

CHALLENGES OF WORK LIFE BALANCE DURING LOCKDOWN

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Abstract

There has been increasing focus on how to adjust work and life responsibilities. The balance between personal life and work life is necessary to achieve desired goals in time. However, the lockdown of COVID-19 pandemic changed every aspect of our life including the functioning of organizations. Teachers started work from home and adapted to the tools and technologies to teach the students. Working from home has distorted the borders between work and personal life and has affected the work-life balance badly. There are studies on the work-life balance of teachers. The study was conducted among the teachers of the Senior Colleges of Nashik. This study is an attempt to know the challenges faced by the teachers in maintaining a balance between their personal and professional life during the lockdown. The study was undertaken with help of primary and secondary data.

Key Words: Work-Life Balance, Work-Life Balance of teachers, Lockdown, Covid-19 pandemic

Introduction

The impact of the COVID-19 pandemic on economic activity, employment, and our way of working is negatively affected. A teacher has different dimensions; teacher is a mentor, guide, philosopher, and friend. Teacher plays an important role in a student's life, but also works for the betterment of society. For students their teacher is a role model is a teacher. The concept of work-life balance consists of three words: work, life, and balance, and includes the correct priorities of work and life. In today's fast-changing life, people find it really difficult to strike a balance. The Coronavirus Disease 2019 (COVID19) pandemic has caused serious and unprecedented disruption to all aspects of our lives. The nationwide lockdown has hampered a lot. The faculty was badly influenced by stay-at-home order of Government. This affected research, education, and service obligations, thereby changing the balance between work and personal life. Work-life balance is an issue mainly concerned with an individual, an employer, the market, and society.

Statement of the problem

Work-life balance creates and maintains supportive and healthy work environments, which in turn helps employees to have balance between work and personal responsibilities and thus strengthen employee loyalty, productivity and performance. In today's fast-changing world, the ability to achieve work life balance is becoming more and more difficult. The impact of the COVID-19 pandemic on employment and our way of working is affected. So, teachers need to maintain their work life balance.

Literature Review

1. Galanti (2021) pandemic has made remote working an innovative mode. COVID-19 health emergency has forced many firms suddenly switched to work from home for the first time without any preparation and providing any necessary skills to employees

2. Venkataramanan and Abirami (2013) stated that understanding stress in management teaching professionals is not only form the basis of stress analysis but may also be beneficial in rationalizing stress behavior and formulating coping strategies and thus working conditions may be improved.

3.Ashok and Ebria (2015) recommended that more time is to be spent with the family members. Try to know what they needed. This is a major concern in work-life balance. Not spending quality time with family due to work pressure creates disputes in the family.

4.S. Vijayan and A. M. Jones, (2016) states that Work life balance of teachers has developed as one of the supreme challenges in today's world. Teachers need to devote extra hours each day to be effective and creative in their profession so that they could reach higher levels and face the challenging atmosphere

5.Thilagavathi M.,(2019) sates that the majority of female teachers have a moderate level of work life balance, with variables such as age, family type, monthly income, monthly family income per month, designation, teaching hours per day, and preferred mode of transportation all having a highly significant relationship with the level of work-life balance experienced by female teachers.

6.Lizana et al.(2021)examined the relationship between work hours, work–family balance, &quality of life among teachers. The teachers who reported that the pandemic had a negative impact on their work–family balance, as well as those who worked more hours than they had previously, were more prone to risk of having mental health problems after the outbreak.

Objectives:

1. To study the Work life balance of teachers during Covid 19 pandemic lockdown.
2. To study the challenges for Work life balance and ways of maintaining Work life balance during the lockdown.

Research Methodology:

The study uses both sources of data collection i.e. primary as well as secondary data. Primary data has been collected from teachers of Arts, Commerce, and Science Senior Colleges of Nashik. A well-structured questionnaire was framed and collected through online mode. Total 80 responses were received. Various Websites, Journals, Articles, Books and other available material were used to collect the Secondary Data.

Discussion:

Challenges for Work Life Balance during lockdown

1.Inadequate workspace: The inadequacy of suitable physical space to work from home is one of the facets that negatively affect the work-life balance of teachers. In situations where the boundaries between work and private life become distorted due to the lack of physical space, the participants tried to create a working environment where they could teach or they forced everyone in the house to comply with their own working order which gave rise to the greater imbalance between work and personal life.

2.Irregular workhours& time management: The lack of resting time, not being able to allocate time for themselves and family members, and being available all time were the problems teachers faced during emergency remote teaching because of the irregularity of working hours. The participants, who reported that the resting time was not enough during the process, emphasized that they had to spend their time developing the teaching and learning materials, making the home suitable for teaching or meeting their own personal requirements. Therefore, they never found an opportunity to rest and felt exhausted. Within the scope of the work-life balance, it is emphasized that individuals should allocate time not only for their work life but also for their themselves and families.

3.Increase and diversify workload: Workloads had increased due to the excessive work demands of online teaching methods, which greatly consumed their personal time. They could not cope with this situation. Working from home during the pandemic process led to the emergence of

perceptions among the participants such as “being constantly accessible” due to the working hours that had become uncertain and flexible for teachers.

4. Feelings of inefficiency and inadequacy: Without adequate infrastructure made it much more difficult for teachers to teach by using different methods and tools. Teaching as usual under the exceptional condition of lockdown was very stressful. The roles and responsibilities of individuals outside of work also play an important role in their family life. The work-life balance supports the fulfillment of the responsibilities of the employees in their private life as well as in their professional life and the allocation of enough time for themselves, their family, and their work, which foster their feeling of life satisfaction.

5. Family conflicts: The views of the participants concerned with family conflicts are discussed under the following two categories: (i) sharing the same space and (ii) conflicts of roles and responsibilities. Teachers who had to work from home during the pandemic period were constantly together with their families or people with whom they shared the same space. Staying at home together for extended periods of time causes the work and private life spaces to interfere with each other and increases the conflicts between family members.

6. Stress: The stress to be competitive with changing work patterns. Also, stress regarding losing the job. Remaining sustained in the lockdown has become stressful. The life of a teacher has become more stressful. The changing work environment has put pressure, negatively affecting their personal and professional lives.

Findings:

1. 58% of teachers are of opinion that they are able to spend quality time with their family members.
2. 56% of teachers are of opinion that they are able to do my personal work during office hours.
3. 88 % of teachers are of opinion that they do not get job satisfaction in online teaching.
4. 90 % of teachers are of opinion that they are Missing social interaction.
5. 86 % of teachers are of opinion that More time is required to prepare for the online class.
6. 90 % of teachers are of opinion that they are having Irregular and long working hours.
7. 74% of teachers found it difficult to end the day’s work and unplug after work
8. 86 % of teachers could not find a suitable working environment at home.
9. 92 % of teachers initially found the use of ICT tools difficult for teaching.
10. 70 % of teachers found Information and communication technology tools really helpful in teaching.
11. 62 % of teachers felt that Covid-19 negatively impacted their mental health.
12. 64 % of teachers felt that teaching in lockdown has increased work stress.
13. 46 % of teachers enjoyed working from home during the lockdown and wished to continue the same in the future.

Suggestions for **maintaining the Work-life Balance of Teachers during lockdown:**

1. The teachers have to plan, prioritize and schedule their work and life obligations in order to improve their work-life balance.
2. They may involve in such activity that will help them relieve the stresses that are part of the job like a walk in the evening, Yoga, meditation, alternative therapies or attending concerts, find different hobbies to maintain a work life balance.
3. Researching different web tools, new teaching methods, techniques and programs to meet the requirements of the course, they had discovered new learning styles apart from classical methods. They reported that these new methods contributed to their professional development also.

4. Institutions need to create counselling services in their respective organizations through counsellors who can help teachers in balancing their mental and physical rhythm.
5. Free health checkups, health insurance & exercise facilities are the Initiatives that are the critical influencing factors for teaching staff members used as good retention tools by the Institutions.
6. Encourage flexible working hours and blended teaching.
7. Mindfulness is one of the effective ways to improve individual attention towards their performance and to effectively deal with the challenges faced during work from home in lockdown.

Conclusion

Concern for work-life balance and the impacts of imbalance on personal and professional lives have continuously gained attention among professionals. Some of them are of the opinion that work-life balance can never be achieved as one has to forgo something to achieve another, to others say that working from home has the potential to solve work-life balance issues to large extent. The work force is a country's most valuable resource. Students and teachers are the backbones of any country. The mental health of both students and teachers is critical to any institution's success and indeed country's. The current study aimed to identify teachers' experiences on work-life balance during the lockdown. Teachers encountered various challenges such as inadequacy of workspace, irregularity of working hours, lack of support and role conflicts, which hindered them from maintaining an efficient balance between their work and personal lives. Consequently, they failed to achieve the desired outcomes in their work and personal lives. To manage these changes in their lives such as distance education and working from home, they found different strategies. It can be concluded that there is a need for due care and understanding on part of the organizations. Problems experienced in the work-life balance affect not only individuals but also their families, organizations and their immediate environment. Therefore, the existence of work-life balance is essential both for individuals and organizations. In this context, raising awareness of the society about the work-life balance in general, developing strategies to cope with potential work-life conflicts and commitments for a better work-life balance during the lockdown are important considerations. Thus Work-life balance plays an important role in increasing the efficiency of employees and thus in turn prospers the growth of the organization.

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AN OVERVIEW OF INDUSTRY 4.0

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Abstract:

Today digitisation and automation is a need of all industries. To increase production in large scale every industry need to adopt advance manufacturing technology. Germany government recently introduced Industry 4.0. The main aim is to transform manufacturing industries through adopting new technology and digitisation. Customisation of production and individualisation is possible through Industry 4.0 as it is flexible. Industry 4.0 is 4th industrial revolution. . Industry 4.0 considers the mixing of human in the manufacturing process so as to have nonstop development and concentrate on value adding activities and avoiding wastes. Industry 4.0 is futurist but a practical idea which consists of Internet of Things, Industrial Internet, Smart Manufacturing and Cloud based Manufacturing.

Keywords: Digitisation, manufacturing, technology, Internet of Things, Industry 4.0, Industrial Revolution

Introduction:

Industry 4.0 is a fourth revolution of industry. This term is introduced first time in 2011 under an initiative to develop the German competitiveness in the manufacturing industry. Cyber-physical systems are a base of Industry 4.0 (*e.g.*, ‘*smart machines*’). They use modern control systems, have embedded software systems and dispose of an Internet address to connect and be addressed via the Internet of Things (IoT). Industry 4.0 has been defined as “A name for the current trend of automation and data exchange in manufacturing technologies, including cyber-physical systems, the Internet of things, cloud computing and cognitive computing and creating the smart factory”^[1]

Industry 4.0 is frequently used with the notion of the fourth industrial revolution. It is categorized by,

- extra automation than in the third industrial revolution,
- the linking of the physical and digital world through cyber-physical systems, facilitated by Industrial IoT,
- a move from a central industrial control system to one where smart products describe the production steps,
- closed-loop data models and control systems
- personalization/customization of products.

Objectives of the paper:

1. To take an overview of Industry 4.0.
2. Understand the nine pillars of Industry 4.0
3. To focus on the challenges faced at implementation of the Industry 4.0

First industrial revolution

In Britain starting in the late 18th century (1760-1840), the first industrial revolution helped enable large production by using water and steam power in its place of purely human and animal power. Finished goods were produced with machines rather than thoroughly produced by hand.

Second industrial revolution

A century later, between 1870 and 1914 the second industrial revolution introduced the use of gas, oil and electric power and assembly lines. More advanced communications via telegraph and telephone plus new power sources, brought large production and some amount of automation to manufacturing processes.

Third industrial revolution

In the middle of the 20th century the third industrial revolution was begun, which added advanced telecommunications, computers and data analysis to industrial manufacturing processes. It is referred to as the Digital Revolution, and came about the change from mechanical systems to digital ones. We may say the digitization of factories.

The Nine Pillars of Industry 4.0

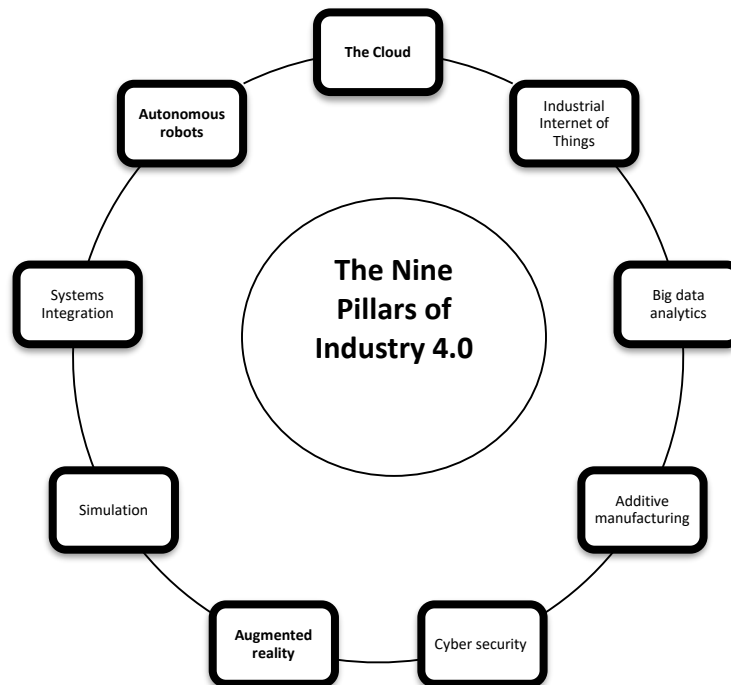


Figure 1 The Nine Pillars of Industry 4.0

The following nine progressions are common concepts used in industries particularly in manufacturing. Incorporate them where they are used independently at present and applying the missing concepts empower the industries to be clever and that is what Industry 4.0 is all about.

1. **Autonomous robots.**

Long used to tackle complex tasks, robots provide an ever wider range of services and are becoming more autonomous, flexible, and cooperative. They will interact with one another and work safely with humans (the term “cobotics” is used to describe robots helping operators perform their tasks). Eventually, they will be able to learn from humans. Easier, faster and smarter way Autonomous robots transfer raw materials, half-finished and completed goods. They work on a complex logic algorithm.

2. **The Cloud**

The Cloud is can be accessed from everywhere using the internet. There are so many cloud services available of which famous are IaaS, PaaS, SaaS.

Amazon.com Inc. is an example of cloud. A consumer gets real time update about the whereabouts of his order. Information of arrival of your packet in warehouse is updated in cloud that will be notified to you. You are able to locate your packet every time with real time system.

3. **Industrial Internet of Things**

Collection of data from machines, related to production, speed, quality, measurement as per OEE benchmarks. All it is possible where machines are connected centrally. It is made possible the reading and manipulation of the data for saving time, energy, manpower and increasing profit.

4. **Big data analytics**

To take real time decisions is possible with the help of Big data analysis. To enable manufacturers to get a handle on every aspect of their production need to Collect and leverage the data from within an organization and even from the industry as a whole. With the help of information pulled from the data, they will be able to produce optimum levels and within speculated time, with good quality of production, better manage supply chains and inventory, and save money in the process, with less waste.

5. **Additive manufacturing**

It is also called as 3D printing, technology like 3D printing enables manufacturers to produce in low-cost prototyping, or high level / small run customized production, that will keep customers engaged.

6. **Cyber security**

In industry 4.0 connectivity and communication protocols are becoming the common. Protecting information systems and manufacturing lines from cybercrime threats is becoming a critical issue

Industry 4.0 has kept pace with its own growth, and security is an important component of any integrated monitoring system that manufacturers use

7. **Augmented reality**

Augmented-reality tools are still immature, but they are concrete for new services. For example, with the real-time information they will provide operators that they need for faster decision-making and for improving work processes.

Augmented reality allows for augmented images to be placed in front of the real-world. Companies have introduced this technology to their businesses and developed apps. Most popular example is IKEA, allow customers using data based on size and colour to imagine the picture as how furniture will look like in an existing room in their home.

8. **Simulation**

Maximum companies all over the world are starting to utilise virtual realities within their own businesses. It drives innovation and it helps for taking best decisions, forecasting and visualisation. Simulations are used to show mirror the physical world in virtual model by pulling real-time information.

9. **Systems Integration**

System Integration allows all comport systems to be linked and form actual communication with each other. It also passes data to each other. Here software can work as a coordinator.

Challenges for implementation of Industry 4.0:

There are following challenges for implementation of Industry 4.0:

- 1. Poor Technical Skills:** It is very difficult to get skilled persons in the areas like data science, software development and machine-level controls. It is also difficult with the people not willing or finding too difficult to have accessibility of technology and to use new applications and new digital tools.
- 2. Security:** The digitisation and interconnection of systems is the major important feature of Industry 4.0. This faces cyber security challenge in terms of data protection and intellectual property. For that everyone need to implement strong security systems to protect against hacking and accidental data breaches.
- 3. Interoperability:** Another important problem is the lack of division between protocols, components, products, and systems.
- 4. Data Sensitivity:** The increase in technology has also led to increasing worry over data and IP privacy, ownership, and management.
- 5. Handling Data Growth:** As maximum companies become dependent on AI usage. Companies will be faced with additional data that is being produced at a faster speed and presented in multiple formats. To handle these huge data, AI algorithms need to be easier to understand.

Conclusion:

Industry 4.0 is going to radically increase the ability of every industry to produce products, ship them all over the world, and to give better experience to the customers. Just like other industrial revolutions, **Industry 4.0 is going to permit for high levels of customization, automation, productivity and efficiency that have not at all seen before.**

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EDUCATING FOR INDUSTRY 4.0: CURRENT TRENDS FOR EDUCATIONAL DIGITIZATION

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ABSTRACT

With the developments in technology and innovation, the manufacturing, workforce, training, and educational systems were affected. Facing the fourth industrial revolution, academics are researching the possible changes that might arise in education and skills of the future workforce. As the workplace develops, new competencies will surface. With this context in mind, the authors initiated this research. A detailed questionnaire was prepared as a pilot study to comprehend students' views on the use of technology in classrooms and its impact on their learning experience and engagement. Knowledge of their views allowed the authors to draw inferences as to the skills and competencies of future students and whether they would match Industry 4.0. Furthermore, a gap analysis was conducted, whereby the existing situation at a Indian higher educational institution was compared to the desired situation, and recommendations were put forward.

Keywords: *Digitization, Industry 4.0 , Education, Skills Needed* **INTRODUCTION**

Industrial revolutions were affected by the developments in technology and innovation. The 1st revolution was caused by mechanization, the 2nd was caused by the usage of electrical energy, and the 3rd industrial revolution was caused by electronics and automation (Benešová and Tupa, 2017, p.2195-2196). With these industrial revolutions not only were manufacturing systems affected, but also the workforce, training & educational systems.

Currently, industry is transforming to a fully digitized manufacturing system, and we are facing the 4th industrial revolution, Industry 4.0. With this new industrial revolution, the workforce and the training & educational systems will be impacted. This led academics to research the possible changes that might arise in the education and skills of the future workforce. Future workforce who are today's students will encounter a more globalized, automated, virtualized and networked world (Motyl et al., 2017, p.1502). As the workplace changes rapidly, new competencies will surface, rendering them essential skills for student competitiveness and employability in the near future. With this context in mind, the authors decided to initiate this study, whereby those new competencies and skills will be researched, and recommendations given as to the required changes in the higher educational system.

INDUSTRY 4.0

Developments in both technology and innovation are the main factors affecting industrial revolutions, and these revolutions have brought about significant changes in our way of working and living. Throughout history there have been three industrial revolutions and we are currently undergoing a transformation towards the fourth industrial revolution.

Industry 1.0 exchanged the human power with the power of steam. When James Watt introduced the steam engine in the 18th century, with the mechanization, production and the transportation systems transformed. Consequently, there was an important increase in productivity.

Industry 2.0 was caused by the electrical energy and the mass production about a hundred years later. When Henry Ford introduced the assembly line, with the mass production and the usage of electrical energy, there was a significant decrease in costs and a further increase in productivity.

Industry 3.0 was in the 1960s and came with the introduction and usage of computers, which introduced the world to a faster and more capable form of processing capability. This marked the beginning of the information technology era for industry.

Industry 4.0 refers to the next developmental stage in the manufacturing industry, and was first introduced by the initiative made by academics, industrials and the German Government. Its aim is ‘to strengthen the competitiveness of manufacturing industry in the country by computerization’ (Baena et al., 2017, p.74). With this high-tech strategy, which converges the industrial production and information and communication technology (ICT), industry is going through a transformation to full digitization and intelligent production. In this concept, the Internet of Things (IoT), the ‘Industrial Internet’, ‘Cloud-based Manufacturing’ and ‘Smart Manufacturing’ are stated as the drivers of Industry 4.0 (Erol et al., 2016, p.13). Hermann et al. (2016) defined Industry 4.0 as: “Industry 4.0 is a collective term for technologies and concepts of value chain organization.” He further explains that; within the smart factories of Industry 4.0, cyber physical systems (CPS) will monitor the processes, and make decisions while communicating and cooperating with other cyber physical systems and humans in real time. In addition, with the Internet of Services (IoS), both internal and cross organizational services will be utilized by participants of the value chain (Rossit et al., 2018, p.1).

Similarly, Gilchrist stated that “businesses will build global networks to connect their machinery, factories, and warehousing facilities as cyber-physical systems, which will connect and control each other intelligently by sharing information that triggers actions” (Gilchrist, 2016, p.195). These cyber-physical systems will then generate the enhancements in the manufacturing processes as a whole, through engineering, material usage, supply chains and product life-cycle management which is called the horizontal chain. According to Gilchrist; “the vision held is; embedded horizontal systems are integrated with the vertical business processes, (sales, logistics, and finance, among others) and associated IT systems” (Gilchrist, 2016, p.196). As such, Industry 4.0 will not only change the manufacturing processes, but also the entire value chain, including the suppliers, the manufacturers, and the associated workforce.

Now, there is worldwide effort and progress to improve the efficiency and productivity in manufacturing processes by integrating the latest developments in information and communication technology (ICT). Initiatives to link the ICT in the industrial manufacturing systems are being carried out in some of the most advanced economies (Baena et al., 2017, p.75). Despite all of Industry 4.0’s promise, a highly skilled workforce has been the key factor to countries’ and companies’ success for decades, whereby significant challenges are being faced in hiring and retaining the necessary skilled workforce. Organizations understand that the changes that are associated with Industry 4.0 also alter the competency requirements of the highly skilled workforce. Many government institutions have started to evaluate the impact of adopting the aforementioned technologies on their countries. The result is a concern for the many challenges and changes in the future training needs and education of the workforce.

SKILLS NEEDED IN INDUSTRY 4.0

When talking about the 4th industrial revolution, it is said that factories are becoming more intelligent and flexible, and different sub-systems will be linked to each other (Wermann et al., 2015, p.1). Machines will be connected to the factory IT systems, which will in turn be linked to other parts of the value chain

such as plants, fleets, networks and human beings, and will continually share information about the level of stocks, troubles, difficulties or faults encountered, and/or modifications in the orders. This means there will be full traceability which will bring about the possibility of improving the overall product and service quality (Deloitte, p.8).

Based on the changes in the manufacturing processes, various jobs will disappear and many new jobs will emerge. Industry will face the extinction of physically demanding positions as these jobs will be replaced by machines (Benešová and Tupa, 2017, p.2200-2201). Erol et al. stated that future employees will focus on creative, innovative and communicative activities rather than routine activities, as routine activities including monitoring duties, will all be performed by machines (Erol et al., 2016, p.14). Consequently, the key factor in the success of these intelligent factories will be the skills and the qualifications of their workforce.

Hecklau et al. categorized the competencies in Industry 4.0 into four main groups; (i) technical competencies (state-of-the-art knowledge, technical skills, process understanding, media skills, coding skills, understanding IT security), (ii) methodological competencies (creativity, entrepreneurial thinking, problem solving, conflict solution, decision making, analytical skills, research skills, efficiency orientation), (iii) social competencies (intercultural skills, language skills, communication skills, networking skills, teamwork skills, negotiation skills, ability to transfer knowledge, leadership skills) and (iv) personal competencies (flexibility, ambiguity tolerance, motivation to learn, ability to work under pressure, sustainable mindset, compliance) (Hecklau et al., 2016, p.4).

Motyl et al. categorized the skills of engineers into two categories; (i) hard skills (including numerical and higher mathematical knowledge; problem solution skills, creativity and design skills; researching and experimenting skills, information processing, computer programming, and know-how of using specific software, awareness of industry standards, and comfortable with using computers) and (ii) soft skills (strong analytical thinking, communication, teamwork and leadership skills) (Motyl et al., 2017). According to Erpenbeck and Rosenstiel, Erol et al. categorized the workforce competencies for the future production systems like; (i) personal competencies (solution-oriented attitude; creativity, out-of-the-box thinking), (ii) social/interpersonal competencies (teamwork skills; negotiation skills, role taking and making skills), (iii) action-related competencies (problem analysis and solving; data analysis and interpretation; method, tool selection and use) and (iv) domain-related competencies (application of lean thinking and methods in manufacturing; application of conceptual modeling methods, e.g. data flow, material flow and process modeling; application of Information and Communication Technology for material tracking and worker tracking) (Erol et al., 2016, p.14-17).

In the World Economic Forum (WEF) “The Future of Jobs” report, ten key skills which will be in demand by future companies were listed. The qualifications were not classified but most of them are soft skills, the skills listed are: complex problem-solving, critical thinking, creativity, people management, coordinating with others, emotional intelligence, judgement and decision-making, service orientation, negotiation and cognitive flexibility (WEF, 2017).

Moreover, as technological developments are evolving at a very high-speed, it is certain that digital literacy will be the key skill that everyone should consider as an asset in the era of Industry 4.0. As a matter of fact, in addition to all these skills and qualifications listed, many researchers have stated that digital literacy will be an essential and primary skill for the future workforce (Motyl et al., 2017, p.1502-1503).

Digital literacy consists of all the skills that are related to the digital world. After a review of existing literature, Do & Huynh (2017) described digital literacy as “capabilities ranging from technical skills (such as those used in coding), to digital citizenship, to the ability to identify fake news”. Cain & Waller

(2018) also suggested that future workforce must have ‘digital dexterity’ which is defined as ‘the ability and desire to use existing and emerging technologies for better business outcomes’. While the digital literacy and digital dexterity demanded from the workforce will certainly differ across the sectors and the professions, as people have been the heart of all digital business transformations, only the most digitally dexterous will thrive.

Rapid digitization has made digital literacy essential for today’s and tomorrow’s workforce. This means that both current workers whose jobs will be automated and may become obsolete, and also today’s students who will be the future workforce will be affected. Many new jobs will be generated and many will adjust to include a greater degree of interaction with digital technologies. It is anticipated that a basic level of digital literacy will be necessary for the majority of the workforce, and demand for advanced level of digital literacy will rise (Huynh & Do, 2017, p.9).

