security for the ever-growing population. At the same time many rural youth are still depending on agriculture and the incomes from agricultural is not compensating even the expenditure they spent.*



By recognizing the problem, the Honorable Prime Minister of India established a goal that is doubling farmer's real income by 2022. In the light of established goal, the total allocation for rural, agricultural and allied sectors for 2017-18 is Rs 187223 crore, which is 24% higher than last year's allocations. The target for agriculture credit is fixed at Rs 10 lakh crore. Target for agricultural credit in 2017-18 fixed at Rs 10 lakh per person. The Cabinet has approved extension of tenure of loans under Credit Linked Subsidy Scheme of the Pradhan Mantri Awas Yojana from 15 to 20 years. Further, the Government Issue soil health cards and also setup a mini lab in Krishi Vigyan Kendras. Through governments are encouraging in all fronts, the agriculture sectors has been facing several challenges inherent thereto. The inherent challenges are segregated and listed out as follows.

Land Usage in India

The usage of land means the different ways in which the human beings utilize the land the dwell upon. This could include leaving the land as it is; forestry, agriculture, construction, grazing pastures etc.

Net Sown Area:

The net sown area is the total absolute value of the area cropped. It is the land that even if the same land is cropped multiple times in each year, it will be counted only once. It occupies 46.05% in India and measuring 142 million hectares (*Total land area of India is ~328 million hectares*).

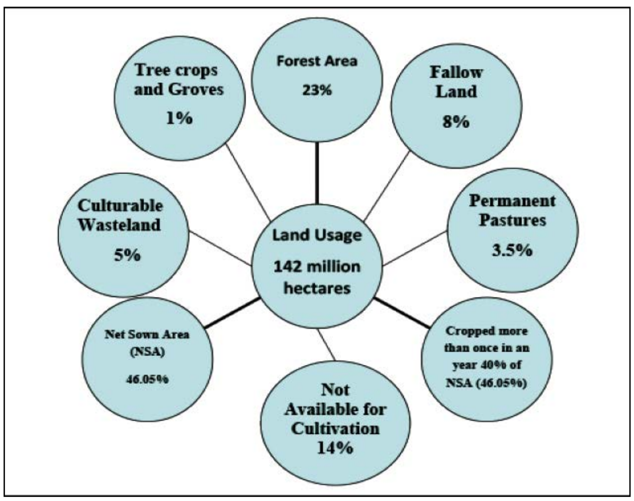
Cropped More than Once in an Year:

The land cropped more than once is occupying about 40% of Net Sown Area and measuring ~57 million hectares. It rose very rapidly during the last decade. It is only the source available to drastically increase production. The Indo-Ganga plains are the leader in this segment.

Forest Area:

The notified forest area is around 23% of the available land in India where as a tropical country like India, it is ideal to have 33% of the land. The State Madhya Pradesh has largest forest area and Mizoram has highest percentage of area under forest.

Fig: Land usage in India.



Not Available for Cultivation:

It is the land put in use for *non-agricultural use i.e.*, Housing, industry, roads, lakes etc.

The Barren Unculturable Waste land like Mountains, hill slopes etc. also falls under this category. It is occupying around 14%. This land records high in Andhra Pradesh, Rajasthan and Himachal Pradesh.

Permanent Pastures:

It is around 3.5% of area and continually decreasing. In total 1/3 of all pastures are in Himachal Pradesh alone.

Fallow Land:

Present the Current Fallow (upto 1 year) and Fallow other than Current Fallow (1-5 years) are occupying around 8% area. This is done to recoup the fertility levels of land.

Tree crops and Groves:

This is continually decreasing and now stood at ~1% of total land.

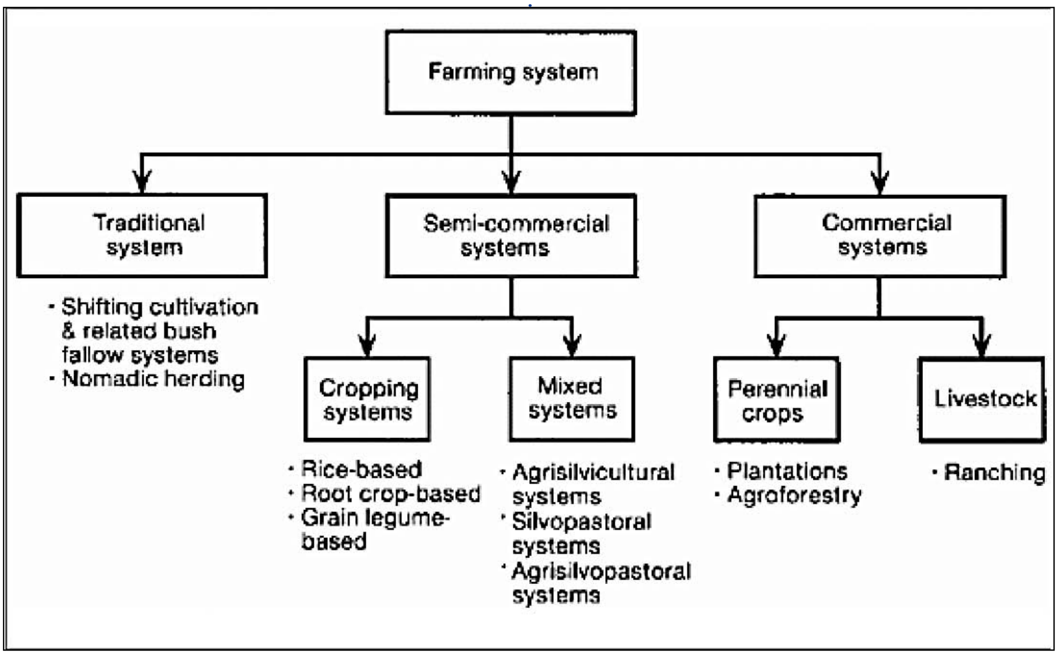
Culturable Wasteland:

The land available for agriculture but not utilized for various reasons fall under culturable wasteland i.e., saline soil, e.g. Reh/Bhur/Usar in UP/Haryana/Punjab. Faulty agricultural practices also lead culturable wasteland. It is 5% of total area and Rajasthan alone has 36% of such wasteland.

The main challenge for doubling the farmer's income is that the net sown area is goes on decreasing and it should be checked and the usage of culturable wasteland should be improved.

Farming System

The Indian farming system is also very defective. Still one can find traditional system of farming in many areas of the country. Under this system of farming, they shift cultivation from one place to another place where they can find more fertile. Under semi commercial system, cropping system based on rice, root crops and gains mixed up with agrisilvicultural, silvopastoral and agrisilopastoral systems. Whereas, in commercial system, the perennial crops are blent with livestock. Indian farming system is still not yet transformed to commercial system because of the existence of high number of marginal and small farmers. The land available for farming in their hands is very nominal. The farming system is shown in the diagram as follows;



The major other challenges faced by the marginal and small farmers in India are:

1. Small and fragmented land-holdings
2. Non availability of good quality of seeds
3. Lack of proper integration of cropping and farming systems suited to different regions
4. Lack of mechanization
5. Non-availability of customized skill development program to the farmers and rural youth
6. Poor purchasing power
7. Inadequate storage facility

8. Inadequate transport

9 Limited access to inputs, technology, credit, market, and

10. Intermediaries

The possible solutions to the problems faced by the marginal and small farmers are:

1. Introduction of integrated farming system (IFS) – Alternate sources of income

2. Better soil and water management

3. Training on skill development. viz. production of enriched vermicompost from cattle dung, low-cost

4. soil water conservation technology, integrated farming techniques and repair & maintenance of farm machinery

5. Mechanizing farm –Establishing custom hiring centres in different clusters

6. Small scale processing of farm produce and by-products at the farm level

7. Realization of good price for the produce

8. Precision farming – for enabling techno-green revolution. This would lead to need based application of agriculture inputs so as to reduce the cost of production and increase profitability

9. Mechanization: It is an important component of agriculture to reduce drudgery. MA

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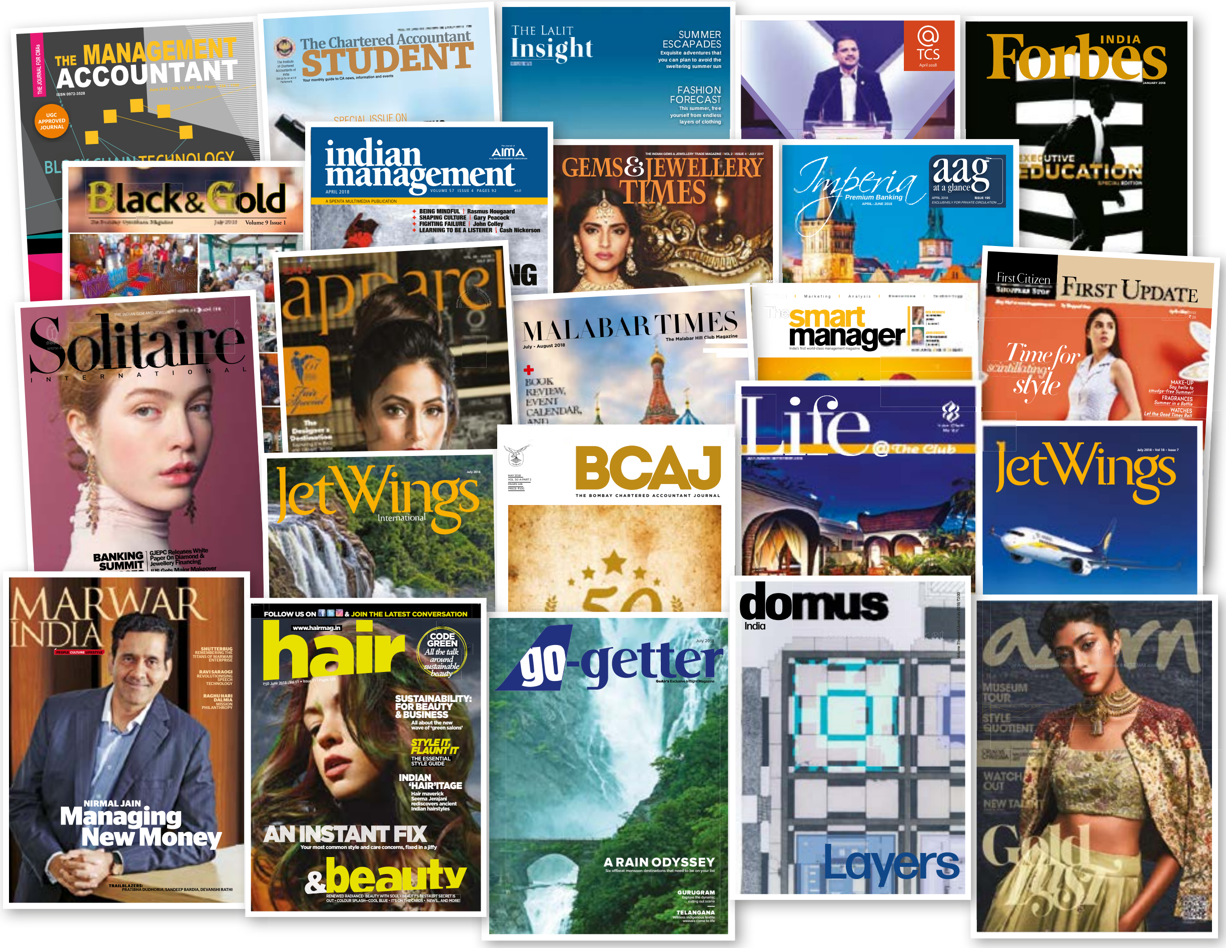
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Gems & Jewellery Times
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smart manager
First Update
Solitaire International
Life @ The Club
JetWings International
BCAJ
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Marwar India
hair & beauty
go-getter
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Layers

eNAM:

A STEP TOWARDS DOUBLING FARMERS' INCOME BY 2022

The largest category of entrepreneurs in India i.e. farmers are ironically the poorest ones. About 80% farmers in India belong to marginal(landholding less than 1ha) or small farmers (landholding between 1 to 2ha) category. Agriculture supports nearly 50% of the employment but contributes only 15% to the GDP. Of late there have been reports of farmers' suicides,probably due to their poor financial condition emanating from a large family to support, empty pockets and mounting debts.

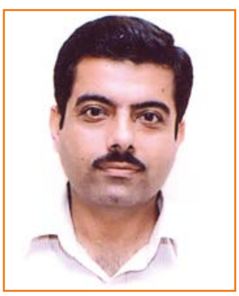
Most of the farmers are in the clutches of money-lenders and middlemen. They are on the mercy of these middlemen to sell their produce who arbitrarily fix the price and declare the quality of the produce. All the functionaries in the supply chain are at beneficial preposition excluding the farmer. With mounting expenses, the real income of farmers is declining. Due to irregular income and uncertainty of earnings more and more people are leaving the farming practices and rushing to the cities putting pressure on urban resources.

Considering these facts, the Government has taken an initiative to double the farmers' income (DFI) by 2022-23 considering base year 2015-16. This translates into an annual growth rate of 10.41%. To achieve this target Government has taken a lot of policy initiatives. Budgetary allocation of Agriculture and Farmer Welfare Ministry for 2018-19 has been raised to Rs 58,080 crore from 51,576 crore in 2017-18. Government is pushing up reforms in agriculture sector and implementation of schemes that aims to shift priority from production-led to income-led strategy. One of the revolutionary step in this regard is the formation of National Agriculture Market (NAM) platform on the internet.

e-NAM: One Nation One Market

To assist farmers in getting a fair and remunerative price for their agri-produce ensuring transparency, e-NAM platform was rolled out on 14/04/2016 by Hon'ble Prime Minister of India.

NAM is a pan-India electronic trading portal symbolizing one nation one market. It has networked the existing



Lalit Wadhwa
Deputy Secretary
Department of Revenue, Ministry of Finance
Government of India, North Block
New Delhi

eNAM is an online network of e-mandis directed towards doubling the farmers' Income by 2022 as envisioned by the Government. The basic objective of the platform is to ensure fair and remunerative price for the farmers for their produce. Elimination of middlemen, accurate quality assessment, option to sell anywhere in India etc. are some of its other benefits. The system ensures transparency in operations. For farmers, NAM promises more options for sale at the nearest mandi. For the local traders in the mandi, NAM offers the opportunity to access a larger national market for secondary trading. Price discovery would be on real time basis depending upon demand and supply. Bulk buyers, processors, exporters etc. will benefit from being able to participate directly in trading through the e-NAM platform. Significant benefits will accrue through higher returns to farmers, lower transaction costs to buyers and stable prices and assured availability for consumers.

Agriculture Produce Market Committee (APMC) mandis to create a unified national market for agricultural commodities. It is a "virtual" market but it has a physical market(mandi) at the backend. The farmers' produce is being sold online using internet.

The e-NAM Portal provides a single window service for all APMC related information and services. This includes commodity arrivals & prices, buy & sell trade offers, provision to respond to trade offers etc. While material flow (agriculture produce) continue to happen through mandis, an online market reduces transaction costs and information asymmetry.

Agriculture marketing is administered by the states as per their agri-marketing regulations, under which, the State is divided into several market areas, each of which is administered by a separate Agricultural Produce Marketing Committee (APMC) which imposes its own marketing regulations (including fees). Fragmentation of marketshinders free flow of agri-commodities from one market area to another and multiple handling of agri-produce and multiple levels of mandi charges ends up escalating the prices for the consumers without benefiting the farmer.

e-NAM addresses these challenges by creating a unified market through online trading platform, both, at state and national levelpromoting uniformity, streamlining procedures, removing information asymmetry between buyers and sellers. It promotes real time price discovery, based on actual demand and supply, ensures transparency in auction process and access to a nationwide market for the farmer, with prices as per the quality of his produce with online payment and ensuring availability of better quality produce at a reasonable price to the consumer.

Need

For increasing disposable income of farmers, need was felt to establish a common national market for agricultural commodities. Current APMC regulated market yards limit the scope of trading in agricultural commodities at the first point of sale (i.e. when farmers offer produce after the harvest) in the local mandi, typically at the level of Taluka/ Tehsil or at the district. Even one state is not a unified agricultural market and there are multiple transaction costs on moving produce from one market area to another within the same state. Multiple licences are necessary to trade in different market areas even within the same state. This has led to a highly fragmented and high-cost agricultural economy, which prevents economies of scale and seamless movement of agri-goods across district/state borders. NAM seeks to address and reverse this process of fragmentation of markets, ultimately lowering intermediate costs, wastage withbest prices for the ultimate consumer.

Objectives &steps initiated

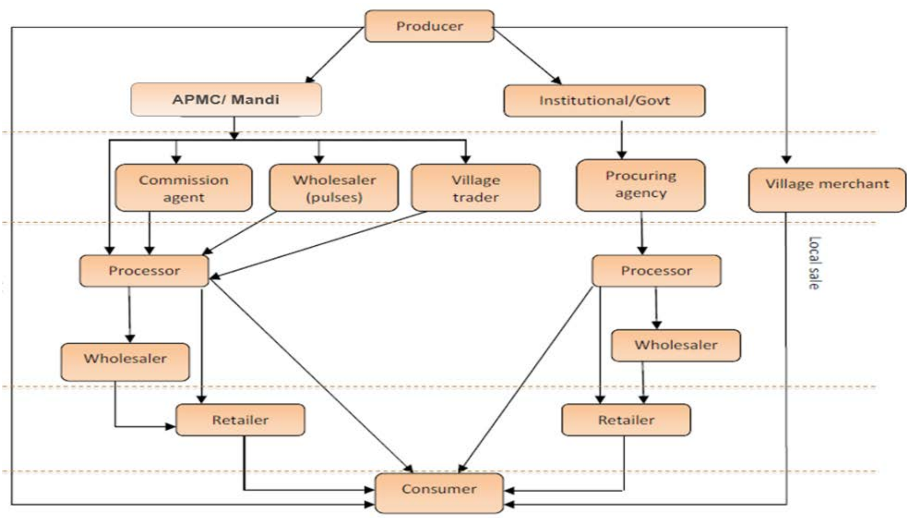
Primary object of NAM is formation of a national e-market platform for transparent transactions and price discovery. For this purpose, the willing states have already enacted suitable provisions in their respective APMC Acts' for promotion of e-trading by their State Agricultural Marketing Board/APMC.

The provision of licencing policy in APMCs has been liberalized. For licensing of traders/buyers and commission agents (CA) by state authorities there is no pre-condition of physical presence or possession of shop/premises in the market yard. One license for a trader has been made valid across all markets in the State. As a result, the farmers can showcase their produce in nearby markets and facilitate traders from anywhere to quote the price. The provision for single point levy of market fees i.e. on the first wholesale purchase from the farmer has been made.

Quality standards of agricultural produce and provision for assaying (quality testing) infrastructure in the markets have been harmonized to enable informed bidding by buyers. Common parameters have so far been developed for 90 different agricultural commodities. Provision of Soil Testing Laboratories in/or near the mandi has been made to facilitate visiting farmers

Mandis

The structure of traditional mandis is as per following details.



Source: Unified National Agriculture Market: ManojRawat

NAM is not a parallel marketing structure to traditional mandis but a mechanism to create a national network of physical mandis which can be accessed online. It seeks to leverage the physical infrastructure of the mandis through an online trading portal, enabling buyers situated even outside the State to participate in trading at the local level. This would result in reduction in book keeping and reporting system (reports were previously prepared viz. daily minimum, maximum, modal prices and arrivals) which can now be generated electronically. This ensures better monitoring and regulation of traders and commission agents.

Transparency in the system eliminates the scope of manipulation in tendering/auctioning process. There is no role of any middleman. The system requires less manpower as the entire process takes place through the system. The activities of each APMC are available on the website on a real time basis. The forecasting of arrivals and prices has been made more scientific due to availability of data/information in the system.

Operations

NAM platform has been created with an investment by the Government of India (through the Ministry of Agriculture & Farmers' Welfare). It offers a "plug-in" to any market existing in a state (whether regulated or private). The software developed for NAM is available to each mandi which agrees to join the national network, free of cost with necessary customization to conform to the regulations of each State Mandi Act.

Government has appointed Small Farmers' Agribusiness Consortium(SFAC) as the lead Implementing agency of NAM. SFAC will operate and maintain the NAM platform with the help of "Nagarjuna Fertilizers and Chemicals

Ltd." selected as the Strategic Partner(SP) responsible for development, operation and maintenance of the platform. The role of SP is comprehensive and includes software development, customizing to meet the specific requirements of the mandis in the states and running the platform.

Will the APMC mandis lose out business due to NAM?

Apprehension have been expressed that APMC mandis wouldloose out their business due to NAM. However, this is not true. NAM basically increases the choice of the farmer when he brings his produce to the mandi for sale. Local traders can bid for the produce, as also traders on the electronic platform sitting in same/other state. The farmer may choose to accept either the local offer or the online offer. In either case the transaction will be routed through the local mandi and they will continue to earn the transaction fee. In fact, the volume of business will significantly increase as there will be greater competition for specific produce, resulting in higher transaction fees for the mandi.

Costs

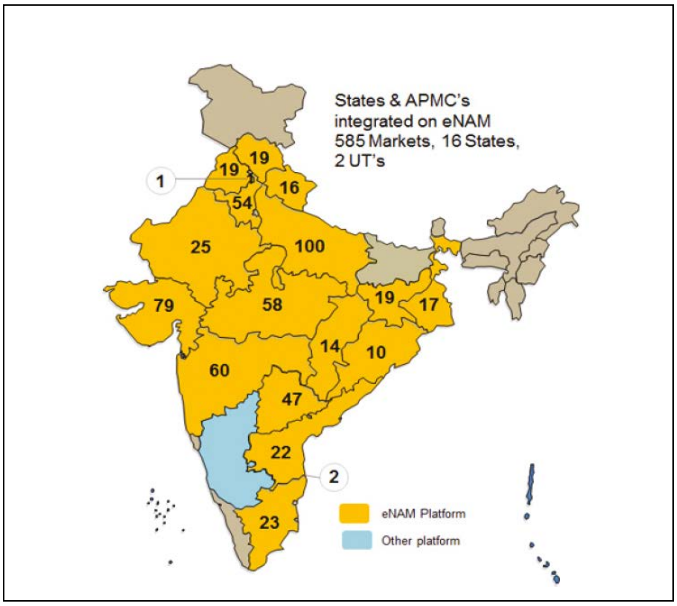
The integration costs for local mandis and customization of software, training etc. has been paid by the Government as a one-time grant at the time of accepting the mandi in the national network. Thereafter, the operational costs of the software at the local level, staff costs for quality check etc. will be met out of the transaction fee to be generated through the sale of produce. The intention is to avoid any upfront investment by the mandi when it integrates into NAM and also enable it to support the running cost through additional revenue generation.