In a time of precipitous change due to heightened technological developments, Huynh and Do further explain that, digital literacy can be recognized as an economic necessity (Huynh & Do, 2017, p.9). Developments in technology are leading industries to redesign their operations, their markets, their products, and their way of doing business, and even for low-level jobs, a basic level of digital literacy will be expected.

There is an increasing reliance on digital technologies across a wide range of industries, which will result in a broad range of career paths for the qualified workforce equipped with technical and digital skills.

According to all the researches and studies, it is definite that Industry 4.0 is more than the technology it is bringing. As workforce is a critical element in digital transformation, the skills and qualifications of the human capital will become increasingly eminent. Today’s students, which will be the future workforce and the human capital for companies, will be working in a more globalized, automated, virtualized and networked world (Motyl et al., 2017, p.1502), and their digital literacy and dexterity will be the main mechanism that will empower organizations to utilize these critical digital developments.

As stated above, because the key factor will be the skills and the qualifications of the workforce, organizations will compete to hire the best and strive to find the right people with well-suited skills. The demand for these skills and qualifications will undeniably be higher when compared to the present. This will result in the need for changing and adapting the existing curricula and the tools used in the existing educational system to create a new format (Benešová & Tupa, 2017, p.2196) or blueprint, which will equip students with the essential employability skills required to remain competitive in industry 4.0.

FUTURE OF EDUCATION

Education is regarded as an essential prerequisite and a foundation to reforms in any country (Nafea & Kilicarslan Toplu, 2018, p.156). Education evolves in response to changes in both society and industry, providing the valuable human capital that organizations need to thrive in the future. As such, upgrading and modernising educational systems through revisiting the essential employability skills is imperative. Interestingly enough, this upgrade is long overdue and has been called for since the late 90s when researchers realized that school systems, public and private, are lagging behind the transformation in learning that is evolving outside them (Ives & Jarvenpaa, 1996, p.33).

Analyses and predictions about the future of work mostly put forward the impact of automation and new types of jobs, and not just routine jobs, both blue-collar and white-collar jobs will be affected and redesigned by an automated workplace. Apparently, today’s students should be prepared for the careers that do not exist yet. This means that with new challenges arising in a changing environment, there will be proliferating demand for new skills and qualifications (Enke et al., 2018, p.272). As Erol et al. Stated in the last decade, lean management was the most prominent subject that was taught, however, for the future

prospective digitalized and intelligent production systems' focus should be on the demanded skills and qualifications (Erol et al., 2016, p.13). In order to meet the qualifications and skills of Industry 4.0, educational systems need to evolve, and consider several promising trends like Elbestawi et al. listed: “opportunities to learn at diverse times and places; personalized learning based on student’s capabilities; use of new learning devices, tools and resources; remote engineering labs; implementation of project-based and problem-based learning approaches; use of experiential and collaborative learning; student involvement in curriculum design; and increased mentoring approaches” (Elbestawi et al., 2018, p.252).

With the new improvements and developments in technology and the expected changes in the workplace, there is also a shift toward more practical and skills-based education. Many higher education institutions try to prepare their students for the change through emphasizing the ability to use theoretical knowledge in practice by bringing real-world experience into the higher education experience and by providing access to the tools, environments and work methods that students will use when they graduate and start working (Morgan & Thayer, 2018). Yet the question remains, is this theoretical knowledge sufficient to induce the required change and instil the needed skills?

When Industry 4.0 is taken into consideration, future engineers need to enhance their professional, social, methodical and personal competencies. According to Simons et al. “they need an interdisciplinary understanding of systems, production processes, automation technology, information technology, ergonomic principles and business processes” (Simons et al., 2017, p.83). While future engineers will have a broad view and comprehensive knowledge about complex production systems, they also need to develop the skills needed for cooperation and communication in interdisciplinary groups. Although there are different approaches like seminars, business games and case studies where students meet the managers to solve existing problems, learning factories have been advised by many researchers (Enkeet et al., 2018, p.267-268; Chryssolouris, 2016, p.46-47; Mavrikios et al., 2013, p.475-478; Schallock et al., 2018; p.28).

Learning factories can be accepted as forms of real factories which are used for education and training purposes. When the possibilities of practical application of manufacturing principles are evaluated, learning factories have been a vital facility for educating students and professionals. As Baena et al. (Baena et al., 2017, p.74) quoted, learning factories are highly complex learning environments, which allow the advancement of competences (Tisch et.al, 2015), that are linked to training, education and research in favour of Industry 4.0 (Abele et al., 2015).

The aim of learning factories has been stated as modernizing the learning process and bringing it closer to industrial practices. They are an important way to practice technical knowledge and have been used for educational purposes, training and research. They allow learning of the fundamentals of industry 4.0 such as cyber-physical systems, smart factories, robotics, artificial intelligence, and internet of things(IoT) (Elbestawi et al., 2018, p.250). As technological developments speed up, learning factories are being used at a more rapid rate by higher educational institutions that are constantly struggling to find new ways of connecting theoretical knowledge to practical implications by using real cases and onsite technology (Mourtzis et al., 2018, p.130).

As an example; the learning factory at the W. Booth School of Engineering Practice and Technology at Mc Master University in India provides students, industry employees, and researchers; an experiential learning laboratory that allows and empowers its users to understand, learn and apply modern manufacturing approaches such as Industry 4.0, IoT, and additive manufacturing (Elbestawi et al., 2018, p.254).

Education and training the workforce for industry 4.0 is something that has to be addressed across all levels of education. As technology is rapidly shifting the way industries and companies interact and

function, higher education institutions should also alter the way they train and teach students in preparation for the future. Instead of focusing on theory, educational practices should emphasize application and experiential learning. The competences required to succeed in industry 4.0 should become part of vocational education. Also, it can be expected that degree apprenticeships and co-op programs with internships will become more and more attractive in the future. Higher education institutions at large are urged to respond much more quickly to the pressing need of preparing tomorrow's workforce (WEF-2017, p.8-9).

Having said that, according to recent studies, although there are many skills that have been put forward by many researchers, the most vital and primary skill seems to be digital skills. Future work force must be highly proficient in digital literacy skills in order to understand, manage and work in the system. The future workplace will require extensive and continual encountering with technology. With this in mind, technology should be embedded throughout the educational experience. Besides the basic digital literacy skills, educational institutions should aim to go the extra mile and coach students on how to apply and innovate using technology so they can play an active role in shaping the tools of the future (WEF-2017, p.8-9).

Preparing the future workforce for the digital world with advanced knowledge and requisite skills must be the future plan for all educational institutions across the world. India's continued economic growth will also require a digitally literate workforce for both technical and non-technical jobs. That's why the Information and Communications Technology Council (ICTC) defined five key technologies which will steer change in the Indian economy: (i) virtual and augmented reality, (ii) fifth-generation mobile technology, (iii) 3D printing,

(iv) blockchain, and (v) AI. Citing from ICTC 2017, Walker et al. (2018) stated that many of these mentioned, recent technologies are well on their way to transforming industries like transportation, financial services, manufacturing, retail, robotics and e-commerce etc. (Walker et al., 2018, p.5154).

Technological advancements are leading industries to change their operations, their markets, their products, and their ways of doing business. In order to adapt Indian graduates to work effectively across these industries, equipping them with a range of digital skills is critical.

RELATIONSHIP OF TECHNOLOGY TO WORKPLACE READINESS

Literature suggests that there is a strong relationship between technology and workplace readiness. Several countries have realized this connection and have been preparing their students accordingly for the past decade now. In a research based in the INDIA by Piliouras et al., the authors wrote about their experiences that they learned by using and teaching technology at the Academy of Information Technology (AITE) High School. AITE is a public high school that offers its students a technology-rich learning environment. The researchers refer to a large-scale survey of employers conducted by the US Department of Labour in 1989 to find the most important workplace skills and competencies. They identified three skill types and five attributes as essential competencies. One of those cornerstones was "infrastructure: access and enable, which states that all students and educators must have access to a comprehensive infrastructure for learning when and where they need it" (Piliouras et al., 2014).

The article (Piliouras et al., 2014), goes on to provide empirical evidence on the use of technology as a learning tool in a high school in Stamford, Connecticut that serves around 650 students. The school provides a dynamic preparative environment that incorporates 21st century learning expectations based on the National Education Technology Plan (NETP) of the India. The research documents teacher's and students' experiences with the use of technology throughout high school and concludes with a series of 'key lessons' including that technology is essential because it helps students access information in a faster

and quicker way, making them more efficient and effective. It can also aid students in choosing future careers and envisioning possibilities in technology-related disciplines. It can “significantly improve communications between teachers and students.” Finally, they concluded that “when directed towards a common goal, technology experiences can help students develop soft skills – such as helping others, teamwork, collaboration, and group research. Peers can teach each other difficult subject matters using strategic learning [and] schools can encourage learning after-hours by supporting technology clubs and activities that develop technology and work readiness skills”.

The research also stresses the importance of having a learning management system (LMS) from an early age and its role in facilitating the on-going assessment of learning outcomes. More importantly, LMS provides a virtual learning environment that makes it easier to reach a larger and more diverse audience, thereby creating a respectful online culture, which allows students to express themselves freely and without judgement. This has several advantages when compared with the traditional, physical setting, where students are more conscious of their surroundings and each other’s behaviors, which may present a distraction to their learning process. Although the paper supports the use of technology in education and provides evidence that this model is followed by other high schools in the US as steps are being taken to achieve the National Education Technology Plan, it fails to outline how technology is used by students with certain disabilities and if measures are being taken for their accommodation.

The university being researched was established in 1973 and houses over 15,600 students and more than 1,900 faculty. University top management believe in an institution-wide implementation of digitization to enhance on campus learning. The researchers used two separate surveys addressing the same issues to collect data from both students and teachers. Similar to our research, the results were descriptive in nature and were not compared statistically. The teacher research was conducted over 6 different faculties / colleges using a Likert scale similar to ours. Results showed that the use of learning management systems and related discussion forums was the predominant form (80%) of technology used on campus. Other tools, including, collaborative reference management software (61%), video-conferencing tools(52%) and institutional cloud storage (62%) were moderately used. On the other hand, student perception showed a different truth... Use of computers off campus and Stud.IP on a daily basis accounted for 84% of students. Yet, other tools, such as instant messaging and lecture recording were found to be used rather irregularly. According to the authors this shows that; tools like virtual seminars, online exams and professional networks are not used frequently. They also state that; with the data collected, it is not possible to say why these tools are not being used. It may be because of not wanting or not being able to use the tools (Bond et al., 2018). Findings show that the use of technology is centered around the use of ‘logistics in university study’ rather than content creation or collaboration activities. Students were found to be ill-prepared for working in collaborative environments.

This aligns with findings from another study by Margaryan et al. (2011), which focused around the use of educational technology by university teachers in the india. The results reveal three main issues: “alack of digital skills, systematic problems, and a reluctance to change”. Accordingly, recommendations in both researches seem to be similar. Ongoing professional development sessions must be made available to faculty to learn and experiment with the applications and benefits of new technology. Forums should be held where faculty members can discuss their experiences with new tools, learning lessons and tricks. This will encourage knowledge transfer between faculty members and create a network of shared experiences and best practices. This can also be done through the creation of forums where constant, on-going, unfacilitated discussions can take place. Finally, educational institutions need to provide incentives for the use of technology tools in classrooms to create a more advanced and digitized learning experience for students. Finally, top management support is imperative for these initiatives to succeed. Digitization

needs to be part of the strategic outlook of colleges and universities. It needs to be transformed into the core competency of higher educational institutions.

RESEARCH ANALYSIS AND FINDINGS

With the a fore mentioned literature in mind, it was obvious that the external stakeholders of educational institutions including industry partners and suppliers are demanding a more digital and competent workforce. As such, it was imperative that the authors understand and gauge the viewpoints of the internal stakeholders of the educational process – namely students. Accordingly, a detailed questionnaire was prepared as a pilot study to comprehend students’ views on the use of technology in classrooms and its impact on their learning experience and engagement. Knowledge of their views can allow the authors to draw inferences as to the skills and competencies of future students and whether they would match industry 4.0. Furthermore, a gap analysis between the employability skills and the current situation can be conducted, whereby the existing situation at Indian educational institutions can be compared to the desired situation and recommendations can be put forward.

Parts of the questionnaire used were extracted from the ‘Technology Implementation Questionnaire’. This questionnaire is part of a project conducted by the Centre for the Study of Learning and Performance(CSLP) at Concordia University in Montreal, Quebec in collaboration with the Eastern Townships School Board and the Sir Wilfred Laurier School Board. Studying classroom processes in cooperation with the teachers, the students and the administrators, is one of the goals of the CSLP.

The questionnaire compiled by the researchers was distributed to 112 students in a higher educational institution in Toronto, all pursuing a 4-year bachelor program in the area of International Business or Commerce. The sampling method used was a convenient sample since the population sampled was accessible by the authors given their profession as university / college professors in Toronto, India. Nevertheless, there was minimal interference by the researchers in the data collection phase. A detailed information letter, and consent form were prepared for student review and approval. Participants were made aware that participation was on an anonymous and voluntary basis. The questionnaires were linked with an alpha-numeric code to a master list safe kept with one of the primary researchers. All data was transformed into digital format and hard copies have been destroyed for security and anonymity reasons. The questionnaire was divided into two parts. The first part was designed to collect some primary information about the respondents including their age and gender, followed by four questions designed to gauge the respondent’s familiarity with the use of different types of computer and information technology hardware and software as well as some terms associated with technology. Since this is a pilot study that might be redefined in the future based on the results of the current questionnaire, the authors have decided to use ‘Readiness for Industry 4.0’ as the only dependent variable to be studied with the use of technology tools in the classroom as the moderating variable and three main independent variables as *The age of the respondents ranged between 20 – 40, with 67% (75 students) of the participants within the age of 20 – 30 years and 33% (37 students) between 30 – 40. The gender distribution of the convenient sample was 72% women (80 students) and 28% males (32 students), which may be an indicator that females are more proactive and seize the opportunity to get their voices heard. More inferences will be made between gender and age and the moderating and dependent variables mentioned above as the questions are analyzed in detail. The first question asked students to indicate which of the given devices (desktop or laptop; smart phone; tablet; e-book reader; MP3 player; video game console; other) they owned. It was important to understand the level of technology students and millennials deal with on a daily basis and are exposed to. This will give us an indication as to their comfort level with technology. 90% of participants (100 students) indicated they owned a desktop / laptop, 100% of students own a smart phone, 36% (40 students) own tablets, only 9% (10 students) indicated that they owned*

readers and finally 24% (27 students) indicated their ownership of a video console game of some sort. It is worth noting that all 27 students were males! No female participants indicated ownership of a video console. Following this knowledge, participants were asked which activities they perform regularly by checking all that apply. Activities were listed as: Sending an e-mail; Using Office applications (Word, Excel, PowerPoint, ...); Reading and downloading documents from the web; Doing web/ internet research; Managing a website, wiki or blog; Using collaborative and sharing application like Google drive, Drop- box, Skype; Using social networks (Facebook, Twitter,...); Other (please specify one or more activities). According to a report issued by Contact North in November 2015, understanding the current and future dynamics of the higher education system is important, especially for those leading the system or developing the policies which guide it. The report discusses seven trends and patterns which will impact the future for colleges and universities by 2030. The report discusses changes in Indian higher education in the context of changing global education trends as student recruitment and retention patterns change and become more competitive. According to David Agnew, current President of Colleges, and Chair of Colleges, one of the factors impacting the shift in higher education is the enhanced implementation of technological developments. In his speech, he identified that in the past “the barrier to accelerated adoption of such technologies was the willingness of faculty members and instructors to utilize them”, while now there is a competitive necessity that students are exposed to such forms of technology for their survival as well as the institution’s. All 112 students indicated that they regularly perform all of the above activities except managing a WIKI, Blog or Website, where only 22%(25 students) indicated they engage in this activity.

Since we are focusing on industry 4.0, the researchers added a few more questions to discern the importance of technology for participants. As such, questions 3 and 4 addressed the level of importance participants attribute to interaction with their teachers, even during class, using personal digital devices. 90% of students felt it was very important, while the remaining 10% chose important. The final question pertaining to section 1 included a list of 15 “digital innovations”, where students had to identify, using a five-point Likert scale (Yes, often; Sometimes yes; Seldom; Very Rarely; Never), if they had ever heard about these terms before. The terms asked were: Virtual Reality; Augmented Reality; Mixed Reality; Rapid Prototyping; 3D Printing; FABLAB; Industry 4.0; Smart factories; Artificial Intelligence; Internet of Things; Industrial Internet; Cloud-based Manufacturing; Augmented Reality; Cyber-physical Systems(CPS); Big Data and Analytics.

These innovations are in line with President Agnew’s speech, where he stated that technology will continue to evolve in such a way to make learning more personal, affordable, effective and accessible. In the future, institutions will respond by more rapid adoption in line with student behaviour. It is important to note that all students stated that they had heard of 8 of the above terms ‘often’. This is imperative when one examines employability skills #6 and #7, to locate, select, organize and document information using appropriate technology and information systems; to analyze, evaluate, and apply relevant information from a variety of sources respectively. For students to be competitive in a dynamic world, their education needs to provide a solid foundation for them to discover, learn and grow.

The aim of the above question was to ensure students were current and had heard of some / majority of the above terms in school, whether it was through class lectures and discussion or perhaps assigned class readings. It is worth mentioning that the 2 terms that were marked as ‘very rarely’ or ‘never’ heard by everyone were FABLAB and Cyber-physical systems. Perhaps this was due to the technical nature of the terms and the fact that they were more related to the engineering / manufacturing disciplines as opposed to the business field. In a paper titled “Effective communication in higher education”, the author discusses some of the problems faced in communicating with the millennial generation. Howard states that since

the millennial generation is entering the workforce, this specific group will be looked upon as a possible reason communication in higher education is lacking at the moment (2014, p.3). Howard explains that students have grown accustomed to dealing with technology and a virtual world that they may lack the proper etiquette when communicating with others in an organizational setting. She postulates that this may lead to organizational culture issues in the future and may also be the reason why communication in higher education institutions is not where it should be today.

The latter reason is an interesting observation. From personal experience, educators feel that millennials have a false sense of 'entitlement'. Although their education style is different and more advanced compared to 20 years ago, technology has facilitated the education process and made information available 'on demand'. Accordingly, most students do not dedicate enough effort and commitment to their educational experience and simply 'cruise by'. This is why the researchers included questions 5-32 to investigate the use of technology in classrooms and draw some conclusions about its impact on the educational process and its readiness for education 4.0 through a gap analysis.

The questions were divided into three distinct sets, and a five-point Likert scale (strongly agree, slightly agree, neutral, slightly disagree, strongly disagree) is used. The first set pertains to student opinions regarding the effectiveness of computer technology as a tool in the classroom including its impact on factors such as academic achievement, collaboration, communication, instruction and value. These factors should be compared to the Essential Employability Skills (EES) dictated by the Ministry of Higher Education and Skills Development as skills that should be reliably demonstrated by the end of a student's program that are essential for success in the workplace, everyday living, and for lifelong-learning. The employability skills have been divided into six main skill categories; namely communication, numeracy, critical thinking and problem solving, information management, interpersonal and personal.

The final question set, comprised of nine questions, deals with student's learning and interpersonal skills, as part of the Essential Employability Skills. Questions are: The use of technology in the classroom...

1. Helps accommodate students' personal learning styles.
2. Motivates students to get more involved in learning activities.
3. Could reduce the number of teachers employed in the future.
4. Promotes the development of students' interpersonal skills (e.g., ability to relate or work with others).
5. Will increase the amount of stress and anxiety students experience.
6. Is effective only when extensive computer resources are available.
7. Is difficult because some students know more about computers than many teachers do.
8. Is only successful if computer technology is part of the students' home environment.
9. Improves student learning of critical concepts and ideas.

Questions 1 and 2 are important topics around which there has been a lot of buzz in the past decade. According to Dunn & Griggs (2000), "a learning style is the way students begin to concentrate on, process, internalize and remember new and difficult academic information". It is "a biologically and developmentally determined set of personal characteristics" grounded in cognitive style theory and brain lateralization theory". According to the VARK learning model, there are four main ways by which students learn – Visual, Aural, Read-Write and Kinesthetic. Technology falls into the kinesthetic domain, whereby students learn by doing. This includes real-life scenarios, case studies, group presentations (using office) and simulations. Technology is also part of the visual category, which includes maps,

charts, graphs, diagrams, brochures, flowcharts, highlighters, different colors, pictures, and different spatial arrangements. The use of a variety of learning styles in class and during assessments motivates students to get more involved in learning activities. *100% of participants indicated that they strongly /slightly agree with both statements.* Although this is theoretically valid, the real-life situation in saturated classrooms, with no support provided from teaching assistants, is different. Teachers often do not have time to integrate different activities in their classes, rendering them dull and monotonous. As such, there has been an increase in the amount of complaints to higher management about teacher's performance, as millennials seek a challenging and dynamic educational environment. In this regard, there is a gap between the actual and desired situation.

Question 3 can be considered one of the concluding questions of this research. As a result of the use of technology and new instructional models such as hybrid and online courses, participants are asked whether they think technology could reduce the number of teachers employed in the future. Interestingly enough, the answers to this question were varied. *35% (39 students) of participants indicated that they either strongly / slightly agreed, 25% (28 students) felt neutral, while 40% (45 students) strongly / slightly disagreed with the idea.* Accordingly, the responses were analyzed based on gender. Again, of the 45 students that disagreed with the statement, 40 were females, which accounts to 50% of the surveyed female population. This finding seems to support our previous conclusion about female believers in traditional education.

Questions 4, 6 and 9 showed that 100% of participants either strongly / slightly agreed to all statements. Students feel that technology promotes the development of student's interpersonal skills, which may be related to the characteristics of millennial discussed earlier and their strive for independence. Question 6 relates to Employability skill #6 'Locate, select, organize, and document information using appropriate technology and information systems' part of the information management skill set where students expect the abundant existence and accessibility to computers. This is required to apply their knowledge and practice newly acquired concepts. This is related to question 9, which states that technology improves student learning of critical concepts and ideas. This is similar to Employability skill #7 'Analyze, evaluate, and apply relevant information from a variety of sources.' In a dynamic, global environment students expect immediate access to technology. It is worth noting that there is a gap between the actual and desired situation. Although Colleges have an abundance of computer labs and advanced infrastructure, this competitive advantage is currently under depletion with the increase in class sizes and cuts to education funding, causing a strain on technological resources. This sometimes causes students to access their learning management systems, simulations and assignments through their smart phones, which although convenient, may not be conducive to the learning process.

Finally, when asked if technology will increase the amount of stress and anxiety students experience 90% (101 students) of participants indicated that they strongly / slightly agree, while only 10% (11 students) indicated that they strongly / slightly disagree. Question 7 is related to teacher training and their confidence and practice with the technology used in class (questions 1, 2 & 3 of set 2). *It is worth noting that the answers showed a similar distribution, with 100% of participants indicating that they either strongly / slightly agree with the statement.*

CONCLUSION

Industry 4.0 is more than the technology it is bringing. As workforce is a critical element in digital transformation, the skills and qualifications of the human capital will become increasingly eminent. There are many skills and qualifications that will be needed in the era of Industry 4.0, but as stated in the

literature review, digital literacy and digital dexterity will be essential and primary skills for the future workforce. Digital literacy is defined as “capabilities ranging from technical skills (such as those used in coding), to digital citizenship, to the ability to identify fake news”, digital dexterity is defined as ‘the ability and desire to use existing and emerging technologies for better business outcomes’.

Today’s students’ digital literacy and dexterity will be the main mechanism that will empower organizations to utilize upcoming critical digital developments. The demand for these skills and qualifications will undeniably be higher when compared to the present. This will result in the need for changing and adapting the existing curricula and the tools used in the existing educational system which will equip students with the essential employability skills required to remain competitive in industry 4.0.

In the research, a detailed questionnaire was prepared as a pilot study to comprehend students’ views on the use of technology in classrooms and its impact on their learning experience and engagement. Knowledge of their views allowed the authors to draw inferences as to the skills and competencies of future students and whether they would match industry 4.0. Parts of the questionnaire used were extracted from the ‘Technology Implementation Questionnaire’. Research results show that there is a gap between the existing situation in the College in which the research was conducted and the desired situation where employability skills are adhered to and technology savvy graduates are populating the workforce.

Although the research findings are all preliminary and need to be retested within a larger sample, including several colleges in multiple locations, it seems that the results do confirm the original hypothesis. ‘There seems to be a gap between the desired employability skills and the current situation within Colleges’. This may be due to a variety of factors including large class sizes, the inability to train teachers on the use of new technology given large administrative and course loads and teacher’s age. Age does not seem to be a variable impacting the adoption of technology by students. Yet, gender does have a bearing on the results of this research. Preliminary results show that females are more traditional learners and believe in the traditional brick and mortar learning institution, including the role of teachers in disseminating knowledge. Given the fact that not all employability skills are being achieved, it seems that students are not ready for industry 4.0. For students to be better prepared for the future workplace and the use of technology, the higher educational sector needs to be streamlined with a more rigorous approach towards teacher training, student accessibility to technology, reducing class sizes and dedicating a hefty budget to technological infrastructure and tools. If this is done, the employability skills will fall into place, leading to a technology savvy workforce. For the future, employers should be a definite part of the cycle. Since we have determined that students *think* they are ready for industry 4.0, but colleges are failing in their preparation, employers need to be added as a moderating factor / variable.

Since colleges are focused on providing applied knowledge to their students, it is important to engage employers who can shed additional light on required skills that they see necessary from work within their specific industries / fields. This may include knowledge of specific ERP systems, project management systems or simple tools. This will entail hiring teachers with this knowledge, updating and revamping the existing curricula to include these subject matters and other technology / non-technology skills, and making sure that the course learning outcomes are updated and well-written to match all of the above. Again, this is all linked to teacher’s readiness to do this extra work with the existing workload, increasing class sizes and decreased funding dedicated to education and colleges. This shows that this is a vicious cycle in which all the variables are interrelated. With the rise of globalization and graduates aspiring to be mobile, this model has been adopted in some countries with a smaller workforce like the Nordic block. Yet, in India this is not the case. This is where this research proves essential since it raises multiple questions that need to be answered and tries to bridge a gap in the theoretical data available about the education industry in India

FUTURE RESEARCH

The research findings stated above are all preliminary and need to be retested within a larger sample to ensure generalizability, perhaps as a joint initiative within colleges in multiple locations. It would be considered as a multi-site project, in which data from business schools in Colleges would be collected. As a further step, one could also look into the use of the questionnaire in other schools as well including early childhood education, engineering, aviation, etc. This would provide a wealth of data, which could be used to determine with accuracy the readiness of College students to industry 4.0 and whether or not they possess the necessary employability skills. As a further initiative, Colleges could contact their graduate Alumni who can answer questions regarding their experience with industry 4.0 and if they feel they had been prepared in colleges enough for the workplace. Not only would this require a different questionnaire, but also a large-scale research which involves multiple researchers and commitment from Colleges to answer the hypothesis at hand.