Advantages

NAM envisages a win-win solution for all stakeholders. For farmers, NAM promises more options for sale at his nearest mandi. For the local traders, NAM offers the opportunity to access a larger national market for secondary trading. The price discovery would be on real time basis depending upon demand and supply condition. Bulk buyers, processors, exporters etc. will benefit from being able to participate directly in trading at the local mandi level through the e-NAM platform, thereby reducing their intermediate costs. The gradual integration of all the major mandis in the states into NAM will ensure common procedures for issue of licenses, levy of fee and movement of produce. In near future, significant benefits will accrue through higher returns to farmers, lower transaction costs to buyers and stable prices and assured availability for consumers. NAM will also facilitate the emergence of integrated value chains in major agricultural commodities across the country and help to promote scientific storage and movement of agri-commodities.

Present Status

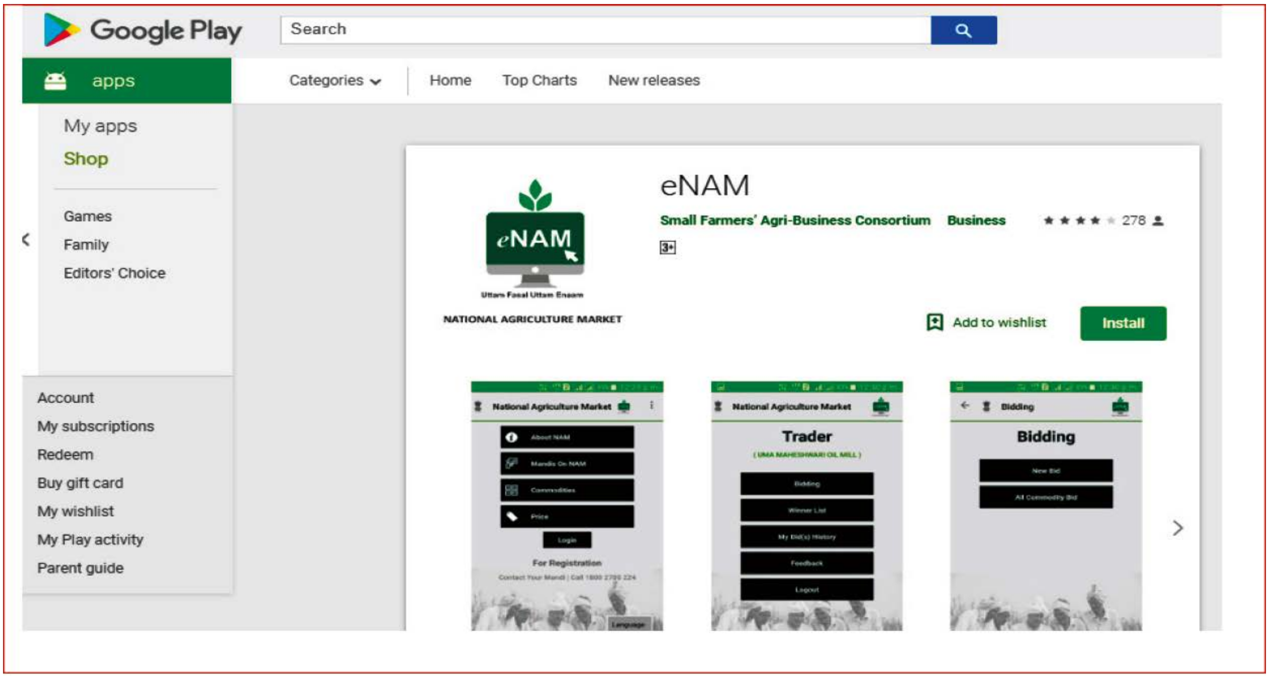
As on date 585 mandis across 16 states and 2 union territories of India have been integrated with e-NAM. The state wise mandis have been indicated in the following map:



Source: https://enam.gov.in/NAM/home

Trading Mechanism

The trading under NAM is done online, through desktop site www.enam.gov.inor through mobile application which can be downloaded free of cost from Google Playstore.



Source: Google Playstore

Payment & Receipt

The payment network RTGS/NEFT, debit card, internet banking and Unified Payment Interface (UPI) facility through BHIM support has been provided to receive/make payment.

Support

Dedicated tollfree and other numbers viz. 18001801581/01141060075/01141060076 has been set up by the Small Farmers' Agribusiness Consortium to help the users/stakeholders.

NAM Process Flow

Source: Ministry of Agriculture

NAM Process Flow involves the following activities:

1. Entry into APMC Market

- APMC designated person to log into the NAM portal and make an entry about the farmer and his/her produce at the entry gate.
- Farmer to provide his/her ID (provided by the APMC) to capture the information in the software
- If the farmer is not registered in the NAM portal, the APMC official is required to register him/her on the spot and issue a unique ID.
- Farmer to get a system generated unique lot number. This lot number is to be pasted on the bags that contain the commodities
- The farmer will have a unique lot numbers for easy reference of his/her lots.

2. Sorting and Grading

- The farmers may sort and grade their produce, if the sorting and grading facilities are available in the mandiprior to assaying.

3. Testing/Assaying Lab

- Farmer/commission agent to get the produce assayed at the APMC testing lab.
- The lab will do the assaying based on the defined testing parameters for various commodities.
- The testing results will be upload linking it to the lot number of the produce.
- Test results will provide assessment based on the reference range as indicated in the quality parameters of various commodities.

4. E-Trade Section on NAM Portal

- Once the lot has been put for sale on e-Trade section; it will be validated by an APMC official.
- Post validation, the offer will be visible to all registered users (prospective buyers) on the portal
- Registered and validated traders can place their bid on the sale offer. These may be closed bids (not visible to others) or Open auctions depending on the prevailing practice for sale of produce in the mandi.
- Bidding should be allowed till a fixed period of time (say up to 1:45pm), after which the NAM portal will not accept any more bids on that day
- Results of the bidding will be declared at 2pm or any other time decided in the local APMC and the winning bid will be visible to all users.

5. Weighing, Delivery & Settlement

- Farmer's produce to be weighed at designated weighing centers post execution of trade. This information is updated on the portal and linked to the lot number of the produce by the farmer or the commissionagent.
- The entries should be directly fed into the NAM portal from the electronic weighing machines.
- Once the trade is confirmed, NAM platform shall generate a primary invoice automatically. The invoice shall be sent to the winning bidder on email and SMS.
- The winning bidder will have to deposit the amount as calculated by the NAM portal. This amount will include APMC transaction charges, commission agent fees, loading/unloading charges etc.
- Winning bidder will be able to deposit the amount online using NEFT or online payment gateway provided on the portal.

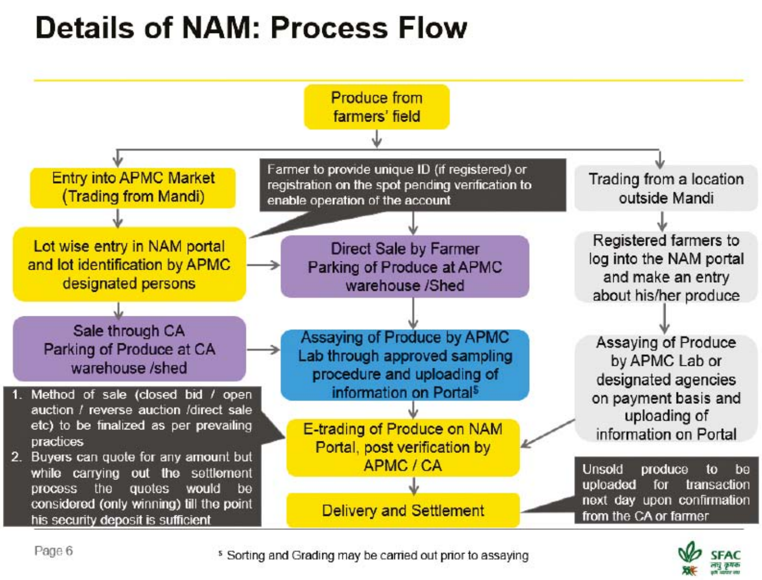
Once the funds are received by NAM, a confirmation message is sent to Commission Agent and Farmer.

- Depending on the terms of delivery, the winning bidder can take the delivery of goods at the APMC market or the commission agent/seller will dispatch the goods through a registered transporter through pay basis (to be paid by the buyer).
- Funds due to be paid to the Commission Agent and Seller (Farmer) will be transferred to their respective bank accounts after acceptance of delivery by the buyer within 1 business day by the bank operating the NAM account.

6. Exit Gate

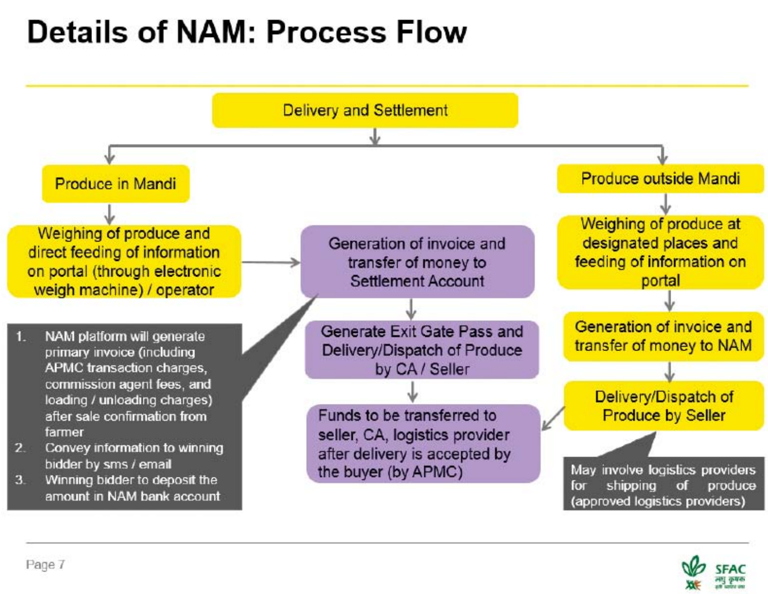
➢ When a lot (whether sold or unsold) is carried out of the APMC market, APMC official at the Exit gate will make a note of it in the NAM portal.

Process flow chart



$ Sorting and Grading may be carried out prior to assaying

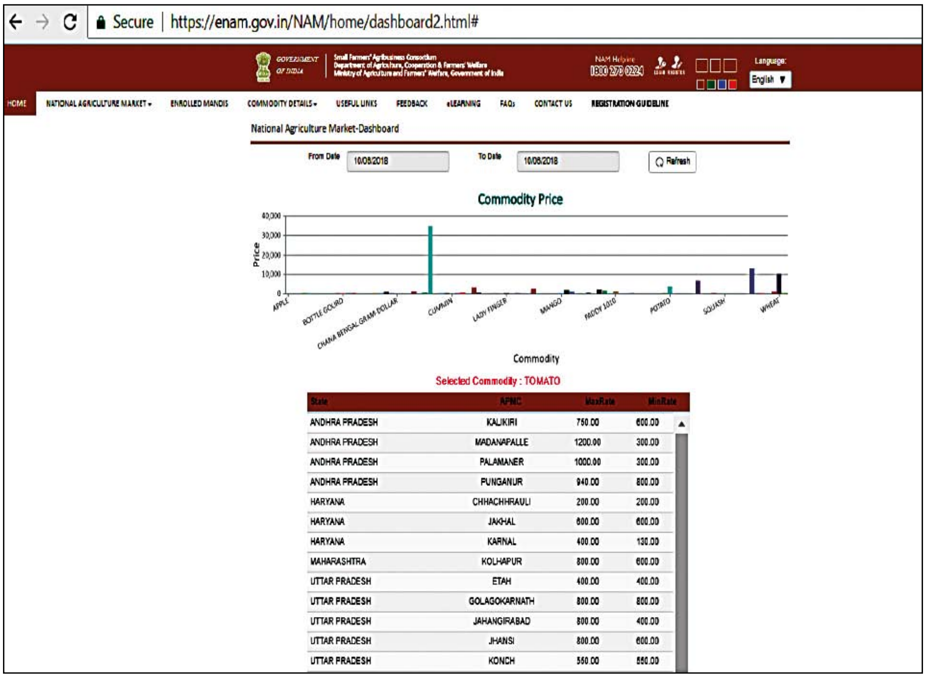
Source: Small Farmers Agribusiness Consortium



Source: Small Farmers Agribusiness Consortium

Market Access

Stakeholders have a real time access to the prevailing rates across the mandis produce-wise to estimate that what is the range in which the produce is available for sale/purchase. The following screen shot shows the mandi-wise range of rates for the commodities traded on the portal:



State	APMC	MaxRate	MinRate
ANDHRA PRADESH	KALIKIRI	750.00	600.00
ANDHRA PRADESH	MADANAPALLE	1200.00	300.00
ANDHRA PRADESH	PALAMANER	1000.00	300.00
ANDHRA PRADESH	PUNGANUR	940.00	800.00
HARYANA	CHHACHHRAULI	200.00	200.00
HARYANA	JAKHAL	600.00	600.00
HARYANA	KARNAL	400.00	130.00
MAHARASHTRA	KOLHAPUR	800.00	600.00
UTTAR PRADESH	ETAH	400.00	400.00
UTTAR PRADESH	GOLAGOKARNATH	800.00	800.00
UTTAR PRADESH	JAHANGIRABAD	800.00	400.00
UTTAR PRADESH	JHANSI	800.00	600.00
UTTAR PRADESH	KONCH	560.00	560.00

Source: https://enam.gov.in

Conclusion

e-NAM has the capability to revolutionize India's farm produce market. Since this an emerging concept, it is just a matter of time the stake holders adapt this system which has used the technology to bring a change in the millions of lives depending upon farming and allied activities, for their livelihood. It will also bring down post-harvest losses due to faster movement of the produce. It will not only ensure fair and remunerative price but will also ensure that the dealings with the farmer are transparent. There is no doubt that e-NAM would prove to be a milestone in achieving the target of multiplying the farmers' income not only double, but manifold. MA

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At the Helm

Our heartiest congratulations to CMA K Kalyana Raman, (KK Raman) a fellow member of the Institute, Managing Partner of Corporate Consultancy Services, (CCS) for receiving the 'Life Time Professional Achievement Award' from the Kingdom of Bahrain contributing 30 years of professional service at the Kingdom of Bahrain.

We wish CMA K Kalyana Raman the very best for all his future endeavours.

MANAGING AGRICULTURAL RISK THROUGH CROP INSURANCE

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In India agriculture began from the Indus Valley Civilization era and even before that in some parts of Southern India. Though its share of Gross Domestic Product (GDP) has been declining yet still a sizeable population depends on agriculture for living. It is really alarming to note that the average income of an agricultural household during July 2012 to June 2013 was as low as Rs. 6,426 as against its monthly consumption expenditure of Rs. 6,223.[1] As many as 22.5% of the farmers live below official poverty line.[2] A typical household depending on farming activities has to manage its expenses with unsteady, unpredictable and irregular incomes due to the seasonal nature of agricultural output which is again dependent on other factors like weather.

It is evident from the above discussion that agriculture is an important, if not the largest, enterprise of the country. And for survival of any enterprise, growth is essential. Thus for this reason Government of India (GOI) has taken various measures over time to increase the income of the farmers. Recently in August 2016 a Committee on Doubling of Farmers Income (DFI) was set up, under the chairmanship of Mr. Ashok Dalwai, to look into the various aspects of growth of farmers' income. To increase the income, the magnitude of risk borne by the farmers has to be mitigated. Since the various traditional risks mitigating tools are not enough to provide the required stability in income and minimization of risk, crop insurance can be seen as a solution. Cattle insurance, poultry insurance, agricultural pump set insurance, tractor insurance, crop insurance, etc. comes under the purview of rural and agricultural insurance. Crop insurance, simply put, is an insurance policy taken up by the farmers in order to protect their agricultural produce from the various perils they are exposed to.

Literature Review

The Committee on Doubling Farmers' Income (2017) stated that the focus on income security of farmers, as propounded by the agenda of Doubling Farmers' Income, is taking agriculture into the phase of risk management with a view to neutralising or minimising the impact of risks. All development, directed to build financial independence for the farmers and their income, or minimise their costs, are directly linked to risk management in agriculture.

Prabhu (1988) pointed out various important dimensions of crop insurance schemes prevalent in different countries. He found, that demand pattern of crop insurance may vary region to region and crop to crop, so a single scheme is not sufficient and since crop insurance is linked to credit the poor access of small and marginal farmers to institutional credit system may pose a hindrance in fulfillment of the primary objective of crop insurance.

Nair (2010) has rightly pointed out that the cases of agricultural suicides across the country imply that risk mitigation schemes have major shortcomings, though farmer suicides can be attributed to various reasons but a successful insurance program could reduce the pain of the farmers to a great extent in the crisis years. In the article she debates which of the traditional or index based insurance is better and is of the view that both has its advantages and disadvantages so a blend of both may be the need of the hour.

Varadan and Kumar (2012) observed that crop insurance has been able to absorb the production risk effectively, encouraging the farmers to concentrate on a fewer number of profitable crops instead of spreading their resources and energy across many crops.

Deshpande (2017) found that as of 2011, about 10% of Indian farmers were covered under a crop insurance scheme. Some persistent issues with the crop insurance system include (i) unawareness about insurance schemes, (ii) inadequate coverage of insurance schemes, (iii) assessment of the extent of damages in case of crop losses, and (iv) timely settlement of claims.

Objectives

The objectives of this paper are as under:

To understand the problems of Indian agriculture and the traditional risk mitigating tools.

To explain briefly the concept of crop insurance.

To discuss the evolution of crop insurance in India in the pre-independence and the post-independence era.

Methodology

The data have been collected from various secondary sources like books, journals, websites, and reports by government organizations, newspaper articles, etc. The present study is divided into four parts. In the first part the authors have discussed the various problems of Indian agriculture and the traditional risk mitigating tools available. In the second part the concept of crop insurance have been explained. The third part is however divided into two sections, in section I crop insurance in India in the pre-independence era has been documented and in section II crop insurance in post-independence era. And finally in the fourth part the authors have drawn conclusions based on the discussion of the paper.

Problems of Indian Agriculture and Traditional Risk Mitigating tools

In India agriculture is not a mere occupation it is seen as a way of life. Agriculture and related activities are the main source of livelihood for around 58% of population[3] of India. Hence, it cannot be denied that India is an agriculture based economy. Yet, the farmers associated with agriculture and related activities are subject to various problems and risks.

A. Problems of Indian Agriculture

Some of the problems of Indian agriculture are discussed below:[4]

The size of agricultural holding is small and fragmented, so scientific cultivation with improved implements, seeds, etc. is not possible which results in low productivity. Between 1995-96 and 2010-11the average farm size has declined from 1.41 ha to 1.15 ha.[5]

Lack of proper irrigation facilities results in dominance of nature in Indian agriculture.

The use of improved and hybrid variety of seeds are limited to specific crops, as many farmers still cannot afford to purchase these seeds. For example, just 2% of the paddy and wheat growers use hybrids. (Source: www.agricoop.nic.in)

Many farmers still cannot afford good quality chemical fertilizers which are essential to maintain the soil health.

Farmers use orthodox farming mechanisms which results in low yield due to lack of financial instability.

Generations of farmers get caught in debt trap due to heavy dependence on village moneylenders for financial provisions.

The system of marketing of agricultural products is still inadequate, often due to which the middleman makes huge profit and the farmers continue to remain poor.

Lack of adequate storage facilities often forces the farmers to sell off their produce at lower prices.

B. Traditional Risk Mitigating Tools

Since agriculture and its related activities are subject to various externalities it is evident that agriculture is a risky profession. 'The risks in agriculture can be grouped as: (i) production risk; (ii) market risk; (iii) financial risk; (iv) legal/policy risk; (v) resource risk; (vi) health risks; and (vii) assets risks. The intensity and domination of risk varies widely across regions.' (Bhende, 2005) Various risk mitigating mechanisms are used by the farmers for coping the risks faced by them. 'The ex-ante measures adopted to lower or minimize risks can be grouped as risk-reducing strategies whereas ex-post measures adopted to mitigate risks are classified as risk-coping measures or strategies.' (Bhende, 2005) The traditional risk mitigating tools are discussed below:[6]

Self- insurance- Self-insurance is a risk-coping strategy used by the agricultural households where they use different assets (like land, jewelry, pump sets, tractors, etc.), currency notes, livestock and stocks of food grains as buffer stocks. They accumulate these stocks in relatively good times and use them to finance their consumption expenditures during harder times.

Insurance through credit- This is another risk-coping strategy used by the farmers. The farmers avail credit from institutional sources (like banks, co-operatives, etc.), moneylenders, friends and relatives. 'The All-India Rural Credit survey published by the Reserve Bank of India(RBI) reveals that in 1951 only 7.2% of all borrowings were from government sources, banks and co-operatives. By 1981 this number had jumped to 61.2% mainly due to Indian government's substantial drive to extend rural credit through official channels. Individual moneylenders however did not vanish, 24.3% of all debt was still owed to them'. (Ramaswami, Ravi and Chopra, 2004)

Crop diversification- It is one of the most important risk-reducing strategies used by the farmers. Here the risk is spread across multiple crops so if one crop fails the profit arising from the other crop can absorb the shock of failure. 'However, crop diversification leads to spreading of limited resources across crops and the price paid for diversification is income foregone or sacrificed by not growing the most remunerative crop.' (Bhende, 2005)

Intercropping- Another risk-reducing measure taken by the farmers is intercropping or mix cropping.'It is a multiple cropping practice involving growing two or more crops in proximity, the main goal being to produce a greater yield on a given piece of land by making use of resources that would otherwise not be utilized by a single crop.' (Wikipedia) It lowers yield risks as it lowers risk of diseases and pest attacks. It also has greater potential for risk compensation.

Insurancethrough labour market- It is another risk-reducing strategy used by the farmers. In order to avoid the uncertainties of slack seasons, farmers with larger labour force and small and marginal farmers move from their own cultivation to labour market.

Question may be raised why, in spite of the availability of so many traditional risk mitigating tools, one needs crop insurance. Simply put, when the traditional measures fail to safeguard the household against substantial losses or it is not enough to protect stability of household consumption does one need crop insurance.

Crop Insurance

The first mention of crop insurance can be traced back to 18th century. Benjamin Franklin, often regarded as the Father of Crop Insurance, while speaking about a severe storm in French countryside which destroyed crops remarked on 24th October, 1788, "I have sometimes thought it might be well to establish an office of insurance for farms against the damage that may occur to them from storms, blights, insects, etc. A small sum paid by a number would repair such losses and prevent much poverty and distress."European countries like France and Germany were the trendsetters of crop insurance schemes, where first crop insurance programme in the form of hail insurance were adopted to safeguard the distressed grape growers in 1820s. In USA, the first crop insurance programme (hail insurance) took a start in 1883 for tobacco crop.

Crop insurance can be defined as 'a contract of indemnity by which, for a specified premium, one party promises to compensate another for the financial loss incurred by the destruction of agricultural products from the forces of nature, such as rain, hail, frost, or insect infestation.'[7]

Agriculture Insurance Company of India Limited (AICIL or AIC), the regulator of crop insurance in India defined crop insurance as, 'a means of protecting the agriculturist against financial losses due to uncertainties that may arise from crop failure/losses arising from named or all unforeseen perils beyond their control'.