Finally, for this research to be truly effective, a comparison with other cultures might add an additional lens to the research. It would provide the researchers with a wealth of data to compare if the issues outlined above are universal or unique to the Indian higher education sector in specific. Moreover, it would answer questions like ‘does culture impact the propensity to use technology’, ‘does culture value the use of technology in the higher education system’. These are imperative questions which should be answered to comprehend the readiness of Generation Y worldwide to industry 4.0 in light of globalization.

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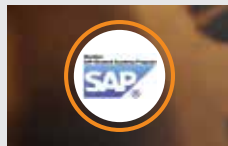
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From the Editor's Desk

“Good Corporate Governance is creating sustained competitive differentiation in the marketplace to maximize the shareholder value legally, ethically and on a sustainable basis while ensuring fairness, transparency and accountability to every stakeholder of a company.”

– NR Narayana Murthy

This Special Issue aims to shed light on the importance of corporate governance, which is a pathway for corporate social responsibility and innovation in achieving sustainable business development goals.

The magnificent challenges that humankind faces, such as climate change and global warming, deforestation, biodiversity loss, hunger, poverty, inequality, racism, women abuse, child labour, conflicts, and recent pandemics, deter the achievement of both corporate and national sustainable development goals.

Corporate sustainability governance has emerged as a management system that merges and balances the interests of all three pillars of sustainable development – economic, environmental and social within the operational boundaries of the organization. Thus, corporate sustainability is understood as the ability of companies to positively influence environmental, social and economic development through their governance practices and market presence. The concept of sustainability to achieve corporate performance in the long term, however,

sustainability is not integrated into individual business process especially by small and medium enterprises.

Many enterprises do not work with sustainability within corporate strategy and management, and neither do they include sustainability in performance measurement and management. Reporting of sustainable corporate activities is very simple, especially for SMEs. A prerequisite for fully functioning corporate governance with regard to sustainability is a reflection of sustainability through the whole process of business management. Sustainability should become an integral part of strategic management and corporate planning.

Implementing corporate environmental sustainability strategies is increasingly becoming standard practice with some companies going further and taking steps to reduce the environmental impact of their products, services, and supply chains. In conducive market conditions, as a company expands, it is likely to face new challenges that impact the governance of sustainability within its operations.

Effectively managing these challenges to limit liability and enhance accountability requires companies to accurately track and report on their activities. Sustainability reporting is a key mechanism that facilitates the communication of information between the company, its stakeholders, and its shareholders.

Effective monitoring of costs



on a continuous basis and a constant evaluation leads the pathway to Cost Governance which ultimately helps the Corporate Governance. So, Corporate Governance is the core avenue wherein CMA fraternity all over the world has been playing a predominant role.

Coming to the present, International Women's Day is being celebrated on 8th of this month globally. When women are empowered, they lift up their communities with them. The UN theme for this year's International Women's Day is “*DigitALL: Innovation and technology for gender equality*”. This theme is aligned with the priority theme for the upcoming 67th Session of the Commission on the Status of Women (CSW-67), “*Innovation and technological change, and education in the digital age for achieving gender equality and the empowerment of all women and girls*”. Digital technology is opening new doors for the global empowerment of women, and other marginalized groups. From gender-responsive digital learning to tech-facilitated health and wellness, the digital age offers an unprecedented opportunity to eliminate all forms of disparity and inequality.

Women play an imperative part to accomplish sustainable development. The empowerment of all women and girls is a driver of sustainable development in all its dimensions, from eradicating poverty and hunger to promoting prosperity and inclusive growth.

It is hoped that this Special Issue on Corporate Governance will contribute to the existing literature on corporate sustainability governance and innovation and sustainable development goals & enrich the readers.

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May 2023	Theme	Cost Management in Agriculture Sector	Subtopics	<ul style="list-style-type: none"> ⊙ Budget 2023: What Does Indian Agro Sector Need? ⊙ Agricultural Innovations for Resilient Agri-Food Systems ⊙ Climate Smart Agriculture ⊙ Food Security: Challenges and Opportunities ⊙ Agri Banking and Agri Entrepreneurship ⊙ Crop Diversification and Input Cost Management ⊙ Agricultural Marketing Infrastructure & Development ⊙ Leveraging power of policies to achieve Doubling farmers' income ⊙ Agricultural Engineering & Innovations for Smart Farming ⊙ Efficient and balanced use of fertilizer for Soil Management ⊙ Supply Chain Management in Agriculture Sector ⊙ Biofuels as Renewable Energy: Agricultural Waste Management ⊙ Infrastructure and Value Chain Development for Agri Exports
June 2023	Theme	Changing Landscape of Management Accounting	Subtopics	<ul style="list-style-type: none"> ⊙ Role of Management Accounting in enabling Sustainability in Businesses ⊙ Global Collaboration for Inclusive Growth ⊙ Tomorrow's Accountant: More Pertinent, Strategic, and Creative Than Ever ⊙ Emerging Tech imposing spearheading Management Accounting Practices ⊙ Fintech innovations redefining decisional aspects in Management Accounting ⊙ Impact of Digital Technology in Responsibility Accounting Systems and Performance Evaluation Mechanisms ⊙ Shifting Role of Professional Accountancy Bodies in the Era of Digital Disruption ⊙ Financial Automation: Scope for the CMAs
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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 anywhere else. Please send your articles by e-mail to editor@icmai.in latest by the 1st week of the previous month.



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-- Charles Darwin

My Dear Professional Colleagues,

On behalf of the Council of the Institute and on my personal behalf, I convey heartiest wishes to all members, students, stakeholders and their families on the auspicious occasion of Holi, the festival of colours. May God shower all his blessings upon you and fill your life with happiness, good health and prosperity.

Post- Budget Webinar 2023-24

As you are aware, the Government of India is organizing a series of 12 post-budget webinars during 23rd February to 11th March 2023. Idea of post budget webinars was conceptualised by Hon'ble Prime Minister Shri Narendra Modi ji to bring together all stakeholders for bringing synergy in implementation of Budget announcements. These webinars are being organised by various Ministries/ Departments to build on the “Saptarishi” Priorities outlined in the Union Budget 2023-24.

As a part of the above mentioned series of 12 post-budget webinars, the Department of Financial Services, Ministry of Finance is organizing a Webinar on 7th March, 2023 on the topic “Enhancing Efficiency of the Financial Services for creating growth opportunities”. I am glad to inform you that I will be participating in this webinar as one of the panelists to present the views of the Institute on the Financial Sector.

I now present a brief summary of the activities of various Departments/Committees/ Boards of the Institute, in addition to those detailed above:

BANKING, FINANCIAL SERVICES AND INSURANCE BOARD

The Banking, Financial Services & Insurance Board (BFSIB) of the Institute and the BFSI Department continued to operate under the active leadership of the Chairman, BFSI Board. A brief synopsis of the activities and initiatives taken is as follows -

a) Representations for inclusion and expanding scope of CMAs

The BFSIB continued with its efforts for further development of the profession in the BFSI sector with representations to authorities and employers for inclusion of CMAs in the sector. The concerted and diligent efforts have resulted in numerous opportunities for CMAs. I am pleased to inform the following further developments: -

- ⦿ CMAs are eligible to apply for the empanelment of Stock and Receivables Auditor/Technical and Financial Consultants for the period from 2023-26.
- ⦿ CMAs are eligible to apply for various vacancies as specialist Officers in Indian Bank for Credit and Forex Departments.

b) Certificate Courses on Banking

The admission window for the three Certificate Courses are currently going on as stated below: -

- ⦿ Certificate Course on Concurrent Audit of Banks (8th Batch)
- ⦿ Certificate Course on Credit Management of Banks (8th Batch)
- ⦿ Certificate Course on Treasury and International Banking (7th Batch)

I call upon all members and students to take the opportunity for capacity building and knowledge enhancement by enrolling in such courses for which the link of admission is <https://eicmai.in/advsc/Home.aspx>

c) Webinars

The BFSI Board organized a webinar on “Valuation program for Banks: Demystifying Valuation for Bankers” on 9th February, 2023 and another Webinar on “Anti Money Laundering” on 25th February, 2023 wherein CMA Sangeeta Basu Halabi, Senior Director, UHY James Chartered Accountants and CMA Siva Rao, Assistant General Manager, ICICI Bank were the speakers.

d) Hybrid Seminar on “Efficacy of IBC - A Case Study

The BFSI Board of the Institute in association with IPA of ICAI organized a Seminar on 27th February 2023 at the Headquarters of the Institute on the topic of “Efficacy of IBC - A Case Study”. CMA Chitralee Goswami, Chief General Manager, Finance & Accounts, ONGC and Dr. J. D. Sharma, Chairman, IPA of ICAI were the speakers.

e) MOU with NSE Academy

The Council of the Institute approved the MOU with NSE Academy and very soon the Institute is organizing the MOU signing ceremony. The modalities of the course have been framed and very soon the BFSI Board and NSE Academy would be starting the course on Investment Management.

f) Comments on Discussion Paper on “Introduction of Expected Credit Loss Approach for Provisioning by Banks” submitted with the RBI

The Reserve Bank of India (RBI) released a Discussion Paper on “Introduction of Expected Credit Loss Framework for Provisioning by Banks” dated 16th January 2023 inviting views/opinion on it. The BFSI Board has drafted the views/opinion on behalf of the Institute and same has been submitted by the Institute with the RBI on 28th February, 2023.

CAREER COUNSELLING

I am pleased to inform that the Institute participated in the Career Counselling Programme organised by DAV Public School, Gole Market, Delhi on 4th and 5th February, 2023 at Indira Gandhi Stadium, New Delhi. The event was graced by authorities of the various educational Institutions and the Institute received an overwhelming response at its stall from the students who shown keen interest in CMA course and career prospects ahead.

CONTINUING EDUCATION PROGRAMME COMMITTEE

During the month, around one hundred twenty webinars and programmes were organised by the different committees of the Institute, Regional Councils and Chapters of the Institute on the topics of professional relevance and importance like Avenues for CMAs in the Era of Changing Business Landscape, Incubating and Nurturing Cooperative Ecosystem - Progressing Towards Self-Sustainable Economic Development, Panel Discussion on Corporate Restructuring - Opportunities for CMA, Anti Money Laundering, Risk Management - Challenges & Opportunities, the way forward for CMA Professionals, Corporate Social Responsibility, Efficacy of IBC -A Case Study, Cyber Security Challenging & Mitigating Solutions, Inspection, Search, Seizure & Arrest under GST, Valuation program for Banks: Demystifying Valuation for Bankers

and so on.

I am sure our members are immensely benefited with the deliberations in the sessions.

DIRECTORATE OF CAT

☉ National CAT Students Convention 2023 at Kozhikode (Kerala)

It is my immense pleasure to inform you that the 1st National CAT Students Convention (NCSC) 2023 on the theme “Skill India-Honouring for Excellence”, held on Saturday, the 25th February, at Chinmayanjali Auditorium, Chinmaya School, Nellikode, Thodayad, Kozhikode, Kerala by the Institute of Cost Accountants of India in association with the Southern India Regional Council (SIRC), Kozhikode-Malappuram Chapter of the Institute was a grand success. I am grateful to the Council of the Institute for deciding unanimously, on request of the Committee for Accounting Technicians, that a National Convention may be organised for CAT students and to the Kozhikode-Malappuram Chapter for taking the lead in organising it with full zest.

The Convention was graced by Shri Rajpal Meena IPS, DIG & Commissioner, Kozhikode City as Chief Guest. He appreciated the efforts of the Institute for Skill Development in the Country joining the Government in Nation Building Process. He congratulated the students for choosing accounting profession and wished them success in their endeavors while inaugurating the 1st National CAT Students Convention by lighting the lamp along with CMA H Padmanabhan Chairman CAT and National Students Convention 2K23 and other dignitaries. Chief Guest gave away the best ROCCs and Chapter awards to winners for their yeoman services rendered for Skill Development projects of the Institute.

CMA Shireen C, MCM Kozhikode-Malappuram Chapter delivered the welcome address followed by special address by CMA (Dr) Balwinder Singh, Council Member & Former President ICAI, Chairman- BFSI Board & Indirect Taxation Committee, Chairman-ICAI-SIRC, Regional Council Members ICAI-SIRC, and Chapter representatives of Kerala State present, felicitated on this occasion. CMA Shymly, MCM - Kozhikode-Malappuram Chapter ICAI concluded the program and thanked all the participants for attending the convention.

I heartily congratulate the CAT students’ faculty members, Chapter representatives, support centers and ROCCs for their active participation in huge numbers and enthusiasm shown in the Convention and successful conduct of the same.

The new edition of CAT e-Bulletin-February 2023 published by the Committee for Accounting Technicians on the theme “Skill India-Connecting Indian Youth to

Global Opportunities” was released in this Convention. I am extremely elated to know that more than one thousand five hundred energized students attended the NCSC.

I would like to place on record appreciation to Chairman CMA H. Padmanabhan & TEAM for making the event a grand success. I appreciate the Kozhikode-Malappuram Chapter for providing thorough support to the CAT Directorate for the arrangements. I would also like to congratulate the officials of CAT Directorate for their hard work.

☉ Association with Ministry of Defence

I informed during my previous communiqués about association with the Ministry of Defence (MoD) to have CAT course for retiring defence personnel of Indian Army, Indian Navy and Indian Air Force and that Institute was regularly meeting with the MoD in that regard. Based on the several rounds of Meetings, the MoD, desired to have the CAT course not only for retiring but for serving officers as well. Accordingly, the CAT Directorate had several rounds of Meetings with Additional Directorate General of Army Education (ADGAE) of MoD. The ADGAE desired to have tailor-made course for their serving officers. Accordingly the course contents were prepared by the CAT Directorate and submitted course contents of “Executive Diploma in Financial Planning and Cost & Management” (FP&CM) to ADGAE. Now, I am glad to share with you that the proposal to FP&CM has been approved by the ADGAE and soon, the course would be conducted at Pachmarhi (MP) and other locations as desired by the ADGAE.

Another proposal submitted to the Directorate General of Resettlement (DGR) for implementation of CAT Course has also been approved by the DGR.

I wish all the best to the CAT Directorate for a fruitful association with Ministry of Defence.

☉ Meeting with the delegation of IAB

- ☉ The delegation comprising of Mr. Fabian Hamilton, Member of Parliament (UK), & Hon. President-IAB, Ms. Janet, CEO and Mr. Ranjit Srivenkatesh, IAB, United Kingdom visited Delhi office of the Institute on 14.02.2023. I am glad to see that the delegation explored the possibility of collaboration with the Institute. I am hopeful to see the collaboration materialises and CAT students get more opportunities locally and globally.

☉ Meeting with Shri Chandrakant Raghunath Patil, BJP State President-Gujarat regarding implementation of CAT course in Gujarat Skill Development

I had the opportunity along with CMA H Padmanabhan, Chairman-CAT, Chairman-Management Accounting Committee and Chairman Surat-Gujarat Chapter to meet Shri Chandrakant Raghunath Patil, BJP State

President-Gujarat, MP-Navsari and appraising him on the proposal of CAT course submitted to the Skill Development Mission of Gujarat. I am hopeful to see the fruitful association of the Institute with the state of Gujarat through CAT course.

☉ WEBINT

The CAT Directorate continued virtual learning process through the WEBINT on IND AS, in association with International Affairs Committee, Public Relations Committee and AAT Board for the benefit of students and Members of the Institute. I would like to thank our resource persons for their continuous support and making this series a grand success. I would like to place on records the thoughtfulness of team CAT under the leadership of my Council colleague CMA H. Padmanabhan, Chairman-CAT.

☉ New ROCC

The CAT Directorate sanctioned a new ROCC, named MAAC (ROCC Code S-224) at Malappuram, Kerala. The new ROCC will surely help the aspirants of Malappuram and nearby places too. The inception of the new ROCC will strengthen the already firm base of CAT in the state of Kerala.

DIRECTORATE OF STUDIES

• Exemption/Credit Transfer with IGNOU/ICSI under New Syllabus:

I am pleased to share that the Institute will soon publish notification for the mutual exemption process with new CMA Syllabus vis-à-vis new Syllabus of ICSI and certain credit transfer/exemptions in MBA/ MCOM/ BCOM (ODL/ Online) programmes of IGNOU.

• Distribution of Study Material for admissions under the CMA Syllabus 2022:

For timely and smooth distribution of Study Materials under the CMA Syllabus 2022, the Institute has constituted a Central Stores department headed by a senior officer and any information and feedback for dispatch and distribution of study material may be obtained from a single window email studymaterials@icmai.in

• Model Test Paper (Syllabus 2016)/ Model Question Paper (Syllabus 2022):

The Institute is in the process of development of Model Test Papers (MTP) and Model Question Papers (MQP) for the June 2023 examination and the same will be uploaded in the website of the Institute in due course soon. Students are advised to follow the Institute website for such uploads.

MEMBERSHIP DEPARTMENT

The month of February witnessed the grant of 78 number

of Associate memberships and upgradation of 20 Associate members to Fellowship. I extend heartiest and warm welcome and congratulate all the members.

Respected members may kindly be aware that annual membership fees for the year 2023-24 falls due from 1st April 2023 and CoP renewal also falls due on and from the same date for members in practice. I request all practising members to avail of the Institute's online facilities for renewal of their CoP at an early date to avoid last moment rush. An advisory for CoP renewal for 2023-24 has already been uploaded on the Institute's website and for ready reference the same also being published elsewhere in the Management Accountant and will be continued for the next few months.

CEP requirements for CoP renewal are available at https://icmai.in/upload/Institute/CPD/CEP_Guidelines_01042021_31032024.pdf and Mandatory Capacity Building Training (MCBT) requirements for renewal and application of new CoP issued on and from 1st February, 2019 are available at <https://icmai.in/icmai/news/5435.php>

PROFESSIONAL DEVELOPMENT COMMITTEE

I am pleased to inform you that on the Institute's request, Indian Institute of Information Technology (IIIT) Ranchi considered the Firms of Cost Accountants for Accounting and Taxation work.

PD Directorate submitted representations to various organizations for inclusion of cost accountants for providing various professional services.

Please visit the PD Portal for Tenders/EOIs during the month of February 2023 where services of the Cost Accountants are required in Jammu And Kashmir State Agro Industries Development Corporation Limited, Maharashtra State Electricity Distribution Company Limited, Chhattisgarh State Power Distribution Company Limited, Madhya Pradesh Power Generating Company Limited, West Bengal State Electricity Transmission Company Limited, City and Industrial Development Corporation of Maharashtra Limited (CIDCO), Central Mine Planning and Design Institute Ltd.(CMPDIL), Jhumri Telaiya Municipal Council, West Bengal State Electricity Transmission Company Limited, Gujarat State Civil Supplies Corporation Limited, Uttarakhand Public Financial Management Strengthening Project, Assam Power Distribution Company Limited, Housing and Urban Development Corporation Limited (HUDCO), State Bank of India, Kolkata Circle, Indian Institute of Information Technology Ranchi (IIIT Ranchi), Raichur Power Corporation Limited (RPCL), District Health & Family Welfare Society (DH&FW Society) Mandikhera, Madhya Pradesh Pachim Kshetra Vidyut Vitaran Company, Mandsaur, Sardar Sarovar Narmada Nigam Limited,

Central Scientific Instruments Organisation, Odisha State Health & Family Welfare Society, HLL Lifecare Ltd., Jugsalai Nagar Parishad, Jamshedpur, etc.,

⦿ Awards 2022

I am happy to share that the Institute is receiving the nominations from the companies/ organisations for the 18th National Awards for Excellence in Cost Management 2022 and from CMAs in employment for 7th CMA Awards 2022. Considering the requests from the organizations and members, the Institute has extended the last date of submission of nomination to 15th March, 2023.

I urge the companies/ organisations and CMAs in employment for their active participation. To submit the nominations, please visit the website of the Institute:

- ⦿ For National Awards 2022: https://icmai.in/Awards/National_Awards/index.php
- ⦿ For CMA Awards 2022: https://icmai.in/Awards/CMA_Awards/index.php

REGIONAL COUNCIL & CHAPTERS COORDINATION COMMITTEE

The Regional Council & Chapters Coordination Committee organized two WEBINTs on contemporary topics during the month of February, 2023, namely "Role of CMAs in Amrit Kaal Budget 2023" on 10th February, 2023 and "Professional Services Firm-Strategic Positioning" on 21st February, 2023. Both the WEBINTs were attended in large numbers with active participation in the Q&A round.

SUSTAINABILITY STANDARDS BOARD (SSB)

I am pleased to share that the Institute has formed a Sustainability Standards Board (SSB) to augment the concepts of sustainability among various stakeholders with broad objectives to

- ⦿ develop a comprehensive Cost and Management Accounting framework for implementing sustainable strategies to measure and monitor progress towards achieving Sustainable Development Goals (SDGs)
- ⦿ develop Sustainability Standards, Sustainability Performance Metrics and KPIs to monitor the impact of sustainability initiatives
- ⦿ develop guidelines for measuring and reporting information in 'Business Responsibility & Sustainability Reporting (BRSR)

The SSB in its first Webinar held on 20th February 2023 released the first volume of its unique monthly Newsletter 'Sukhinobhavantu' in the presence of Shri Sunil J. Kadam, Registrar, National Institute of Securities Markets, Dr. Shiladitya Chatterjee, Former Member, Indian Administrative Service and Asian Development Bank who were the Guests of Honor of this inaugural

event. CMA A.N. Raman, Former President, South Asian Federation of Accountants and Member, SSB was the Keynote speaker. I attended the online event along with my Council Colleagues. CMA A Sekar, Member, SSB summed up of the whole event and Dr. Ranjith Krishnan, Member, SSB delivered the vote of thanks. More than 600 participants viewed this webinar with great enthusiasm.

TAX RESEARCH DEPARTMENT

◎ Webinars on Union Budget 2023-24

February is an important month for the Tax Professionals as budget is presented and to break down the takeaways from the budget, the Tax Research Department organised a webinar titled **Budget Discussion: 2023** on the day of the budget i.e. 01.02.2023 and the eminent dignitaries joined the discussions to contribute their views and analyse the Union Budget, 2023 as presented by our Hon'ble Finance Minister, Smt. Nirmala Sitharaman.

The webinar commenced with Chairman – Indirect Taxation Committee and Chairman – Direct Taxation Committee, explaining the importance of this budget and the meaning of 'inclusive growth' as discussed in the budget. Their vision on the roadmap as stated by the government for the coming 10 years was explained. The budget focuses on many important sectors which include the Agricultural, Infrastructure and Finance among others.

The technical session included detailed deliberations by eminent finance and economic stalwarts like CMA B. M. Gupta, an SME, Speaker & Author on Indian GST being the moderator for the session and Dr. Simontini Das, Professor, Department of Economics, Jadavpur University, Dr. Sudakshina Gupta, Professor, Department of Economics, University of Calcutta, CMA Manmohan Daga, Practicing Cost Accountant and GST Expert, CMA Amit Sarker, Partner, Indirect Taxation, Deloitte Touche Tohmatsu India LLP, CMA Vishwanath Bhat, Practicing Cost Accountant, CMA Mritunjay Acharjee, General Manager (Finance), Numaligarh Refinery Limited, Shri Tapas Majumder, Advocate and Tax Practitioner and CMA Ajit Sivadas, Cost Accountant were the major participants who provided their insights on the Union Budget.

The discussion session ended with the positive takeaways from the budget and how professionals can contribute more in the progress of the economy. The session was viewed by more than 600 participants and it was highly appreciated as the discussion session was arranged just after the close of the Budget speech.

Another important webinar was conducted on 16th February, 2023 on the topic **"GST – Budget and other recent changes"**. Some of the key changes highlighted were on composition levy, eligibility and conditions for taking input tax credit, apportionment of credit and blocked credit proposed amendment, blocked ITC, interest

on delayed refunds, penalty on E-Commerce operators, decriminalization of certain offenses, compounding of offenses, retrospective amendment of changes in Schedule III Certain activities, amendment in definition of OIDAR services and so on. The webinar ended with doubt clearing session wherein members were given an opportunity to clarify their doubts on the budget changes. More such sessions will be conducted in near future.

◎ GST Course for College and University students

Classes for the GST Course for College and University students commenced at S A College of Arts & Science, Chennai on 15th February, 2023, Subhalakshmi Laxmipathy College of Science, Madurai on 20th February, 2023 and School of Commerce & Management Sciences, Sandip University, Nashik on 25th February, 2023. Further, the classes for the GST course were completed at Bemina College, Srinagar.

The Examination for GST Course has been completed at Malappuram District Panchyath Student on 4th February, 2023, The New College (Autonomous), 2nd batch on 8th February, 2023 and Government Arts and Science College, Kondotty on 9th February, 2023.

GST Crash Course Certificate distribution ceremony was organised in Malappuram District Panchayat & the Institute on 11th February 2023. It is the first time for the Institute that such a giant step has been undertaken in spreading knowledge in every nook and corner of our widely diversified country. The occasion was graced by dignitaries like Shri V Abdu Rahman, Minister for Railways, Government of Kerala, Shri. P. Ubaidulla MLA, Government of Kerala, Smt. M K Rafeekha, President Malappuram District Panchayat, Mr. Ismail Muthedam, Vice President, Malappuram District Panchayat, Smt. Naseeba Mayyeri, Chairperson, Standing Committee-Malappuram District Panchayat, Chairman IDT Committee and CMA H. Padmanabhan, Council Member of the Institute. I congratulate the team on the grand success of the event.

◎ Certificate Course/Advanced Course on Taxation

I am pleased to inform that the classes for the following courses were commenced during the month:

- a. Certificate Course on GST
- b. Advanced Certificate Course on GST
- c. Certificate Course on TDS
- d. Certificate Course on Filing and Filling of Return
- e. Certificate Course on International Trade
- f. Advanced Course on Income Tax Assessment and Appeal
- g. Advanced Course on GST Audit and Assessment procedure

Examination for all the Taxation Courses was conducted on Centre based online mode on 12th February, 2023. I wish good luck to all the candidates who appeared in the examination.

◎ Representations for inclusion Cost Accountants:

- ▲ Inclusion of Cost Accountants (CMA) for filing monthly GST returns and generation of e-invoices for the year 2023-24 w.e.f. April 01, 2023 to March 31, 2024 and filing of annual returns for the Financial Year 2022-23 for Reserve Bank of India, HRMD, CO including all Central Office Departments and Regional Offices in Maharashtra on 20th February, 2023.
- ▲ Inclusion of Cost Accountants (CMA) for certifying "cost of inversion or accumulation of ITC" as per Memorandum Number 4691-F(Y) dated 22.11.2022, issued by the Kolkata Municipal Corporation, Govt. of West Bengal on 20th February, 2023. This representation has been complied with by KMC and the revised certification order has been issued.
- ▲ Inclusion of Cost Accountants (CMA) for certifying that the bidder is GST unregistered bidder in compliance with the relevant GST rules of India as per NIT No: CCL/CHR/BMW/e-Tender/2022-23/01 dated 03.02.2023 on 24th February was submitted to Coal India Limited.

The department also released the Fortnightly Bulletins, including the special "Budget Edition" and conducted the Quiz on each Friday for the members.

INSOLVENCY PROFESSIONAL AGENCY (IPA) OF THE INSTITUTE

Insolvency Professional Agency of Institute of Cost Accountants of India, in its endeavour to promote the professional development and sharpen the skills of the professionals have constantly been conducting various professional & orientation programs across country and publishing various publications and books for the benefit of stakeholders at large. Towards that, IPA ICAI has undertaken several initiatives, as enumerated below, during the month of February 2023.

A two days Online Learning Session on Key Aspects of Insolvency Resolution Plan on 4th & 5th February 2023 which revealed various mandatory content of RP, contravention and compliances of other laws, dues of stakeholders, etc.

A three days Online Master Class on Emerging Framework under IBC, 2016 was conducted by our eminent faculties on 10th & 12th February 2023, wherein the provisions relating to Group Insolvency, Cross Border Insolvency, Individual Insolvency, Prepack Insolvency Resolution Process for Corporates, Mediation in Insolvency

process etc were discussed with professional member participants at length. The program brought out a number of take away for the benefit of participants.

In order to enhance the knowledge about Disciplinary Aspects & Governance under IBC, an online Workshop in two sessions was conducted on 17th February 2023, which received an overwhelming response from participants who got benefitted with the knowledge sharing.

A five days Online Executive Development Program (Series 5) on Insolvency Resolution & Bankruptcy for Individuals & Partnership Firms was conducted from 24th to 28th February 2023 which revealed various Mandatory Contents such as Fresh Start Process, Insolvency Resolution Process, Bankruptcy Order, Role of IP in managing claims & Bankruptcy estate, Emerging issues & development in the law and practice of IBC.

In its endeavour to promote profession, knowledge sharing and sensitisation of the environment, IPA ICAI published Au-Courant (Daily Newsletter), weekly IBC Dossier and monthly e- Journal which are hosted on its website.

ICMAI REGISTERED VALUERS ORGANISATION (RVO)

I am pleased to inform that ICMAI RVO has successfully organized three "50 Hrs training programs" for Securities or Financial Assets, Land and Building Assets, and Plant and Machinery Assets. It also organized twelve "Professional Development Programs".

ICMAI RVO also conducted a program at the State Bank of India, Punjab National Bank and Union Bank of India. It has also developed associations with the Valuers organizations of Thailand, Nepal and Bangladesh, and invited three International speakers for online CPE programs.

I wish prosperity and happiness to members, students and their family on the occasion of Holi and Ram Navami, and pray for the success in all of their endeavours.

With warm regards,

CMA Vijender Sharma

March 03, 2023

1st National CAT Students Convention 2023 of The Institute of Cost Accountants of India - "Celebration of Success"

The Institute of Cost Accountants of India in association with the Southern India Regional Council (SIRC), Kozhikode-Malappuram Chapter of the Institute has organized the first National CAT Students Convention (NCSC) 2023 on the theme "Skill India-Honouring for Excellence" on 25th February 2023, Saturday at Chinmayanjali Auditorium, Chinmaya School, Nellikode, Thodayad, Kozhikode, Kerala. This National Convention was organised for the students who cleared CAT examination as a mark of "Celebration for success". More than one thousand five hundred energized students attended the programme.

The Convention was inaugurated by the auspicious lighting of lamp by Shri Rajpal Meena IPS, DIG & Commissioner, Kozhikode City as Chief Guest joined by CMA H.Padmanabhan, Chairman - Committee for Accounting Technicians ICAI, CMA Dr Balwinder Singh, Former President ICAI, CMA Anas K, Chairman-Kozhikode-Malappuram Chapter, Council, Regional Council Members and other dignitaries present in the programme.

Chief Guest Shri Rajpal Meena appreciated the efforts of the Institute for Skill Development in the Country joining the Government in Nation Building Process. He congratulated the students for choosing accounting profession and wished them success in their endeavors

CMA Shireen C, MCM Kozhikode-Malappuram Chapter delivered the welcome address followed by special address by CMA (Dr) Balwinder Singh, Council Member & Former President ICAI. Chairman National CAT Students Convention CMA H Padmanabhan in his Chairman address greeted the students and conveyed the greeting,

appreciation message of CMA Vijender Sharma President ICAI and the support extended by him for the conduct of 1st National CAT Students Convention of the Institute. This was followed by address by other Council, Regional Council Members present.

Deliberations were also made by CMA Anas K, Chairman-Kozhikode-Malappuram Chapter, CMA K P Adarsh, Treasurer, Kozhikode-Malappuram Chapter, CMA Ajith Sivadas, Palakkad Chapter, CMA P T Raju Chairman Kottayam Chapter, CMA Rajendra Bose, Additional Director ICAI, CMA Benoy Varghese Former Chairman Kottayam Chapter, CMA T K Balasubramanian

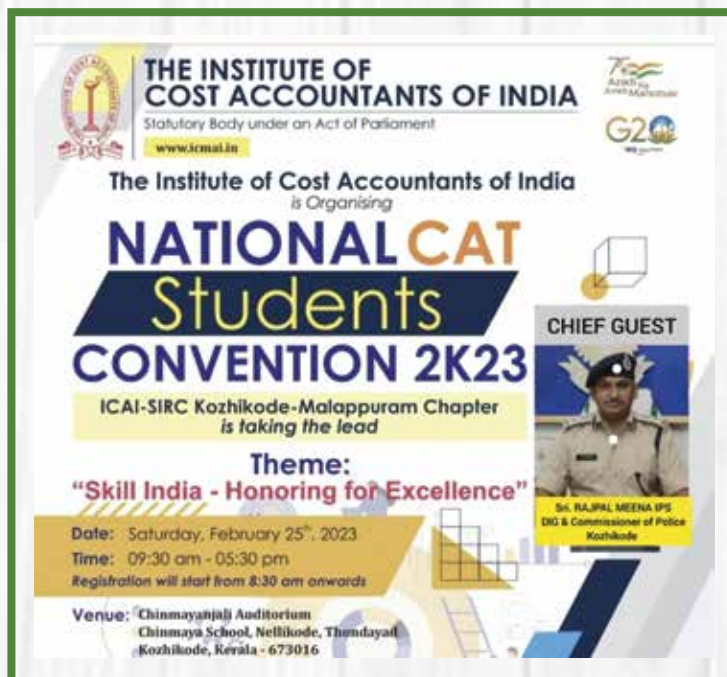
Examination. The Champions Trophy for the best performing Chapter was awarded to **Kozhikode-Malappuram Chapter, Nellore Chapter, Madurai Chapter & Howrah Chapter** and the best performing ROCC award was presented to **Profinz, Thrissur (S-209) and Catalyst Education, Vadakara (S-203)**. The cultural programme presented a marvellous Bharatanatyam performance that left the audience spellbound.

The Students of Kozhikode-Malappuram Chapter came forward as volunteers, managed the function efficiently, while CAT Students involved and participated in various cultural activities like music, dance, songs alike making it more colorful. Student volunteers and participants in various competitions and group activities were highly appreciated by all means. Hearty Congratulations and Good Wishes to them

The new edition of CAT e-Bulletin-February 2023 was published by the Committee for Accounting Technicians on the theme "Skill India-Connecting Indian Youth to Global Opportunities" was released at the Convention.

Officials of the Institute CMA R K Jain Joint Director & HOD (CAT), CMA Pardeep Khaneja Joint Director, CMA Nidhi Verma,

Deputy Director, CMA Ria Chowdhury, Assistant Director, Shri Varun Joshi Sr, Officer, Ms.Somalika Chakraborty, Sr Assistant and Mr. Kiran M official from Kozhikode-Malappuram Chapter, planned and executed the program with whole hearted support and efforts of Managing Committee members and Student volunteers of Kozhikode-Malappuram Chapter. Entire Kerala Chapters of ICAI and their representatives involvement, support and cooperation deserve high appreciation.



Kozhikode-Malappuram Chapter and representatives from Chapters and ROCCs of the Institute. CMA Shymly, MCM - Kozhikode-Malappuram Chapter ICAI delivered vote of thanks to all the participants.

The full day Convention was comprised of Essay writing competition, Business Quiz competition, Block and Tackle Round, Motivational session, Cultural program and other activities. The winners of these contests were conferred with the winners' trophy. Award of Merit had been conferred to the Rank Holder Students of CAT



Webinar on “Valuation Program for Banks: Demystifying Valuation for Bankers”

The Institute organised a **Webinar** on “*Valuation Program for Banks: Demystifying Valuation for Bankers*” on 9th February 2023 from 5pm to 7pm.

Technical Session-1:

“Overview of valuation for the bankers”

In the first Technical Session the followings issues were discussed:

- ⊙ This is a VUCA world which is very challenging but at the same time, start-ups are mushrooming and new age companies are very competitive and disrupting the markets with new business model.
- ⊙ However, most of the corporates have profitless turnover in spite of having a good bottom line. These companies continue to command premium valuations as they possess the ability to create value for the stakeholders, preserve those values and propagate that value and enhance it on a sustainable basis.
- ⊙ The landscape is changing very fast with information technology bringing about a lot of new instruments and new facilitators for everyone to use. The customer expectations are changing and climate risk is becoming a huge challenge for all of us. This situation by default is both challenging and rewarding at the same time.
- ⊙ Reliable and trusted valuations are crucial for borrowing money from Banks and other financial institutions. Proper valuations are necessary for financial stability and sustainable economic growth for the country as a whole.
- ⊙ It is necessary to conduct the valuation by a Registered Valuer as more credible the valuation, the better would be the credit decision.
- ⊙ The company requires funds at different life cycles whether be it innovation, growth, maturity, saturation or when the company gets into a distress, it could also be on account of a one-time settlement and the company should take consultation from a Registered Valuer under Insolvency and even then there is a mandatory requirement of proceedings to be carried out for the company under corporate insolvency resolution process.
- ⊙ Banks are endeavouring to identify and determine the viability of a project to be financed because that's

what actually takes care of credit risk involved and also helps the bank to improve the quality of its credit portfolio which in turn depends upon what kind of valuation processes were followed, what kind of valuation reports were submitted by the valuers, who are entrusted with the task of carrying out such valuation of asset by the bank and that is where the need for expert asset valuers comes in.

- ⊙ The value is inherent utility of the product or the service.
- ⊙ The key differences between value and price were discussed with relevant practical examples.
- ⊙ The valuer cannot always pinpoint an exact figure with surgical preciseness as it involves making an estimate about the future economic potential of an asset or a business.
- ⊙ Valuation involves building and crafting a story around a certain set of numbers but numbers are not the only basis on which valuation of an asset or valuation of a company depends upon. Any valuation should be done at a macro level.
- ⊙ The methods of valuation depending majorly upon the judgement and professional expertise of the valuer, whether it is by applying techniques of standard deviation, coefficient of variation decision tree analysis or sensitivity analysis after adjusting for inflation risk or the discount factor to be used were deliberated.
- ⊙ The Financial Stability and Development Council which is chaired by the Finance Minister in its last meeting held in September 2022 recorded in the minutes of that meeting has recommended that registered valuers should be appointed by all banks, all financial institutions or regulators. With this, the first session came to an end.

Technical Session 2:

“How to read a valuation report”

Second Technical session highlighted that:

- ⊙ Banking is an activity where huge amount of lending takes place which inordinately comes along with risk. In the given situation, the Banks need to ascertain the value of the collateral of the property. The Banks prefer to follow the market-value approach as stated in the valuation norms.

- ⊙ Various approaches of valuation and the terms of loan.
- ⊙ RBI gives the banks a mandate that they should have government security specifying the demarcation of current and non-current investments.
- ⊙

Webinar on “Anti-Money Laundering”

The Institute organized a **Webinar** on “**Anti-Money Laundering**” on 25th February 2023 from 6 p.m. to 8 p.m.

Issues conferred were:

- ⊙ For the purposes of money laundering and financing terrorism, the underlying is the primary profit with the intent to conceal the proceeds of the crime and the activities that generate financial flows which divert away resources from economically and socially productive use.
- ⊙ Steps taken by the Reserve Bank of India to curb terrorism financing and steps for prevention of money laundering.
- ⊙ The Prevention of Money Laundering Act, 2002 has been implemented with the objective of enabling Banks to know their customers and financial dealings better. The appropriate controls need to be put in place for detection and reporting of suspicious activities in accordance with acceptable loss along with separation of illicit proceeds from their source by creating complex layers of financial transactions thereby avoiding audit trails and providing anonymity.
- ⊙ Financial or physical proceeds are generated from the original crime. At the inception of a criminal activity, there must be a predicate offense.
- ⊙ Money laundering is the process of converting the dirty money into clean money.
- ⊙ There are three stages of money laundering that criminals resort to - placement, layering and integration. The objectives of the stages are separation of illicit proceeds from their source by creating complex layers of financial transactions thereby avoiding audit trails and providing anonymity.
- ⊙ Practical examples of how the laundering may be processed through equity, bonds and real estate were cited.
- ⊙ When any person earns such illicit money from nefarious activities, one cannot disclose that income to the Government due to fear of legal reproach.
- ⊙ A lot of money is flowing into India and some of it is getting distributed in small amounts to finance terrorist activities. The steps of how the money was illegally obtained and distributed for the September 11 attacks by the terrorists were exemplified.
- ⊙ Cost and Management Accountants have the foremost responsibility along with other professionals to block the entry of illegal money into the financial system.
- ⊙ CMAs have to take into consideration any red flags arising from the client such as very high capital or a very complicated organisation structure.
- ⊙ CMAs have to identify companies or illegitimate operations which can engage in potential money laundering in the future.
- ⊙ Prominent International Bodies have brought in compulsory sanctions to effectively combat money laundering.
- ⊙ The first and foremost is the United Nations (UN) who have their own sanctions regime which is mandatory for every single nation. One more eminent body is the Financial Action Task Force, to set standards and ensure effective implementation of such standards.
- ⊙ The Committee for Banking Supervision has also set their own standards and has published a very useful reference material.
- ⊙ Cost and Management Accountants must create proactive measures such as due diligence, strengthening internal controls, establish adequate Management Information System to eliminate the risk of money laundering and any suspicious transaction must be reported at once to the competent authorities.

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CORPORATE GOVERNANCE NEEDS, FRAMEWORK AND TREND IN INDIA

Abstract

We have seen a major Shift in the corporate governance scenario in the last two decades, this topic provides an overview of Corporate Governance its growth path & legal framework in India.



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The origin of THE word “governance” is from the Latin word “Gubernare”, which means to steer, rule, or control. Governance originated in the 1500s when it was used to refer to government or authority.

The framework for controlling and guiding enterprises is called corporate governance. The governance of companies is the responsibility of the Boards of directors. The shareholders’ responsibility in corporate governance is to select the directors and auditors, as well as to ensure that a suitable governance framework is in place.

Corporate Governance can be viewed from the following three perspectives:

- 1) Shareholders (capital market)
- 2) The organization (management)
- 3) Other stakeholders

ADVANTAGES/BENEFITS OF GOOD CORPORATE GOVERNANCE

Good corporate governance is essential for any organization to succeed. It involves making decisions and implementing policies and procedures that are transparent, accountable and in the interest of the

people. Good corporate governance includes providing services to those in need, creating an environment of equity and fairness and promoting a culture of accountability and responsibility. Efficient Corporate Governance leads to the following results.

1. Compliance and Lesser Risk

Governance, risk reduction and compliance are all closely related. A business that runs according to sound principles will naturally operate effectively and make sure that all applicable laws and regulations are followed. A corporation is better prepared to handle any risk or disruption brought on by political, technological and economic events the more disciplined it is in its operations.

2. Enhances shareholder value

Although there is no proven link between corporate governance and a company’s market worth, it does increase the shareholder happiness. Since maximizing the interests of all stakeholders is the ultimate goal of corporate governance, it is crucial to protect a company’s valuation. Internal controls are essential because

the value that the organization has built up over the years could be destroyed by a single illegal act.

3. Better image during economic downturns

We have heard numerous accounts of financial misconduct and banking frauds over the past few months. It only makes sense that people would think all banks and financial institutions were participating in these, but this is untrue. People won’t believe an organization unless it can reassure them of its underlying governance practices.

4. Improved organizational efficiency

The competitiveness of the industrial sector is significantly influenced by corporate governance. The way a corporation is governed is a topic that is frequently brought up in the modern era. Improved company performance and improved economic outcomes are guaranteed by stronger governance.

5. Crucial during mergers and acquisitions

Corporate governance is essential during restructuring events like

mergers and acquisitions. In addition to helping to distinguish between excellent and bad agreements, a company's corporate governance also affects how well its merger and acquisition activity is regarded by market participants. It should also be noted that mergers and acquisitions have the potential to raise the level of corporate governance inside an organization.

ESSENTIAL ELEMENTS OF GOOD CORPORATE GOVERNANCE

1. **Rule of Law:** All people and organizations should be subject to the same laws and regulations. Laws should be just, clear, and enforced fairly and consistently.
2. **Transparency:** Openness and accountability are essential for good governance. All decisions and policies should be made in an open and transparent manner and all stakeholders should have access to information regarding the decision-making process.
3. **Participation:** All stakeholders should be included in decision-making processes; so that their voices can be heard and their opinions are taken into account when making decisions.
4. **Responsiveness:** Good governance requires that decisions and policies be made in a timely manner and implemented promptly.
5. **Consensus-oriented:** Good governance requires making decisions in the interest of the majority, while still considering the needs of the minority.
6. **Equity and inclusiveness:** All stakeholders should be treated equally and fairly, regardless of their race, gender, religion, or political affiliation.
7. **Effectiveness and efficiency:** Good governance requires

Good corporate governance includes providing services to those in need, creating an environment of equity and fairness

making decisions and implementing policies that are effective and efficient.

8. **Accountability:** Individuals must always be aware of their obligations and responsibilities if there is to be effective governance.

CORPORATE GOVERNANCE AGES

A) Pre-Independence Era

There was little or meagre presence of corporate governance during the British period in India. Laws emphasized the managing organization model since individuals or businesses entered into legal agreements with other businesses to manage the latter. Various laws were enacted during the period like the Companies Act of 1866, revised in 1882, 1913, and 1932. Further the Partnership Act was passed in 1932.

B) Post-Independence period

In this period Government established the Tariff Commission and the Bureau of Industrial Costs and Prices. Thus Industries were keen on producing a number of necessities, as long as the Government set reasonable prices. The Companies Act and the Industries (Development and Regulation) Act entered the legal system in the 1950s. Corporate governance was still farfetched in this arena till 1998, as companies were mainly focused on volume and profit maximization and cost minimization.

C) Corporate Governance in its Present Form

The main aim of corporate governance reforms in India during

the initial phase, was to increase the independence, effectiveness, and power of the Audit Committees and Boards to drive them as independent, shareholder-focused supervisors of management. The Securities and Exchange Board of India (SEBI) and the Ministry of Corporate Affairs (MCA) both played significant roles in the initiatives that were carried out in a variety of ways.

D) Recent Issues, Development & Changes in Corporate governance

1. Business Responsibility and Sustainability Reporting: (BRSR)

From FY 2022–23, the top 1000 listed businesses by market capitalization will be subject to the BRSR; nevertheless, companies were urged to voluntarily abide by the BRSR beginning in FY 2021–22. Key components of the new BRSR format include, among others: comparing industry best practices to allow listed firms to compare their sustainability reporting to globally recognized disclosure

2. Adoption of Environmental, Social, and Governance (ESG):

It is envisaged that the adoption of ESG measurements would spread throughout the listed eco-systems, noteworthy that, taking into account investor interest in this statistic, four out of five of the Nifty 50 Companies are said to have voluntarily revealed their ESG compliance data.

3. Green Debt Securities and issue on its listing:

The prominent year for green bond issuance by Indian companies was 2021, with the majority of the issues coming from non-financial corporations like municipal corporations, etc.

4. Proposal to get rid of the "Promoter" Concept in

Indian Companies:

The SEBI Board approved a proposal to transition to the idea of “person in control”/“controlling shareholders” in a gradual and comprehensive way; the plan attempts to improve corporate governance and is designed to increase shareholder reliance on the competence of the Board of Directors and management.

5. Digital Adoption:

Companies have had to radically modify their working to keep up with abrupt changes because of the COVID-19 pandemic. This includes implementing digital operations swiftly to survive and changing plans for long-term human resource management. This is currently encouraging digital adoption in the field of enforcement.

6. Cybersecurity Concerns & E-Governance

Along with the rise in the use of digital governance, cybersecurity risk management has become an increasingly important topic for Boards to consider as they prevent data breaches and cyber-attacks that could harm a company’s finances.

7. Shareholder Activism

The Pandemic caused numerous compelled changes in corporate governance, including the coincidental rise in shareholder activism. We have noticed a noticeable rise in shareholder activism and calls for transparency since AGMs and EGMs moved to online platforms.

We have seen instances where shareholders of a number of publicly traded firms have rejected resolutions that would have increased the compensation of the top executives.

8. Role of Independent Directors

SEBI has amended the LODR Regulations on provisions pertaining to the selection, appointment and removal of independent directors (IDs). The amendment is in favour of better corporate governance as it reduces the say of promoters in the appointment and removal of IDs.

9. Cooling-off Period for Independent Director and Auditor

The Company Law Committee (CLC) has recommended the insertion of a mandatory one-year cooling off period from the date of cessation of office, only after which an auditor or an ID may be permitted to hold the position of a managing director,

10. Dispossession of Legacy Treasury Stock

The CLC Report recognized that Treasury shares are bad for corporate governance and advised getting rid of any Treasury stocks that were issued before the Companies Act came into effect. Despite the long-awaited legislative change, the CLC’s suggestion is another step in the direction of greater corporate governance.

11. Corporate Governance in Start-Ups

Several start-ups are trying to enter public markets, corporate governance is a top consideration for these start-ups following charges of money theft and operating problems.

LEGAL FRAMEWORK OF CORPORATE GOVERNANCE IN INDIA**1) The Companies Act, 2013**

The Companies Act regulates legal requirements for the Board’s composition, Board procedures, Board meetings, independent

directors, Audit Committees, general meetings, party transactions, financial statement disclosure requirements, etc.

2) SEBI Guidelines

In order to assure investor protection, SEBI, a regulatory body with control over listed companies, issues regulations, rules, and instructions to businesses. SEBI modified its Listing Agreement and made various rules and regulations under Clause 49 in 2000 and 2003.

3) Accounting Standards (By ICAI)

According to the accounting requirements outlined in section 133 of the Companies Act 2013, the financial statements must reflect a fair representation of the state of affairs of the companies. Furthermore, it is implied that the information in such financial statements must adhere to the accounting standard according to section 129 of the new Companies Act.

4) Secretarial Standards (By ICSI)

The ICSI has published secretarial standards for “General Meetings” and “Meetings of the Board of Directors”. Given that the secretarial standards became effective from July 1, 2015 every company (apart from one-person companies) must adhere to these secretarial standards.

BASIS AND EXPERIENCES FOR THE FORMATION OF LEGAL FRAMEWORK**A) Recommendations and reports****1) CII—1996**

CII took a unique move in corporate governance as part of the first institutional endeavour in the Indian sector to create a code for businesses, whether they were in the public or private sectors, financial institutions or banks, or any other type of corporate entity. The actions taken by CII addressed the public’s concerns, moving towards international standards of disclosure of information by corporate bodies

and through all of this, increasing the level of the public's confidence in business and industry. In April 1998 the Code's final version was unveiled.

2) Report of the Committee (K M Birla) on Corporate Governance 1999

SEBI formed a committee under the Chairmanship of Mr. K M Birla and asked him to offer a Report on Corporate Governance. The committee has given various recommendations on the appointment of independent directors and the formation of various committees and ways to share information with shareholders.

3) Standing Committee on International Financial Standards and Code (IFSC)-2001

The Advisory Group on Corporate Governance made recommendations to raise corporate governance standards in India after attempting to compare India's corporate governance percentage to the world's best practices.

4) Recommendation of Consultative Group of Directors of Banks-2001

The Consultative Group of Directors of banks and financial institutions was set up by the RBI to review the supervisory role of Boards of banks and financial institutions, its task was to collect input on how the Boards are operating in terms of compliance, transparency, disclosures, audit committees, etc. and give suggestions for improving the effectiveness of the Board of Directors role in order to reduce risks and overexposure.

5) Naresh Chandra Committee recommendation on Corporate Audit and Governance 2002

The Naresh Chandra Committee, a prestigious advisory body presided over by Mr. Naresh Chandra, was established in 2002 by the Department of Company Affairs (DCA) within the Ministry of Finance and Corporate Affairs of the Government of India. This committee's main goal was to carefully examine and, if necessary,

suggest drastic modifications to the legislation governing independent directors and auditor-client relationships. The report's main goal was to propose new rules that would improve corporate governance in both theories and practice.

6) SEBI Report on Corporate Governance (N.R. Narayan Murthy) 2003

The SEBI committee on corporate governance, led by N.R. Narayana Murthy, delivered its report in February 2003, demonstrating the regulator's urgency in promoting corporate governance principles in Indian corporations. Committee's mandates were to evaluate corporate governance's effectiveness and to better the market's openness and integrity. Clause 49 was made in 2004 by SEBI in accordance with the recommendations of the Murthy Committee. Even though the Murthy Committee Report resulted in numerous changes to Clause 49, the governance requirements relating to corporate boards, Audit Committees, shareholder disclosure, and CEO/CFO certification of internal controls represented the most significant change to the governance and disclosure standards of Indian companies.

7) Naresh Chandra Committee 2003- Report of the Committee on Regulation of Private Companies and Partnerships

There was a need to examine the statute again when a large number of private sector enterprises entered the picture. The Government established a committee in January 2003 to provide a reasonable and scientific regulatory environment in order to build upon this foundation. The Companies Act of 1956 and the Partnership Act of 1932 were the main topics of this report.

ILLUSTRATIVE CASES OF FAILURE TO LEARN A LESSON OF CORPORATE GOVERNANCE

1) Satyam Case

The Satyam Computer Services

affair involved corporate corruption. A Rs 7000 crore business fraud involving fake accounts occurred in Satyam.