'Apart from safeguarding the farmers against natural disasters crop insurance also protects them from the loss of revenue due to decline in prices of crops. The natural risks and hazards impinge on the decision-making of the farmers. Crop failure affects the borrowers, creditors and also a vast cross-section of the population. Hence, crop insurance can be viewed as an institution of security.' (Bhende, 2005)Crop insurance can be explained as a risk mitigating mechanism, the success of which would largely depend on both the ex-ante actions of farmers in adopting crop insurance scheme and ex-post actions of agencies concerned (i.e. banks, insurance agencies, government departments, etc.) in realizing claims.

Often insurance is perceived as a non-viable investment because though premiums are to be paid every year but indemnities are received much less frequently. Therefore it is quite obvious that the general population views insurance - particularly crop insurance- as a privilege of the rich. A major reason for low popularity of crop insurance in developing countries might be limited understanding of its benefits. Crop insurance ensures stabilization of income, efficiency and rural credit. To sum it up it can be said that the relative advantages of crop insurance are, (a) assured income for the farmers, (b) better risk management, (c) encourages farmers in choosing risky crops for production, (d) insulation from financial distress, (e) encourages farmers in adopting better production techniques.

Crop Insurance in India: the eras of Pre-independence and Post-independence

Section I: Pre-independence Era

The concept of Crop Insurance is not new to India. It had emerged as a risk management tool since the turn of 20th century. In the pre-independence era, the concept was first proposed by J. S. Chakravarthi of Mysore state in 1920. He had suggested a rain insurance scheme for protecting the farmers against drought situations. His scheme was based on what today is referred as 'area approach'[8]. He did extensive work on crop insurance; he published numerous papers in Mysore Economic Journal on the topic of rainfall insurance and also published a book titled 'Agricultural Insurance: Practical Scheme suited to Indian Conditions'. Though the data on which his scheme was based pertained to Mysore state but it had an all India perspective.

His scheme consisted of a package wherein he included insurance of buildings, granaries and agricultural equipment, cattle insurance and crop insurance; but he attached most importance to insurance of crops. Since price and quantity are inversely related he suggested that value of the crop should be the basis of crop insurance. Chakravarthi suggested that indirect system of crop insurance would be more appropriate than a direct system as there were various problems like illiteracy of the farmers, moral issues (as there was no mechanism to check whether the farmer is providing required care and attention to his insured crops), inadequate statistics, backwardness of infrastructure, etc. And since Indian agriculture is predominantly dependent on rainfall both excessive and deficient rainfall was harmful, though drought caused more serious damage. So he suggested drought insurance. It is due to the above reasons that he felt that the scheme should be based on rainfall and also argued that area approach should be followed, which would eliminate the moral issues and that of estimation of crop yield and value. But unfortunately his efforts went in vain as the scheme was not put into practice. Certain other princely states like Madras, Dewas and Baroda had also made efforts to introduce crop insurance in various forms in the pre-independence period, but they were also not successful.

Section II: Post-independence Era

In the post-independence era, the question of introducing scheme of crop insurance had been under the consideration of government of India since 1947. In the Central Legislature in 1947 the then Minister of Food and Agriculture, Dr. Rajendra Prasad, assured that the government would review the viability of introducing crop and cattle insurance in the country. Accordingly, in August 1948 an Officer on Special Duty, Mr. G.S. Pirolkar, was appointed for evaluating the problems, studying the various modalities and also for formulating schemes of crop and cattle insurance, on experimental basis, to be operational in selected areas. Two pilot schemes were formulated by him and circulated to the states for adoption, though none of the states implemented them due to insufficient funds.

The first aspect regarding the modalities of crop insurance considered was whether it should be on Individual Approach [9] or Homogenous Area Approach. The individual approach seeks to indemnify the farmer to the full extent of the losses and the premium to be paid by him is determined with reference to his own past yield and loss experience. The homogeneous area would comprise of villages that are homogenous from the point of view of crop production and whose annual variability of crop productivity would be similar. The study favored homogenous area approach. (Singh, 2010) Two pilot schemes were formulated by him and circulated to the states for adoption, though none of the states implemented them due to insufficient funds.

During formulation of Third Five Year Plan the question of crop insurance arose but was not favored by the Working Group on Agriculture. But the Government of Punjab showed interest in introducing crop insurance in the state and requested the government of India for assistance. The government of India decided in October 1965 to have a Crop Insurance Bill and a Model Scheme of Crop Insurance formulated so that the states which desired to introduce crop insurance in the areas under their jurisdiction could do so. It was prepared and circulated to the state government for their views; they however expressed different views on the subject. For a fuller examination of economic, administrative, financial and actuarial implications in July 1970 an Expert Committee under the Chairmanship of Mr. Dharam Narain was appointed. The Committee came to the conclusion that, in the conditions obtaining in the country, it was not advisable to introduce crop insurance in the near future even on a pilot or an experimental basis. (Dandekar, 1976)

Various schemes of crop insurance have been implemented in the country so far, a brief detail is given in the table below:

Table 1: Crop Insurance Schemes in India- At a Glance

Name of the Scheme	Year of Implementat-ion	Farmers Covered	Premi-um Collect-ed (Rs.)	Claims Paid (Rs.)	Discontin-ued in
First ever Crop Insurance Scheme	1972-73	3110	4.54 lakhs	37.88 lakhs	1978-79
Pilot Crop Insurance Scheme (PCIS)	1979	6.23 lakhs	195.01 lakhs	155.68 lakhs	1984-85
Comprehensive Crop Insurance Scheme (CCIS)	1985	763 lakhs	403.56 crores	2303.854 crores	1999
Experimental Crop Insurance Scheme (ECIS)	1997-98 (for 1 season only)	4,54,555	2.84 crores	37.80 crores	1997-98
National Agricultural Insurance Scheme (NAIS)	1999-2000	27.12 crores	13953.50 crores	56088.20 crores	2015-16
Weather Based Crop Insurance Scheme (WBCIS)	2007	3,65,67,000	6788.53 crores	5558.66 crores	2015-16
Modified National Agricultural Insurance Scheme (MNAIS)	2010-11	1,21,28,000	2894 crores	2565 crores	2014
Pradhan Mantri Fasal Bima Yojana (PMFBY)	2016	2,42,13,000	7768 crores	4701 crores	Ongoing

Source: Compiled by the authors.

From the above table we see that government over the years have made commendable efforts to popularize crop insurance among farmers. Each scheme after implementation faced criticisms which paved way for the next scheme. AICIL, which started its operation from 1st April, 2003, is entrusted with the implementation of the schemes. Pradhan Mantri Fasal Bima Yojana (PMFBY) was introduced from Kharif 2016. So far it has been taken up by 19 states and 1 union territory. Since it has been implemented for two seasons only it is too early to analyze its performance.

Conclusion and Recommendation

For the growth of any nation along with industrialization growth of agriculture is essential. It cannot be denied that the farmer force is our unsung heroes. To double the income of the farmers GOI is taking various steps. The recently set up Committee on Doubling of Farmers Income (DFI) which has its official members from various Ministries/ Departments of Government of India and has unofficial members from society with interest in agriculture and concern for farmers. The committee has submitted its report in August 2017 wherein it touched upon various delicate issues which will help in doubling the income of the farmers.

Crop insurance though exists in the country for a long time now yet it is not very popular among the farmers. In January 2016, Government of India (GOI) announced the introduction of PMFBY from Kharif season 2016 which aims at increasing the penetration rate to 50 % of the farmer families[10]. To make crop insurance more popular among the farmers, the awareness level among farmers regarding crop insurance needs to be increased. Though the farmers taking institutional credit (loanee farmers) come under the purview of crop insurance compulsorily but it is still voluntary for non-loanee farmers, so they often do not opt for the scheme. The government may take steps to bring them under the purview. Time required in claim settlement procedure needs to be minimized, many a times the farmers do not get the money in the year of loss so the spirit of crop insurance is lost.

The PMFBY is currently the most robust scheme for crop insurance. In order to enhance its penetration and make it more productive, efforts are needed to cover non-loanee farmers; as also notify larger number of crops for coverage. A robust technology platform comprising remote sensing, drones, sensors, smart phones and computation would help in imparting greater creditability to the data on estimation of yield and loss among different stakeholders. This is essential for sustaining a market-driven scheme like the PMFBY. MA

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AGRI COSTING
A CASE OF INTRODUCING COSTING TECHNIQUES IN AGRICULTURE

Allocation and ascertainment of costs is being more significant to reach out the targeted profits in all most all the sectors and the agriculture sector may not be an exception. Today costing has emerged as a scientific tool in classifying, allocating and ascertaining costs systematically applying various techniques and methods. Agriculture being the largest sector in India that has created a lot of opportunities for employment, investment and other industries like pesticides, fertilizers, food processing sector are more popular. The following case aims to introduce costing techniques in agriculture. The scope of this research is to generate empirical evidences that may be helpful to the farmers in applying costing techniques for controlling costs. Further the research aims to introduce "Agri Costing" as a new subject in order to educate agriculturists who are victims of natural disasters and to avoid the suicide trend among farmer peers.

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The mismatch between global food supplies and human nutritional needs, the impact of agribusiness on rural employment, the consequences of modern agricultural biotechnologies for human and animal welfare, and the effects of intensive production systems on the sustainability of the global environment are reason why agriculture has become an issue of moral concern.

(Ethical issues in Agriculture- Herwig Girimm)

Costs do matter in the modern agriculture as the rural population is both civilized and educated due to technology has enabled to apply innovative strategies in cultivating land, use of machinery in sowing, reaping and harvesting techniques, including storage and marketing of agricultural goods. The major cost related elements of agricultural sector are as follows:

A) Material cost-land, seeds, fertilizers, pesticides etc

B) Labor Cost-working in fields, operating machines, marketing products and others.

C) Expenses-Land revenue bore wells, machinery and others.

Costing Techniques in Agriculture

The cost of agricultural land is increasing day by day as most of the agricultural land is used for non-agricultural process like real estate, industries and other purposes. But fertile lands still fetch a good income to farmers and such land is always in demand. While purchasing the land a farmer thinks that in future the price of the land will increase due to the potential buyers who plan the purchase of land for both agricultural and non-agricultural purposes. The purchaser fails to identify the following:

a) Loss of land fertility due to continuous production of crops

b) Efficiency of the land decreases proportionate to the hike in the price

c) Depreciation of land is not calculated that may arise due to continuous production, soil erosion, use of inorganic fertilizers, modern machinery etc.

The Learning curve theory model will be adopted to solve the above mentioned case.

T.P. Wright of Curtiss Buffelo, USA, introduced the theory of learning curve. When the production quantity of a given item is doubled the cost of that item decreases at a constant rate.

Theory of learning curve has been formulated on the basis of this formula.

[***The Institute of Chartered Accountants of India***]

Assumptions of the model

1. The price of the land doubles for every five years.

2. The fertility of the land decrease at a rate of 75% of the learning curve ratio

3. Cumulative depreciation represents the amount to be subtracted before anticipating the value of the asset.

Table 1.1-Calculation of cumulative depreciation amount of land

Years	Price of the land in ₹ for one acre	Learning curve ratio (fertility)	Depreciation amount in ₹	Cumulative Depreciation in ₹
01	5,00,000	1(100%X 100%)	5,00,000	-
05	10,00,000	0.75(100% X75%)	7,50,0000	2,50,000
10	20,00,000	0.56 (75% X75%)	11,20,000	3,70,000

Years	Price of the land in ₹ for one acre	Learning curve ratio (fertility)	Depreciation amount in ₹	Cumulative Depreciation in ₹
15	40,00,000	0.42(56% X 75%)	16,80,000	5,60,000
20	80,00,000	0.32 (42%X 75%)	25,60,000	8,80,000

Findings

a) The price of the land for 10th year is (₹ 20, 00,000 - ₹ 3, 70,000) ₹ 16, 30,000.

b) As the rate of the land doubles for every five years the fertility of the land decreases proportionate to the learning curve ratio.

c) In order to compensate the loss arising due to fertility the cumulative depreciation is more helpful.

Limitations

a) Only cumulative depreciation is related to compensate the fertility loss.

b) The learning curve ratio varies from land to land.

c) The scope of the research supports the pertaining case only.

By using the formula Y=ax-b the cumulative depreciation for the required year can be calculated.

Target Costing

Target Costing is defined as "a structured approach in determining the cost at which a proposed product with specified functionality and quality must be produced, to generate a desired level of profitability at its anticipated selling price." **(ICAI notes)**

Target cost = target price-profit margin

Output anticipated for one acre is 35 quintals and market selling price is anticipated to Rs1000 per quintal. Profit margin desired is 16.70% on target cost.

To determine the target cost of for one acre

Amount in ₹
Variable cost per one acre- 20,000
Administrative expenses - 2,000
Prime cost - 22,000
Fixed cost - 8,010
Target cost -30,010

Target cost =target price-profit margin
= ₹350000 - ₹5010
= ₹ 30,010

The variable expenses include use of machinery, employing of labor use of pesticides and fertilizer as cultivation of paddy is affected by natural factors like rain, climate and availability of labors. Fixed cost includes cost of plants, harvesting, land revenue etc. Administrative expenses include saving crop from animals, birds and localities

Wages

Even though modern technology has enabled agricultural activities full pledged to machines, still the use of human resource is more significant for this sector. The requirement of labors include cultivating the land, weeding the ready crop, packing of goods, removing harmful plants in the usual crops are important among them. Let us consider an example of weeding cotton that can be implemented for payment of wages to cotton weeders implementing the labor incentive plans of costing.

Table3.1 displaying the output of weeded cotton of the workers

Labor name	Cotton weeded in Kilograms
Reshma	21
Sudha	27
Rupali	25

Standard time allowed- 4kgs for one hour

Normal time rate- ₹ 24per hour

Differential piece rate

80% of piece rate when below standard

120% of piece rate at or above standard

Calculate the wages according to Taylor's differential piece rate system

Solution

Standard production for the day is
4units x 6hours = 24units

Normal rate=₹ 24/ 4 kgs

=₹ 6 per kg

a)Reshma's wage rate = 80% of ₹ 6

=₹ 4.80

Reshma's earnings = ₹4.80x21 kgs

=₹ 115.20

b) Sudha's wage rate =120% of Rs 6

=₹ 7.20

Sudha's earnings =₹ 7.20 x 27 kgs

= ₹194.40

c) Rupali's earnings = ₹7.20x 25kgs

=₹ 180

This system may help farmers a lot as incentive will definitely encourage the workers to work hard and there is no need of supervision also. MA

Discussion

Some of the costing techniques have been introduced by the author that can be applied for agriculture. This presentation may be just an introductory and there is a need of extensive research to be carried out to help our farmers. In what way the farmers are not able to face the financial obligations is most important and establishing costing methods for the purpose of solving such problems becomes the need of the hour. In the present scenario the Indian agriculture is facing problems like draught, WTO policies affecting crop prices, influence of cross cultures on rural life style, migration of labors to cities for earning more wages etc and it is important to come over them. Well, cost by nature can serve as an important tool to the agriculture provided traditional techniques of the Indian agriculture should be implemented in arri-costing. For example rearing of cattle for an agricultural family supports by providing milk, organic manure for fields and a source of employment. Such costs that supports profession as well as living cultures should be provided significance among costing methods applied for agri-costing.

Scope for further research

Cultural costing would emerge as a great subject that may include cost of lifestyle, habits and hobbies relevant to the profession and logic in allotting and ascertainment of such costs related to earning and spending of the routine life would be more useful for the rural masses.

Suggested readings

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AGRICULTURAL ACCOUNTING & COSTING

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India is a growing population which is need of more food and infrastructure. Agriculture is not a organized sector except some companies which are registered. Agricultural business in India has wide term which covers crops cultivation, poultry, agricultural equipment manufacturing, seeds manufacturing, fertilizer manufacturing and going on.

Indian scenario

The culture of the ancient Indian is impacted as the lands are divided with multiple people and each one monitor and cultivate their land separately. This has some positive impact that they can take care of their land on their own with resources like water, sees, fertilizer feeding.

The negative side is the large amount of land divided into small small portions, so the natural resources like water conservation, land planning etc. cant be done as disputes between people are more. Land is considered as an asset for more people and they don't want to share the land also.

The cluster of many aspects like farmers disputes, political issues, water reservoir sharing, new technology non absorption etc makes this industry as unknown and not profitable. But actually its growth is unknown.

Economic survey 2017-18 indicates that government was keen on doubling farmers income by year 2022.According to the World Bank estimates, half of the Indian population would be urban by the year 2050. It is estimated that percentage of agricultural workers in total work force would drop to 25.7 per cent by 2050 from 58.2 per cent in 2001. Thus, there is a need to enhance the level of farm mechanisation in the country.

Cost of agricultural production is rising as labour cost is more. Manpower required in agriculture is more as consumption also more.

Israel agriculture - a comparison

Israel is a small country when compare to India. They are using their land even their major areas are dessert. They use water resources more effectively.

- They done achievements in cultivating crops for multiply their income
- Their agriculture is having better practices and more yields of crops
- Choosing right crops or vegetables based on their land, makes them more profitable
- They use technologies like satellite imaging and Geographic information systems GIS
- Solor power is used wherever possible like for running water pumps, street lights
- They have provided in the collaboration project In india, earnings of Rs.4.5 crores from 16 acres by selling vegetables and seeding

In India, we have to adopt more of suitable techniques to earn more. Doubling the farmers productivity and income is possible by start using more technology and infrastructure implementation. But agricultural sector need more accounting and costing methods to take decisions on time

Agricultural accounting

Farms accounts are of much use to the farmers in making their farms more productive and profitable. Accounts, if maintained properly, may provide the farmers with useful guidelines for making revising and modifying their plans and thus improving their financial and operating affairs.

Now we have to know how to account the transactions in agricultural activity. In spite of the fact that agriculture plays the most significant role in our economy, no comprehensive, detailed and systematic accounting methods, and costing system and management techniques has been developed for this industry.

We have to know how to account, prepare Profit & loss account and disclosures to be given. As per IFRS, IAS 41 contains the accounting forbearer plants, other biological assets and agricultural produce. Government grants also major influence in this.

Example for terms

Bilogical assets	Agricultural produce	Products result of after harvest
Sheep	Wool	Yarn, Carpet

Terms used:

Agricultural activity

is the management by an entity of the biological transformation and harvest of biological assets for sale or for conversion into agricultural produce or into additional biological assets.

Agricultural produce
is the harvested product of the entity's biological asset

Costs to sell
are the incremental costs directly attributable to the disposal of an asset, excluding finance costs and income taxes.

Fair value
is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

Accounting recognition
A biological asset shall be measured on initial recognition and at the end of each reporting period at its fair value less costs to sell, except for the case described in paragraph 30 where the fair value cannot be measured reliably.

Agricultural produce harvested from an entity's biological assets shall be measured at its fair value less costs to sell at the point of harvest. Such measurement is the cost at that date when applying Ind AS 2.

Financial statements in farms accounting

Normally, it is turnover less variable & fixed costs, plus government grants will be the financial profit and loss account. Various expenses like seeding, fertilisers, agricultural equipment, labour cost are major expenses which should be accounted. Another feature is Fair value of assets is major work in which the stock should be valued at current market price and stage of growth. This makes sense to assess the financial strength of the farms. We can say it is farms accounting for which many online tools are also there.

ERP Tools

1. FARMERP - http://farmerp.com/
2. MANDI Software http://margcompusoft.com/distribution/mandisoftware.html
3. Agriculture ERP http://www.krisolinfosoft.com/AgricultureERP.html
4. LANDMagichttp://www.landmagic.com/
5. AgriSyshttp://www.sourceedge.com/products/agrisys-erp/

are more helpful to track record of details. We can use this for accounting also.

Costing techniques

Expenses in farms are bound to vary due to climate, market, growth, natural disease etc. So predict the expenses and make provision in the costing make sense.

Target costing & budgeting

Farms costing normally begin with projections with all sort of expenses. But more products are market driven, so target costing make it more accurate.

For ex.

Cost of milk in market - Rs.40 per liter.

Say 40% is profit, then cost of sales is Rs.16 per liter.

Cows capacity per day – 5 liters, so cost of sales per liter per day is Rs.3.2/-

If you want to have 50 cows then average sales will be Rs.3,00,000/-

Description	Description
No of cows	50 numbers
Expected sales per month	50 numbers * 5 lit * 30 days * Rs40 Rs.3,00,000/-
Expected cost per month	40% of Rs.3,00,000/ = Rs.1,20,000/-
Cost per cow	Rs.1,20,000 / 50 cows = Rs.2400/-

So, we have to manage the cost of feed, maintenance, cleaning, medicines per cow as Rs.2400/- per month per cow. Thus, target costing gives fair idea on the expenses. Based on that, we can make budgeting and track expense to achieve the reliable profit.

Daily operating profit

Formerly known as the economic farm surplus is a measure of farm profitability used of benchmarking comparison between dairy farms.

Dairy Operating Profit is the Dairy Gross Farm Revenue less Dairy Operating Expenses where non-cash adjustments have been made to ensure that businesses are being compared on an equivalent basis. How the business is financed is not included, leases for cows or milking platforms and debt-servicing are excluded from calculations.

Non-cash adjustments include:

- The value of change in dairy livestock numbers
- Unpaid labour and management (labour adjustment)
- The value of change in supplementary feed inventory
- The ownership of support blocks (support block adjustment)
- Depreciation

Revenue per unit area agricultural land

Country	1961 Agriculture land available Sq.km	2015 Agriculture land available Sq.km	2015 Total Land area Sq.Km
China	3,423,500	5,278,330	9,388,211.0
United States	4,475,090	4,058,625	9,147,420.0
Australia	4,615,850	3,659,130	7,682,300.0
Brazil	1,505,310	2,825,890	8,358,140.0
Russian Federation		2,177,218	16,376,870.0
Kazakhstan		2,169,920	2,699,700.0
India	1,749,520	1,797,210	2,973,190.0

Data from https://data.worldbank.org/indicator/AG.LND.AGRI.K2?end=2015&start=1961&view=chart&year_high_desc=true

An interesting data from world bank, says that 60.44% of our total land is used for agriculture.

During 2017-18 crop year, food grain production is estimated at 279.51 million tonnes as per IBE (see ref website). So, our average food grain production tonnage is 155.52 tonnes per sq.km(279.51 million tonnes/1797210 sq.km). For one acre of land 629 kgs per 1 acre of land is the food grain (1 sq.km = 247.105 acre) can be produced in average.

We will take major producing items, Rice's cost of production as per FCI, which is Rs.23.70/ per kg. So, Rs.14907/- (Rs.23.70 * 629 kgs) is the revenue per acre of land in India.

Likewise, we have to compute the revenue per unit of land to compare the benck mark and monitor the cost of production. MA

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TAXABILITY OF PRINTING UNDER GST

Discussion on difference in taxability of printing activities between erstwhile Vat/Service Tax regime and the present GST regime – manufacture, service and sale all substituted by Supply – printing activities are composite supplies and could be supply of services as well as goods or both, various rates of GST applicable to printing activities depending upon who supplies the content and who supplies the physical inputs – analysis of circular issued by the Government laying down principle when a printing activity or a printing contract is to be treated as a supply of goods or as a supply of services

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As somebody has just started to read the printed version of this silly write-up, has he unconsciously realized how significant the title of this article is for this insignificant piece of writing which has gone through a process of printing?