2) Ricoh Case

Ricoh's situation was practically an exact duplicate of the Satyam episode, interestingly, without any promoter in the driver's seat. A few dishonest managers were all it took to bring down the entire system and the primary regulatory bodies like auditors, credit rating agencies, reputable independent directors, Boards of directors, powerful Audit Committees, etc.

3) Harshad Mehta Scam

Together with a few other brokers, Harshad Mehta developed a strategy to persuade banks to give him money to invest in the capital market in exchange for a respectable profit. Due to the RBI's strict credit policy at the time, banks' profitability suffered, and they were eager to turn a profit right away.

4) ICICI Bank Scam Case

The issue concerns alleged errors and unethical behaviour in the approval of a loan of Rs 1,875 billion that the ICICI Bank disbursed to the Videocon Group between 2009 and 2011.

5) Kingfisher Airlines and United Spirits Case

It was a case of insufficiently qualified management, in reality, the Board of Directors lacked independence and the majority of the directors held numerous directorships, excessive pay for employees, and non-compliance with GAAP and using money for an unrelated cause.

MA

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START-UPS IN INDIA, LOSS MAKING UNICORNS AND THE ROLE OF CORPORATE GOVERNANCE

Abstract

Corporate Governance is the ecosystem where the companies are operated and managed within the legal and regulatory framework. In case of start-ups, the planning, execution and future course of action are heavily dependent on how effectively the same is implemented. The rise and fall of the start-up is reciprocally connected with the Corporate Governance, which the board and top management choses to follow.



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India has seen a surge of start-ups in the last fifteen years and has also seen an upswing of unicorns in the last five years. Despite the eco-system of start-ups coming of age, a number of Indian start-ups have been either under heavy scrutiny for alleged malpractices or have failed miserably.

Failure in a start-up is not a new thing. Majority of the start-ups do fail in the first three years. However, in many cases, lack of corporate governance amidst the team is the biggest reason for failure.

This is evident in case of heavily funded start-ups. A good number of them just vanish in thin air the moment the funding dries up. This

means that only funding kept them alive. It is evident that the revenue model of these companies are literally non-existent. No revenue generation, no start-ups.

The controversies in the case of these start-ups are discussed in the following paragraphs.

BYJU'S FINANCIAL REPORTING

- During the Covid Pandemic, Byju's was riding high on success. As the whole world came to a standstill, the edtech companies were earning crores in terms of revenue. During the same time, Byju's also acquired Whitehat Jr for a

hefty consideration.

- However, things started taking ugly turn when Whitehat Jr was accused of creating misleading ads. There were reports where they claimed that some boy named Wolf Gupta has created an app and sold it for crores. However, later reports emerged that the boy was an act of fiction. They had to take the ad down.
- Then reports started emerging about their toxic sales practices where former employees claimed that the Sales Managers were forcing them to sell overpriced products by misleading the parents.

- ⊙ Things became uglier when Byju's could not file their financial reports for 31.03.2021 for the next 17 months. Even when they finally filed their reports, they re-adjusted their revenue from operations to Rs. 2280 crores, though they incurred losses of Rs. 4588 crores, up from Rs. 262 crores from last fiscal.
- ⊙ The founders of Byju's blamed the changes in accounting policies for the same. For e.g, if they sold a product for Rs. 90,000/- with three years' validity, earlier they were reporting the entire Rs. 90,000/- for the current financial year. However, on insistence of their auditors, they later deferred the revenue, which resulted in drop of sales.
- ⊙ What was astonishing is that these accounting rules were not new, but somehow the accounting team of Byju's failed to make their founders and top management understand the difference between cash basis of accounting and accrual basis of accounting.
- ⊙ The reports of toxic sales, aggressive pitching to middle class parents and selling overpriced products to them also comes under the purview of "not so fair" policies and are subject to failure in the corporate governance of the company.

BHARATPE VS ASHNEER GROVER & MADHURI JAIN

BharatPe developed a QR Code that was compatible with all major UPI apps. They even went ahead and made the same chargeless. Things were going good and *BharatPe* had acquired a banking license by agreeing to RBI terms and acquiring Punjab & Maharashtra Co-Operative Bank with another partner.

However, things started taking ugly

spat when Ashneer Grover, Founder & MD and his wife Madhuri Jain, Head of Controls were accused of mis-appropriation of funds and creating fake vendor invoices.

Reports also started pouring about how Ashneer Grover had abused a Kotak Mahindra Bank employee. However, Grover had claimed that the audio clip was a fraud.

The chronology of things that occurred after the same is as under:

- ⊙ *January 2022*: An audio clip of Grover gets leaked which allegedly contains a conversation between Grover, his wife and a Kotak Group employee. Grover can be heard verbally abusing the Kotak employee.
- ⊙ *January 2022*: Ashneer Grover goes on voluntary leave. His wife is also sent on compulsory leave of absence.
- ⊙ *January 2022*: *BharatPe* conducts corporate governance review. The review discovers a mis-appropriation of Rs.83 crores.
- ⊙ *February 2022*: Jain's employment is terminated.
- ⊙ *March 2022*: Grover resigns from MD post.

Clear absence of corporate governance is evident from the fact that Madhuri Jain who was Head of Controls had immense power and many of Grover's relatives were holding key posts. In this type of scenario, at least the Head of Finance and Revenue should be from a professional background and time to time review of the books should have been done.

The allegations and charges came up at a time when Ashneer Grover sat as a Judge in the TV Show *Shark Tank India*, after which the matter caught media attention. Currently, *BharatPe* has filed a damage suit of Rs. 88 crores on Grover and Jain and the matter is pending in court.

ZILINGO VS ANKITI BOSE

Ankita Bose was wandering on the streets of Bangkok when she was employed with Sequoia. She saw fantastic quality of cosmetic, herbal soaps and other fancy items like art work and Thai clothing being sold on the streets of local market.

However, neither the sellers had an idea how to scale things up, nor the world knew about these fantastic products.

She decided to launch a platform, along with Dhruv Kapoor, that will enable the buyers and sellers to interact and do business. This platform went on to enable people from all dais of the business world to make and sell.

She aspired to become a leader in B2C segment. Her plan to enable the small businesses to reach to end users had burned a lot of cash the investors had invested. Though her aspirations were in B2C, actually the B2B model was more profitable for the company.

During this time the Covid-19 pandemic considerably jolted her business. The small sellers as well as the buyers were affected by the Covid lockdowns.

The investor versus founder tussle also led to the investors and board in reaching a decision that the founders were not efficiently managing the revenue, which led to wrong management decisions and ultimately the Board fired her.

In June 2022, the founders wanted a management buyout, which was also not successful. Ultimately both the investor greed and founders dream led to millions of dollars of debt piling up. Finally, it was decided to liquidate the company.

In this case, we can conclude that if the decision making skills of the founders do not synchronize with that of the profit motto of the investors, any company will face the similar heat and consequences.

HOW IS BOAT PROFITABLE?

After Shark Tank India was

launched on Sony, people have become well acquainted with Aman Gupta, Co-founder and CMO of boAt, consumer electronics brand that has a fair share in the market of earphones, headphones, both wired and wireless, soundbars and other electronic items like smart watches.

Amidst all these loss making unicorns, where startups are burning millions of cash to scale up and in marketing, boAt has a remarkable feat as it continues to be a profitable enterprise for the last couple of years.

boAt has been able to capture a big share in the consumer electronics sector. When companies like JBL, Sony and Bose were giving high end products, they strategically targeted the common man of India, who does not earn in millions but still uses consumer electronics.

boAt decided to design cool looking products and started getting them manufactured in China and Vietnam. Further, they decided to use social media as their marketing platform rather than TV. TV commercials target middle aged people whereas social media targets people from their early teens to late 30's. These people have the capacity to purchase one earphone every year and it is such a product that needs to be replaced every two years.

Further, a large number of recently employed youths want a fashionable product at an affordable price.

Here we can analyze, that boAt has actually brought the age old thought process of the Indian trader mindset. They know their target customer, their design choices as well as their pocket size.

This understanding of Indian market and reading the valuable feedbacks of the customers, has given them an edge over the market.

Further they have just spent 3.6 per cent of their entire cost against marketing. This cost cutting in marketing and publicity has given them the added advantage.

While running a company, taking care of corporate governance is also a game changing idea

WHY CORPORATE GOVERNANCE?

Corporate governance is a framework that provides companies the highest chance of success. It not only leads to higher profitability for the company, but also to be transparent, fair and ethical which practices are less likely to have negative impact on the society. For these reasons, corporate governance is an invaluable aspect of the business world.

Good corporate governance is when the organisation provides all necessary information to shareholders and stakeholders, complies with legal requirements, takes ethically correct decisions, and by doing all these, aligns the interest of all stakeholders.

Corporate governance has earned its place as an essential tool in the management and growth of companies and will continue to grow in importance as investors and regulator demand for transparency increase.

LEARNINGS FROM THE AFOREMENTIONED CASE STUDIES

Indian market is way different from other global markets. To make it big in the Indian market, you need to study the Indian mindset. Indians love fashion, but not with a dent in their budget. They love good, but at the same time affordable products. If someone takes care of this aspect, they will earn profit. This is a big learning for upcoming entrepreneurs.

Corporate governance thus plays a crucial role in the company's decision making. While running a company, taking care of corporate governance is also a game changing idea. **MA**

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CORPORATE GOVERNANCE: MYTH FOR DEVELOPING AND TRANSITION ECONOMIES

Abstract

Globalization emphasizes the need for the development of a set of global standards for optimum corporate governance. Developing and transition economies must make efforts in establishing a suitable system and institutions favouring worldwide acceptable corporate governance practices. Whether corporate governance a myth for developing and transition economies is a crucial question that is raised often. In this article, the author discusses the current scenario along with various issues and challenges in the implementation of suitable corporate governance measures in developing and transition economies.

INTRODUCTION

Numerous corporate frauds and scams have frequently happened during the last few decades in developing and transition economies. Apart from corporate mis-governance, there could be other reasons some of which are deeply penetrated between owners and Board members. Repeated cases of account fudging, absence of transparency, unequal treatment to shareholders, and diverting corporate funds for private usage have become common practices. Essential measures are needed in order to eradicate the malfeasance of misbehaving corporations. There is a need to understand the root causes of these issues and understand the crucial challenges in front of these economies.

CURRENT SCENARIO

Corporate governance concept is not new to these economies. There already exist professional managers, boards, legal frameworks, etc. but the overall system is not in a desired appropriate shape. Many economies have diffused ownership and instant corporations after mass privatization. Economic environment is unpredictable and uncertain as a result of unstable macroeconomics. Managers are focusing on individual short-term benefits instead of company's long-term profits. Any weak political environment can easily lead to failure in expected economic



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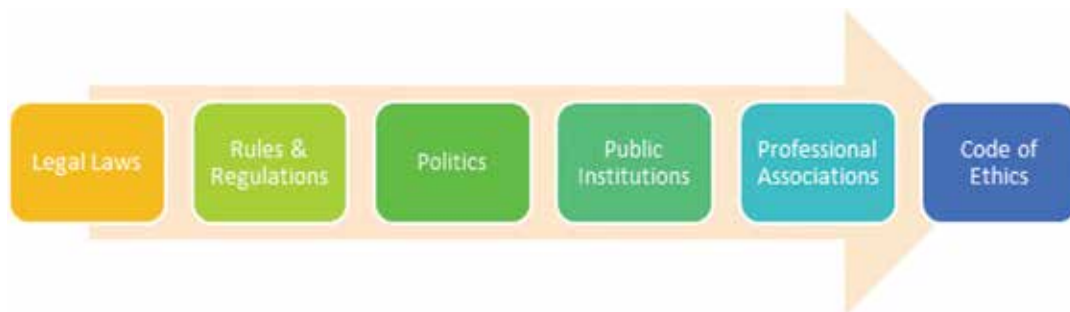
transformation. Fragile legal and regulating systems fail to provide necessary protection to the industrial and financial sectors. Crucial relationships between organizations and banks in terms of credit and capital are prejudiced by personal relations. Lack of association between successful market economies and institutions leads to uncertainty which is based on human interference.

ISSUES FACED BY DEVELOPING AND TRANSITION ECONOMIES

The development of basic market institutions is under process for many emerging and transition economies. Therefore, corporate governance in such economies faces numerous issues and challenges. One of the major challenges for such nations is the decline in economic growth rate compared with their expectations. The reason could be these countries may have seen failure in predicted advancement in corporate efficiency as an effect of privatization. Funds generated from privatization constitute the major shareholding in companies. The stakeholders lose control over the companies because of the dominance of the internal owners and the absence of voting power for the external owners. Here markets and stakeholders fail to earn the anticipated returns from the companies. Thus capital markets merely start developing without assisting the inflow of fresh capital as projected.

The effective systems of corporate governance in developed economies have not been developed over a short period; it has been gradually developed for centuries.

It is a complex system built by following systematic sub-systems as depicted hereunder:



Conversely, transition and developing economies have partially built systems and a majority of the sub-systems are at different levels of development. Inadequate human resources, a weak judicial system, multifarious corporate ownership structures and unclear associations between key financial sectors are a few of the issues faced by these economies.

Some of the issues which these developing and transition economies are persistently confronting are indicated hereunder:



In many cases, political instability and lack of appropriate economic institutions lead to disabling of effective market function and democracy. This means corporate governance will have little or no impact without the presence of these institutions. Thus to make companies run well internally and to ensure good corporate governance, appropriate guidelines are crucial along with the establishment of democratic, market-based institutions.

Some economies may have succeeded in providing such a favourable environment but still can't guarantee the fruitful implementation of corporate governance measures. Investors' confidence can shake because of a series of scams. Many a times the Government fails to provide a system that could bring scammers to book within a reasonably short time period. Lack of alertness on the part of Government regulatory bodies, corruption cases in Government departments and a lethargic judiciary can easily cause corporate mis-governance. Building a democratic institution supporting corporate governance requires a longer time span. The key issues faced by these economies can be listed as follows:

- ⊙ Public sector is more dominant than private sector
- ⊙ Economic growth is lower than expectation
- ⊙ Private sector is ineffective and unproductive
- ⊙ Lack of autonomy to organizations and greater Government dominance
- ⊙ Privatization funds are the prevalent shareholders
- ⊙ Lack of voting power to external owners
- ⊙ Dominance of internal owners

- ⊙ Use of company resources for internal owners' advantages
- ⊙ Partial or no development of competitive markets
- ⊙ Frequent corruption practices
- ⊙ Absence of comprehensive securities markets
- ⊙ Family-owned and dominated corporations
- ⊙ Underdeveloped capital markets
- ⊙ Weak legal protection laws for investors
- ⊙ No uniform guidelines by Government
- ⊙ Inflexible organizational structures

CHALLENGES FOR DEVELOPING AND TRANSITION ECONOMIES

In their evolution stages at various levels, there are many challenges in front of developing and transition economies. There is a need for the establishment of rule-based governance and property rights system. Removal of political influences from boardroom decisions is essential. Minority investors are still unaware of their duties and rights. Protecting their rights is a big challenge. Active owners need to get explored and concentrated ownership structures must get promoted with good governance. Inter-firm i.e. cross shareholding must be established between banks and companies.

CORPORATE GOVERNANCE MODELS IN DEVELOPED COUNTRIES

Two different models have been identified in countries with developed economies.



Insider System (Group Based)

Concentrated ownership structures mostly dominated by individuals or families or any non-financial organization or banks are found in many nations which are governed by civil laws. These are run by insiders who control companies by holding a majority of the company shares and voting rights. The benefit of this system is the insiders usually keep their

investments for a longer duration and possess better controlling powers. However, the threat can be that any dominant insider can expropriate company’s assets after colluding with the management.

Outsider System (Market Based)

The highlight of this system is dispersed ownership. There are numerous shareholders with each holding a small portion and mostly unconcerned about the management policies and strategies which is why these investors are called outsiders. These systems are inclined to encourage liquid capital markets. There may be conflicts between the owners and outsiders as outsiders are more interested in short-term gains. However, these systems are considered to be less corrupt and more responsible as independent board members control boardroom decisions.

TOWARDS CORPORATE GOVERNANCE 4.0



Corporate Governance 1.0	This was the beginning of the corporate governance concept. Mostly dealing with misunderstood models, acting merely as ‘rubber stamps’ of management. Era witnesses dawn of ‘fiduciary capitalism’. Boards are often ‘clubby’.
Corporate Governance 2.0	This era is the post Enron/WorldCom catastrophe. There have been improvements in regulations and their implementations. Deeper engagements of Boards in discussing business opportunities and threats for long-term strategy development and business opportunities.
Corporate Governance 3.0	Dramatic shifts in business models to stakeholder centric from shareholder centric. ESG approach became domineering for companies’ success by establishing a company as a ‘brand’ for attracting investors, customers, and employees. These frameworks became essential for all the stakeholders. Accelerated digital transformation and working in a hybrid environment with a primary focus on human safety, data security, and community connection are the key highlights of this era.
Corporate Governance 4.0	Most of the Boards are still unaware of this era. Here the primary focus is on protecting stakeholders from unforeseen circumstances like a financial loss. A new model featuring business acceleration along with customer engagement to be competitive. Enabling artificial intelligence along with big data for the adoption of innovations will be essential for rapid and exponential growth. Boards are responding to these changes by the formation of new tech committees.

FUTURE CHALLENGES AND RESEARCH QUESTIONS

- i. Is it possible to fetch desired output in a quicker time after successful implementation of desired institutional and legal system in any developing and transition economy?
- ii. Just by having popular names on company’s board and having good corporate governance is it possible to ensure desired financial performance?
- iii. Will it be right to impose global corporate governance norms directly to those organizations which are already standing straight in global competition with their own

evolved institutional portfolios?

- iv. Will it be acceptable to have a successful hybrid framework composed of insiders’ and outsiders’ systems in particular economies based on their own cultural, demographic and economic environments?

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THE FUTURE OF CORPORATE GOVERNANCE IN INDIA

Abstract

Corporate governance refers to the systems and processes by which companies are directed and controlled. The future of corporate governance is shaped by a range of factors, including changing stakeholder expectations, new technologies and digitalisation, growth of emerging markets, and the increasing importance of sustainability and environmental, social and governance (ESG) issues. In the future, corporate governance is expected to become more focused on stakeholder interests and sustainable business practices, emphasising transparency, accountability and ethical behaviour. The role of the Board of Directors will also evolve to encompass a broader range of skills and expertise, as well as a deeper understanding of the company's business and market.



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As the business environment becomes increasingly complex and global, companies and boards must be proactive in evolving their governance practices to stay ahead of the curve. This will require a deep understanding of stakeholders' changing needs and expectations and the ability to embrace new technologies and practices that support effective Governance.

Overall, the future of corporate governance is one of ongoing change and evolution as companies and Boards seek to align their governance practices with the needs and interests of stakeholders while also ensuring the long-term success of their companies.

FACTORS SHAPING THE FUTURE OF CORPORATE

GOVERNANCE

1. The impact of technology and digitalisation

Technology is rapidly changing how companies operate and communicate with stakeholders. Research can focus on how this affects corporate governance practices and what new technologies (such as blockchain, AI, and big data) are likely to play a role in the future. Here are a few ways in which technology is affecting corporate governance:

- ⊙ **Increased transparency:** With the rise of digital communication and data analysis, companies can more easily disclose information to stakeholders and monitor performance. This can lead to increased transparency and

accountability in corporate governance.

- ⊙ **Virtual meetings and remote work:** Technology has allowed Board meetings and other corporate events to be conducted virtually. This can increase the efficiency and accessibility but raises questions about virtual governance's effectiveness and protection of confidential information.
- ⊙ **Stakeholder engagement:** Technology has made it easier for companies to communicate with and engage stakeholders. For example, companies can use social media and other online platforms to solicit feedback and communicate

with stakeholders.

- ⊙ **Risk management:** Technology can help companies identify and manage risks more effectively. For example, companies can use data analytics and machine learning to monitor risks and respond to emerging issues in real time.
- ⊙ **Increased automation:** With increasing use of artificial intelligence and automation, companies can automate many routine tasks and processes. This can lead to more efficient and effective corporate governance but could also raise questions about the potential for unintended consequences and the need for human oversight.

2. Sustainability and ESG factors

The emphasis on sustainability and ESG is growing in importance for investors, companies, and society. Research can focus on corporate governance's role in addressing these issues and how companies can improve their ESG performance.

- ⊙ **Increased stakeholder demand:** Investors, customers, employees and other stakeholders increasingly demand that companies consider sustainability and ESG factors in their operations and decision-making. Companies that ignore these concerns may face reputational risks and declining support from stakeholders.
- ⊙ **New regulations and standards:** Governments and regulatory bodies are also increasing their focus on sustainability and ESG. Companies may face new regulations and standards that require them to disclose and report on ESG performance and implement sustainability and governance best practices.

- ⊙ **Integration into decision-making:** Sustainability and ESG considerations are integrated into corporate decision-making at all levels, from strategy to day-to-day operations. Companies are adopting sustainability and ESG metrics to track and measure their performance and set goals for improvement.
- ⊙ **Changes to business models:** Companies are also reshaping their business models to ensure that they are sustainable and aligned with ESG goals. For example, companies may shift to more sustainable and environmentally-friendly products and services or adopt circular business models that reduce waste and conserve resources.
- ⊙ **Board and executive leadership:** Board Directors and executives are taking a more active role in ensuring that companies address sustainability and ESG considerations. This includes ensuring that companies have evident sustainability and ESG policies and objectives and are regularly monitoring and reporting on performance.

3. The role of stakeholders

In recent years, there has been a growing recognition of the importance of stakeholders beyond shareholders in corporate governance. Research can focus on how corporate Governance is evolving to include the interests of a broader range of stakeholders and the impact this has on business performance.

- ⊙ **Increased influence:** Stakeholders, including investors, customers, employees, and communities, demand more say in the decisions that companies make and how they operate. Companies that ignore these

demands may face reputational risks and declining support from stakeholders.

- ⊙ **New forms of engagement:** Technology and digital communication have made it easier for companies to engage with stakeholders and solicit feedback. Companies use online platforms, social media, and other tools to engage with stakeholders and gather insights into their needs and expectations.
- ⊙ **Stakeholder advocacy:** This is becoming more common as stakeholders seek to influence companies on issues they care about. For example, employees may advocate for workplace safety, while investors may advocate for more sustainable business practices.
- ⊙ **Integration into decision-making:** Companies are incorporating the perspectives and needs of stakeholders into their decision-making processes at all levels, from strategy to day-to-day operations. This includes considering stakeholder interests when deciding on important issues such as mergers and acquisitions, sustainability, and social responsibility.
- ⊙ **Changes to corporate governance models:** Companies are also exploring new corporate governance models that better align with stakeholder interests. For example, some companies are adopting stakeholder capitalism, which prioritises the interests of all stakeholders, not just shareholders.

Companies that effectively engage with and respond to the needs and interests of stakeholders will be well-positioned to succeed in a rapidly changing business environment.

4. The changing role of the Board of Directors

The role of the Board of Directors is central to effective corporate governance. Research can focus on the evolving role of boards, including the increasing need for independent directors, the role of technology and the impact of new regulations.

- ⊙ **Increased oversight:** The Board is taking on a more active role in overseeing company operations and ensuring that companies address essential issues such as sustainability, technology, and risk management.
- ⊙ **Stakeholder engagement:** The Board is also playing a more active role in engaging with stakeholders, including investors, employees, customers, and communities. This includes ensuring that companies are listening to and responding to the needs and expectations of stakeholders.
- ⊙ **New skills and expertise:** As the business environment becomes increasingly complex and global, the Board is expected to bring a broader range of skills and expertise. This includes expertise in technology, sustainability, and governance, as well as a deep understanding of the company's business and market.
- ⊙ **Diversity and inclusion:** The Board is also expected to prioritise diversity and inclusion, both in terms of gender, ethnicity and other demographic factors, as well as expertise and experience. This is critical to ensuring effective governance and decision-making that reflects the needs and perspectives of many stakeholders.
- ⊙ **New models of Governance:** Companies are also exploring

new models of governance, such as stakeholder capitalism, that better align with stakeholder interests and support the company's long-term success. The Board is critical in ensuring that these new models are implemented effectively and aligned with the company's overall strategy and goals.

5. International trends and comparison

Corporate governance practices vary significantly between countries and regions. Research can focus on the differences and similarities in corporate governance practices globally and how these are changing in response to new trends and challenges. International trends and comparative perspectives shape the future of corporate Governance.

- ⊙ **Global standards:** There is growing interest in establishing international standards for corporate governance that reflect the needs and expectations of stakeholders around the world. This includes promoting sustainable business practices, transparency, accountability and reducing corruption and unethical behaviour.
- ⊙ **Regional variations:** While there is growing interest in global standards, corporate governance practices vary significantly between regions and countries. For example, the State's role in corporate governance is more robust in some countries than others, and the importance placed on stakeholder engagement and sustainability also varies.
- ⊙ **Emerging markets:** Corporate governance practices rapidly evolve as companies seek to attract investment, build trust, and respond to stakeholder needs and expectations.

Companies in these markets are increasingly adopting best practices from developed markets and developing their unique governance approaches.

- ⊙ **Public vs. private:** The governance practices of public and private companies also differ significantly, reflecting the different ownership structures, accountability mechanisms, and stakeholder interests involved. Companies and Boards must carefully consider these differences and the implications for their governance practices.
- ⊙ **Technological innovation:** Technology and digitalisation are also changing the way companies operate and how they are governed. Companies must keep pace with these changes and understand the implications for their governance practices, such as the use of new forms of communication and data analysis.

Companies and boards that understand these trends and incorporate them into their governance practices will be better positioned to succeed in a rapidly changing global business environment.

CONCLUSION

The future of corporate governance is marked by ongoing change and evolution. Companies and Boards must be proactive in responding to changing stakeholder expectations, new technologies and digitalisation, the growth of emerging markets, and the increasing importance of sustainability and ESG issues.

The role of the Board of Directors will continue to evolve, with an increased focus on stakeholder engagement, new skills and expertise, diversity and inclusion and innovative governance models. At the same time, global corporate governance standards will continue to develop, reflecting the

needs and expectations of stakeholders around the world.

Effective corporate Governance will become increasingly important as companies navigate these changes and seek to build trust with stakeholders. Companies that embrace these changes and incorporate best practices into their governance practices will be better positioned to succeed in the rapidly changing business environment of the future. **MA**

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START-UP GOVERNANCE: CRUCIAL BUILDING BLOCK FOR SUSTAINABLE SUCCESS

Abstract

India has the third largest ecosystem for start-ups, after the US and China. The number of start-ups is growing significantly. Start-up funding has proved to be an alluring area for investors and venture capitalists. This article seeks to draw attention to the control mechanisms and governance aspects in start-ups; it is indispensable to blend the same into the fundamental structure in order to retain the trust in the start-up ecosystem, and to keep the momentum going.



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Recently a LinkedIn post by a start-up founder seemed more like a confession. It was a lengthy post in which he detailed how the start-up was built a couple of years ago and grew exponentially and went on to garner the support of prominent VCs and investors. However, he mentioned that in pursuing their dream of finding solutions for customer's unmet needs and 'growth at all costs', the founders got carried away and made serious errors, including that in financial reporting. Personally, 'Growth at all costs' was hard for me to digest. This might have been an appeal to the 37000+ followers or the 2.6 lakhs subscribers of the company on LinkedIn or YouTube respectively, who can easily find another service-provider; but certainly not to the employees and investors, who had their money and lives at stake.

So what went wrong? The founders are IIT IIM alumni, offering an affordable tech-enabled solution in a high-potential sector, a brand that can boast of wide media-coverage and followers on social media, and most importantly backed by prominent venture capitalists. Everything seems rosy from the outside. However, there have been serious errors and misrepresentations in the reported

numbers over the past few years and grave flaws in partnerships with third parties. Regulatory filings have revealed that auditors had earlier flagged discrepancies in how the start-up had reported its business activities and assets. It has become known that the founders have been aware of what is cooking up inside.

This is not the lone case with start-ups. A major Fintech firm was in trouble last year over misappropriation of funds by the Head of Controls and Finances, who is also the spouse of the founder. Another instance is with regard to a popular Singapore-based fashion start-up, which is currently set to enter liquidation. The start-up, considered a unicorn came crashing following friction between the key investor and founder and subsequent charges of mismanagement and financial irregularities. Another video commerce platform is under scanner for allegations of related-party transactions and reporting irregularities. The disturbing fact is that these start-ups were backed by prominent venture capitalists holding a track-record of highly successful investments.

The commonly held belief among the start-up investor community is that the venture capitalists are experts in assessing the market potential of the

product or service and of the company's management, financial health and compliance aspects. However, recent revelations show that this is not the case in reality. They seem to be good judges of high-potential business, but there are obvious lapses in control or lack of knowledge of the financial wellness and internal controls. The truth is that most often VCs are chasing high potential companies to invest in, they do not invest as much time and effort in assessing the numbers presented to them.

To understand the situation better, let us take a look at the parties involved in a typical high growth start-up. The founder or founding team forms the pivot who have complete control over business and operations. Gradually, as the business proves attractive angel investors or venture capitalists enter, and employees are often offered stakes. Though the ownership is now shared with the above parties, the model largely continues to be founder-centric. This is where governance issues start cropping up. If the board does not have a fair representation of non-executive members, or if the independent director is the founder's friend/investor, the whole purpose gets defeated. The principal-agent relationship between directors and shareholders/owners is

compromised when the roles overlap.

Start-ups are perceived to be unique models that are capable of exploiting the new opportunities thrown up by technology and innovation. Most start-ups revolve around innovation, creativity, freedom, faster growth and consequently higher levels of risk. Hence, governance seldom attracts sufficient attention in the initial years. Legal compliances are often taken care of; however, the governance methodology and control mechanisms at start-ups tend to vary from public entities as well as traditional private entities. Problems tend to arise as the company matures and reaches the stage of exit or acquisition. We have witnessed examples of flawed valuations and disastrous IPOs.

WHAT THEN NEEDS TO BE DONE?

The solution would be for investors to have a better understanding of the fundamentals of the business model, strengths and weaknesses of the business, financial resources available, funding limits, risk appetite, and other legal and compliance issues. It is similar to the 'Heart and brain functions'; start-ups thrive on values of creativity and innovation (function of the heart), but it is essential to draw the boundary and place controls (function of brain). For the entire system to keep running and sustain, the heart and brain need to perform their functions effectively. The former will support speedy growth, but the latter is essential for sustainable growth.

Bad governance can disrupt an organisation. In order to avoid costly mistakes, it would be good practice to incorporate some basic principles of corporate governance in the early stages. Corporate governance is the system or framework of policies and structures by which companies are controlled and directed. The Board of directors are primarily responsible for governance and shareholders need to assure themselves that they have an effective board and auditors in place.

KEY PRINCIPLES

The four key principles that form the basis of Corporate Governance are:

1. Responsibility

The primary responsibility of the directors is towards the shareholders, to ensure shareholder wealth creation and wise utilisation of resources. This understanding among all the parties in a start-up and following it in form and action is the key to good corporate governance.

2. Accountability

Business must be able to account for every action and decision taken and take ownership for the risks involved. This builds trust and confidence among shareholders and other stakeholders. In order to ensure a proper structure of accountability, a good reporting system, risk management and internal controls would be basic requirements.

3. Transparency

Transparency in running the business entails assurance and comfort among stakeholders, and builds upon the trust. A sense of openness and willingness to disclose facts and information goes a long way in fostering a healthy relationship. Proper maintenance of financial records, maintaining Board minutes to record the decisions taken, conducting regular audits are some of the basic steps that can be undertaken by start-ups to ensure transparency.

4. Fairness

Effective corporate governance also requires fair practices in all spheres and towards all the stakeholders irrespective of the size of their stakes. This encompasses investors, employees, suppliers, customers and society. Building and sustaining a positive work culture, inclusion of diverse parties, maintaining pay parity and respect for all are some of the factors to be considered here.

The above principles can be used as a starting point or as a basic framework. Nevertheless, the governance structures in a start-up should also facilitate and complement the values of creativity and

innovation. As the organisation grows, the framework of corporate governance needs to grow and strengthen in order to exercise better controls and ensure a fool-proof system that covers all aspects of the organisation. Above all, it is the social responsibility of the founders and directors to act with integrity and in good faith.

¹Indian start-ups have been successful in making a mark in the global start-up arena. As per Economic Survey 2021-22, India has more than 60,000 registered start-ups making it the third largest ecosystem for start-ups, after the US and China. The number of start-ups is growing significantly, as so is the jobs generated. According to a report by StrideOne, a tech-enabled NBFC, start-ups in India have the ability to contribute about 4-5 per cent to the GDP in the next three to five years. The Indian Government has, through the 'Start-up India' initiatives implemented various incentives and schemes to propel the start-up ecosystem with an objective to make India No.1 in the world.

The past decade had been founder-friendly, thanks to angel investors and the sharks and tanks; terms like 'unicorn', 'VCs' have crept into common man's lexicology. Today the entrepreneurial dream seems feasible and the younger generation is ready to accept the entrepreneurial challenge and take the leap to introduce innovative products and solutions. In order to keep the momentum going and to sustain the sentiments around start-ups, it is essential to incorporate a certain amount of care and caution right from inception. Awareness is the need of the hour and that is what this article seeks to do.

It would be apt conclude by quoting the words of PM Modi, "Start-ups are going to be the backbone of new India. India is a youthful nation, blessed with useful aspirations. Our youngsters can do a lot for the nation and the world."

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EMBEDDING ESG ESSENTIALS TO ATTAIN SUSTAINABILITY



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ESG: ENVIRONMENTAL – SOCIAL – GOVERNANCE

Recent encounters with COVID deeply petrify the world economy, which consequently transpire social and environmental concerns. ESG, being catalyst measure, has come up to embed three pivotal factors under its roof. It has been a multifaceted approach ensuring environmental protection, believing social concerns and bringing acceptability for good governance by the companies. The notion behind its existence is its applicability to pace with CSR as measurable sustainability assessment. It provides the yardstick to upkeep financial performance through social participation by analysing the sustainability scores of companies. This concept is being seen as a future of CSR due to the wide spectrum it has, towards the social interests.

In recent years, it outshines in the lights of sustainable development goals. Companies are being encouraged to submit ESG reporting following the various parameters prescribed for the benefit of various stakeholders. It has resulted in steady growth of the size of sustainable assets with respectable CAGR. Investment in ESG compliant companies is expected to be more than \$50 trillion by 2023. More than 30 per cent raise of sustainable investment share on global AUM has already been observed.

Abstract

The Human planet will soon embark into the second quarter of this Century. At such instant, countries worldwide are witnessing enormous change, the way governing bodies deal with social and economic concerns. Soon after the implementation of latest version of Companies Act, adherence of the Indian Government towards adoption of 2030 Agenda for Sustainable Development has been appreciated as a historic move. SDR, 2022 placed India into 121st rank with SDG Index Score of 60.32. This can be seen far behind than countries like Finland, Denmark, Sweden and Norway, but rising trajectory trend in graphical scale till date is articulately assuring the promising outcomes. Post-COVID society seeks to reform resilient economies with sustainable business advancements and presumes handily approach from corporate sector. It appears that such possibilities might have been sensed early by MCA to awaken the companies to contribute to the society.

Good corporate governance system not only necessitates participating CSR activities but also facilitates incorporating sustainable development. To achieve it, embedding ESG framework has been a global phenomenon to represent trillions of assets under management. ECOSOC, recently, urged the industry players to adopt ESG elements and believes on their potential to build strengthened social economies.

The present article endeavours to sketch ESG initiatives towards social resilience and the way it may help to achieve SDGs. It explores the grounds on which CSR initiatives gets transformed into ESG movements, to budge towards consideration of environmental, social and governance framework and contribute to attain sustainability.

E in ESG	S in ESG	G in ESG
Biodiversity harm	Community affairs	Anti-corruption policies
Climate change & its facets	Customer satisfaction	Board composition
Consumption of non-renewable reserves	Data security & privacy	Committee formation
Deforestation	Diversity in workforce	Cyber & virtual security
Energy efficiency	Unbiased strategies	Diversity in leadership
Enhanced accountability of producers	Gender sensitivity	Executive compensation
Greenhouse gas emissions	Health, safety & welfare issues	Structure for corporate governance
Pollution	Human rights	Internal controls
Nature conservation	Labour standards	Organization structure
Waste management	Risk assessment	Stakeholder privileges
Water management	Work environment	Whistle blower schemes

EXPEDITION OF ESG IN INDIAN DORSAL

ESG initiatives are certainly growing up with higher perceptions, else would not have been alluring option for social fulfilments in such short span of time. ESG is said to be in existence since 1960s as social responsible investing. The Brundtland Commission (1987), UNEP (1992) and TBL (1994) recommended companies to adopt approaches to consider social and environmental concerns. However, soon after European concerns for CSR in 2001, the ESG reincarnated in 2005 in the Milestone Report entitled ‘Who Cares Wins’ and immediately in the next year, PRI to integrate ESG issues with investment practices were created.

Ingress of ESG	
2009	CSR Voluntary Guidelines issued
2011	NVGs issued by MCA
2012	Mandate of BRR by SEBI
2013	Enactment of Companies Act, 2013 Inclusion of provisions for CSR
2015	Prescribed format for BRR as part of SEBI
2017	Recommendations of IR
2019	Formulation of NGRBC Mandatory BRR
2021	BRSR as ESG parameters

The Indian precincts, the first time through the initiatives of MCA in 2009 bring into picture the ESG reporting, by specifying voluntary CSR guidelines. ESG embraces the cornerstones - corporate governance and has assured wide acceptability and gained deep interests of corporate world and governing authorities. Soon thereafter MCA released NVGs as an array of nine principles on EESG (Environmental, Economic, Social & Governance) concerns. It has explored the guiding principles to businesses to reach TBL. On its basis, SEBI took initiative by mandating BRR as disclosure of espousal of responsible business practices,

which act as first ESG regulatory disclosure framework in India. It remains applicable to top 100 listed entities. SEBI further prescribed BRR format and recommended adoption of IR on voluntary basis. A lead in this regard again has been taken by the Companies Act, 2013 by including the CSR provisions. SEBI has played significant role by introducing mandatory BRR and later introduced BRSR as reporting requirements on ESG considerations. BRSR is based on general, management, processes and principle wise performance disclosures (consist of nine guiding principles).

PRINCIPLES UNDER PERFORMANCE DISCLOSURE IN BRSR	
#1	Businesses should conduct and govern themselves with integrity and in a manner that is ethical, transparent and accountable.
#2	Businesses should provide goods and services in a manner that is sustainable and safe.
#3	Businesses should respect and promote the well-being of all employees, including those in their value chains.
#4	Businesses should respect the interests of and be responsive to all its stakeholders.
#5	Businesses should respect and promote human rights.
#6	Businesses should respect and make efforts to protect and restore the environment.
#7	Businesses, when engaging in influencing public and regulatory policy, should do so in a manner that is responsible and transparent.
#8	Businesses should promote inclusive growth and equitable development.
#9	Businesses should engage with and provide value to their consumers in a responsible manner.

BRSR seeks details based on the principles of NGRBC on two sub-categories i.e. essential and leadership indicators. Essential indicators comprise predominantly data on training programmes, environmental issues and social impacts. Voluntary leadership indicators are for the purpose of better accountability. Though it indicates how much the companies are ESG conscious, the principles can also be mapped with SDGs and various laws enacted in the country.

LEGAL HAVEN

It has been on surprising mode to observe that ESG still do not have any single codified legal framework. ESG framework holds onto many existing enforcement legislations to officially shield its affairs. In fact, involvement of three distinct factors seeks towards breathing relevant laws for many of its issues to let ESG ensure its law-abiding applicability. However, the growing influence necessitates economies to enforce a concrete relevant legislative haven.

Focal areas for ESG compliance

- 1. Environmental related** – Waste management (e-waste, bio-medical, hazardous, plastic, solid), ozone depletion, water and air pollution, harm to natural ecosystems, etc.
- 2. Social related** – Working conditions, employment terms, pay structure, unions formed, health, safety and welfare issues, permanent and contractual workforce, child and women employment, social development etc.
- 3. Governance related** - Energy conservation, constitution of CSR Committee, CSR policy, CSR activities, duties of Directors to promote objects for the benefit of stakeholders, etc.

Following are the various legislations having impact on ESG:

ENVIRONMENT
Wild Life (Protection) Act 1972
Water (Prevention & Control of Pollution) Act, 1974
Forest (Conservation) Act 1980
Air (Prevention & Control of Pollution) Act 1981
Environmental Protection Act, 1986
Public Liability Insurance Act 1991
Biological Diversity Act 2002
National Green Tribunal Act 2010
Manufacture, Storage & Import of Hazardous Chemicals Rules 1989
Batteries (Management & Handling) Rules 2001
Bio-Medical Waste Management Rules 2016
Plastic Waste Management Rules 2016

Solid Waste Management Rules 2016
Construction & Demolition Waste Management Rules 2016
E-Waste (Management) Rules 2016 (amended in 2018)
Hazardous & Other Waste (MTM) Rules 2016

SOCIAL
Trade Unions Act, 1926
Payment of Wages Act, 1936
Factories Act, 1948
Minimum Wages Act, 1948
Employees State Insurance Act, 1948
Employees' Provident Funds & Misc. Provisions Act, 1952
Maternity Benefits Act, 1961
Contract Labour (Regulation and Abolition) Act, 1970
Payment of Gratuity Act, 1972
Equal Remuneration Act, 1976
Child and Adolescent Labour (Prohibition and Regulation) Act, 1986
Various State and local acts related to specific shops and establishments

GOVERNANCE
Prevention of Corruption Act, 1988
Securities & Exchanges Board of India, 1992
Prevention of Money Laundering Act, 2002
Companies Act, 2013

Recent initiatives being taken by the Government to subsume existing labour related laws in three categories of Labour Codes will somehow influence the matters concerning ESG. New proposed codes i.e. Occupational Safety, Health and Working Conditions Code, 2020, The Code on Social Security 2020 and the Industrial Relations Code 2020 are in the finalization stage and are expected to be enforced shortly.

However, initiatives can't be considered ample to restrain the need to frame specific law for ESG issues, especially when it takes stride to bring investing initiatives. Correlated complexities and ambiguities of varied legal regimes can be streamlined and standardized to enhance productive outcomes.

CORRELATION WITH SDGS

Worldwide 193 countries strive to achieve 17 sustainable development global goals with 169 associated targets by 2030 enabling the economies to make specific and united

ESG still do not have any single codified legal framework

approach towards transformation. It entails earnest efforts from various companies to improvise their social and environmental sustainability. It provides basic guidelines and also acts as an evaluation scale to assess all three concerned parameters; the same may eventually move to become SDGs. Adopting ESG approach by companies in fact provides the pathway to achieve SD goals by nations to achieve sustainability. The 17 SDGs can well be associated with one or more ESG factor/s. ESG may act as subset for SDGs and a quantifiable appraisal tool to attain sustainability.

SN	SD Goals	Correlated ESG factor
1	N Poverty Eradication	Social
2	Zero Hunger	Social
3	Good Health & Well-being	Social
4	Quality Education	Social
5	Gender Equality	Social, Governance
6	Clean Water & Sanitation	Environmental, Social
7	Affordable & Clean Energy	Environmental
8	Decent Work & Economic Growth	Social, Governance
9	Industry, Innovation & Infrastructure	Environmental, Social, Governance
10	Reduced Inequality	Social
11	Sustainable Cities and Communities	Environmental, Governance
12	Responsible Consumption & Production	Environmental, Social, Governance
13	Climate Action	Environmental, Governance
14	Life Below Water	Environmental
15	Life on Land	Environmental
16	Peace & Justice Strong Institutions	Social, Governance
17	Partnerships to achieve the Goal	Governance

ESG reporting acts as a disclosure of business contribution in all three factors. It assigns scores to assess sustainability of an investment. ESG investing has become

popular to shower numerous circuitous benefits to the companies. It is connoted with sustainable investing, a growing investment avenue for investors looking for companies to prioritize sustainability. Nifty 100 ESG Index has triumphed to establish creditability on companies with ethical contributions. The scenario today provides numerous ESG compliant companies including Hindustan Unilever, Dabur India, Maruti Suzuki, Ultratech, Godrej Consumer, Asian Paints, Havells India, P.I. Industries, Eicher Motors, J.K. Cements and many others which assure promising future ahead. Companies realise the importance of backup hold of non-financial initiatives to make financial achievements strive hard to keep their ESG scores high. Score usually employs 100-point scale, relies on manifold norms and make use of distinct metric standards, weighing sustainability measures, resource utilization, financial viability, social participation, environment protection etc.

IMMINENT POTENTIAL TO REVIVE ECONOMY

The year 2015 signifies economies for globally acknowledging common sustainable development goals by 2030. Fortunately, ESG initiatives move parallel for the companies with noble norms for well-being. It works in embedded manner with companies' involvement towards achievement of SDGs for economies. Both approaches move to attain a sustainable world for the impending generations with inter-connected and inter-linked domains of factors.

Though India is one of the largest economies, the present picture reveals that it still does not rely much on ESG funds. Thus it is advisable to have an amalgamated approach to integrate ESG strategies towards attainment of SDGs. A speedier move towards ESG would help to weed out the unsustainable companies and thereby promote sustainable development. It ultimately leads nations to achieve globally set goals within prescribed time schedules. Current scenario and social expectations from economies and their concomitant corporate world asserts an approach to attain sustainable planet ahead.

ACRONYMS USED:

UNEP	United Nations Environment Programme
CSR	Corporate Social Responsibility
BRR	Business Responsibility Reporting
NVG	National Voluntary Guidelines on Social, Environmental & Economic Responsibilities of Business
MCA	Ministry of Corporate Affairs
TBL	Triple Bottom Line
SEBI	Securities Exchange Board of India
GRI	Global Reporting Initiative

TCFD	Task Force on Climate-related Financial Disclosures
SASB	Sustainability Accounting Standards Board
ESG	Environmental, Social & Governance
SDR	Sustainable Development Report
ECOSOC	Economic & Social Council
BRSR	Business Responsibility & Sustainability Reporting
SDG	Sustainable Development Goals
NGRBC	National Guidelines on Responsible Business Conduct
KPI	Key Performance Indicators

MA

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Dr. Ketharaju Siva Venkata Sesha Giri Rao
Signature of Publisher

SYSTEMIC APPROACH TO COPING WITH SUPPLY CHAIN DISRUPTIONS: A CASE FOR CORPORATE GOVERNANCE

Abstract

Global disruption of supply chains caused by the Covid-19 pandemic had led to reassessment of how logistic functions are integrated into operations and management goals. This paper is based on semi-structured interviews of stakeholders engaged in freight transportation, carried out in the post-Covid period. It also includes a case study of a leading pharma company that illustrates how the top management has successfully dealt with today's disruption-prone business environment. This paper contends that Supply Chain Management (SCM) and distribution logistics are too critical to be relegated to the background even when an organisation chooses to outsource them. It highlights the ongoing debates on mitigative measures and recommends that corporate governance needs to accommodate logistics functions under its fold so as to establish a systemic approach to cope with future disruptions.



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INTRODUCTION

In today's tightly-aligned global economy, geographically spread-out manufacturing and world-wide distribution of finished goods, tolerance towards disruptions is near-zero. Disruptions could be local, regional or global and may arise out of a number of unforeseen events including – acts of terror, cyber-attacks, environmental degradation, global-warming, rise in sea-levels and of course, pandemics (UNCTAD, 2022).

Disruptions could also turn out to be opportunities. One of the offshoots of Covid-19 pandemic has been the boost

it gave to e-commerce, logistics and warehousing (Knight Frank Limited, 2021) across India. Its success in the B2C environment extended to B2B (Khan, 2021). The US International Trade Administration observed:

“The value of Indian e-commerce was \$46.2 billion in 2020 and is expected to grow at 18.3% to \$137 billion by 2026....this sales channel was amplified throughout the pandemic.” (Sherigar, 2022).

In the context of SCM, resilience is all about ‘bouncing back’ and may be viewed as a systemic capability to –

a. sustain essential services in the

face of a disruption;

- b. grasp unforeseen opportunities that may arise from and as a result of the disruption; and
- c. recover rapidly from a disruption and assume normal operational levels.

This article examines the need for bringing the SCM and distribution logistics under the fold of corporate governance at a time when these functions are labelled as ‘non-core’ activities, best suited for outsourcing.

SURVEY OF LITERATURE

Issued in the wake of the Covid-19 pandemic, a report by UNCTAD

Disruptions could also turn out to be opportunities

(UNCTAD, 2022) warns that disruptions can bring world trade to a halt and recommended a risk management approach (Shih, 2022).

According to McKinsey Global Institute, companies experience supply chain disruptions of one to two months duration every 3.7 years on average (Henrich, Li, Mazuera, & Perez, 2022). The authors argue that they occur at the *inter section* of vulnerability of the organisation and unforeseen events.

One cannot expect the 3PL operators either to identify the organisational vulnerabilities or periodically update the risk identification and mitigation measures on their own. Overall, literature points to an urgent need for learning from disruptions, re-visiting the SCM strategies periodically and directing these functions through ownership and commitment at the highest levels of management. A recent study concludes thus:–

“At the centre of a sound supply chain governance approach, there exists a steering group, which generally means a senior board team, whose task is...attainment of strategic goals and objectives.” (Chatchawanchanakit, Arpornpisal, & Jermittiparsert, 2019, p. 861).

METHODOLOGY

This article is an outcome of an ongoing study of the stakeholder perceptions of logistics and SCM in post-Covid India. 35 stakeholders working at different levels were interviewed and Thematic Analysis was deployed. Experience of a leading pharma manufacturer is presented as Annexure.

KEY FINDINGS AND DISCUSSION

Logistics: Core or Non-core?

Until the pandemic outbreak, there existed a widespread conviction that logistics represented a non-core activity, best suited for outsourcing. Post-Covid, corporations are acknowledging the new reality that these functions require continuous monitoring, periodic risk assessment and close partnering with transporters.

Cost versus Time

As India moves towards greater value-addition through manufacture – time and reliability take precedence over cost of logistics. This is particularly valid in the case of high-value, containerised cargoes (Table below):

TABLE: LOGISTICS COST AS % OF GROSS VALUE-ADDED

[Based on: NCAER Report (2019) - ‘Analysis of India’s Logistics Costs’. (Pohit, 2019, p. 364)]

	Logistics Costs of Cargoes (2017-18)	Logistics Costs as % of GVA*	Mode
1	Electricity, Gas and Water Supply	2.0%	CONTAINERISED CARGOES
2	Drugs & Medicines	3.0%	
3	Others	4.0%	
4	Consumer electronics, Components, Computers	4.2%	
5	Other Manufacturing	5.6%	
6	Wood & Wood Products	5.6%	
7	Textiles, Apparels & Leather Products	7.9%	
8	Construction materials	8.1%	
9	Chemical Rubber, Plastic & Petroleum Products	8.5%	
10	Other Non-Metallic Minerals Products	9.4%	
11	Mining & quarrying output	11.2%	BULK CARGOES
12	Food, Beverage and Tobacco products	12.3%	
13	Cement	13.0%	
14	Ferrous & Non-Ferrous Metal & Metal Products	15.4%	
15	Machinery & Equipment	18.0%	
16	Agriculture and Allied	21.6%	
		*Gross Value-Added	

Technology as a Key Enabler

According to a senior manager of a Clearing and Forwarding (C&F) agency that moved on to 3PL operations

“Technology is not a matter of choice any more for our sector. It is a basic necessity. We are constantly updating our IT infrastructure in order to integrate with the networks of clients and other players in the entire chain.”

She also emphasised on the need for investing in

technology with a firm commitment from top-management.

Proactive Planning

A top logistics expert who headed a major hub port in South Asia said –

“Design, planning and capacities of the cargo flow paths should not only consider the organic growth, they should also consider one-off events that could unexpectedly alter the supply-demand functions.”

For example, multi-modalism and moving away from over-dependence on road transport are critical to logistic resilience in the Indian context. This certainly is an area for industry to collaborate with Government agencies through public-private-partnerships (PPP). In order to drive these initiatives and priorities, the corporate sector should present its case effectively and this calls for involvement of highest management levels.

Flexible Routing

Closure of Colombo port in 2022 highlighted the urgent need for a transshipment port in the Southern parts of India (Unudurti, 2022). The logistic risk mitigation plans should include routing options that are discussed upfront and shared with the SCM partners so that alternative pathways can be activated at short notice. This again calls for vision and involvement by top management.

Partnering

Changing logistic partners frequently solely on the basis of cost or through tendering process could become counter-productive. This applies to contracts with 3PL operators as well. Sitting across the table to sort out any issues will build trust. Integration with ERP offer excellent choices for sharing critical, real-time information with logistic partners.

Business Goals versus Regulations

As the case study (see Annexure) illustrates, implementing alternative logistic plans at short notice while pursuing business goals requires total awareness of the regulations. There is no margin for error here.

SCM Function in an Organisation

According to a top official of representing an industry body,

“Post-Covid, logistics functions will not to be viewed as a function of an invisible or background department, but acknowledged as critical operations that call for representation at the board level.”