The editorial board of this journal requests papers from authors for publication. Writers take great pains in penning down an article and sends it to the editorial board. The board selects some of them to find a place in the journal. The contents and designs are finalized. The content is handed over to the press for printing. It is not known to the authors whether the physical inputs like paper are provided by the journal committee to the press or not. The press undertakes printing activities of the contents supplied by the publisher and the journal sees the light of the day.

Some may say, what is so special about what has been narrated above? Nothing indeed. There's nothing special about it except the fact that the printer will charge GST when the invoice would be raised and the printed journals would be handed over to the journal committee of the Institute. The GST will be charged on the supply that they have made to the Institute. Is it a supply of service or a supply of goods? Will the rate of GST be affected if the Institute provides paper to the printing press? Will the rate be different if instead of journals, the Institute gets its letter heads printed from the same press?

Before we delve deep into it and find out more on the taxability of various printing works executed by a printing press under the GST regime, the issue needs to be appreciated first that there are several changes how a printing job is taxed under GST as compared to the Vat/ Service tax regime – both in principle as well as otherwise.

Under the erstwhile Vat and Service Tax regime, by virtue of judicial pronouncements, printing was treated as a manufacturing activity and accordingly no service tax was levied on that. Under the state Vat Act, printing activity was mainly treated as a Works Contract and was accordingly taxed.

However, under the erstwhile State Vat Acts also, the issue whether printing activity was a works contract or a supply of goods was also subject to litigation. In the cases of State of Tamilnadu vs. Anandam Vishwanathan as well as State of Maharashtra vs. Sarvodaya Printing Press Fine Art, the Apex Court was of the opinion that the printing activities or specifically the supply of printed materials referred to in those cases were in the nature of Works Contract. In the case of Ujagar Prints vs. Union of India, the Hon'ble Supreme Court was of the opinion that printing is a manufacturing activity. By virtue of this judgement, as per Sec 66D(f) of the Finance Act, 1994 which details the negative list, no service tax was leviable on printing jobs/ activities.

Under the GST regime, the taxable events like manufacture, sale as well as provision of services have been substituted with the taxable event of 'supply'. Under the GST laws, now it is either a supply of goods or supply or services or both. Printing activities or printing jobs or printing contracts are more of the nature of supply of services under the GST regime although in some cases it could be supply of goods too. The definition of works contract under the GST laws has gone through a paradigm change and by virtue of Sec 2(119) of the CGST/SGST Act, the word works contract is used in relation to immovable properties only. Accordingly, printing jobs are no longer a works contract as was used to be understood under the Vat regime although it still remains a composite supply under the GST system.

In the initial stages of implementation of GST there was lot of confusions in respect of taxability of printing activities. While some treated the activity as supply of goods and levied GST as applicable to goods falling under Chapter 48 or 49 of the First Schedule to the Customs Tariff Act, 1975; others treated the same as a supply of service and levied GST under heading 9988 or 9989 of the scheme of classification of services as elaborated in Notification no. 11/2017 –Central Tax (Rate) dated 28th June 2017.

To dispel the confusion and to clarify whether supply ofbooks, pamphlets, brochures, envelopes, annual reports, leaflets, cartons, boxes etc., printed with design, logo, name, address or other contents supplied by the recipient of such supplies, would constitute supply of goods or supply of services, the Tax Research Unit of Department of Revenue (DOR), Ministry of Finance, Government of India had come up with a circular bearing no. 11/11/2017 – GST dated 20th October 2017.

Before the circular is analysed in depth, let us have a look at the rate of taxes applicable on supply of goods as well as supply of services in relation of various printing activities.

GST Rates of printed matters including printed books, newspapers, brochures etc. when it is a SUPPLY OF GOODS :

HSN Code	Description of goods	Rate	Effective from and Notification No.
4901	Printed books, including Braille books	Exempt	01.07.2017 2/2017 – Central Tax (Rate) dated 28.06.2017
4901	Brochures, leaflets and similar printed matter, whether or not in single sheets	5%	01.07.2017 1/2017 – Central Tax (Rate) dated 28.06.2017
4902	Newspapers, journals and periodicals, whether or not illustrated or containing advertising material	Exempt	01.07.2017 2/2017 – Central Tax (Rate) dated 28.06.2017
4903	Children's picture, drawing or colouring books	Exempt	01.07.2017 2/2017 – Central Tax (Rate) dated 28.06.2017
4905	Maps and hydrographic or similar charts of all kinds, including atlases, wall maps, topographical plans and globes, printed	Exempt	01.07.2017 2/2017 – Central Tax (Rate) dated 28.06.2017
4910	Calendars of any kind, printed, including calendar blocks	12%	01.07.2017 1/2017 – Central Tax (Rate) dated 28.06.2017
4911	Other printed matter, including printed pictures and photographs; such as Trade advertising material, Commercial catalogues and the like, printed Posters, Commercial catalogues, Printed inlay cards, Pictures, designs and photographs, Plan and drawings for architectural engineering, industrial, commercial, topographical or similar purposes reproduced with the aid of computer or any other devices	12%	01.07.2017 1/2017 – Central Tax (Rate) dated 28.06.2017

GST Rates of printed matters including printed books, newspapers, brochures etc. when it is a SUPPLY OF SERVICESand how the rates have undergone changes since inception :

Chapter, Section or heading	Description of services	Rate	Effective from and Notification No.
Chapter 99	**All services**		
Section 8	**Business and production services**		
Heading 9988 (Manufacturing services on physical inputs (goods) owned by others)	(i) Services by way of job work in relation to - a) Printing of newspapers d) Printing of books (including Braille books) journals and periodicals	5%	01.07.2017 11/2017 – Central Tax (Rate) dated 28.06.2017
	(ii) Manufacturing services on physical inputs (goods) owned by others, other than (i) above	18%	As above
	The above Sl. No. (ii) substituted by the following : (ii) Services by way of any treatment or process on goods belonging to other person, in relation to – a) printing of newspapers; b) printing of books (including Braille books), journals and periodicals.	5%	22.08.2017 20/2017 – Central Tax (Rate) dated 22.08.2017
	Item no. (iii) inserted as follows : (iii) Manufacturing services on physical inputs (goods) owned by others, other than (i) and (ii) above	18%	As above
	In item (i), sub item (da) inserted : (da) printing of all goods falling under chapter 48 or 49, which attract CGST @ 2.5% or Nil	5%	13.10.2017 31/2017 – Central Tax (Rate) dated 13.10.2017
	After item (i), item (ia) inserted : (ia) Services by way of job work in relation to- (b) printing of all goods falling under Chapter 48 or 49 which attract CGST @ 6%	12%	As above
	Insertion of sub item (c) in item (ii) (c) printing of all goods falling under chapter 48 or 49, which attract CGST @ 2.5% or Nil	5%	As above
	Insertion of item (iia) after item (ii) (iia) Services by way of any treatment or process on goods belonging to another person, in relation to printing of all goods falling under chapter 48 or 49, which attract CGST @ 6%	12%	As above
	Item no. (iii) modified as follows : (iii) Manufacturing services on physical inputs (goods) owned by others, other than (i), (ia), (ii) and (iia) above	18%	As above
Heading 9989	Other manufacturing services; publishing, printing and reproduction services; material recovery services	18%	01.07.2017 11/2017 – Central Tax (Rate) dated 28.06.2017
	The above entry was substituted with the following entries : (i) Services by way of printing of newspapers, books (including Braille books), journals and periodicals, where only content is supplied by the publisher and the physical inputs including paper used for printing belong to the printer.	12%	22.08.2017 20/2017 – Central Tax (Rate) dated 22.08.2017
	ii) Other manufacturing services; publishing, printing and reproduction services; material recovery services, other than (i) above	18%	As above

	Substitution of item (i) with the following (i) Services by way of printing of all goods falling under Chapter 48 or 49 [including newspapers, books (including Braille books), journals and periodicals], which attract CGST @ 6% or 2.5% or Nil, where only content is supplied by the publisher and the physical inputs including paper used for printing belong to the printer	12%	13.10.2017 31/2017 – Central Tax (Rate) dated 13.10.2017

Since there were two amendments to the original notification no. 11/2017 – Central Tax (Rate) dated 28.06.2017 laying down the rates for SUPPLY OF SERVICES, for the sake of convenience the present GST rates applicable for services classified under heading 9968 and 9969 are compiled below:

Sl. No.	Chapter, Section or Heading	Description of service	Rate	Notification no. and effective date
	Chapter 99	**All services**		
	Section 8	**Business & production services**		
26	**Heading 9988** (Manufacturing services on physical inputs (goods) owned by others)	(i) Services by way of job work in relation to - a) Printing of newspapers d) Printing of books (including braille books) journals and periodicals da) Printing of all goods falling under Chapter 48 or 49, which attract CGST @ 2.5% or Nil (ia) Services by way of job work in relation to – b) printing of all goods falling under Chapter 48 or 49, which attract CGST @ 6%	5% 5% 12%	11/2017 01.07.2017 31/2017 13.10.2017 31/2017 13.10.2017
		(ii) Services by way of any treatment or process on goods belonging to other person, in relation to – a) printing of newspapers; b) printing of books (including braille books), journals and periodicals c) Printing of all goods falling under Chapter 48 or 49, which attract CGST @ 2.5% or Nil (iia) Services by way of any treatment or process on goods belonging to other person, in relation to printing of all goods falling under Chapter 48 or 49, which attract CGST @ 6%	5% 5% 12%	20/2017 22.08.2017 31/2017 13.10.2017 31/2017 13.10.2017
		(iii) Manufacturing services on physical inputs (goods) owned by others, other than (i) and (ia), (ii) and (iia) above	18%	31/2017 13.10.2017
27	**Heading 9989**	(i) Services by way of printing of all goods falling under Chapter 48 or 49 [including newspapers, books (including braille books), journals and periodicals], which attract CGST @ 6% or 2.5% or Nil where only content is supplied by the publisher and the physical inputs including paper used for printing belong to the printer	12%	31/2017 13.10.2017
		(ii) Other manufacturing services; publishing, printing and reproduction services; materials recovery services	18%	11/2017 01.07.2017

It is clear from the above that the GST laws have bifurcated printing activities/contracts/ jobs under two classification of services – one with heading 9988 which deals with 'manufacturing services' on physical inputs (goods) owned by other and the other with heading 9989 which mainly deals with printing services of contents supplied by the publisher. Heading 9988 treats printing as a manufacturing service. It deals with cases where the physical inputs (goods) are owned by others and the printer carries on manufacturing processes on these physical inputs in relation to printing of newspapers, books, journal, periodicals and the like. It is basically a job work where the job worker undertake any treatment or process on goods belonging to others and as per Schedule II of CGST Act such a job work is a supply of services. The important aspect of heading 9988 is that it covers such manufacturing activities where the physical inputs (goods) belongs to the owner. In respect of printing activities, the main physical input is paper. There are occasions where the recipient of service i.e. person placing an order for printing with a press supplies paper to the printing press. Undoubtedly other physical inputs are also used in the form of consumables like ink, chemicals, plates etc. but as per normal trade practices these consumables are not supplied by the party placing the order. The predominant physical input here is paper and it appears that the legislative intent is to cover such cases of printing activities/contracts/ jobs under heading 9988 where the paper is supplied by the party i.e. the recipient of service or the party which places the order.

On the other hand, heading 9989 intends to cover cases where only content i.e. the material to be printed is supplied by the publisher and other physical inputs including paper belong to the printer. Here the word publisher has been used to suggest the person who would be supplying the content to be printed. GST laws have not defined the word publisher and accordingly the meaning of the word will be interpreted as done in common parlance. Publisher would be the person who would place the order for printing and would supply the content to be printed. He would be person who would generally have the usage or intellectual property right on the content to be printed which remains with him and is not passed on to anybody while the content is printed.

Having gone through the rates of printed matters including printed books, newspapers, brochures etc. when it is a SUPPLY OF GOODS as well for printing activities when it is a SUPPLY OF SERVICESas well as the basic differences between classification of services under heading 9988 and 9989, let us now go through the Circular issued by the Tax Research Unit of DOR, Ministry of Finance, Government of India to exactly understand how the Government wants to treat printing activities either as a supply of goods or as a supply of services because appropriate rate of GST will be levied depending upon the circumstances whether a particular printing contract is a supply of goods or a supply of services.

The prominentissues that the Circular had addressed and clarified in this respect are as follows :

1. There is a need to clarify whether supply of books, pamphlets, brochures, envelopes, annual reports, leaflets, cartons, boxes etc., printed with design, logo, name, address or other contents supplied by the recipient of such supplies, would constitute supply of goodsor supply of services.

2. Supply of books and other items mentioned above printed with logo, design, name, address or other contents supplied by the recipient of such printed goods, are composite supplies and the principal supply would determine whether the same is a supply of services or a supply of goods. (As per Sec 2(30) of CGST Act, composite supply consists of two or more taxable supplies of goods or services or both, or any combination thereof, which are naturally bundled and supplied in conjunction with each other. As per Sec 2(90) of CGST Act, principal supply constitutes the predominant element of a composite supply).

3. In the case of printing of books, pamphlets, brochures, annual reports, and the like, where only content is supplied by the publisher or the person who owns the usage rights to the intangible inputs while the physical inputs including paper used for printing belong to the printer, supply of printing [of the content supplied by the recipient of supply] is the principal supply and therefore such supplies would constitute supply of service falling under heading 9989.

4. In case of supply of printed envelopes, letter cards, printed boxes, tissues, napkins, wall paper etc. falling under Chapter 48 or 49, printed with design, logo etc. supplied by the recipient of goods but made using physical inputs including paper belonging to the printer, predominant supply is that of goods and the supply of printing of the content [supplied by the recipient of supply] is ancillary to the principal supply of goods and therefore such supplies would constitute supply of goods falling under respective headings of Chapter 48 or 49.

It appears that the clarification treads on the principle how the legislation wants to view the importance of the contents supplied by the publisher and the physical inputs vis-à-vis the printing activities. When a printing press undertakes the printing activities of the contents supplied by the publisher and supplies the finished products in the form of mainly newspapers, books, journals, pamphlets, brochures etc. he does not supply a commodity but predominantly supplies a service through which the valuable contents can be presented to the intended users in some form suitable for reading, preservation and so on. The value of the contents is of importance here and the usage as well as proprietary rights of the same remains with the publisher. The printer simply puts the contents in a presentable form through his services. When a book is sold in the market, it is the value of the contents which drives its price, not the value of paper or ink used to print it and the printer definitely does not supply a commodity when he gives a form to the contents which is owned by somebody else.

In respect of other items mentioned in the circular, the physical inputs or the physical items are of more importance. When a napkin is supplied by a printer with some logo etc. printed on it, the intended user is least bothered about the logo when he uses the napkin as a commodity. The napkin would provide him the same utility irrespective of the fact whether anything is printed on it or not. But the same cannot be said in the case of a newspaper or a book. Here the quality of the napkin is of importance which drives its price whereas we don't buy a newspaper or a book for its paper but for reading the contents. The contents in the case of napkins or letter heads or envelopes do not carry any significant value as it carries in case of a book or a newspaper and therefore, the inference can be drawn that in those cases of supply of printed napkins, envelopes etc. the printer is predominantly supplying goods.

Based on the respective details of tax rates of printed matters/printing activities/jobs/ contracts and the Circular issued by the Government of India, the taxability of main printing activities generally undertaken by a printing unit may be summarized as under :

Activity	Physical inputs (paper) supplied by	Heading	Goods or services	Tax rate	Notification no.
Printing of newspapers, books, journals and periodicals	Publisher/ Recipient of Service / Party placing the order	9988	Services	5%	11/2017 dated 28.06.2017 effective from 01.07.2017
Printing of goods falling under Chapter 48 or 49 where CGST rate is Nil or 2.5%	Publisher/ Recipient of Service / Party placing the order	9988	Services	5%	31/2017 dated 13.10.2017
Printing of goods falling under Chapter 48 or 49 where CGST rate is 6%	Publisher/ Recipient of Service / Party placing the order	9988	Services	12%	31/2017 dated 13.10.2017
Printing of goods falling under Chapter 48 or 49 [including news-papers, books, journals and peri-odicals] where CGST rate is Nil or 2.5% or 6% where **only content is supplied by the publisher**	Printer	9989	Services	12%	1/2017 dated 28.06.2017 effective from 01.07.2017 and guided by Circular No. 11/11/2017 – GST dated 20.10.2017
Supplyof printed envelopes, letter cards, printed boxes, tissues, nap-kins, wall paper etc. falling under Chapter 48 or 49, printed with design, logo etc. supplied by the recipient of goods	Printer	Chapter heading 48 or 49	Goods	12% or 18%	1/2017 dated 28.06.2017 effective from 01.07.2017 and guided by Circular No. 11/11/2017 – GST dated 20.10.2017

The legislative intent behind fixing a rate of 5% for printing services where physical inputs is supplied by the recipient of service and 12% for cases where only content is supplied by the recipient of services and physical input is supplied by the printer seems to be avoidance of input tax getting higher than the output tax resulting in frequent refunds. If paper is supplied by the printer, which attracts a tax rate of 12%, enabling the printer to enjoy an ITC of 12% and the printed matters are taxed at 5%, it would be a case of inverted tax structure where the output tax will always remain far lower than input tax resulting into accumulation of unutilized input tax credit requiring refunds.

After reading this piece of writing one may now realize what sort of taxation complexity this particular issue of journal has gone through and ultimately seen the light of the day. Fortunately, the Institute being the publisher has not gone through the complexity since supply of journals are exempt from GST. It is the poor press owner who has gone through all these complexities but after reading this article, he might feel relaxed and might have stopped scratching his head as to what rate of GST he needs to charge for his services. MA

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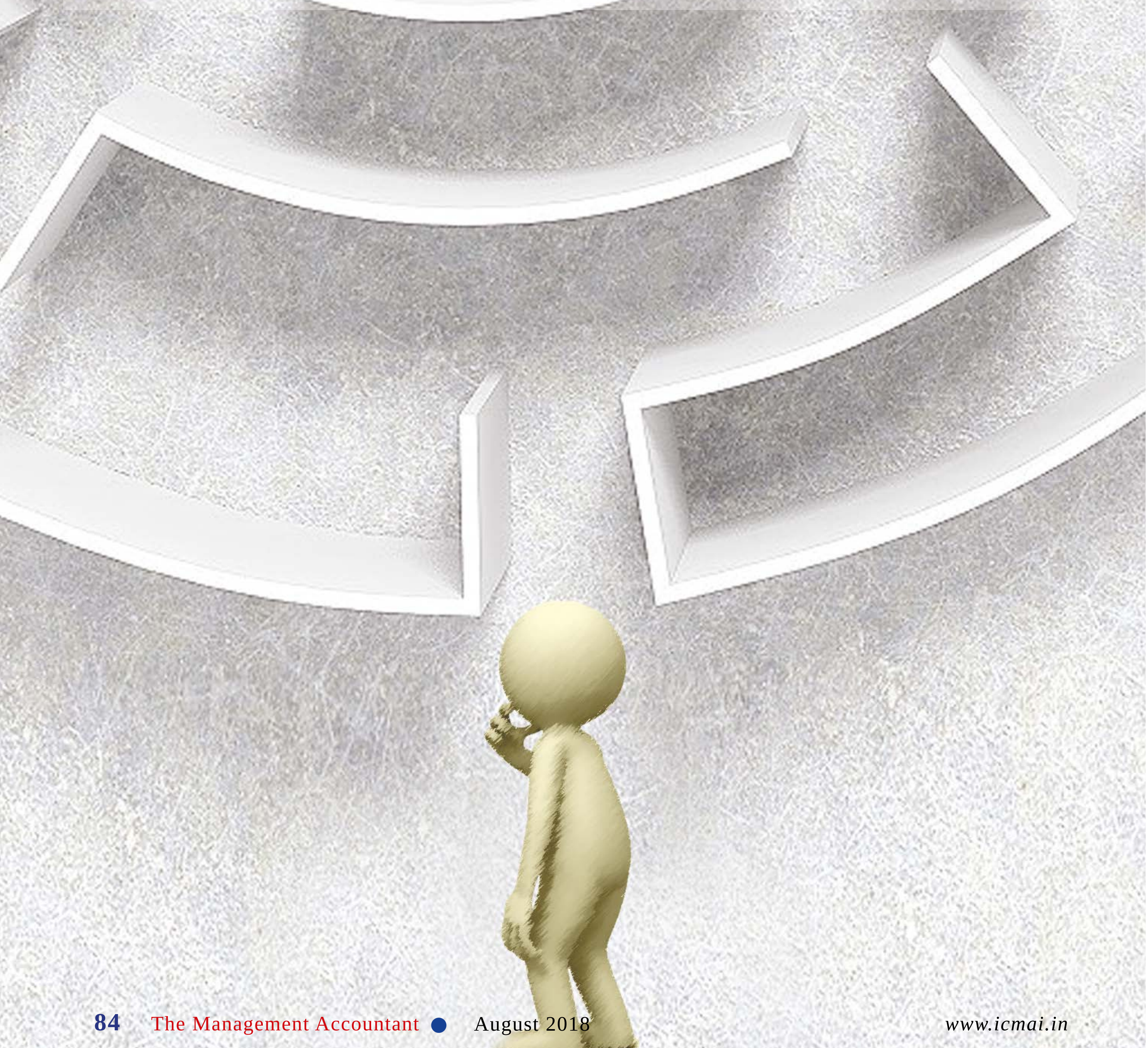
A MODEL OF INVESTORS' PRE-PURCHASE INFORMATION SEARCH IN THE SECONDARY MARKET



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Engel-Kollat-Blackwell (1991) breaks the purchase decision-making process into five stages: problem recognition; information search; evaluation of alternatives; purchase decision; and post-purchase behavior (McKechnie, Sally, 1992). In this process 'Information search is essential in making a wise choice (Guo, 2001). Information helps consumers to develop understanding and knowledge for a wise purchase decision making irrespective of products or services. Investors also follow the similar route of purchase decision making where information search is crucial for them to manage expected return on their investment.

Stock market investment usually involves a substantial amount of money and risk. The necessary information search can help investors to reduce the risk of making wrong investment decisions and increase satisfaction with the decisions. Consumers tend to engage in more extensive search activities when purchasing products that carry more risks (Beatty & Smith, 1987; Srinivasan, 1987). Since investment decisions are high risk and have high credence characteristics, consumers are expected to engage in extensive search activities when making investment decisions(Lee and Lin, 2004). Therefore, the investors must have relevant information which once available and processed, will work as substantial input for knowledge creation for decision-making.

The stock market is an integral part of the capital market which plays a significant role in channelizing household investors' money to domestic savings and investments (Hossain and Nasrin, 2012). The sound performance of capital market mostly depends on how investors respond to information related to capital markets while making investment decisions. In this context, the information is undoubtedly an essential and critical resource to the stock market investors for several reasons; first, it helps them to construct the essential knowledge to make investment decisions (Lopes and Valentim, 2014). Second, while searching for information investors usually make most of the investment decisions. Therefore, information search is an important activity for any consumer before making investment decisions (Lee and Lin, 2004). With the aim of analyzing the information search behavior of investors, this research paper sought to explore the relationships of antecedents of investors' information search in the secondary stock market.

Objectives of the study

The focus of this study is understanding stock market investors' pre-purchase information search behavior. The present study sets following objectives:-

To develop an integrated model of antecedents of investors' information search

To Confirm or disconfirm the of proposed structural relationships through testing of the model

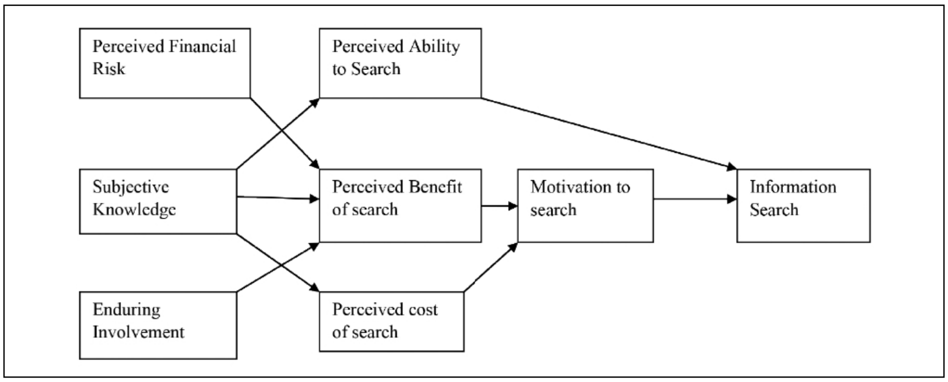
To Explore the role of antecedents of investors' information search in stock market investors' information search activity

Theoretical Framework and Model Development

Even though several researchers concluded that information search can be conceptualized as a series of interrelated variables; there have been awfully limited attempts to model the interrelationships of these variables. Srinivasan and Ratchford (1991) and Punj and Staelin (1983) provides a description of the interrelationship between antecedents that determine the amount of search whereas Schmidt and Spreng (1996) in a seminal research note summarize the external information search literature and develop a parsimonious model of information search. As previous information search studies focused mostly on durable consumer goods, the literature on the particular topic of external information search for investment information is scarce (Loible and Hira, 2009).In this paper, considering Schmidt and Spreng's (1996) model as a baseline, an attempt has been made to propose and test an integrated model of investors information search (see Figure 1).

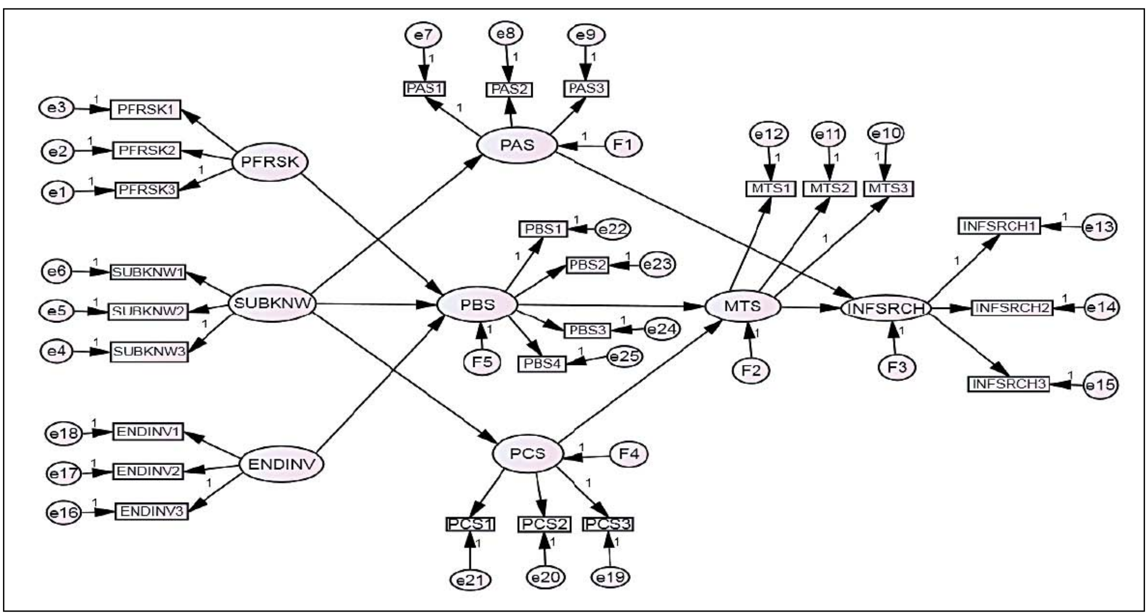
The consumer information search literature has evolved using four different categories of variables (Maity et al 2014) based on EoI theory: Cost benefits tradeoff, potential payoff (perceived risks, financial pressure etc), knowledge and experience (Subjective and Objective knowledge etc) and Individual ability (Involvement, ability etc). These variables are key components of consumer pre-purchase information search activities. In another study Srinivasan (1990) argue for three major theoretical (see Table 1) streams namely motivational approach, an economic approach which is basically cost-benefit framework and consumers' information processing approach.

Figure: 1
Proposed Model of Antecedents of Investors' Information Search



The proposed model drawn with AMOS 20 software is shown in Figure 2 with arrows representing the direction of relationships. A summary of the hypothesis is also given in Table 2.

Figure 2: Proposed Structural Model



Literature review shows evidence of several antecedents which influence information search. Schmidt and Spreng's (1996) proposed 20 antecedents of information search in their model. However, it was virtually impossible to take all the antecedents for model development and testing due to the complexity and the size of the model. To overcome the problem of selection of antecedents, information search literature was reviewed to identify major theoretical perspectives. Finally, three external factors (exogenous variables), namely Subjective Knowledge, Perceived financial risk and Enduring involvement, emerged as the major antecedents which may influence information search activities of investor

Table: 1
Antecedents of Information Search

Constructs/ Antecedents	Categories	Theoretical Steams/ Frameworks
Subjective Knowledge	Exogenous	Knowledge and Experience/ Information Procesing Framework
Enduring Involvement	Exogenous	Psychological/Motivatioal Approach
Perceived Financial Risk	Exogenous	Economic Approach/Cost-Benefit Analysis
Perceived Ability to Search	Endogenous	Information Processing Framework/Individual ability
Perceived cost of search	Endogenous	Economic Approach/Cost-Benefit Analysis
Perceived benefits of search	Endogenous	Economic Approach/Cost-Benefit Analysis
Motivation to Search	Endogenous	Psychological/Motivational Approach

Table 2 Summary of Hypothesis

H1: Higher Perceived Financial risk increases the Perceived benefits of information search
H2: Higher enduring involvement increases the Perceived benefits of information search
H3: Higher Subjective Knowledge decreases the Perceived benefits of Search
H4: Higher Subjective Knowledge increases Perceived Ability to Search
H5: Higher Subjective knowledge reduces the perceived Cost of Information Search
H6: Higher enduring involvement increases the Perceived ability to Search(from new relation)
H7: Higher Perceived benefits to Search has a positive relationship with perceived ability to search(from new relation)
H8: Higher Perceived benefits to Search has a positive relationship with Motivation to search
H9: Higher Perceived Ability to Search has a positive relationship with Motivation to search(from new relation)
H10: Higher Perceived cost of Search has a negative relationship with Motivation to search
H11: Higher Motivation to Search has a positive relationship with Information search
H12: Higher Perceived ability to search has a positive relationship with Information search
H13: Higher Enduring involvement in Search has positive relationship information search(from new relation)

Methodology

Like most of the earlier studies researcher has used survey methodology for data collection. A structured questionnaire was administered to the stock market investors' in Kolkata. The language of the questionnaire was English. To purify the scale items that adopted for questionnaire a pilot survey was done in the first phase followed by the final survey. The data gathered from the survey were analyzed using Structural Equation Modeling Technique. The hypothesized relationships between constructs in the model were tested with the help of t-test.

Questionnaire Pre-Testing and Validation

The multi-item measurement instrument (questionnaire) was developed to capture underlying dimensions of constructs. The Perceived ability to search (PAS), Motivation to search (MTS), Subjective knowledge (SUBKNW), Information search (INFSRCH) and Perceived Financial risk (PFRSK), Perceived cost of search (PCS) and Enduring Involvement (ENDINV) scales were adapted from prior studies and literature to ensure content validity. At the time of developing the scale items, relevant literature was thoroughly considered to select the variables that influence the investors' information search though primarily same were identified on the basis of Schmidt and Spreng's model. The initial questionnaire was comprised of 38 items. The responses to measure all the items in the multi-item scales

Several attempts have been made by the authors in last few decades to understand consumers' information search behavior in a variety of ways for consumer goods and automobiles. But, today's rapidly growing markets of financial products have also started gaining researchers' attention towards understanding investors' information search process. Investors make use of information search as a problem-solving strategy for a better decision making. Schmidt and Spreng (1996) in a seminal research note summarized the external information search literature and developed a parsimonious model of information search, though the model was not tested empirically. As previous information search studies are focusing mostly on durable consumer goods, an attempt has been made in the present study to develop a model considering Schmidt and Spreng's (1996) model as a baseline to examine interrelationships among antecedents to investors' information search in the stock market

were taken on Likert's five-point rating scale ranging from strongly agree to strongly disagree.

A preliminary sample (n=42) for the pilot survey was selected based on convenience and the respondents were requested to give their views on the antecedents that influence information search. After scrutinizing the responses and their theoretical premise, the study retained 30 important variables out of 38 initial variables based on the response of a relatively small sample of respondents. Theoretically, the item which is measuring a particular construct should have a significant correlation with the total score since they are measuring the same construct. The items to total correlations that are significant and high have been retained for final analyses.

Data sources and Survey

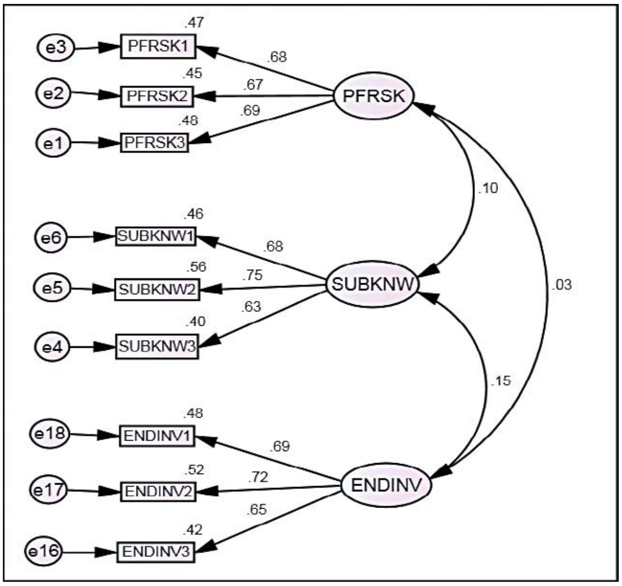
After initial screening and modification of survey instrument, the data for the study were drawn from the stock market investors belonging to a cross-section of the population using systematic probability sampling method in Kolkata. The study administered questionnaires to 800 respondents across the various locations. In addition to meeting the respondents and directly administering the questionnaire either personally or through qualified representatives, it was also emailed to respondents. Further, in many cases, the questionnaires have also been sent through post attaching stamped self-addressed envelopes. Out of 713filled in questionnaires which were obtained through the internet, direct mail and one to one personal survey, 62 responses were rejected due to errors of omission bringing down the total figure of usable questionnaires to 651. The target respondents were the active ie Demat account holders in of Kolkata. Out of total 651 respondents, the male and female respondents were 612(94%) and 39(9%) respectively.

Data Analysis and Model Testing

Confirmatory Factor Analysis (CFA) and Measurement model

CFA is being used to estimate and test the hypothesized measurement model for latent variables having more than one observed indicator. Models are modified and rearranged to make a model adequately fitting the data'. In CFA, researchers try to statistically test the significance of the proposed model. In addition, a theoretical model has been used. As the first step, CFA has been performed here on the hypothesized measurement model (Figure 3) and the Structural equation modeling is the second step.

Figure 3
Measurement Model



The result for the initial measurement model indicated poor model fit. In AMOS output few items had low factor loadings. Each of those items omitted one at a time and was reevaluated. Finally, 5 items, which would decrease the highest chi-square, were deleted from original 30 items. The analysis was done on total 25 items. The ratio chi-square/df (2.156) was less than 3.0, root mean square error of approximation (RMSEA; 0.042) was less than 0.08, GFI (0.987) and CFI (0.977) were all above 0.90 acceptable levels.

Reliability and validity

Reliability measures the consistency of scale. It represents how stable or consistent the rating generated by a variable measurement scale is and Cronbach's alpha is the most commonly used reliability estimator. The Cronbach's alpha for each of the construct was higher than the alpha threshold level of 0.7. To assess validity, both convergent and discriminant validity have been examined. The Convergent validity assesses the degree to which two measures of the same concept are correlated. Here the average variance extracted (AVE) is the measure of convergent validity.AVE is the average squared factor loading and an AVE of 0.5 or higher suggests adequate on convergence. A high loading on a single factor would indicate that items in the scale converge on the same common point, thus having high convergent validity (Hair et al. 2006). An AVE of less than 0.5 indicates that, on average, more error remains in the items than variance explained by latent factor structure imposed on the measure. All the items having factor standardized loadings ranging from 0.659 to 0.818 are significant. AVEs ranged from 0.51 to 0.54 and all of them exceed the cut-off value of 0.5.

Structural Equation Model Testing

Structural Equation Modeling (SEM) was used with the help of AMOS 20.0 software to empirically test, confirm the proposed model and also to test hypothesized relationships of the model. SEM is 'a multivariate technique combining aspects of factor analysis and multiple regressions that examine a series of interrelated dependence relationships among the measured variables and latent constructs as well as between several latent constructs' (Hair et al. 2006). SEM tests the hypotheses of linkages among latent variables. A path analysis for the structural equation model with latent variables was performed to evaluate the hypothesized causal relationships that predict investors' information search. The model fit is examined. Initial results indicated poor model fit (Chi-square/df=3.951, GIF=.896, CFI=.836 and RMSEA=.67).

An analysis of the modification indices for the initially proposed model suggests that the model must be improved /modified by adding following new relationships in the model -

1. ENDINV to PAS
2. PBS to INFSRCH
3. PBS to PAS
4. PAS to MTS

After incorporation of above relationships, the modified model has been tested again and resulting model indicated a good fit. By deploying AMOS 20.0 software model's fit indices were assessed. The results (Chi-square/df=2.85, GIF=0.922, CFI=.9 and RMSEA= 0.053) (see Table3) are in the acceptable range and confirms good fit to the data.

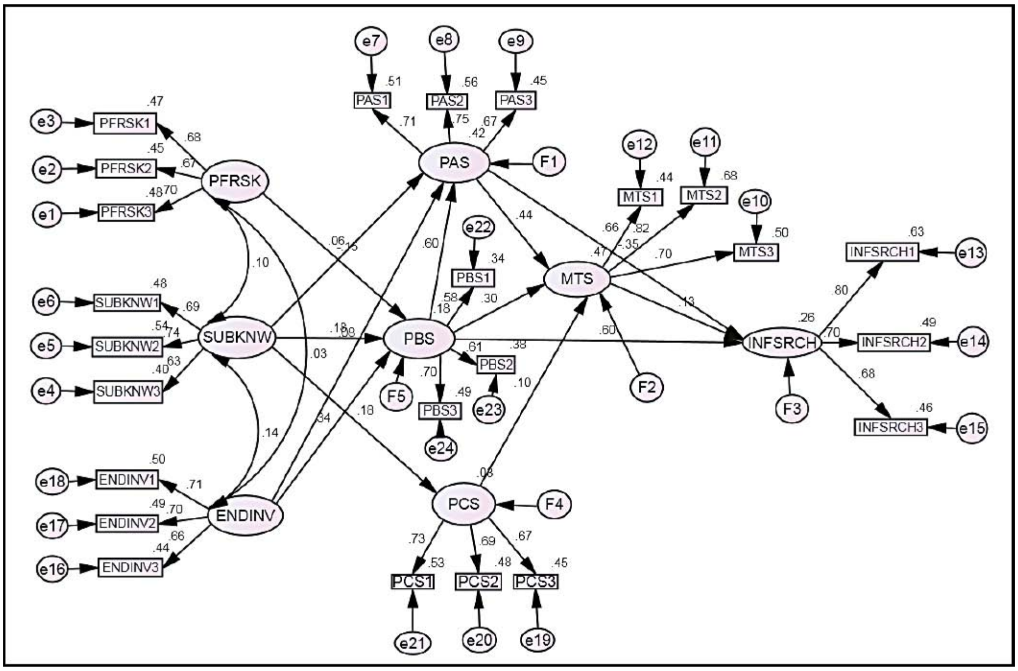
Table 3: Model fit Statistics

Fit Indices	Recom-mended Value	Initial/ Proposed Model	Competing / Result Model
Chi-square/degrees of freedom	≤3.0	3.951	2.85
Goodness of fit index(GFI)	≥0.9	.896	.922
Comparative fit index(CFI)	≥0.9	.836	.901

Fit Indices	Recom-mended Value	Initial/ Proposed Model	Competing / Result Model
Root mean square error of approxi-mation(RMSEA)	≤0.08	0.067	.053

The Competing /Result model is illustrated in Figure 4. The difference between the proposed model and the competing model is the inclusion of direct relationships between ENDINV & PAS, PBS & INFRSCH, PBS & PAS and PAS & MTS respectively.

Figure 4
Modified/Competing Model



Discussions and Conclusions

It was hypothesized (H2) that Enduring involvement and the Perceived benefit is positively related. The result of the analysis supported this hypothesis. Investors' involvement with product category gives them intrinsic rewards and enhances attention in expectation of favorable outcome. More involvement will lead to engagement in a higher level of perceived benefit investors (H13) and also enhance perceived ability of search (PAS) (H6). The hypothesis 6 is also supported. Higher perceive benefits (PBS) increase the desire to expend effort in collection and processing information. So, the result of H8 is consistent and thus supported. The perceived benefit of search is also influencing Perceived ability to search positively to a great extent. The result supports Hypothesis7. Ability involves cognitive processing ability, knowledge of search and information sources. Higher perceived benefits will influence investors to enhance information processing, searching abilities.

H1 shows the negative relationship between PFRSK and PBS. Perceived financial risk (PFRSK) increases benefits of search (PBS). Investors with higher perceived financial risk will try to reduce the risk of financial loss by searching for more information. So, H1 is rejected. Subjective knowledge is found as a significant predictor of investors' perceived benefit (PBS) of search. Investors with higher subjective knowledge perceive fewer benefits from search due to strong confidence. Thus H3 is not supported. Moreover, H4 is also rejected because the relationship between subjective knowledge (SUBKWN) and perceived ability to search (PAS) is insignificant. Investors' with higher subjective knowledge believe that they have enough information about the shares and benefits of search reduce as he /she gains more knowledge about investment in stock markets. The H5 also has insignificant relation between subjective knowledge (SUBKWN) and perceived cost of search (PCS).The result of hypothesis (H9) testing shows higher ability to search (PAS) increases investors motivation to search. This result is consistent with the motivational studies in related fields where researchers found that perceived ability to search increases the self-confidence in collecting the information available and thereby by has a positive relationship with motivation to search (Awasthy, Banerjee & Banerjee,2012). On the contrary, higher search cost can decrease the motivation to search (MTS).So, H10 is rejected. The study shows Motivation to search (MTS) increases information search. A higher level of Motivation to search (MTS) before investing in stock markets increases consumers' inclination to seek information about a share. As a result, H11 is supported.H12 shows a result which is significant but having negative relationship between Perceived ability to search (PAS) and information search. But, Investors' perceived ability to collect and processing information increases information search So, H12 result is not consistent and hence rejected.

This study investigated the factors that influenced the extent of investors' information search when making investment decisions in the stock market. The validated model and results of the study would significantly contribute not only to existing limited investors' information search literature but also to practicing managers' understanding of investors' information search behavior. The model advocates that subjective knowledge has an influence on investors' information search. The accurate assessment of subjective knowledge of investors by the financial product marketers is crucial to target specific marketing segments. From a managerial perspective, a better knowledge of how investors are searching for information will help financial product marketers, financial advisers, brokers, managers to develop more effective marketing communication for financial service businesses. Investors tend to decide their investment strategies according to the level of their subjective knowledge and perceived financial risk. Therefore, the model is also meaningful for investors' educators who develop awareness among investors to correctly assess their knowledge and risk regarding investment.

Measurement of certain variables in questionnaire did not work as per the expectation of the researcher. Future studies could focus more on refining variables of the model. A longitudinal study design would provide better analysis of variations in investors' information search behavior corresponding to ups and downs of the stock market. MA

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SECTION 36 OF INDUSTRIAL DISPUTES ACT, 1947

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As per the Scheme of the Industrial Disputes Act, 1947 (ID Act), "Industrial Disputes" can be raised before the Conciliation Officer or Labour Courts/ Industrial Tribunals. The role of Conciliation Officers is only to endeavour for amicable settlement of disputes while that of the Labour Courts and Industrial Tribunals is to adjudicate the disputes.

A party to a dispute before any Court, authority or Tribunal can be represented through an Advocate. As per Advocates Act, 1961, an "Advocate" who is enrolled with the Bar Council of a State is entitled to practice in any court or tribunal including Supreme Court of India.

However, the following Acts completely barred representation through advocates.

1) Family Courts Act, 1984 (Section 13)

2) Maintenance and Welfare of Parents & Senior Citizens Act, 2007 (Section 17).

It appears that the above Acts bar representation through advocate before the Family Courts for the reasons that the disputes involved therein are purely familial and hence legal issues involved therein are very minimal.

Section 36(3) of the ID Act also completely barred representation through advocates in the proceedings before the Conciliation Officer. However, since the proceedings before the Conciliation Officer are not for adjudication of disputes, representation through advocates may not be necessary. Further, the Conciliation Officers have not been vested with any power to issue directions, pass orders etc.

But, in case of disputes before the Labour Courts/ Industrial Tribunal, Section 36(4) of the ID Act provides that a party to the dispute may be represented by a legal practitioner only with the consent of the other parties to the proceedings and with the leave of the Labour Court, Tribunal or National Tribunal as the case may be. Hence, this provision is rather unique in as much as there is no other law that has envisaged such an arrangement. Section 36 of ID Act states as under :

"36(1) A workman who is a party to a dispute shall be entitled to be represented in an proceeding under this Act by-

(a) any member of the executive or other office bearer of a registered trade union of which he is a member;

(b) any member of the executive or other office bearer of a federation of trade unions to which the trade union referred to in Clause (a) is affiliated;

(c) where the worker is not a member of any trade union, by any member of the executive or other office bearer of any trade union connected with, or by any other workman employed in the industry in which the worker is employed and authorised in such manner as may be prescribed.