CONCLUSION

The disruption of supply chains triggered by the Covid-19 pandemic imposed a sense of urgency for building resilient

supply chains proactively. Given the emerging realities of external threats and unforeseen events, world trade lies exposed to more disruptions than ever before.

In the Indian context, value-addition through manufacture is on the rise. Consequently, not just the cost – but on-time delivery, reliability and ability to cope with disruptions are taking precedence in choosing logistics.

SCM and distribution very time-sensitive and are too critical in today’s disruption-prone environment to be outsourced and forgotten all about. The challenge is to prepare for future shocks through advance planning and risk mitigation. These functions are to be built into and directed through corporate governance.

Interventions through laid-down corporate governance processes are essential specifically to –

1. *Accord appropriate empowerment*, funding and technology-enablement of the SCM function.
2. *Choose the right partners* world-wide to ensure smooth flow of materials and products – especially in situations that demand empowerment, awareness of local regulations and process-ownership.
3. *Access integrated IT solutions* to constantly monitor the logistics function even when it is outsourced.
4. *Voice the interests of industry* to influence Government policies and pursue PPP opportunities in developing logistics infrastructure.

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Annexure

CASE STUDY

Dr. Reddy's Laboratories successfully launch a new drug across Europe amidst Covid-19 Pandemic

Background

Established in 1984, Dr. Reddy's Laboratories, a Hyderabad-based pharmaceutical company, emerged as a leading manufacturer and exporter of drugs. The company routinely launches new products in different markets all over the world. Management of the company is fully conversant with the patent laws, quality control measures, certification requirements and supply chain management solutions that drive its successful global operations.

The Challenge

The launch of drug called 'Cinacalcet' however posed a logistic challenge. The logistics team at Dr Reddy's Laboratories, was tasked with *simultaneous* launch of the product across a number of European Union (EU) nations exactly on 01 October 2020, i.e., the day after the patent for the drug expires. The objective was to enter the EU market immediately after the drug becomes open to

other manufacturers, enabling the company to dominate the market. Competing products that match an existing patent are not allowed to enter the market until *after* the patent expires.

The challenge was further exacerbated by the onset of Covid-19 pandemic, which resulted in cancellation of a number of flights and disrupted transportation arrangements by other modes. Also, the product had to be tested and certified by accredited European laboratories that were closed due to the Easter vacation.

The Solution

The logistics team of Reddy's decided to dispatch the consignment by the very last flight that operated between Hyderabad and Frankfurt. To mitigate the risk of the goods being seized by German customs as they would arrive when the original patent was still valid, the management obtained prior permission to move the shipment *under bond*. After some frantic consultations with the European business partners as well as logistics operators, it was decided to transport the consignment by road to a seaport and then by ship to Malta. The plan was to stockpile the product in the island of Malta and use it as a springboard to reach out to various outlets across Europe. The solution called for close coordination with the transporters and shipping agents.

The QC team prevailed upon the external testing lab – having them come to the lab over the Easter break. Finally, the team had trucks waiting on each country's respective border ready to receive the goods.

In Retrospect

Dr. Ravi Prakash Mathur, VP and Head of Logistics and Supply Chain Excellence, Dr Reddy's Laboratories said,

"Right from the time the European launch of Cinacalcet was conceived, it was clear that to all of us that logistics were critical to its success. For each link in the logistic chain, we had alternative plans in place to avoid a 'single-point failure.' It was possible to meet the deadline through real-time coordination with local agencies and transporters as well as the customs authorities. In the end, we succeeded because of meticulous planning and coordination and by adapting a flexible approach to the multimodal logistics involved. Our success was aided by communication, local networking, digital documentation and rapid response from the transporters and carriers. Finally, commitment of our top management and the empowerment it extended to the logistics group was a critical success factor."

ROLE OF THE BOARD: LEADING THE WAY ON ESG

Abstract

The role of Board of Directors in vitalising Environmental Social Governance (ESG) is to offer oversight and guidance to the company in order to operate in an environmentally and socially responsible manner. This incorporates setting policies and goals related to ESG, invigilating the company's performance in these areas, and engaging with stakeholders to understand their expectations and concerns. Further, the Board works on integrating ESG considerations into the company's strategy and decision making. This includes assessing risks and opportunities associated with ESG hand holding the management team accountable for the accomplishment of the ESG targets. Hence, in improving ESG the Board's role is not only to abide by all the laws and regulations but also to enhance its environmental and social impact.

**अयं बन्धुरयनेति गणना लघुचेतसाम्
उदारचरितानां तु वसुधैव कुटुम्बकम् ॥**

“ Business need to go beyond the interests of their companies to the communities they serve.”

- Ratan Tata

INTRODUCTION

The theme “Corporate Governance: A pathway to Economic Sustainability” is suitably aligned with the Mission Statement of the Institute of Cost Accountants of India which states: “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.”

The idea of ESG (environmental social governance) usually comes with a concept of being a trend for investors who are willing to invest in organizations with sustainable, diverse and ethical practices. Still, corporate Boards need to know that ESG is much more than that. The real risk and opportunities must be addressed and not just window



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dressings. The COVID-19 Pandemic has made this more evident. The concept of ESG is not new to India. The philosophy of India endorses the principle *Vasudhaiva Kutumbakam*, which means ‘the world is one family’. It acknowledges the connection of all living beings and emphasizes the importance of believing in the impact of our actions on others. Corporate Boards can help in creating a more sustainable and equitable future for the members of the universe by adopting the concept of *Vasudhaiva Kutumbakam* and taking an active role in promoting ESG principles.

The present study will help to explore a broader oversight of the Boards in ESG, which will further capitalize on the opportunities and manage risks.

OBJECTIVES OF THE STUDY

- ⊙ To study the current state of ESG governance.
- ⊙ To identify the role of the Board in ESG initiatives

including their responsibilities and decision-making process.

- ⊙ To study the challenges and opportunities for improvement in ESG governance.

RESEARCH METHODOLOGY

Since the ESG concept is evolving in India, there are very few studies available on the role of Boards in ESG. Therefore, the present study is descriptive and explanatory in nature. The study is conducted through the Desk Research method. The analysis of the aspects is done through publicly

available documents, journals, books, newspapers, and reports on websites on the internet.

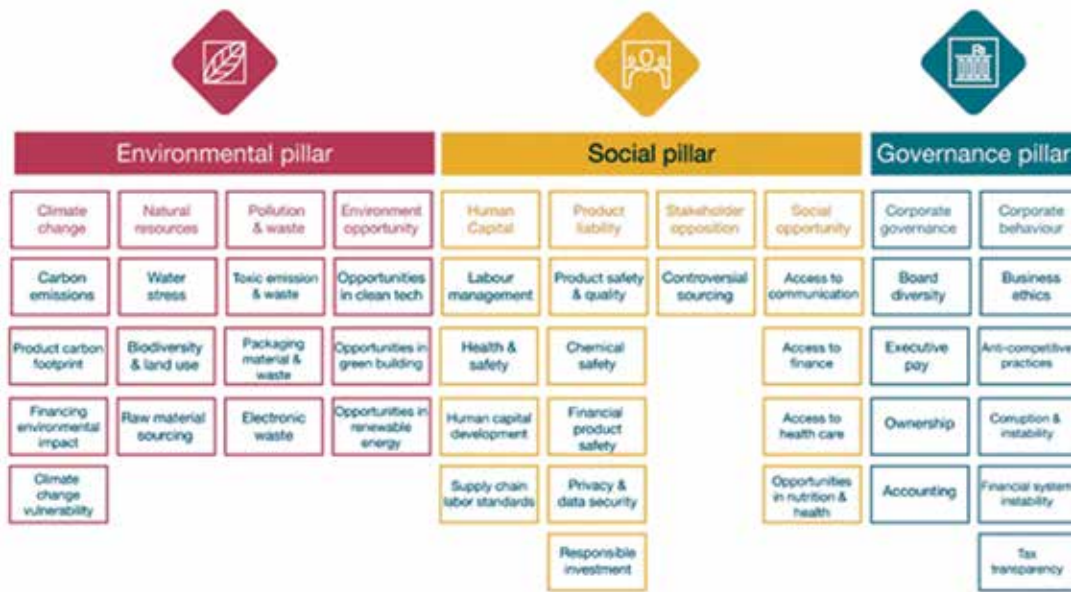
UNDERSTANDING ESG

ESG is a systematic framework that can be incorporated into organization’s strategies so as to create value for the stakeholders. Since the onset of the Century, significant technological, environmental, geopolitical, and socio-economic changes have modified expectations and operating environments for businesses that re-examined corporate governance principles and Board practices. These

new dimensions of environmental, social, and governance have substantially given more relevance to the core goal of the company.

THE THREE DIMENSIONS

Corporate sustainability comprises of all three dimensions - environmental, social, and governance so as to create long-term value by implementing the required strategies. ESG reporting is the disclosure of the data and information that depicts a business impact and its added value in the below three areas.



Source: pwc-esg-oversight-the-corporate-director-guide.pdf

OVERVIEW OF E, S, AND G -

⊙ **Environmental:** The environmental initiatives taken by the organizations aim at reducing the effect of climate change by limiting the impact of human activities on nature. Companies can mitigate the score of carbon footprint by adopting more sustainable ways such as increasing the use of renewable energy, energy-efficient technologies, use of sustainable materials, etc. This will in turn help the companies to lower operating costs and attract conscious investors.

- ⊙ **Social:** Social investing initiatives have contributed to fill the gaps between income and opportunities. There are diverse initiatives like fair labour practice, workplace health, and safety, workforce training, etc. This will help to create an “assistant table workplace” with improved productivity.
- ⊙ **Governance:** Governance is the guide for corporate behaviour which ensures that companies can manage responsibly and ethically. Investors take investing decisions by

measuring the factors like financial accountability transparency, Board structure, diversity, risk management, etc. Poor governance leads to mis-management creating a negative reputation for the company. Thus, by prioritising good governance companies can build trust in investors and stakeholders.

IMPORTANCE OF BOARD-LEADING WAY ON ESG

- The Board of Directors plays a vital role in drafting the ESG strategy. The Board of Directors can make a huge

difference by critically overseeing the company's ESG issues in the present world of uncertainty. This can be achieved by the following:

- ⊙ **Linking purpose with strategy-:** The Board has the responsibility to align the purpose and the strategy of the organisation as a whole and its socio-economic relevance. The Board should understand that company's strategy is diverse in nature and should be also inclusive so as to incorporate all the stakeholders.
- ⊙ **Building reliable ESG information-:** The Board, with the help of the materiality concept, should prepare consistent and reliable information so as to fulfil the responsibility towards the disclosure of information to stakeholders such as an investor, bankers, suppliers, customers, and the Government.
- ⊙ **Apt disclosures-:** The information should be disclosed carefully and reconnected to the purpose and the strategy and should not be done only to window dress the image of the organisation. Correct and fair disclosure would always help the stakeholders to get the correct information about the organisation.
- ⊙ **Oversight-:** ESG oversight is an important role of the Board which ensures that the ESG strategy committed by the Boards is aligned with the business strategy.

ESG: CHALLENGES AND OPPORTUNITIES

ESG is a widely accepted terminology to describe sustainable, ethical, and responsible investments, activities, and practices. It comprises various elements which hold higher degrees of complexity. Addressing challenges in the implementation of ESG strategies requires a holistic approach to governance, balancing financial performance with broader

societal and environmental impacts. To achieve a realistic purpose there, exist various challenges that need to be overcome such as the following:

- ⊙ Many Board members may lack the expertise to understand the ESG opportunities and risks, which will make it difficult for them to assess and manage ESG-related issues.
- ⊙ Contradictory understanding of ESG where potentially different and skewed views can be put together through various training activities.
- ⊙ Syncing ESG and business strategy can create a complex and may require considerable changes in the existing practice.
- ⊙ Involvement of the stakeholders and gravely comprehending their issues.
- ⊙ Communication with the organisations, employees, investors, and stakeholders needs to be enhanced for sustainable collaboration and partnerships. Balancing the interests of all the stakeholders will be a challenging task for the Boards.
- ⊙ The blending of ESG and ERM frameworks so as to have a holistic approach to manage ESG risks.
- ⊙ Balance of the short-term and long-term plans like drafting sustainable strategy and assessment of the carbon footprint.
- ⊙ Ensuring that the company complies with the regulations made by the regulator may require additional compliance work for the Board.

ESG opportunities can be identified through examination of the company's ESG performance and comparing it with the competitors. Accustomed to the changing concerns, priorities, and expectations of the stakeholders in ESG helps the Board to have their own ESG stand and position more effectively.

Key opportunities include:

- ⊙ Development and maintenance of a strong trusted brand.
- ⊙ ESG being an important aspect, attracting and perpetuating talent, values, and ethos of current potential employees that aligns with the ESG purpose and strategy proves important.
- ⊙ Appropriate and strong ESG strategy can give increased productivity, lower costs (economies of scale), and reduce regulatory intervention.
- ⊙ Opportunities for innovation and growth for new products and services as learned from COVID-19.

ESG AND SOCIETY

ESG has gained huge popularity as it equally balances financial and ethical responsibility by taking care of both people and the planet. Buying the products of the ESG-prioritised companies will encourage social and ethical practices and behaviour. The increasing demand for ESG products and services will encourage the adoption of ESG principles and strategies by other businesses thereby safeguarding the environment and society as a whole. Having transparency about ESG practices will help consumers in making decisions as to what products to buy and where to invest ultimately creating positive externalities from production. ESG is important as it makes companies responsible and answerable which builds consumer trust.

ESG DISCLOSURES

ESG is an inclusive term of different parameters related to environment, society, and governance. This comprehensive term brings in newly developed business strategy through sustainable ways thus creating additional value economically and socially. Factually, investors and regulators pay attention to a company's ESG frameworks to evaluate the company's future viability. In near future possibly all organizations might

require to incorporate ESG practices.

The Securities and Exchange Board of India (SEBI) in May 2021 introduced the Business Responsibility and Sustainability Report (BRSR) to ensure companies incorporate socially and environmentally responsible practices. This aimed at promoting accountability and transparency in integrating ESG principles among organisations.

The BRSR is aligned to the nine principles of the National Guidelines of Responsible Business Conduct (NGRBC). This report is applicable to the top 1000 listed companies (by market capitalization) with a mandatory requirement from FY 2022-2023. BRSR is more elaborate including details of services, CSR activities, management and process disclosures, Governance, leadership, and oversight. ESG disclosures are creating long-term value for investors. According to SEBI data, fifteen Indian corporates issued green bonds worth rupees 4,539 crores between 2017-2022 mostly related to renewable energy generation and tertiary treatment of wastewater.

BOARD'S OVERSEE

Boards play an important role in ESG oversight for assessing the organizational environmental and social impacts. It can be a real task for the Board to connect global issues like climate change to the organization's strategy, operations, and risk profile. Boards need to look down at two essential aspects-

- ⊙ Finding a path by utilising all the resources and expertise to understand where the organization best fits for the ESG framework.
- ⊙ Continuing with the ESG strategies which align with the company's strategies.

Throwing light on the above aspects and finding a path to ESG is the most difficult task for businesses. Primarily it needs to recognise the importance of ESG for the business and how to incorporate it into the company's strategy. Companies should understand their priority and

decide on the ESG strategy. ESG being an emerging sector, businesses have to assess their own position and take strategic decisions accordingly. Boards must ensure that there is expert involvement in the ESG framework. Boards while accomplishing the goals and sticking to the strategy must ensure that there is proper integration of ESG in the company's strategy to avoid conflicts between the priorities. Proper monitoring of local, national, and international developments must be implemented. ESG maturity must be assessed by using metrics for the evaluation. There needs good communication between the management and the investors regarding the ESG framework. Boards should ensure that they give importance to transparency with the stakeholders through a high degree of morale and ethical leadership as stakeholders always want cohesive information when it comes to ESG. Companies in India are increasingly giving importance to sustainable choices like:

- ⊙ Havells eliminated the use of trace Kr-85 radioactive isotope.
- ⊙ Godrej has increased its renewable energy portfolio by reducing greenhouse emissions.
- ⊙ Maruti Suzuki awards scholarships to underprivileged communities.

BOARDS IMPACT ON ESG PERFORMANCE

ESG performance measures of a company against the ESG criteria to take investment decisions. ESG performance is important as it provides opportunities for competitive advantage to businesses so as to increase brand value. There are different factors that have a direct or indirect impact on the ESG performance of the businesses some of the important factors below prove vital in strengthening the governance function.

- ⊙ The design and diversity of the Board are composed of expert members and an effective board of directors which determine

the direction of the business.

- ⊙ Board diversity including members of different personalities, ages, learning styles, and knowledge levels along with female representatives.
- ⊙ The size of the Board of Directors is an undeniable fact for the stakeholders.
- ⊙ CEO duality, where the Chairperson and CEO positions are jointly assumed by the same person resulting in hindrance in independence and weak internal control.
- ⊙ Existence of a CSR Committee to enhance corporate governance performance.

The structure of the Board has a huge significance on the ESG dimensions with both positive and negative impacts. Hence, important considerations like the purpose and strategy, risks, disclosures, and measurement of progress help the board in identifying and managing ESG issues.

ROLE OF COST ACCOUNTANTS (CMA'S) IN ESG FRAMEWORK

A Cost Accountant plays a critical role in measuring and evaluating the ESG performance of the organizations. With expertise in the field of defining strategy, CMAs can help the Board of directors to sync the business strategy with the ESG strategy. The role of Cost Accountants can be defined in three parameters as follows:

- ⊙ **Environmental:** A Cost Accountant can help in assessing the costs and benefits of an environmental initiative such as energy conservation or reduction of waste etc., thereby, reducing the operating cost of the company. They can also help Boards in tracking and reporting the company's environmental performance such as the emission of various pollutants etc.
- ⊙ **Social:** Assistance can be

given by the cost accountants in measuring and reporting on the company's social impact such as initiatives taken for employees' health and safety, and community engagement.

- ⊙ **Governance:** Cost Accountants can help companies to ensure various compliances as stated in various laws and can also assist the board of directors in assessing the effectiveness of governance practices followed by the company.

CONCLUSION

The engagement of corporate Boards in enhancing environmental, social, and governance (ESG) practices is vital and crucial in today's rapidly evolving business environment. ESG concerns are no longer just a trendy focus on sustainability, diversity, and ethics but are a crucial aspect with real risks and opportunities. Corporate Boards are significantly responsible for managing and improving ESG performance. By implementing effective governance through stakeholder engagement, organizations can create a positive impact on the world thus bringing a

better future for all. **MA**

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Referencing is a crucial aspect of writing a journal article to avoid plagiarism. 'Plagiarism' refers to the act of using someone else's work or ideas without giving proper credit to the original source. To avoid plagiarism in your writing, you must properly reference all the sources that you use in your research.

- ⊙ **Choose a referencing style:** There are many different referencing styles, such as APA, MLA, Chicago, and Harvard, each with its own specific format and rules. Choose the style that is most appropriate for your field and stick to it consistently throughout your paper.
- ⊙ **Cite your sources:** Cite the sources of information you use in your text by giving the author's name, publication date, and page number(s) for direct quotes or paraphrased material.
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- ⊙ **Be accurate:** Ensure that the information you provide in your references is accurate and complete. This includes the author's name, publication date, title, and source of the information.
- ⊙ **Paraphrase carefully:** When paraphrasing, make sure to put the information into your own words, but still give proper credit to the original source.

By following these tips, you can effectively reference your sources in your journal article and avoid plagiarism. Remember that proper referencing is not only important for avoiding plagiarism, but it also helps to support your arguments and show the depth of your research.

HOUSING SECTOR IN INDIA: AN ESG ROUTE INTO A GREENER FUTURE

Abstract

The growth momentum in Indian housing and residential real estate sector is reflected in the 'Nine-year Best' sales and launches noted in 2022. Sustainability being globally recognised as an imperative in this ESG era, green housing needs a policy push. CMAs can play key role in attaining sustainability and competitiveness by 'Going Green'.

1. Introduction

The housing sector in India could not only tideover the COVID-19 slump but could also surpass the pre-COVID level, shows the 'Nine-year Best' sales and launches in 2022. Its growth momentum implies the prospects for India's economic growth, given the vast linkages of housing and hence its ability to be an economic growth engine. (Figure I).

Figure I: Nine-year Best (2014-2022)



Source: Knight Frank (2023) Report [1].

Though 2022 has witnessed the sales and launches of houses surpassing the 2014 levels (Nine-Year Best), it could



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not reach the 2013 level (Figure I), or 'Ten-year Best' is not attained. Home loan market is highly underpenetrated in India, though the Home Loan to GDP ratio improved to 10.5 percent (2022) from 8 percent (2015). (Figure II).

Figure II: Home Loan to GDP Ratio-India.



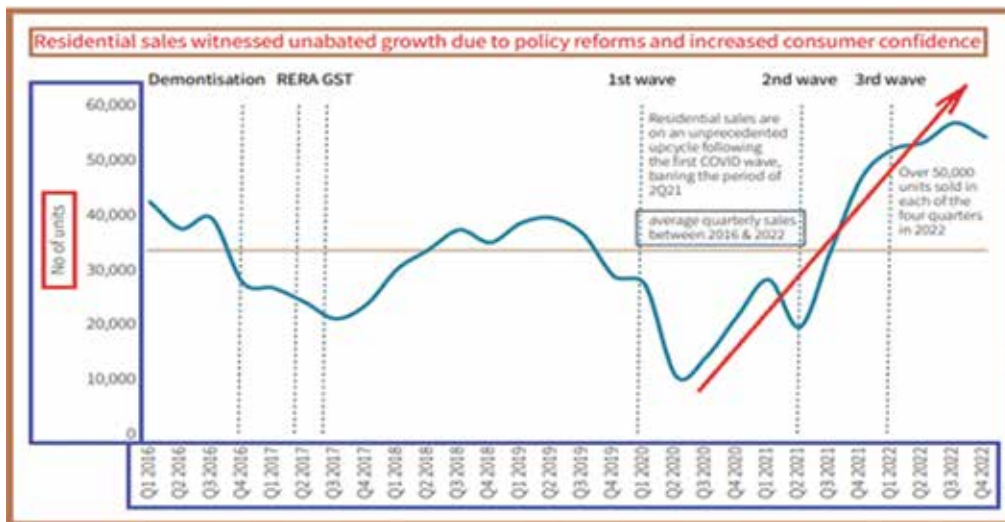
Source: NHB (2022), Annual Report. [2].

The growing trend in houses and the vast growth prospects (given the too low home loan to GDP ratio of 10.5 percent), policy support of the Government etc.

are favorable for India’s faster economic growth. But, the long-term sustainability of Indian economy in general and housing sector in particular depends on the environmental preservation, together with the developmental initiatives. ESG (Environment, Social and Governance) reporting has become an imperative globally for any sector to survive, especially the housing sector. Indian industry in general, and banking and finance (housing finance) in specific, must face this ‘Green challenge’ for sustainability, as ESG is a

global reality. ESG data need to be integrated on real time basis with IT systems and processes, for the regulatory compliance and also to meet the rising customer needs (Mc Kinsey, 2023)[3]. RERA (Real Estate Regulatory Authority) Act is being fast adopted in States and UTs in India; boosting the customer confidence greatly, slashing the real estate court cases and hugely rising transparency. (Figure III).

Figure III: Impressive Growth in Residential Sales in India in the RERA Era till Dec. 2022



Source: JLL (2023), *5 years of RERA progress – the journey of increasing trust*, Feb., p.10.[4]

2. Objectives and Methodology

- i. To study the landscape of residential real estate in India in the RERA era from the global perspective of an ESG imperative;
- ii. To apprise the vital need for aligning RERA in India with ESG norms in India from the sustainability perspective;
- iii. To study the role of CMAs in aligning the RERA with the ESG norms in this ‘Digital India’ era of vast ICT adoption.

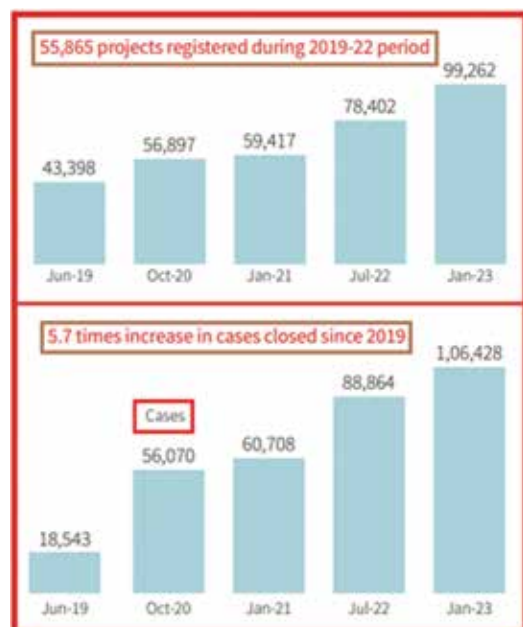
This descriptive-analytical study being of exploratory nature, no hypothesis is framed. The research questions are: (i) What is the significance of India’s housing sector in this RERA era and how this sector contributes to India’s economic growth? (ii) Why RERA must be aligned with ESG for the sustained growth of housing in India? (iii) What is the role of CMAs in the RERA-ESG integration and its national relevance? The data sources were the authentic reports of the Govt. of India (GOI), RBI, and reputed agencies like Mc. Kinsey and JLL.

3. RERA Era: Need for ESG Integration

The landmark RERA enactment and its fast adoption has had vivid positive changes in India despite COVID-19 and

other shocks, like, GST, Demonetisation etc. Nearly one lakh housing projects have been RERA-registered. (JLL, 2023). (Figure IV).

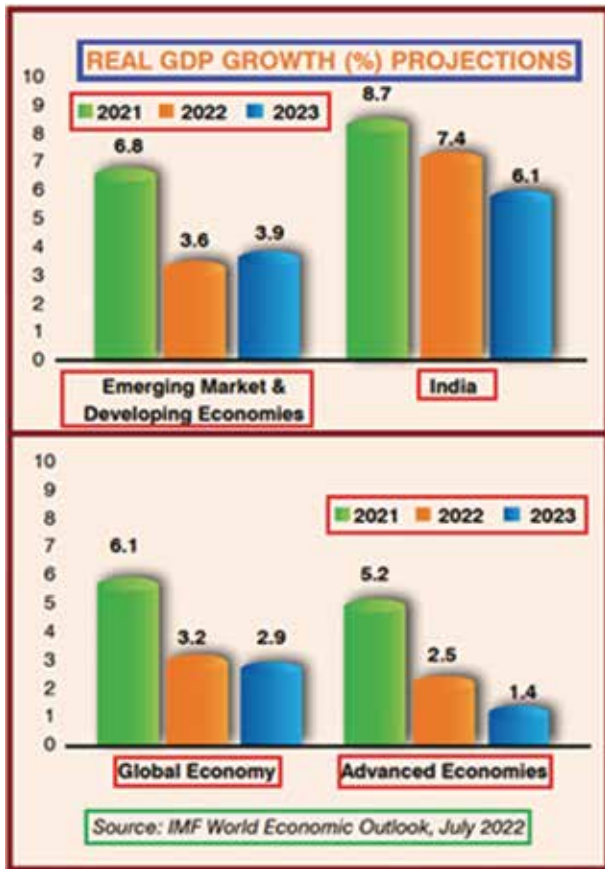
Figure IV: RERA Era- Key Growth Trends.