(2) An employer who is a party to a dispute shall be entitled to be represented in any proceeding under this Act by-

(a) an officer of an association of employers of which he is a member;

(b) an officer of a federation of associations of employers to which the association referred to in Clause (a) is affiliated;

(c) where the employer is not a member of any association of employers by an officer of any association of employers connected with, or by any other employer engaged in, the industry in which the employer is engaged and authorised in such manner as may be prescribed.

(3) No party to a dispute shall be entitled to be represented by a legal practitioner in any conciliation proceedings under this Act or in any proceedings before a Court.

(4) In any proceeding before a Labour Court, Tribunal or National Tribunal, a party to a dispute may be represented by a legal practitioner with the consent of the other parties to the proceeding and with the leave of the Labour Court, Tribunal or National Tribunal, as the case may be."

The procedure before the Labour Courts/Industrial Tribunals involves recording of evidence, examination and cross examination of witnesses etc. which is tricky and intricate and hence it would be difficult for a person who is not trained in law to follow. Therefore, it creates hindrance in early and effective settlement of disputes. There was no such restriction of representation through advocates when the Act was originally enacted in the year 1947. Subsequently, the Act was amended in the year 1950 and such a restriction in engagement of legal practitioners was brought into force.

It appears that such a restriction was there on parties in respect of legal representation before Industrial Courts in England in the Industrial Courts Act, 1919 and the Industrial Relations Act, 1971. However, the Rules made there under allowed representation through counsels or solicitors with the permission of the court unlike requiring the consent of the other parties to the proceedings as envisaged under Section 36(4) of ID Act.

In the case of K.K.Khadilkar Vs. Indian Hume Pipe Co.Ltd. (AIR1967BOM521), the Bombay High Court observed that the following absurd results would follow if the modes of such representation are considered as exhaustive.

i) An employer is unquestionably entitled to appear in person if he has a physical personality, but such a right is not included in the three clauses of sub-section (2).

ii) A company would be entitled to be represented by an officer of any association of employers connected with the industry in which the company is engaged or by any other employer engaged in the particular industry. To compel a company to be represented in a dispute with its workers by an employer engaged in a similar industry would often mean the compulsion to engage a rival in business.

iii) The law did not create any obligation in the persons mentioned in Clauses (a), (b) and (c) of sub-section (2) to appear for a particular employer. The officer of an association of employers of which the employer is a member or an officer of a federation of associations of employers to which the association of employers is affiliated may decline to appear for a particular employer for reasons of convenience, exigencies or the like. It is difficult to accept the construction that the Legislature has compelled an employer to be represented through certain persons who may or may not agree to appear on behalf of the employer.

iv) If a company cannot appear in person, if it has no unqualified right to be represented by a legal practitioner and if the persons mentioned in clauses (a), (b) and (c) who are stated to exhaust the category of persons through whom an employer can be represented, do not agree to appear for the company, the case of the company shall have to go by default. The right of a company to be heard in support of its case will thus be rendered illusory.

v) It was overlooked that there is a material distinction between the position of a workman and the position of an employer, because a workman can always appear in person, whereas if an employer happens to be an incorporated company, it cannot appear in person. It must of necessity be represented by some other person.

vi) If a company is not a member of any association of employers its right of representation shall have to be sought in clause (c). That clause recognises two modes of representation, namely, through an officer of the association of employers connected with the industry or through any other employer engaged in the industry. The right conferred by clause (c) that an employer can be represented by another employer engaged in similar industry would be incapable of being exercised if such an employer is also an incorporated company. Therefore, in certain cases, the ultimate right of an incorporated company to be represented in a dispute under the Act would have to be restricted to its being represented by an officer of an association of employers connected with the industry.

vii) The Government or the local authorities could be employers in conceivable cases. Some of the Departments of the Bombay Municipal Corporation have, for example, been held to be industries and therefore, the dispute between the Corporation and its workmen can go before the industrial tribunal under the Act. If clauses (a), (b) and (c) are exhaustive of the right of an employer to be represented in a proceeding under the Act the Corporation shall have, mostly, to forge its right to be heard in support of its cause. Usually, local authorities are not members of any association of employers and therefore, clauses (a), (b) and (c) of sub-section (2) cannot apply. It is also unlikely that any other employer could be engaged in an industry similar to the one in which a local authority is engaged. It is equally difficult that there could be an association of employers connected with the industry in which the local authority is engaged. In cases, therefore, of this variety the right of representation of a local authority would be rendered wholly illusory.

Since absurd consequences are flowing from strict construction, it was held that the provisions contained in Section 36(2) of the Industrial Disputes Act, 1947 were to be not exhaustive. It is, therefore, open to an employer to seek to be represented in a proceeding under the Act by a person other than those mentioned in Clauses (a), (b) and (c) of sub-section (2). However, no legal practitioner can be engaged to appear for the employer or workmen causing hardship to both employers and workmen alike.

The Hon'ble Supreme Court had, in the case of **Paradip Port Trust Vs. Their Workmen [1977 AIR SC 36]**, left it to the legislature to remove the hardship by stating as under :

"Consent of the opposite party is not an idle alternative but a ruling factor in Section 36(4). The question of hardship, pointed out by the Solicitor General, is a matter for the legislature to deal with and it is not for the courts to invoke the theory of injustice and other consequences to choose a rather strained interpretation when the language of Section 36 is clear and unambiguous."

The Supreme Court further observed as under:

21. "The Solicitor General contends that "and" in Section 36(4) should be read as "or" in which case refusal to consent by a party would not be decisive in the matter. The Tribunal will then be able to decide in each case by exercising its judicial discretion whether leave, in a given case, should be given to a party to be represented by a lawyer notwithstanding the objection of the other party. It is pointed out by the Solicitor General that great hardship will be caused to public corporations if the union is given a carte blanche to finally decide about that matter of representation by refusing to accord its consent to representation of the employer through a legal practitioner. It is pointed out that public corporations, and even Government running a transport organisation like the State transport, cannot be expected to be members of any employers' association. In their case Section 36(2) will be of no avail.

To deny them legal representation would be tantamount to denial of reasonable opportunity to represent their cases before the Tribunal. It is submitted that since such injustice or hardship cannot be intended by law the final word with regard to representation by legal practitioners before the Tribunal should rest with the Tribunal and this will be effectively implemented if the word "and" in Section 36(4) is read as "or". This, it is said, will also achieve the object of the Act in having a fair adjudication of disputes.

22. We have given anxious consideration to the above submission. It is true that "and" in a particular context and in view of the object and purpose of a particular legislation may be read as "or" to give effect to the intent of the legislature. However, having regard to the history of the present legislation, recognition by law of the unequal strength of the parties in adjudication proceedings before a Tribunal, intention of the law being to discourage representation by legal practitioners as such, and the need for expeditious disposal of cases, we are unable to hold that "and" in Section 36(4) can be read as "or".

As per the Act, even an officer of the employer cannot represent the employer before the Tribunal. However, in the above case, Supreme Court had observed that in case of a Company or Corporation, an officer of the Company or Corporation may represent the employer.

In the case of T.K.Varghese Vs.Nichimen Corporation [(2012)IVLLJ (Supp) Bom.1018], the single judge of the Bombay High Court allowed the respondent corporation to be represented by the legal practitioner which appears to be sound, though it appears to have been passed without taking notice of the above binding precedent set by the Supreme Court. It is held by the Court as under:

"While interpreting Section 36(4) of the Act we must remember a crucial reality that when the Industrial Disputes Act was enacted in the year 1947 the Trade Union movement in this Country was in its infancy and was absolutely novice before the adjudication machinery. The Legislature had visualised the legal battle between the two unequals before the Industrial adjudicators. On the one hand the Trade Unions with scarce resources could not be pitted against the mighty employers, who had all the wealth at their command. They could hire the best lawyers at the Bar while the Trade Unions and/or workmen did not have any trained persons to defend them. Their leaders had no necessary legal training and knowledge of Court functioning. The lawyers who had professionally acquired law training were rarely available for the Trade Unions and workmen who could hardly afford their profession fees. In order to bring about and maintain fairness and equality in the fight the Legislature provided under Section 36 of the Act how the parties would be represented in the proceedings under this Act. The parties, of course, could themselves appear in their own litigation. They were however not allowed to be represented by legal practitioners in the conciliation proceeding or in any proceedings before Labour Court/Tribunal. Section 36(4) however carves out an exception to the complete ban under Sub-section 3. A legal practitioner is permitted with the consent of the other party in the proceedings and with the leave of the Labour Court/Tribunal or National Tribunal as the case may be. It was left to the other party and also to the discretion of the forum before which the proceedings were instituted. The underlying principle of this section is just and fair trial. However, the Trade Union movement has become more than 50 years old after 1947. It has crossed its age of Infancy long back. It has also created a number of very good Trade Unionists who have acquired knowledge, legal acumen and skill to defend the working class in the proceedings under this Act. Very often these dedicated and reputed trade Union leaders are more than a match to even the best of the practitioners before the Labour Court or Tribunal or National Tribunal.

Similarly there are many seasoned office-bearers of a number of Trade Unions functioning in this country, who have also acquired rich experience in the field of legal fight. Now let us consider the position of the employers in that context.

Will it be a fair and equal fight between a powerful Trade Union represented by a very seasoned, senior and experienced Trade Union representative or a leader against an ordinary small or petty employer if he is not assisted by a legal practitioner? The Trade Unions are professional litigants under the Act while employers are not; they have to engage the services of legal practitioners to fight their battle.

And if they are prevented from engaging legal practitioners as against the powerful representatives of the Trade Unions it will not be a fair, just and equal trial of strength between the two. In my humble opinion we have to reconsider, revise and review the position which existed in the year 1947 vis-a-vis and the position which is in the year 2001. There has been a sea change in the circumstances. A large number of small employers have also come on the industrial scene. They cannot be denied the services of legal practitioners when they are dragged in the Industrial litigation. There are number of good advocates or legal practitioners available now even for the workmen or Trade Unions. In the early 50's there was dearth of legal practitioners to appear for the Trade Unions as the Unions could not pay even a small fee. The legal profession has grown up to such an extent that the lawyers' services are available to all those who can pay a reasonable remuneration. There are number of such advocate who have dedicated themselves to the cause of the working class and who do not expect much return for the mission to which they have devoted. We have good number of advocates to stand for the cause of social justice. It would therefore be unreasonable and unfair to deny the same opportunity to the employer, the other side of the legal battle. It would however be for the Legislature to reconsider and review the position of Section 36 of the Industrial Disputes Act. Besides, the Trade Unions have also become financially well off to engage the services of good legal practitioners.

Moreover, if we consider the history of industrial litigation the legal fraternity has its major contribution to the development of this branch of law. It would be totally unjust to deny the legal community access to this field and the Courts and the Tribunals would face great handicap if they do not get proper assistance from the legally trained persons in their decisions which finally land in the higher Courts. The judgments of the Lower Courts do reflect the kind of assistance received by them. It facilitates even the higher Courts if the decisions are written after good assistance from the Bar. The foundation of the justice is the fair and equal fight between the parties. Ultimately, if the Court/Tribunal grants "Leave" to a legal practitioner to represent a party before it, such leave by the Court/Tribunal would be in the interest of justice and fair-play while the "consent" of the other party very often is actuated by malice or mala fides or motivated to try to get upper hand in the litigation.

At the same time we cannot forget that under Section 7(3)(d-1) of the Act an advocate or attorney is permitted to practice before the Industrial Court or Tribunal or Labour Court to become eligible for appointment as a Presiding Officer of a Labour Court. In the light of this provision what is more Important for a legal practitioner to be able to appear before the Labour Courts/Tribunal is the unbiased leave of such forum than the interested and motivated denial of consent by the other party. The grant of "leave" would be more decisive rather than the "consent" of the party. In view of the above discussion, according to me, the leave granted by the Labour Court/Tribunal will have overriding effect as a party cannot be represented by a legal practitioner even when the other side consents without the leave of the Labour Court/Tribunal. Considering the vast development of law and the complications which arise in the litigation the Labour Court/Tribunal has an inherent right in the interest of justice to seek proper assistance in resolving the industrial dispute to the satisfaction of both the parties and in accordance with law and grant "leave" to a party before it to be represented by a legal practitioner.

There is no absolute bar for the legal practitioner to appear before the Labour Court/Tribunal as it is under Section 36(3) in the conciliation proceedings. No party can withhold appearance of a legal practitioner by denying "consent" without any justification and arbitrarily for no rhyme or reason. If a party is represented by an office-bearer etc. of a Trade Union or an Association, it cannot refuse to grant consent to the other side without any reasonable cause and justification to engage a legal practitioner and the Labour Court/Tribunal can always consider the bona fides of such a party withholding consent and can always grant "leave" to the other parties to be represented by a legal practitioner in the interest of justice notwithstanding the refusal of consent by the other side. No party to the proceedings has an unbridled and absolute right to refuse to give consent to the other party. No party can adopt unreasonable attitude to exploit the situation arising out of Section 36(4) of the Act to the deliberate disadvantage of the other side. This provision was enacted to help the budding Trade Union movement and it was never intended for them to take wrongful advantage of the same even after the Trade Unions have become capable of defending themselves and their workmen. The provision is always subject to the scrutiny of the Labour Court/Tribunal and it can always decide the question of refusal of consent by the other party and can overrule the refusal of the consent on merits independently while considering to grant or refuse the "leave" contemplated under Section 36(4) of the Act.

It is crystal clear that the party to the dispute in any proceedings under this Act is specifically conferred a right or entitlement to be represented by a member of the Executive or an office-bearer of a registered union or a Federation or an officer of Association of employers or a Federation of the employer's associations. This right is totally denied under Section 36(3) in the proceedings before the conciliation proceedings or in any proceedings before the Court as far as the representation by a Legal Practitioner is concerned. However, Section 36(4) relaxes this total ban on the representation by the legal practitioner if the other party gives consent and the Labour Court/Tribunal grants leave to be represented by a legal practitioner. The bar on the legal practitioners' appearance is based on a general impression that they would contribute to the delay in disposal of the disputes. The impression might be correct to some extent but the legal fraternity alone cannot be held responsible for the delay as there are number of causes which also delay the disposal of the cases. **Further very often, the parties-in-person create a number of problems from lack of knowledge and proper understanding and a deep sense of revenge against the other side and complete absence of detachment from the dispute and lack of knowledge of law and functioning of the Courts and techniques and niceties in the matters. For such and similar factors the parties-in-person are likely to suffer more in their own cause. In my considered opinion it is not always in the interest of the parties to deny them the legal assistance in the Courts/Tribunal of the legal practitioners."**

The above said judgment has been overruled by the Division Bench, in the case of Chandrakant Vs. All India Reporter [(2005) IILLJ290 Bom], on the ratio of Supreme Court's decision in the case of Paradip Port Trust (cited supra)

Therefore, it is hoped that Section 36(4) is amended by the Parliament to address the issue either to completely do away with such restriction, or, as suggested by the Supreme Court, reduce its rigour considerably by leaving the matter to the Tribunal as has been the case under the English law. MA

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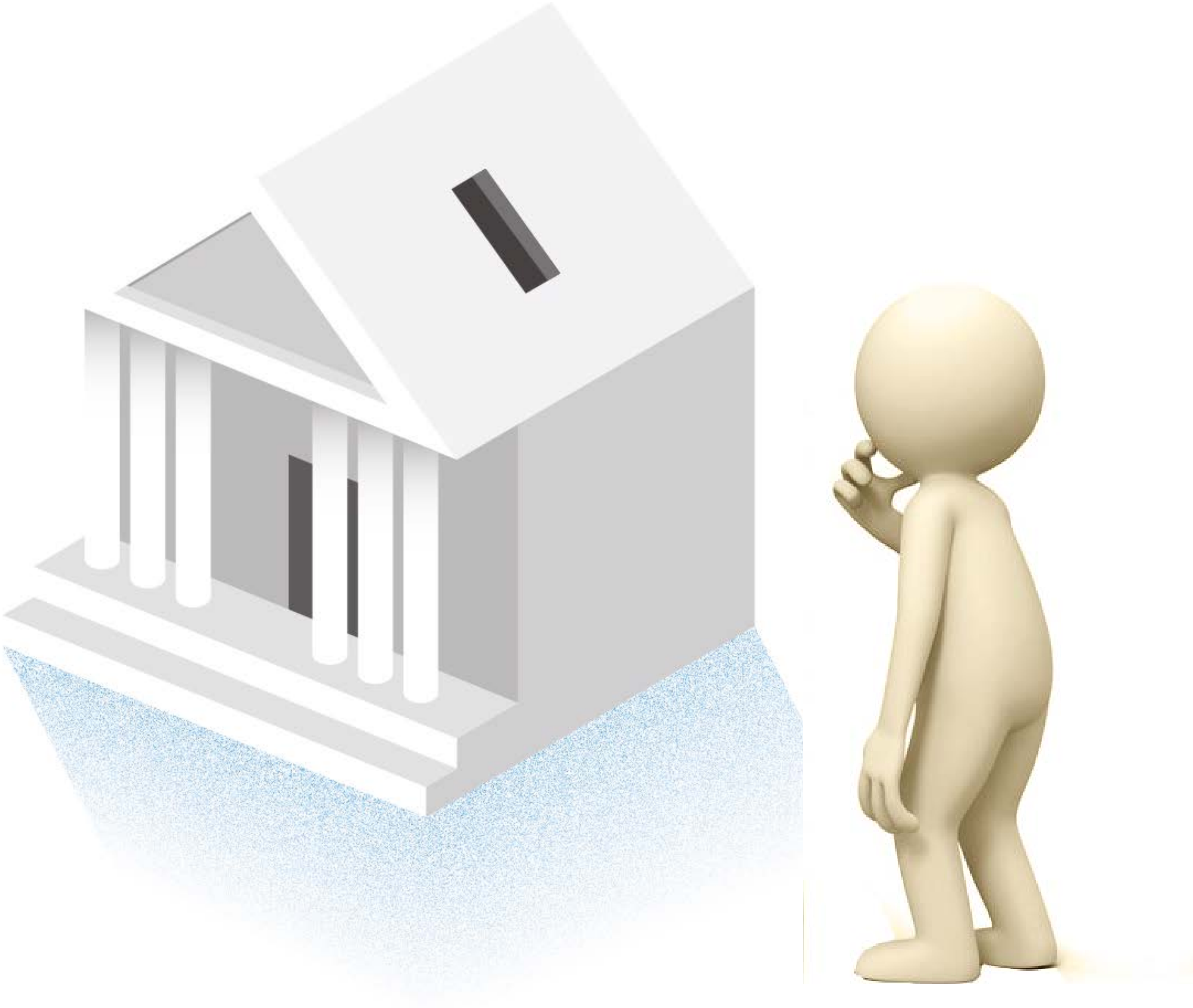
BUBBLING NPA LOOMS LARGE

A STUDY ON VARIED NPA RATIOS OF INDIAN AND FOREIGN BANKS



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The trembling bad loans are continuously adding woos to the financial performance of the Indian commercial banks almost since Global financial crisis of 2008-09. Unscrupulous lending at discounted terms, undue favouritism, under or non provisioning, erratic valuation and pricing techniques, inadequate and liberal assessment of the borrowers are the multidimensional factors which piled up the loans and losses and brought the destiny of the Indian banks to the fore of destruction.

Dating back to economic meltdown of 2008-09, performance if Indian banking system became envy of the world. In 2009, India recorded a lowest NPA ration among the top G-20 nations Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, The United Kingdom, The United States and the European Union.

Current scenario of Indian banking sector derives no sympathy as chronological regulatory forbearance and poor accounting standards apart from the above mentioned reasons triggered the real tragedy of NPA and made the position of Indian Banking NPA as a worst hit as per statistics of the year 2017.

Reasons for vulnerability of Indian banks admist G-20 nations:

Lack of provisioning for NPA, Improper maintenance of Capital Adequacy Ratio (CAR), Poor accounting standards and ineffective internal audit mechanisms , lethargic governance, pay scale difference between the private and public sector banking employees incompatible hierarchical set up, non compliance of Nayak committee recommendations.

Indian banking industry witnessed sea changes since the days of economic downturn which resulted in poor performance and profitability in both public and private sector banks with public sector predominating. India's bad loans are fifth largest in the world since March 2015. To constitute a critical analysis the country India is compared against the major five developed nations and their NPAs and the ways of managing the same.

As per International Monetary Fund's World Economic Outlook Database, April 2017, the following five nations were considered as most developed ones, namely, United States, China, Japan, Germany, U.K. The chosen countries are having high GDP rate, high per capita income, high standard of living, high Human Development Index.

Report of Care Ratings

Informations from IMF reveal that India stands fifth with respect to NPAs across the world but only lower in NPAs in contrast with the NPAs of Portugal, Italy, Greece, and Ireland. Four major countries namely, U.K, USA, Germany, Japan had NPAs less than 2%, whereas the countries like China, Argentina and Chile had the NPA ratio between 1-2%.Among the developed countries France had a NPA higher than 3.41%. As a part of the BRICS country, Brazil and South Africa had a NPA ratio of 3.69% and 2.83% and India's NPA ratio without including the restructured Assets being more than 2% is one of the highest in the group. The countries having NPA ratio even higher than India are the PIIG countries namely Portugal, Italy, Ireland, Greece.

NPA Ratio of PIIG and other countries

Country	Time	Ratio
Greece	2017Q2	36.37
Italy	2017Q2	16.35
Portugal	2017Q2	15.52
Ireland	2017Q2	11.85
India	2017Q2	9.85
Russia	2017Q1	9.72
Romania	2017Q2	8.32
UAE	2017Q3	6.70
Hungary	2017Q2	5.36
Spain	2017Q2	5.28

The intensity of incremental NPA is mainly due to high level of impaired assets and the same not being recognized thoroughly inspite of the mandate of RBI as on 2015, for cleaning up the banks' balance sheet.

NPA ratios from Global Data as on December 2017 as per Care Ratings

Country name	NPA ratio (%)	
Greece	36.37	
Italy	16.35	
Portugal	15.52	
Ireland	11.85	
INDIA	**9.85**	**HIGH LEVEL**
Russia	9.72	
Romania	8.32	
UAE	6.70	
Hungary	5.36	
Spain	5.28	
Poland	4.08	
Czech Republic	4.04	
Brazil	3.69	
France	3.41	

Country name	NPA ratio (%)	
Belgium	3.19	
Turkey	3.11	
Thailand	3.11	**MEDIUM LEVEL**
Indonesia	2.94	
South Africa	2.83	
Austria	2.53	
Netherlands	2.38	
Mexico	2.08	
Chile	1.85	
Argentina	1.84	
Philippines	1.78	
China	**1.75**	
Germany	**1.69**	
Malaysia	1.65	
Saudi Arabia	1.41	
Japan	**1.32**	**LOW LEVEL**
Norway	1.28	
Singapore	1.22	
USA	**1.15**	
Sweden	1.04	
U.K	**0.99**	
Australia	0.99	
Hongkong	0.83	**VERY LOW LEVEL**
Canada	0.52	
Republic of Korea	0.49	

Care Report has classified the major economies into four blocks like NPAs at as very low level as less than 1%, low level which is between 1-2%, medium level between 2 -5%

and high level above 5%.

To constitute the study, the countries like UK, USA, JAPAN, GERMANY and CHINA are selected against which the Indian commercial banks are compared and critically examined and measures suggested.

Summary of Indian Banks:

The table below shows that a total of 26 Indian commercial banks, consisting majorly of Public sector banks and few private sector banks have reported the NPAs ranging between high level to low level as on March 2018.

NPA of 26 Banks (15 Public sector and 11 Private sector) as on 31/3/2018.

Bank name	NPA ratio (%)
UCO bank	24.64%
Dena bank	22.04
Central bank of India	21.48
Bank of Maharashtra	19.48
Punjab National bank	18.38
Oriental bank	17.63
Allahabad bank	15.96
Union bank of India	15.73
Canara bank	11.84
Syndicate bank	11.53
Punjab & Sind	11.19
State bank of India	10.91
ICICI bank **(Pvt)**	8.84
Indian bank	7.37
Axis bank **(Pvt)**	6.77
Vijaya bank	6.34
Karnataka bank **(Pvt)**	4.92
South Indian bank **(Pvt)**	3.59
IDFC bank**(Pvt)**	3.31
Federal bank**(Pvt)**	3.00
Kotak bank**(Pvt)**	2.22
DCB bank	1.79
RBL bank **(Pvt)**	1.40
HDFC bank **(Pvt)**	1.30
Yes bank**(Pvt)**	1.28
Indusind bank **(Pvt)**	1.17

Analysis:

The above data shows that the from UCO Bank to Vijaya bank, all had NPA well above the norm of 5% threshold and thus being qualified as banks with high NPA. Karnataka bank to Kotak bank , they had NPA from 4.92 to 2.22%. From DCB to Indusind bank , NPA level maintained was between 1-2%. The mean NPA of all the above 26 banks of both public and private sector recorded was 9.77% , so overall Indian banks continued to have NPA at the high level. The mean NPA of 15 Public sector banks was 14.42% and that of the private sector was 3.42% .Majorly private sector banks are at medium level NPA but the Public sector giant is having high level NPA. The total provisions made during the year 2017-18 went up to 105150 crore in 2018 as against 43611 crore in its previous financial year.

Summary of US Banks:

According to Standard & Poor (S&P) Global Market Intelligence data and ranking made by Forbes, 100 US banks ranging in asset size of $2.6 trillion to $8.8 billion are being considered on the metrics of growth, profitability, asset quality, capital adequacy.

Bank	Company	Total assets ($bil)	ROATCE %	NPAs/total assets %	CET1 ratio %	Efficiency ratio %	LTM revenue growth %
1	Home BancShares	14	16.2	0.6	10.9	42	6.9
2	Western Alliance Bancorp	20	18.3	0.6	10.4	42	18
3	Bank of the Ozarks	21	15.3	0.4	11	33	48.5
4	First Merchants	9	14.1	0.5	11	55	15.9
5	East West Bancorp	36	17.5	0.4	11.4	45	20.1
6	Community Bank System	11	15.7	0.2	13.9	64	16.1
7	Prosperity Bancshares	22	16	0.2	15.1	41	-2.8
8	FCB Financial Holdings	10	13.9	0.4	12.2	42	12.1
9	First Hawaiian	21	15.8	0.2	12.7	45	7.4
10	Glacier Bancorp	10	13.6	0.9	12.9	54	7.9
11	Columbia Banking System	10	14.9	0.6	12.2	56	7.7
12	Cathay General Bancorp	16	13.3	0.9	12.2	44	14.9
13	Cullen/Frost Bankers	31	14.7	0.5	12.4	55	9.5
14	South State	11	13.2	0.3	12.1	64	14.1
15	First Republic Bank	84	12.2	0.1	10.6	57	19.4
16	Bank of Hawaii	17	16	0.4	13.3	56	3.8
17	WesBanco	10	13.8	0.5	11.7	56	17.5
18	State Street	236	21.6	0	11.6	73	6.8
19	International Bancshares	12	10	0.6	16.9	55	4
20	Independent Bank Group	9	15.6	0.4	9.2	55	36.3
21	Hope Bancorp	14	11.7	0.9	12.3	48	48.6
22	**PacWest Bancorp**	**22**	**15.9**	**1**	**12.5**	**41**	**3.7**
23	SVB Financial Group	51	12.5	0.3	13	54	17.2
24	New York Comm. Bancorp	48	11.5	0.2	11.5	48	97.6
25	Hilltop Holdings	14	10.1	0.4	17.7	84	0

Bank	Company	Total assets ($bil)	ROATCE %	NPAs/total assets %	CET1 ratio %	Efficiency ratio %	LTM revenue growth %
26	Pinnacle Financial Partners	22	14.4	0.4	9.4	50	40.8
27	Renasant	10	13.7	0.4	11.2	63	4.7
28	Washington Federal	15	10.3	0.9	16.7	47	1.6
29	Commerce Bancshares	25	12.6	0.4	12.5	60	5.2
30	Capital One Financial	361	12.6	0.8	10.7	52	6.2
31	Sterling Bancorp	17	15.4	0.6	10.3	44	10.7
32	**Cadence Bancorp**	**10**	**12.6**	**1.4**	**11.7**	**50**	**15.1**
33	Bank of New York Mellon	354	25	0	11.1	66	3.5
34	Investors Bancorp	25	6.3	0.6	15.8	56	7.9
35	Banner	10	9.7	0.4	11.2	66	5.6
36	MB Financial	20	14.2	0.5	8.8	67	13.7
37	First Financial Bancorp.	9	14.3	0.6	10.5	58	4.5
38	Central Banco	13	9.3	0.7	16	59	0.9
39	First Citizens BancShares	35	11.4	0.7	13	66	18.4
40	JPMorgan Chase	2,563	13.9	0.6	12.6	58	4.2
41	Chemical Financial	19	13.4	0.6	10.5	60	69.3
42	**M&T Bank**	**120**	**13.1**	**1**	**11**	**55**	**6.6**
43	Northern Trust	131	12.6	0.1	12.3	69	6.4
44	United Bankshares	19	12	0.9	12	55	29.4
45	Umpqua Holdings	26	11.2	0.4	11.1	63	2.5
46	**Northwest Bancshares**	**10**	**12**	**1**	**12.8**	**63**	**16.9**
47	Capitol Federal Financial	9	6.1	0.3	30.9	40	0.8
48	BancorpSouth Bank	15	13	0.4	10.8	67	3.6
49	**Great Western Bancorp**	**12**	**15.3**	**1.5**	**10.7**	**46**	**11.7**
50	United Community Banks	11	11.6	0.7	12.2	57	6.5

Bank	Company	Total assets ($bil)	ROATCE %	NPAs/total assets %	CET1 ratio %	Efficiency ratio %	LTM revenue growth %
51	Provident Financial Svcs	9	11.7	0.7	12.2	55	5.6
52	Simmons First National	10	13.5	1.3	12	60	7.1
53	**Fifth Third Bancorp**	**142**	**15.8**	**1.1**	**10.6**	**55**	**3.6**
54	BB&T	220	13.9	0.6	10.2	63	6.1
55	Comerica	72	11	0.8	11.5	60	7.6
56	Wintrust Financial	27	11.5	0.5	9.5	63	12.7
57	NBT Bancorp	9	13.4	0.4	10.1	59	5.4
58	Zions Bancorp	66	9.4	0.9	12.2	64	7.7
59	**LegacyTexas Financial**	**9**	**13.8**	**1**	**9.2**	**44**	**9.3**
60	Heartland Financial USA	10	13.6	0.7	10	67	7.5
61	KeyCorp	137	11.9	0.6	10.3	66	37
62	U.S. Bancorp	459	18	0.9	9.6	54	3.7
63	First Interstate BancSystem	12	12.4	0.8	11	65	16.4
64	Berkshire Hills Bancorp	10	9.6	0.6	12.3	71	25.9
65	F.N.B.	31	13.3	0.5	9	61	30.2
66	First Midwest Bancorp	14	12.1	0.6	9.4	65	23.9
67	Texas Capital Bancshares	24	10.3	0.6	8.4	54	19.1
68	PNC Financial Services	375	12.7	0.9	10.3	60	5.4
69	Citigroup	1,889	8.2	0.5	14	58	-0.8
70	Synovus Financial	32	11	0.8	10.1	59	16.3
71	BankUnited	30	10.7	0.8	11.9	58	10.9
72	Union Bankshares	9	11.8	0.5	9.4	63	5.6
73	Flagstar Bancorp	17	10	0.6	11.7	74	3.2
74	**Wells Fargo**	**1,935**	**13.9**	**1.1**	**12.1**	**61**	**-0.3**
75	**Huntington Bancshares**	**102**	**13.7**	**1.1**	**9.9**	**62**	**32.6**

Bank	Company	Total assets ($bil)	ROATCE %	NPAs/total assets %	CET1 ratio %	Efficiency ratio %	LTM revenue growth %
76	Old National Bancorp	15	13.4	0.9	11.7	66	-0.2
77	Customers Bancorp	10	10	0.4	8.3	51	9.6
78	UMB Financial	20	10.4	0.4	12.2	69	3.6
79	BOK Financial	33	11	0.8	11.9	66	3.4
80	**Webster Financial**	**26**	**12.7**	**1.1**	**11**	**61**	**8.5**
81	**Signature Bank**	**41**	**10.4**	**1**	**12**	**34**	**8**
82	Trustmark	14	10.7	0.8	11.8	70	4.4
83	**TFS Financial**	**14**	**6.1**	**1.4**	**20.7**	**59**	**1.4**
84	**Fulton Financial**	**20**	**11**	**1**	**10.4**	**66**	**8.1**
85	Bank of America	2,285	11.1	0.7	11.9	62	7.1
86	**First National of Nebraska**	**19**	**9.3**	**1**	**10.9**	**59**	**-1.5**
87	***First BanCorp.***	***12***	***3.9***	***8.1***	***18.6***	***59***	***-1.3***
88	**Valley National Bancorp**	**24**	**11.8**	**1**	**9.2**	**63**	**10.6**
89	CIT Group	49	-4.2	0.7	14.3	98	-56
90	**Citizens Financial Group**	**152**	**9.8**	**1.1**	**11.1**	**61**	**9.1**
91	**Popular**	**43**	**4.6**	**3.9**	**16.6**	**65**	**-3.2**
92	People's United Financial	44	10.9	0.7	9.5	63	7.4
93	**Regions Financial**	**124**	**10.9**	**1.4**	**11.3**	**63**	**0.6**
94	**TCF Financial**	**23**	**10**	**1.1**	**10.1**	**69**	**2.4**
95	IBERIABANK	28	7.5	0.8	10.9	66	7.4
96	**First Horizon National**	**30**	**12.6**	**1.2**	**10**	**70**	**1.7**
97	**Hancock Holding**	**27**	**11.5**	**1.4**	**10.1**	**63**	**13.7**
98	**Associated Banc-Corp**	**30**	**11.3**	**1**	**9.9**	**64**	**3.8**
99	**SunTrust Banks**	**208**	**12**	**1.6**	**9.6**	**63**	**4.9**
100	Banc of California	10	9.3	0.9	9.9	86	-18.1

The data discloses that 24% of US banks are having NPAs more than 1% and remaining 76% banks are having less than 1% NPA.

Summary of Nonperforming loans (NPL) of US, UK, GERMAN Banks

YEAR	US NPL Ratio (%)	UK NPL Ratio (%)	GERMANYNPL Ratio (%)
2008	2.21	1.56	2.90
2009	4.07	3.51	3.30
2010	5.30	3.95	3.20
2011	4.5	3.96	3.03
2012	3.95	3.59	2.86
2013	3.04	3.11	2.70
2014	2.21	1.65	2.34
2015	1.67	1.01	1.97
2016	1.47	0.94	1.69
2017	1.22	0.99	1.69

US Banks: Incremental trend in NPL is observed till 2010, post which became controlled since 2011. Mean NPA of the period is 2.964%

UK Banks: Banks had NPA less than 1% as on 2017 though there was an incremental tendency during the period 2008-2011. Mean NPA of the period is 2.427%

German Banks: Post crisis of 2008, the NPL has increased till 2009, but after that period the NPA decreased and stabilized. Mean NPA of the period is 2.568%.

Summary of Nonperforming loans (NPL) of Japanese and Chinese Banks:

YEAR	Japan NPL Ratio (%)	China NPL Ratio (%)
2008-2009	2.3	3.8775
2009-2010	2.55	1.6025
2010-2011	2.45	1.1825
2011-2012	2.45	0.95
2012-2013	2.35	0.95
2013-2014	2.00	0.9925
2014-2015	1.65	1.22
2015-2016	1.485	1.6275
2016-2017	1.35	1.75

Japanese Banks: NPL decreased since 2012-2013 Mean NPA of the period is 2.065%.

Chinese banks: NPL remained at its moderately low level till 2012-2013, after that period it increased till the financial year 2016-2017. Mean NPA of the period is 1.5725%.

Interpretations: Looking into the data, the selected countries NPL are either in the low level or marginally in the medium level whereas in case of Indian commercial banks its at High level, significantly higher than the 5% level.

Recommendations:

On balance sheet approach: Part of the portfolio can be protected through external guarantee or by setting up a bad bank.

Off balance sheet Approach: Toxic assets are completely removed from the balance sheet by selling them at fair value at a high level of operational difficulty and voluminous transaction cost.

Passive Rundown Approach: Toxic assets are maintained in the balance sheet of the banks as the above mentioned second approach may not be fruitful to the bankers in case of assets being substantially under provisioned.

IFRS 9: This will replace IAS39 in 2018. Under IAS 39, provisions were made only where there was a need for impairment recognition after the credit event. IFRS 9 is on the basis of forward looking approach where provisions to be created against possible losses but not against probable losses.

Proper Governance and organizational design: Delegation of roles and responsibilities among the separated NPL

The paper aims to highlight the starking difference between the score of Non Performing Assets (NPA) in Indian commercial banks and banks of the other developed countries. NPA is an instantaneous repercussion of financial illness and can't be zeroed down but can be effectively narrowed down with strategic management in an apolitical boundary .The study considered the management of Nonperforming loans in developed countries vis-à-vis the strategy followed in the Indian commercial banks years together and attempts to figure out the areas of improvement and implementation of structured steps in the operation of Indian banking system for future survival. Crony capitalism, political exuberance, disproportionate reporting of results, over or non bleeding of Governmental fund is notable vitalities in the NPA mess

management units from the point of loan origination, or outsourcing the task to the right expert to maintain the core competence, implementation of principle of proportionality in the decision making process of bad loans ranging between low risk to high risk .

Efficient and IT supported process: This approach will leverage advanced analytics for every single loan classification, decision engines and rules to derive the coming action and workflow system to manage and monitor the execution of actions and processes.

Strict monitoring and reporting: Both the top management and operational reporting are required to control the unprecedented surge in bad loans. Application and utilization of decision trees , rules for automatizing the categorization of borrowers and checking their solvency in long term aspect but not only the short term liquidity aspect prior to disbursement and carrying out periodical review of the progress of the project to validate the viability of generating the financial returns o the banks

Conclusions

Banks should be diligent in their approach to manage the portfolio of the borrowers effectively through a structured credit management strategy, and coherent operating model. The key to a successful path will be rampant change in the mindset to relaunch profitability and trust and to comply with the expectations of the regulators. MA

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Eastern India Regional Council

A Career Awareness programme had been organised by Jain Institutes, Howrah at Sadat Sadan, on 3rd July 2018. CMA Pranab Kr Chakraborty, Chairman EIRC was present on the ocassion. Shri Arup Roy, Minister, Govt of West Bengal was the chief guest of the programme. EIRC organized a seminar on 'Overview of Valuation of Financial Assets & Liabilities under the Companies Act 2013' on June 30, 2018. EIRC organized a Students Convocation 2018 on 2nd July 2018 at J. N. Bose Auditorium. The programme was inaugurated by Chief Guest Dr. G. C. Dutt, IPS, Inspector General Police Directorate, West Bengal in presence of special guest of honour, Dr Subir Dutta, Principal, Khudiram Bose Central College, Guest of Honour CMA H. Padmanabhan, Vice President, CMA Biswarup Basu, CCM, CMA Pranab Kumar Chakraborty, Chairman, EIRC , CMA Cheruvu Venkata Ramana, Secretary cum Treasurer, EIRC, CMA Shyamal Kr Bhattacharya, Vice Chairman, EIRC, CMA Umar Farooque and CMA Ashish Banerjee, RCMs, EIRC of the Institute . EIRC felicitated June 2015 to December 2017 term final qualified CMAs during the felicitation programme. Shri T. Sanyal, renowned expert took a session on motivation.

The Institute of Cost Accountants of India-Cuttack Jagatsinghpur Kendrapara Chapter

The Chapter organized a one day seminar on GST on the theme 'GST- 365 Days- Dominion in Perfection' in association

with Tax Research department of the Institute on 1st July 2018 to mark the first anniversary of GST implementation in India. Hon'ble Minister of Finance & Excise, Odisha, Sj Sashibhusan Behera was the chief guest on the occasion in the presence of CMA Niranjan Mishra, Chairman, Taxation Committee and CMA Shiba Prasad Padhi, EIRC. In the inaugural session, Fortnightly Tax Bulletin published by the Tax Research Department and GST-A practical approach for professionals written by CMA V.S Datey was launched by the Hon'ble Minister of Finance & Excise.

Northern India Regional Council

The Institute of Cost Accountants of India - Jaipur Chapter

The Chapter celebrated GST Day on the theme "Role of CMAs in Fastest Growing Economy under GST Regime" on 1st July, 2018. The seminar was inaugurated by President of the Institute, CMA Sanjay Gupta. In his inaugural address, CMA Sanjay Gupta expressed his views on the role of CMAs in the Government's efforts for fastest growth of economy under GST Regime. In the first technical session, key speaker CMA Vivek Laddha of Ajmer - Bhilwara Chapter expressed his views on the topic "Audit under GST - Alarm for Industries & Auditors". In the second technical session, key speaker CMA Anil Sharma, Secretary NIRC expressed his views on the topic "Impact of GST on Intellectual Property Rights & Hospital Industry". Second key speaker was CMA Ayush Gupta from Jaipur who explained in detail on the topic "Finalisation of Books of Accounts under GST". The Chapter celebrated International Day of Yoga on 21st June 2018.

The Institute of Cost Accountants of India –Chandigarh Panchkula Chapter

A one day seminar on 'GST, Banking & Insolvency Code and Valuation Rules 2016' was conducted by NIRC in association with the chapter on July 8, 2018. The program was chaired by chief guest, CMA Sanjay Gupta, President of the Institute. CMA Sanjay Tondon, President, District BJP party was the guest of honor of the programme.

Southern India Regional Council

SIRC organised campus placement programme for its southern regional candidates of Dec 2017 CMA Final batch at Chennai on April 19 and 20, 2018. SIRC organised its 8th workshop for Insolvency Professionals in coordination with Insolvency and Bankruptcy Board of India at SIRC Premises, Chennai on 20th and 21st April, 2018. Shri K.R. Saji Kumar, Executive Director, IBBI briefed on the overview of the programme. During the two day workshop, topics such as 'The IBC: Progress, Challenges and Road Ahead', 'Emerging Jurisprudence – Case Laws', 'CIRP – Banker's Perspective', 'Liquidation Process – Case Study',

'Preferential, Undervalued, and Fraudulent Transactions', 'Information Memorandum, 'Resolution Application and Resolution Plan' & 'Evaluation' were handled by bank & insolvency professionals from Delhi & Chennai. Dr. M.S. Sahoo, Chairperson, IBBI and Hon'ble Justice, Shri Sudhansu Jyoti Mukhopadhaya, Chairperson, NCLAT addressed the issues raised by the participants during the interaction sessions. CMA P. Raju Iyer, Council Member and CMA Suresh R. Gunjalli, Vice Chairman, SIRC also participated in the programme. SIRC organised a PD Meeting on the topic 'Cost Audit in the Context of GST' at its premises on 18th May, 2018. CMA S. Subhashin, practicing Cost Accountant & Independent Director, Chennai was the guest speaker of the meeting. An interactive session on 'Cost Accounting Standards' was organised by SIRC on 24th May, 2018 at its premises and CMA P. Raju Iyer, Chairman, Cost Accounting Standards Board and Council Member addressed on the recent amendments of 'Cost Accounting Standards' to the CMA Members. SIRC celebrated the Institute's Foundation

Day on 27th May, 2018 at its premises. The Region observed 'International Yoga Day' on 21st June, 2018 at its premises. SIRC organized various study circle meetings for the month of June 2018. SIRC organised a Members' Meet on 23rd June, 2018 at its premises and CMA H. Padmanabhan, Vice President, CMA Niranjan Mishra, Council Member, CMA Dr. A. Mayil Murugan, Chairman , SIRC and CMA K. Suryanarayanan, RCM SIRC addressed the queries raised by the members on Cost Audit and other related issues.

The Institute of Cost Accountants of India -Visakhapatnam Chapter

The Chapter organized a professional development programme on July 5, 2018 at its premises on 'Block Chain Technology for professionals'. CMA T.C.A. Srinivasa Prasad was the speaker of the programme and secretary of the chapter CMA S. Ramprasad addressed on the Professional Development Meet.

The Institute of Cost Accountants of India- Coimbatore Chapter

CMA. TCA Srinivasa Prasad presented a very informative lecture on the topic “Cloud Computing for Professionals and Industry” to the members on 20th June, 2018 at the chapter. The chapter arranged a joint PD Program with Assocham on 29th June, 2018 on the topic ‘Corporate Bond Market - Second Generation Reforms for Bond Market’. Shri S. Murugadass conducted a demo cum lecture session on Yoga at the chapter on 21st June, 2018. During June 2018, various career counselling programmes were conducted at different colleges in Coimbatore. As per HQ Circular, the certificate course on GST class commenced on 17th June, 2018 at the chapter. Inauguration of the 86th session of oral coaching was held at the chapter on 23rd June, 2018.

Western India Regional Council

The Institute of Cost Accountants of India- Bhilai Chapter

The Chapter celebrated International Yoga day on 21st June 2018. Mrs Ambika Nayak took the yoga session and taught different exercises to keep and maintain a healthy lifestyle. The chapter in association with SAIL – Bhilai Steel Plant organised one day seminar on “Over view of GST – Complications & Compliance” on 7th July 2018. During the inaugural speech, Shri M Ravi CEO, Bhilai Steel Plant appreciated the initiative of the chapter for organizing such seminar on most relevant topic. Eminent speakers, CMA VS Datey & CMA Dr Sanjay Bhargave from Pune enriched the participants on the topics of GST, Audit under GST and E-way Bill clearly and in an easy manner. CMA Neeraj Joshi from Pune gave key-note address on the subject.

The Institute of Cost Accountants of India- Ahmedabad Chapter

The Chapter organized a workshop on Microsoft Project Management that commenced from 2nd June 2018. The Chapter observed International Yoga Day on June 21, 2018 at its premises. A CEP on Income Tax Return filing was organized on 23rd June 2018 at its premises. CMA Ankit Talsania, faculty submitted the presentation and explained about applicability of different returns, how to file returns, due dates and amendments for AY 2019-20. CMA Manish Analkat, chairman of computer and soft skills committee proposed vote of thanks. The chapter organized a CEP on “How to balance Personal and Professional Life and New Avenues for CMA Women and Personality Development” on

30th June 2018 at its premises organized by CMA Ladies Wing of the chapter. The chapter inaugurated the second batch of GST on June 30, 2018 and CMA P D Modh, chairman of oral coaching committee was the chief guest of the programme.

The Institute of Cost Accountants of India- Pimpri Chinchwad Akurdi Chapter

The Chapter conducted full day seminar on "Learn Management through Mahabharata" on June 9, 2018 at CMA Bhawan. CMA Dhananjay Vatsyayan, Insolvency Professional, the speaker briefly focused on four contents of Mahabharata Dharma, Artha, Kama & Moksha. The Chapter celebrated 4th International Yoga Day on June 21, 2018 by conducting session on the topic 'How to lead a Healthy Lifestyle through Yoga' at CMA Bhawan. CMA Mahendra Bhombe, chairman of the chapter felicitated Yoga Guru, Ms. Dhanashri Mulay, renowned yoga expert from Yog Vidyapeeth, Nasik. She had conducted session on practical meditation.

MEMBERSHIPS
ADMISSION TO ASSOCIATESHIP W.E.F. 20TH JULY 2018

SRNO	MEMBERSHIP NO	NAME	SRNO	MEMBERSHIP NO	NAME
1	44720	Sanjiv Parmeshwar Sah	40	44759	Himanshu Ranjan
2	44721	Sourabh Gupta	41	44760	Amit Maheshwari
3	44722	Ravindranath Vemula	42	44761	Sanket Gupta
4	44723	Raman Guruvayurappan	43	44762	Mayank Bagri
5	44724	Varalakshmi Chittipirala	44	44763	Sanchita Ramchandra Harmalkar
6	44725	Vinoth Kumar A	45	44764	Abhishek Sharad Autade
7	44726	Devaki Balakrishna Raavi	46	44765	Raunak Gupta
8	44727	B Sowmya	47	44766	Jagadish Potnuri
9	44728	Linekker M R	48	44767	Madhuri Kashyap
10	44729	Arun Bhati	49	44768	Devendra Kumar Mishra
11	44730	Asheesh Kapoor	50	44769	Pratap Singh
12	44731	Amutha Ramakrishnan	51	44770	Umang Harlalka
13	44732	Pavan A Kumar	52	44771	Kiran Gautam
14	44733	Santosh Margol	53	44772	Varun Kumar Bachhawandia
15	44734	Jayasri S	54	44773	Surendranadh Goru
16	44735	Sachin Arora	55	44774	Avinash Kumar
17	44736	Ankur Arvindbhai Shah	56	44775	Jagabandhu Meher
18	44737	Pradeep Chandra Pandey	57	44776	Mikanshu Gola
19	44738	Jayesh Muralidhar Date	58	44777	Ritika Girotra
20	44739	Harleen Kandhari	59	44778	Dileep Peedikaparambil Soman
21	44740	Kasi Reddy Raghunatha Reddy	60	44779	Mounika Padyala
22	44741	Rashmi Singh	61	44780	Soniya Balasubramanian
23	44742	Ronali Mohapatra	62	44781	Akshay Jain
24	44743	Arun Nagaraj Ragunathan	63	44782	Smita Patnaik
25	44744	Rohini Sadashiv Nikhare	64	44783	Shail Kumari Gupta
26	44745	Himanshu Khattar	65	44784	Naveen Pamulapati
27	44746	Deepika Sharma	66	44785	Sunil
28	44747	Blessy Varghese	67	44786	Govathoti Sowmya
29	44748	Deepak Namdeo Naik	68	44787	Bharat Diwan
30	44749	Subash Chandra Chhotaray	69	44788	Sanjay Kathuria
31	44750	Tung Nath Pandey	70	44789	Charulata Mahajan
32	44751	Vipin Singh Aswal	71	44790	Debasis Dasgupta
33	44752	Kamal Kant	72	44791	Jeetender Kumar
34	44753	Kancharla N V Rama Pavankumar	73	44792	Mada Bhabani Sankar
35	44754	Suriya Amalraj	74	44793	Md Akbar Ansari
36	44755	Vijaya Sankar Babu Sengarapu	75	44794	Naveen Kumar Mandadi
37	44756	Priyesh Kumar	76	44795	Subha Krishnan
38	44757	Sunit Kumar Sharma	77	44796	Balam Singh Rawat
39	44758	Archana Bangalore Shankaralingaswamy	78	44797	Amit Kumar Sinha

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SRNO	MEMBERSHIP NO	NAME	SRNO	MEMBERSHIP NO	NAME
79	44798	Tarun Kumar Behera	119	44838	Gangadhar N R
80	44799	Kotha Vamshi Krishna	120	44839	Obula Reddy Madireddy
81	44800	P Asit Kumar Subudhi	121	44840	Lokesh Kumar Irugu
82	44801	Jayarami Reddy Merugu	122	44841	Harshit Lal
83	44802	Kalavala Akhil	123	44842	Sushma Murali
84	44803	Ajit Kumar Sahu	124	44843	Mayur Dilip Dhavale
85	44804	Ajaya Kumar Thakur	125	44844	Vikas Khanna
86	44805	Shobana N Srinivasan	126	44845	Teja Naga Lakshmi Kumari K
87	44806	Chidurala Vishnu	127	44846	Burla Ravindra Babu
88	44807	Hari Durga Janjanam	128	44847	Naveen Dahiya
89	44808	Geeta Kumari	129	44848	Animesh Sen
90	44809	Vikram Arora	130	44849	Pradyumna Pal
91	44810	Vaibhav Jayant Bhite	131	44850	Avimanyu Majhi
92	44811	Anil Kumar D	132	44851	Karru Gopi Krishna
93	44812	Jitendra Kumar	133	44852	Gyanaranjan Sahoo
94	44813	M Kalyan Chakrabarty	134	44853	Abani Kanta Behera
95	44814	Rakesh Somani	135	44854	Rohit Kumar
96	44815	Suresh Kumar Mangal Sain Johar	136	44855	Arun Rout
97	44816	Parth Rakesh Kumar Thakar	137	44856	Monika Sunil Agarwal
98	44817	Kumari Vandana	138	44857	Mathurnath R
99	44818	Sonali Vijay More	139	44858	Sampathkumar S
100	44819	N Subramanya	140	44859	Sunita
101	44820	Mithu Basak Kundu	141	44860	Rohit Yadav
102	44821	Hrithik Sony	142	44861	Nitin Kumar Sharma
103	44822	Pratistha Jaiswal	143	44862	Sunil Khandelwal
104	44823	Ankit Kumar	144	44863	Venkataraman Bharathi
105	44824	Saurav Saraf	145	44864	Sagar Jain
106	44825	Deepak Kanu	146	44865	Bhawani Chawla
107	44826	Rashmita Mukherjee	147	44866	Sumalatha Musku
108	44827	Harneet Kaur	148	44867	Sourav Chakraborty
109	44828	Ujjal Gupta	149	44868	Devi Vara Prasad Korada
110	44829	Md Talib Quaraishi	150	44869	Anurag Vishwakarma
111	44830	Sitara Khatun	151	44870	Ansuman Mishra
112	44831	Anubhav Yadav	152	44871	Sreelatha Kodithi
113	44832	Reeta Kumari	153	44872	Vipul Natvarlal Vadecha
114	44833	Virendrakumar Ramshiroman Dubey	154	44873	G Balasubramani Chary
115	44834	Manish Agarwal	155	44874	Kamal Kant Rout
116	44835	Medha Rohit Mane	156	44875	Niharika Das
117	44836	Girish N Kamal Paruchuri	157	44876	Konda Reddy Chitta
118	44837	Arihant Kothari	158	44877	Neetu Bala

MEMBERSHIPS
ADMISSION TO ASSOCIATESHIP W.E.F. 20TH JULY 2018

SRNO	MEMBERSHIP NO	NAME	SRNO	MEMBERSHIP NO	NAME
159	44878	Poonam Jha	199	44918	Harihara Jagadeesh Babu Dallavalasa
160	44879	Anirban Dutta	200	44919	Satish Chandra Seemakurthy
161	44880	Biltu Chandra	201	44920	Vasumathi Sampath
162	44881	Mastan Rao Jidugu	202	44921	Harini Kidambi Sekar
163	44882	G Reddi Kumar	203	44922	Glen George Jacob
164	44883	Surabhi Rawat	204	44923	Ashish Kumar
165	44884	Om Parkash Singh	205	44924	Shilpa K
166	44885	Avinash Kanakray Kothari	206	44925	Sravanthi Illingi
167	44886	Ankur Chugh	207	44926	Vempalaku Bala Ankalu
168	44887	Amarnath Mithinti	208	44927	Gopal Karmakar
169	44888	Surya Prasad Y	209	44928	Khushboo Aggarwal
170	44889	Mahesh Shrivastava	210	44929	Rajesh Maddi
171	44890	Vipin Kumar	211	44930	Poonam Agrawalla
172	44891	Rahul Gupta	212	44931	Subba Raman Madhira
173	44892	Muhammed Shabad U	213	44932	Surya Ganesh Siram
174	44893	Vaibhav Arvindbhai Patoliya	214	44933	Bhavini Praveen Kumar Bhatia
175	44894	Manish Israni	215	44934	Sibin Tom Zachariah
176	44895	Pinky	216	44935	Thakkar Architkumar Chandrakantbhai
177	44896	Kavish Gupta	217	44936	G Anand Babu
178	44897	Priya Banga	218	44937	Krishna Laxman Ghame
179	44898	Ravi Kant Gautam	219	44938	Remya G S
180	44899	Dishant Sureshbhai Patel	220	44939	Mohit Hareshbhai Barvaliya
181	44900	Sagar Bhaskar Chavan	221	44940	Divya Jitin Changulani
182	44901	Sumit Baghel	222	44941	Amit Arora
183	44902	Manisha Rani	223	44942	Keshav Shantaram Shetgaonkar
184	44903	Namrata Vinod Rane	224	44943	Devendra Prasad Sinha
185	44904	Vivek Reddy Bheempati	225	44944	Hemshikha Jethani
186	44905	Yamini Vemula	226	44945	Vinodh Kumar Gondrala
187	44906	R Niranjan Babu	227	44946	Debottam Ghosh
188	44907	Shilpa Mittal	228	44947	Bhaskar Gupta
189	44908	Ram Kumar	229	44948	Lakshman Prasad Kushwaha
190	44909	Dimpi Vinodbhai Maheriya	230	44949	Parasuraman Subramanian Ramanathapuram
191	44910	Sunil Kumar	231	44950	Md Arif
192	44911	Tapas Mitra	232	44951	Mandar Madhvendra Mathkar
193	44912	Vivekanand Sharma	233	44952	Naga Rajarshi Kakumanu
194	44913	Bhoomi Rameshbhai Patel	234	44953	Sarva Harikanth
195	44914	Sonam Sharma	235	44954	Natasha Sandip Pikle
196	44915	Nixon Johny E	236	44955	Prabhaker Keshari
197	44916	Raghavendra Bhat	237	44956	Megha Parth Patel
198	44917	Sarat Nair U	238	44957	Ramalakshmi S

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ADMISSION TO ASSOCIATESHIP W.E.F. 20TH JULY 2018

SRNO	MEMBERSHIP NO	NAME
239	44958	Niyaz Asif Kunglay
240	44959	Madhav Acharya
241	44960	Nirmala Prabha Kuppuswamy
242	44961	Subir Ghanty
243	44962	Lavakumar Baratam
244	44963	A Sithalatchumi
245	44964	Pranav Dharmendra Kumar Shah
246	44965	Naresh Gunda
247	44966	Abdul Ghouse Shaik Mohamad
248	44967	Rumana Ali Asgar Nasir
249	44968	Jatin Bhola
250	44969	Naga Babu Yalam
251	44970	Mahammad Rafi Shaik
252	44971	Dhiraj Gupta

ADVANCEMENT TO FELLOWSHIP W.E.F. 20th JULY 2018

SRNO	MEMBERSHIP NO	NAME
1	5709	Kalidas Kanrar
2	5901	Shekhar Kumar Agrawal
3	8012	Mathanagopal V
4	8487	Pradip Kumar Datta
5	11574	Satya Narayan Das
6	12578	B. Singara Vadivelu
7	13163	V Manoharan
8	15256	Sandeep Gupta
9	16463	U Rajagopal
10	16508	Brij Mohan
11	17180	P E R Mangala Suvigaran
12	18007	P A Padmanabhan
13	21360	Rajiv Ranjan Thakur
14	22206	Haritheertham Natarajan Iyer
15	23621	Paras Nath Singh
16	23742	Amit Somprakash Aeron
17	24766	Santosh Narsingrao Madas
18	24852	Raibatak Chakraborty
19	25930	Balaji Viswanathan
20	26031	Anil Singh Patwal
21	26898	Rupesh Agrawal
22	27533	Anand Krish Ramani
23	27848	Kumar Shivalingam
24	27867	Ayush Dimri
25	28333	Karthikeyan Rajendran
26	29025	Yadavalli Srinivasarao
27	29046	Karn Singh Kumawat
28	29212	Thazhagunam Venkatesan Subramani
29	30285	Dileep K M
30	30395	Sivareddy Krishna Reddy
31	30846	Naveen Kumar Gupta
32	31318	Ajaya Kumar Shrivastava
33	31712	Aditi Gupta
34	31843	Abhay Kumar Pathak
35	31985	Sajjan Kumar Singh
36	32007	Ranu Kar
37	32253	Beesam Laxman
38	32256	Santosh Thodupunoori
39	32514	Manish Kumar Sinha
40	32822	Shwetank Mishra
41	32908	Samar Dhar
42	32981	Madhusudhanan E P
43	33265	Ashish Jain
44	33420	Gaurav Saini
45	33464	Munisekhar Darapaneni
46	33525	Rahul Kumar
47	33629	SSKVD Prasada Rao
48	33832	Sunder Prakash Burkoti
49	33844	Nikhil Mehta
50	33934	Gaurav Dutta
51	33949	Jitendra Kumar Pradhan
52	34220	Jayakrishnan Sreekantan Nair Lalitha
53	34381	B. Sangaiah
54	34415	Shashidhar S K
55	34446	Kolukuluri V. K. Suresh
56	34476	Venkateswerlu kistaiah Ganji
57	34545	E Anand

DOUBLING FARMERS' INCOME - STRATEGIES AND PROSPECTS

Assisting in Fixation of Minimum Support Price (MSP):

MSPs are considered as an important pillar of Indian Agricultural price policy rolled out with an intention of providing price security to farmers. Theoretically, the support prices are to benefit farmers of most of the crops in the entire nation. The CMAs can analyze and recommend most apt MSP, considering relevant factors such as domestic demand, global prices, export competitiveness and ecological sustainability of crops; consequently assisting the Government towards decision-making for fixation of MSP. The MSPs served as the floor prices and are fixed by the Government in the nature of a long-term guarantee for investment decisions of producers, with the assurance that prices of their commodities would not be allowed to fall below the level fixed by the Government, even in the case of a bumper crop. Hence, it would be a significant contribution for helping in achieving Hon'ble Prime Minister of India, Shri Narendra Modi's visionary idea of doubling farmers' income by the year-2022.

Agricultural Awareness Programme:

The Institute aspires to carry out *Agricultural Awareness Programme* in support of Government's flagship idea of doubling farmers' income and improve Gross Value Added (GVA) percentage in Agriculture. The basic objective behind these the awareness programmes will be to aware the Indian farmers about various agricultural marketing reforms, modern marketing methods and impart knowledge about the existing banking and insurance schemes for strengthening the hands of the farmers. These would consequently help them in decision-making regarding purchasing High-Yielding Variety (HYV) seeds, good quality fertilizers and pesticides; invest in innovative agro-techniques and machineries for growing quality product at reasonable expenditutre. The CMA professionals are competent enough to assist farmers to get the best prices for their produce through the market linkages, by providing constant information about prices, helping with warehousing, assisting in buyer agreements too.

Capacity Building programme for Women farmers:

The Institute can also conduct *Capacity Building programme* for Women farmers**,** women members of Self help groups with an objective to provide information to enhance the capabilities of the women producers to ensure food security, boost up household incomes and improve their collective bargaining power. Local women can also be trained to help farmers with best practices for improving productivity. The Institute has gained its own expertise over the year to train SHG people with Community Audit concept for financial inclusion and transparency and developed unique model of Community Auditor Training Module in association with West Bengal State Rural Livelihoods Mission (WBSRLM). This training module can be extended all over India too.

Public-Private Partnership (PPP) in agriculture:

Indian agriculture has come a long way from its earlier image of being traditional, subsistence and non-commercial. With increasing demand for high-quality value-added products, agriculture has been adopting commercially and economically viable agribusiness solutions. In the recent past, business and investment opportunities in this sector have suddenly jumped manifold. But the response from the private sector has been lukewarm. There is a pressing need to develop a structured approach for increasing the number of bankable agri-business and agri-infrastructure projects. Hence, CMAs can suggest suitable strategies to initiate the public-private interest, benchmark governance methodologies, technology, check allocation and apportionment of funds, carry out Risk Mapping and Resource

Mapping techniques to encourage Public-Private Partnership in agriculture. Appropriate proportion of public, private and foreign investment should remedy the situation of investment shortage in agriculture and help to stimulate India's agricultural producers to access global markets.

✷ Agricultural Value Chain Development:

In agriculture, value chains have always been in existence in the sense that farms carried out production and the final consumer accessed the produce, with the produce itself traversing through several channels. The existence of several middlemen, absence of information about other links in the chain and inability to invest in improving the performance in almost every part of the chain led to inefficiencies and lower incomes especially in the lower end of the chain. In this regard, the CMAs can apply Value Chain Management technique for accessing value at each level, resulting in optimal process integration, decreased inventories, quality produce and enhanced customer satisfaction.

✷ Assessment of Creditworthiness:

Credit is a catalyst that lubricates the process to accelerate the farm and non-farm sector development including rural industrialization, business and service segments of the economy. Credit helps farmers invest in creating assets to generate output and income through deploying science, technology and modern methods of business management. Investments in farm can generate farm income sustainably when credit is simultaneously adequately supported. CMAs can conduct a financial analysis of the farmer's situation, focusing on household cash flow, market situation, and assessment of the farmer's managerial or entrepreneurial ability and reputation. This evaluation would provide lenders with more information about potential clients, making it easier for them to determine farmers' creditworthiness.

✷ Credit Risk Management:

Prompt identification of risks and appropriate management strategies to control risks are paramount to the success of every bank. It remains essential for the future prosperity of agricultural banking that banks implement prudent and consistent risk management strategies at all times, not only in stressed market conditions. The CMAs can help out for effective pre-enquiry by the bank for sanctioning the loan to a customer, ensure credibility of the borrower and find out the original purposes of the loan required by the borrower by feasibility study of the project to check the credit risk involved. Combining traditional wisdom with modern statistical tools like Value-at-risk analysis and Markov Chain Analysis, CMAs can assess the creditworthiness of the borrowers. CMAs with their specialized professional skill and expert knowledge and analytical capabilities can also provide an in-depth service in Risk based audit in Banks to facilitate Credit Risk Management.

✷ Micro Credit:

Microcredit can play an important role in agricultural development. Microcredit is particularly relevant to increasing productivity of rural economy, especially agricultural productivity in such an environment where economic growth is occurring, microcredit also has the capacity to transmit the benefits of growth more rapidly and more equitably through the informal sector. It is well documented that for many small scale farmers, lack of access to financial services is a critical constraint for the establishment or expansion of viable agricultural enterprises. Microcredit may enable small and marginalized farmers to purchase the inputs they need to increase their productivity as well as financing a range of activities adding value to agricultural output. The CMAs in this regard can facilitate the banks to formulate their own model(s) or choose any conduit/ intermediary for extending micro credit and formulate the criteria for selection of micro credit organizations. They can lend a hand to the banks to deal with micro credit organizations having proper credentials, track record, system of maintaining accounts and records with regular audits in place and manpower for closer supervision and follow-up.

MCA NOTIFICATION

[TO BE PUBLISHED IN THE GAZETTE OF INDIA, EXTRAORDINARY, PART II, SECTION 3, SUB-SECTION (i)]

MINISTRY OF CORPORATE AFFAIRS
NOTIFICATION

New Delhi, the 31 July , 2018

G.S.R. **(E).**—In exercise of the powers conferred by section 134 read with section 469 of the Companies Act, 2013 (18 of 2013), the Central Government hereby makes the following rules further to amend the Companies (Accounts) Rules, 2014, namely:-

1. (1) These rules may be called the Companies (Accounts) Amendment Rules, 2018.
(2) They shall come into force on the date of their publication in the Official Gazette.

2. In the Companies (Accounts) Rules, 2014, in rule 8,

(i) In sub-rule (5), after clause (viii) the following clauses shall be inserted, namely:-

"(ix) a disclosure, as to whether maintenance of cost records as specified by the Central Government under sub-section (1) of section 148 of the Companies Act, 2013, is required by the Company and accordingly such accounts and records are made and maintained,

(x) a statement that the company has complied with provisions relating to the constitution of Internal Complaints Committee under the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 [14 of 2013] ,";

(ii) after sub-rule (5), the following rule shall be inserted, namely:-

"(6) This rule shall not apply to One Person Company or Small Company". ;

(iii) after rule 8, the following rule shall be inserted, namely:-

"8A. **Matters to be included in Board's Report for One Person Company and Small Company.-** (1) The Board's Report of One Person Company and Small Company shall be prepared based on the stand alone financial statement of the company, which shall be in abridged form and contain the following:-

(a) the web address, if any, where annual return referred to in sub-section (3) of section 92 has been placed;

(b) number of meetings of the Board;

(c) Directors' Responsibility Statement as referred to in sub-section (5) of section 134;

(d) details in respect of frauds reported by auditors under sub-section (12) of section 143 other than those which are reportable to the Central Government;

(e) explanations or comments by the Board on every qualification, reservation or adverse remark or disclaimer made by the auditor in his report;

(f) the state of the company's affairs;

(g) the financial summary or highlights;

(h) material changes from the date of closure of the financial year in the nature of business and their effect on the financial position of the company;

(i) the details of directors who were appointed or have resigned during the year;

(j) the details or significant and material orders passed by the regulators or courts or tribunals impacting the going concern status and company's operations in future.

(2) The Report of the Board shall contain the particulars of contracts or arrangements with related parties referred to in sub-section (1) of section 188 in the Form **AOC-2**.".

[F. No. 1/19/2013-CL-V-Part]

31/7/18

K.V.R. Murty,
Joint Secretary

Note: The principal notification was published in the Gazette of India *vide* G.S.R. 239(E), dated the 31st March, 2014 and subsequently amended *vide* notification number G.S.R. 723(E) dated the 14th October, 2014, G.S.R 37 (E) dated the 16th January, 2015, G.S.R. 680(E) dated the 04th September, 2015, G.S.R. 742(E) dated the 27th July, 2016 and G.S.R. 1371(E) dated the 07th November, 2017.

RNI NO. 12032/1966

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