Source: JLL (2023), Feb. [4].

In line with the growth momentum in the housing sector, there has been an impressive trend in India’s GDP growth as against the globe or other nations (Figure V). It may be noted that growth in housing sector has clear positive impact on the economic growth of the whole nation, due to the vast linkage (multiplier) effects of housing investments, both Type I and Type II. (Table I).

Figure V: GDP Growth-India Vs. Globe.



Source: NHB (2022), *Annual Report*. [2].

Table I: Housing Investments- Multipliers

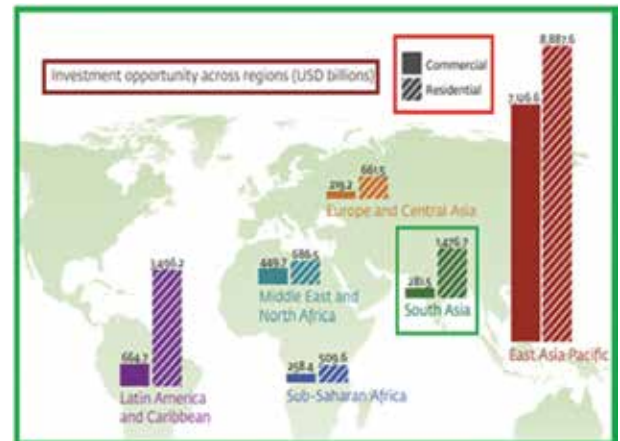
Multiplier	Type I	Type II
Employment Multiplier	1.15	1.73
Income Multiplier	1.54	2.84
Output Multiplier	2.33	5.11
Employment Co-efficient	2.69	4.05

Source:GOI (2014), NCAER study. [21].

Ever-growing environmental issues have forced a departure from the traditional mode of corporate reporting that is based on profit (economic) aspect only to more broad-based reporting using ESG data. ESG-driven and ‘Green Mortgages’ focused strategy has vast investment scope globally, expressly in South Asia including India. The investment scope of Green mortgage in South Asia being

huge (USD 1476.7 Billion) India must tap this opportunity (Figure VI). India’s mortgage to GDP ratio being at the low 10.5 percent level, support by Governments at the Union and the States (e.g.RERA), national goal of *Housing for All* (HfA), etc. are all positive factors in India. The ‘Triple Win’ Green Buildings model of Romania must be a role model for India for ‘Going Green’. (Figure VII).

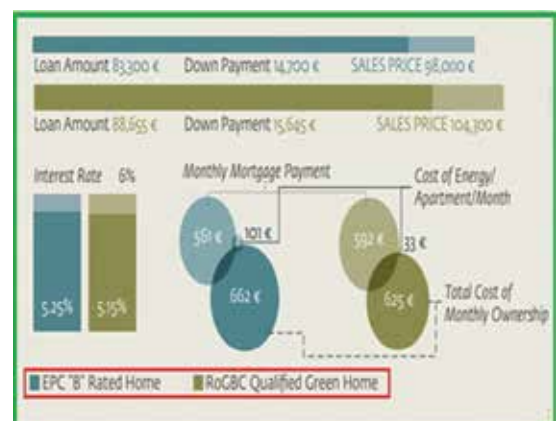
Figure VI: Huge Investment Opportunity.



Source: IFC (2019), *Green buildings*. [5]

Global experiences suggest that Green Mortgages and other sustainable finance models ensure sustainability for the housing sector and also promotes economic growth. RoGBC (Romania Green Buildings Council) promotes its SMARTER finance based on Green Mortgage as it ensures ‘Triple Win’, or benefits to all the three stakeholders viz. home buyers, banks, and developers. The developer builds a more expensive green home on the condition that the bank will grant a larger loan to the home buyer to cover the extra cost of green homes. The bank gets a larger and less risky loan that fetches it higher returns. The home buyers benefit from the lower monthly costs and other cost savings and also superior quality home, though the loan is larger.(Figure VII).

Figure VII: ‘Triple Gains’ of Green Homes



Source: IFC (2019), *Green buildings*. [5].

It may be noted that ESG integration is an imperative for the sustained growth of India's housing sector. It leads to sustained growth of Indian economy as a whole, given the linkage effects of housing investments.

4. ESG Integration: The Role of CMAs

ESG was adopted in India vide. BRSR (Business Responsibility and Sustainability Report) by SEBI in May 2021, whereby corporate performance must be disclosed using nine principles. In this 'Digital India' era ICT adoption is vital as ICT is the key enabler of transparency and governance, and it can even preserve the environment (trees).

Figure VIII: Green Housing: Role of CMAs



Source: Author's Compilation

5. Concluding Observations

Globally, ESG is not only an imperative but also a strategic tool. Top managements of the housing businesses in India, while complying with RERA must adopt ESG too, for their sustainability. RERA has already created a very conducive climate for housing development in India; as it could ensure better transparency, investor confidence, drastic fall in court cases, etc. Integration of ESG into RERA, with ICT adoption also can ensure a perfect,

environment-friendly and sustainable growth of this vital sector. Here, CMAs can play the key role of optimising resource utilization through effective ESG adoption, by striking a trade-off between the 'Cost of Going Green' and its long-term returns to the stakeholders, including the society and environment.

A *Sustainability Committee* with CMA in the key role, with cross-functional representation too, at the top management level is advisable. The Committee's decisions must be promptly communicated down the line for execution. Action plans for ESG adoption be regularly framed, with due regard for ICT integration, for execution in their true letter and spirit. The much-desired competitiveness in quality and cost savings can be attained, focusing on innovation, stakeholder engagement, trust, and constant learning. Benchmarking the respective firm with its national and global 'Best in Class' firms is desirable in an ESG setting. Here also, the CMAs role is pivotal. Obviously, extensive ICT adoption, must go hand in hand with the compliance with RERA and ESG norms, in today's *Digital India* era since it ensures unmatched competitiveness and efficiency. Any strategy that focuses on ESG and ICT augers well with the current policy of the GOI. GOI's Budget 2023-24 (Feb. 2023) is no exception since 'Green Growth' is one of its seven priorities and hence Green Houses get priority. To attain India's national goal, *Housing for All*, an ESG-based strategy is vital in this RERA era, so as to sustain the growth momentum. MA

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EFFECTS AND RELEVANCE OF FORENSIC ACCOUNTING IN CORPORATE GOVERNANCE

Abstract

This research article explores the impact and significance of Forensic Accounting in Corporate Governance. By conducting a comprehensive analysis of current literature and data, the article highlights the crucial role of Forensic Accounting in detecting and preventing financial fraud, improving transparency and accountability, and strengthening overall corporate governance practices. The findings of the study provide insight into the importance of Forensic Accounting in ensuring ethical behavior and promoting good governance in organizations. The study concludes with recommendations for organizations to consider in integrating Forensic Accounting into their governance processes.

Introduction

Forensic accounting is a specialized field within the broader realm of accounting that encompasses deploying investigative techniques to expose financial fraud, embezzlement, and other financial crimes. In recent years, the role of forensic accounting has become increasingly important in the sphere of corporate governance, as it provides a means for organizations to detect and prevent financial misconduct. Forensic accounting plays an essential role in corporate governance by helping organizations to identify and prevent financial delinquency, promote transparency and accountability, and protect their reputation.

Corporate governance (CG) refers to the group of systems, processes, and structures that are applied to oversee and guide the actions of a corporation or organization. It encompasses both the legal and ethical frameworks that govern the behavior of an organization, as well as the mechanisms that are used to hold those in positions of authority accountable for their actions. At its core, corporate governance is about ensuring that an organization operates in a fashion that is fair, crystal clear, and in the best interests of all stakeholders. This includes shareholders, employees,



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customers, and the broader community. It encompasses the checks and balances that are applied in place to make sure that the organization is managed constructively and those decisions are made with the goal of maximizing long-term value for all stakeholders.

The relationship between corporate governance and fraud is an important one, as poor corporate governance can create an environment where fraud is more likely to occur. A weak corporate governance structure can allow for a lack of transparency and accountability, which can make it easier for fraud to go undetected. To prevent fraud and promote good corporate governance, companies should implement strong internal controls, conduct regular internal and external audits, and have a robust system of checks and balances in place. Additionally, companies should have a clear code of ethics and conduct, and make sure that all employees are aware of it.

One of the most significant impacts of forensic accounting on corporate governance is that it helps organizations to identify and address financial misconduct early on, before it becomes a major problem. This is accomplished through the use of various investigative techniques, such as data analysis, interviews, and document review, which are designed to uncover any suspicious activity or irregularities. Companies should also have a fraud response plan in place, so that they can quickly and effectively respond to any potential fraud. This should include measures such as identifying potential vulnerabilities to fraud, implementing controls to mitigate the risk of fraud, and training employees on how to recognize and report fraud.

In addition to these internal checks and balances, corporate governance also encompasses the external regulatory and oversight bodies that monitor and enforce compliance with laws, regulations and ethical standards.

Research objective

The research objective for the topic is to examine the impact and significance of forensic accounting practices and techniques on the overall effectiveness of corporate governance and prevent or detect financial fraud within organizations. Specifically, the research will explore the role of forensic accounting in identifying and addressing potential financial risks, enhancing transparency and accountability, and promoting ethical behavior within the corporate environment.

Key ingredients those are necessary for good corporate governance

- ⊙ Clear roles and responsibilities
- ⊙ Transparency and accountability
- ⊙ Effective risk management
- ⊙ Independent oversight
- ⊙ Ethical behavior
- ⊙ Stakeholder engagement

Importance of Forensic Accounting in CG



- ⊙ Detecting and preventing fraud: It helps detect financial fraud and embezzlement by conducting investigations and audits.
- ⊙ Improving transparency: It helps ensure that financial reporting is accurate and transparent, leading to improved trust in a company.
- ⊙ Enhancing decision-making: Forensic accounting provides important information for informed decision-making by management and the board

of directors.

- ⊙ Protecting company assets: It helps protect a company's assets by identifying and correcting financial irregularities and weaknesses in internal controls.
- ⊙ Enhancing reputation: By promoting transparency and accountability, forensic accounting can enhance a company's reputation and attract investors.
- ⊙ Supporting legal proceedings: It helps provide evidence for legal proceedings, such as shareholder lawsuits or regulatory investigations.

Integration of forensic accounting in corporate governance mechanism

One way to integrate forensic accounting into corporate governance is to include forensic accounting expertise on the board of directors. This can be done by appointing a forensic accountant as a director, or by creating a committee of the board with forensic accounting expertise. This will ensure that the board has the knowledge and expertise to identify and assess potential financial risks and misconduct, and to make informed decisions about how to address them.

Another way to integrate forensic accounting into corporate governance is to establish a system for regular financial audits and reviews. This can include internal audits, external audits, and reviews by forensic accountants. These audits and reviews should be designed to detect any financial irregularities or misconduct, and to provide early warning of potential problems.

It's also important to have a robust whistle-blower policy and to establish a hotline or other mechanism for employees, shareholders, and other stakeholders to report any suspected financial misconduct. This will help to create a culture of integrity and accountability within the corporation, and to encourage the reporting of any suspected misconduct.

In addition, it is important to have a process in place for responding to and investigating any reports of financial misconduct. This process should include the involvement of forensic accountants, who can use their specialized skills and knowledge to conduct a thorough investigation and provide evidence for legal or regulatory action.

In India, the Companies Act, 2013 and the SEBI regulations require companies to have proper internal control systems in place to detect and prevent fraud. Forensic accounting can be used to assess the effectiveness of these internal controls and identify any potential weaknesses. Additionally, forensic accounting can be used to investigate any suspected fraud or financial misconduct.

In India, many companies are also now appointing forensic accounting experts as independent directors on their boards to provide oversight and advice on financial matters. These independent directors can use their

It's essential for organizations to invest in forensic accounting in order to safeguard the assets and the integrity of the company

forensic accounting skills to review the company's financial statements and identify any potential issues. Companies in India can also use forensic accounting to conduct due diligence before making an acquisition or investment. This can help to identify any potential fraud or financial misconduct, and ensure that the company is making a sound investment. Additionally, many Indian companies are now using forensic accounting to conduct compliance audits and ensure that they are complying with various laws and regulations. This can include assessing compliance with the Prevention of Money Laundering Act (PMLA) and the Foreign Exchange Management Act (FEMA), as well as other laws and regulations related to tax, labor, and environmental protection. Overall, the use of forensic audits is becoming increasingly common in India as companies look to improve their corporate governance and compliance with regulations.

The challenges in integrating forensic accounting with corporate governance are: -

- ⊙ **Lack of resources:** Forensic accounting can be time-consuming and expensive, requiring dedicated personnel, equipment and training.
- ⊙ **Resistance to change:** Implementing forensic accounting practices may encounter resistance from management or employees who are used to the old ways of doing things.

- ⊙ **Conflicting interests:** Forensic accounting may uncover information that is uncomfortable or damaging for management, leading to conflict and resistance.
- ⊙ **Complexity of financial transactions:** The complexity of modern financial transactions can make it difficult for forensic accountants to uncover fraud and other financial irregularities.
- ⊙ **Legal limitations:** Forensic accounting may be restricted by laws and regulations, such as privacy and data protection laws, that limit the information that can be disclosed.
- ⊙ **Limited expertise:** There may be a shortage of qualified forensic accountants, especially in smaller organizations, making it challenging to implement effective forensic accounting practices.

Few forensic accounting techniques that can be used to ensure good corporate governance:

1. **Data Analysis:** To find anomalies and trends in financial information that could be signs of financial malfeasance, forensic accountants utilize a variety of data analysis tools, including data mining.
2. **Interviews:** Forensic accountants may conduct interviews with employees, management, and other stakeholders to gather information about the organization's financial practices and identify any potential red flags.
3. **Document Review:** Forensic accountants may review financial statements, invoices, and other financial documents to identify any suspicious activity or irregularities.

4. **Fraud Detection:** Forensic accountants use fraud detection techniques, such as Benford's Law and ratio analysis, to identify fraudulent financial reporting and other financial crimes.
5. **Digital Forensics:** Forensic accountants use digital forensics techniques to investigate potential financial crimes that involve the use of electronic devices and digital media, such as embezzlement and identity theft.

Conclusion and recommendations

In conclusion, forensic accounting plays an important role in good corporate governance by helping organizations to identify and prevent financial misconduct, promote transparency and accountability, protect their reputation and comply with legal and regulatory requirements. It's essential for organizations to invest in forensic accounting in order to safeguard the assets and the integrity of the company. Given the importance of forensic accounting in good corporate governance, organizations should consider implementing robust forensic accounting practices, including regular audits and investigations, to mitigate the risk of financial misconduct and ensure that the organization is being run in an effective and ethical manner.

Some recommendations for organizations considering integration of Forensic Accounting into their corporate governance processes: -

1. Incorporate Forensic Accounting as a regular part of internal audits and reviews.
2. Provide training and resources to staff on Forensic Accounting techniques and practices.
3. Implement effective controls and procedures for detecting and preventing financial fraud.
4. Establish clear lines of

communication between the Forensic Accounting team and other departments, such as legal and compliance.

5. Consider forming partnerships with specialized Forensic Accounting firms for expert support and advice.
6. Regularly review and update corporate governance policies to align with the latest developments in Forensic Accounting.
7. Foster a close working relationship between the board of directors and the Forensic Accounting team. **MA**

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INTEGRATING CSR INTO THE CORPORATE GOVERNANCE FRAMEWORK



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AIM OF THE STUDY

This conceptual study seeks to accomplish the following goals:

1. To comprehend the concept of CSR and CG from a corporate standpoint.
2. Creating a framework for incorporating CSR into the Corporate Governance framework.
3. To draw attention to issues, challenges, and implications for improved CSR and CG practises.

CORPORATE GOVERNANCE

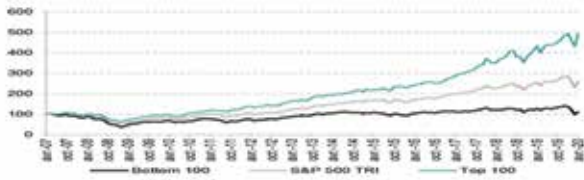
The Cadbury Committee (1992), has defined Corporate Governance (CG) as the way companies are being directed and controlled. According to the SEBI, CG aims to ensure the protection of the interests of stakeholders, particularly equity owners. In India, as per the SEBI (LODR) Regulations, 2015, adherence to CG norms is mandatory for listed companies with paid-up capital over Rs. ten crore and net worth over Rs. twenty-five crore as of the last day of the fiscal year, or companies that have listed their non-convertible debt securities and have an outstanding value of listed non-convertible debt securities equal to or over Rs. five hundred crores. Therefore, the compliance cost of CG is inevitable for listed firms. It's good to imbibe CG based on ethics and true spirit (Chaplot, 2021). *Ethics is the foundational core value for adhering to good CG otherwise the purpose of CG gets compromised.*

Abstract

Corporate Social Responsibility (CSR) is a vital part of the Board's responsibility. Board also executes good Corporate Governance (CG) to govern companies successfully. CSR promotes the socially responsible behaviour of companies whereas CG ensures transparency, fair dealing, protection of stakeholders' interests, and better risk management. The popularity of the concept of CSR has grown manifolds, similar is the case of CG. The fraudulent practices and management conflicts have kept alive the need for unabated developments in the area of CG. As the reporting on CSR and CG has been mandated, the trend for Non-Financial Reporting Framework (NFRF) is emerging. The Board can play an important role in enforcing good CSR and CG practices, henceforth, it's better to integrate CSR into the CG framework. This article dwells upon how to integrate the concept of CSR into the extant CG framework. In addition, the article provides a discourse on issues, challenges, and implications for all stakeholders. Further, read on ...

Good CG practices ensure ethical actions, and good CG behaviour comes from within (Bikhchandani, 2022). Good CG practices have proved advantageous for firms (Rathod, 2018). CG is needed to be enforced on a proactive basis. For instance, adopting CG before the occurrence of fraud is advocated. Erudite views and critical thinking have supported the evolution of various theories and models of CG. Despite the best extant CG laws, managers must ensure to instil confidence among investors about the safety of their returns. They are expected to protect investors' money as if it is their own. Unfortunately, greed interplays and sometimes managers compromise with the code of conduct to indulge in unethical behaviour.

Figure 1: The Shareholders' Value Analysis of the S&P 500 Companies



Source: IMD Global Board Centre (2020)

Figure 1 shows the analysis of 100 well-governed and less-governed companies of the S&P 500 from April 2007 to April 2020. The top 100 well-governed firms are better valued than the bottom 100 less-governed firms. These revelations have vital implications for shareholders regarding their investment behaviour. As the earlier 2008 crisis exhibited a slump in the value of the companies, a similar impact of the Covid-19 pandemic is apparent in the year 2020. During crisis periods, well-governed companies tend to better absorb shocks than companies with lower governance ratings. Well-governed companies were able to generate better revenues and could target value-added acquisitions. Hence, CG plays a vigorous role to reduce or delay corruption, curbing superfluous business expansion, reducing unwarranted borrowings, and advancing controls by improving risk management.

CORPORATE SOCIAL RESPONSIBILITY

CSR Spending has several social and economic benefits. Since the Companies Act of 2013, the concept of CSR has gained official recognition. The CSR transition from a comply or explain approach to a comply-only is now an obligation that must be met. According to Section 135 of the Companies Act of 2013, any company in India with a net worth of at least Rs. 500 crore, revenue of at least Rs. 1000 crore or more; or a net profit of Rs. 5 crores or more in any fiscal year is required to adopt a CSR policy that commits at least 2% of the average net profit generated by the company over the previous three fiscal years to CSR activities. Spending on CSR is essential for companies to contribute enough to society.

INTEGRATING CSR INTO CORPORATE GOVERNANCE: ROLE OF THE BOARD

The CSR and CG reports have to be annexed as a part of the Boards Report as per Sec. 134 of the Companies Act, 2013. The Board ensures that proper CSR and CG implementation frameworks are put in place. For instance, suitable Board composition, no. of Board meetings, size of the Board, type of directors on the Board etc. About the Audit Committee, Remuneration and Nomination Committee, and Shareholders Grievances Committees, their adequate composition, no. of meetings held, and adequacy of members' representation etc. is the sole responsibility

of the Board. The Risk Management Committee aims to minimise business risk under the observation of the Board. Similarly, the Board has to constitute the CSR Committee. The committee is responsible to make a CSR policy. To implement CSR, the company has to ensure that the amount earmarked for CSR is spent as per the decided policy and such disclosure has been made on the website of company. When the amount to be spent on CSR does not exceed fifty lakh rupees, it is not obligatory to constitute the CSR Committee and the Board in such case will monitor CSR spending and enforcement. CSR Rules 2014-16 guide the implementation of CSR. Earlier, the CSR practices were based on the "Comply or Explain" approach but now CSR is mandatory. Non-compliance with CSR provisions will be treated as a liability. The Institute of Chartered Accountants of India (ICAI, 2020) has provided the guidance note covering accounting aspects for CSR expenditure, monitoring mechanism of CSR including the CSR reporting by the Board, the role of the CSR Committee, internal audit of CSR expenditure and CSR disclosures in the MCA21 registry.

Figure 2: Role of the Board in integrating CSR into Corporate Governance



Source: Author

ISSUES, CHALLENGES, AND IMPLICATIONS

⊙ **Agency Issues:** The divergence of economic benefits between owners and managers is an antagonistic matter. Such divergence engenders numerous agency problems leading to higher monitoring and agency costs. For instance, the superfluous outlay on managers' privileges, sub-optimal investment decisions, information asymmetry, etc. entails higher CSR and CG compliance costs. Therefore companies must ensure higher returns to investors against

increased managerial incentives for contributing to the value-driven process and better yields to the stakeholders.

- ⊙ **Miscommunication:** Timely flow of communication among the company, the Board members, and shareholders are the key to success. Delay in sharing bad news or sharing good news prematurely can prove costly for companies.
- ⊙ **Minority Interests at Stake:** The Boards need to listen voices of shareowners (Subramanian, 2015), particularly minority shareholders. Such practices will protect their rights by ensuring equitable treatment along with timely material disclosures without jeopardising the interests of others stakeholders.
- ⊙ **Corporate Governance Quality Woes:** Execution of key functions and responsibilities by the Board concerning CG explicitly implies creating value for investors. The commitment of senior managers including founders holds the key and their active role can make a big difference. The Board members should not work merely as a 'rubber stamp'. Great Boards can make great contributions to companies in terms of better CSR and CG framework.
- ⊙ **Lack of Independence and Integrity:** Age, terms, independence of the Board members and other controlling factors may thwart influential terms for directors. *Ethics* must be intact at the Board's level. An ethical Board can ensure the implementation of CSR and CG with true spirit.
- ⊙ **A Casual Approach in CSR and CG Enforcements:** The approach for adhering to CSR and CG should not be mechanical. Concisely, CSR and CG concepts are long-term value-driven processes leading to operational or reputational gains.
- ⊙ **CSR, CG and Protection of Interests-Whose Primacy:** Whether to protect the interests of stakeholders or shareholders has been a major issue in CG. The regulatory landscape and modern thinkers believe that the protection of stakeholders' interests is a more recognised and well-accepted proposal.
- ⊙ **Short-termism:** The company should avoid short-termism (Paine & Srinivasan 2019). Compliance with CSR and CG might yield better returns in the long term. Hence managers need to develop both, short-term as well as long-term plans for rejoining changing business paradigms (Dey, 2022). Plans need to be optimally strategized for application. Sustainable plans facilitate business in the wake of the crisis. The Board should make an impact assessment as well as a timely forecast of the needed resources for making sustainable and strong plans

for upcoming agendas.

CONCLUSION

In a generic sense, CSR is essential for society and CG is essential for every business. In the eyes of business law, every business needs to spend on CSR, a good gesture of societal contribution. Though observance of CG serves as a compliance requirement for listed companies, the most important is that it reflects the ethical stance of the Board in exercising governance and control functions. CG aims to ensure equality of returns generated from scarce resources without jeopardising the interests of other stakeholders. Nowadays, the responsibility of businesses toward stakeholders is widely established and well-recognised. Though Board members are agents who perform the fiduciary duties for pecuniary incentives, the onus for the implementation of good CSR and CG is on the Board. *As great Boards can make great companies, Board dynamics play a critical role. The actions of the Board for revitalizing good CSR and CG practices remain a cornerstone.* Board is expected to promptly respond to issues of minority shareholders in addition to ensuring the right of returns to investors and addressing issues of social concerns. The ethical, independent and active Board can contribute in terms of CSR and CG to resolve business and societal issues. CSR is an integral part of CG in the sense that the Board monitors both functions. The ethical approach to the CSR and CG regime if wider, inclusive, sustainable, and worthy of inculcating and imbibing the culture of a true value-creating process that yields operational, investment-related, and other reputational gains may prove fruitful for the stakeholders in the long-term. MA

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CLEAVAGES IN SDGs AND THE RECONCILING ROLE OF ESG



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Introduction

Sustainability is a buzz word in all the corridors of decision-making involving politicians, scientists, academicians and most precisely environmentalists for making the planet a credible place for life. Sustainable development was defined by World Commission on Environment and Development as approach that meets “the needs of the present without compromising the ability of future generations to meet their own need” in 1987 and enterprises should understand how corporate sustainability is constructed in a specific context and how the concept of sustainable development can be applied to the business level and what enterprises should do when they want to become sustainable (Krechovská M and Procházková PT,2014). ESG draws standards on uses of technology and resources for the sustainability of biosphere by corporates. It can be read as a sustainability quotient for commercial entities and their care for the planet. Apparently the two aspects converge in to same plane with robust care for planet and life on it. The present paper attends the different dimensions of ESGs and SDGs as blurred boundaries between strategies and tactics.

Environmental Issues

The uneven distribution of natural resources, skewed capabilities of food production and monopolization of competencies inflicts greater imbalances on lives. Further, the paper also highlights few issues on ecological manipulations of organized human behavior and the interplay of SDG and ESG has to be looked from three different perspectives such as sovereign polities, corporate bodies and most particularly at individual random choices. Without weighing the extent damage that each stake holder is causing to the planet it may be futile to discuss the actions. Human beings, their economic and social behavior is contributing immensely while they make their random choices for consumptions and regular financial trance and thus far forcing a lot of carbon or equals

Abstract

Human beings, their economic and social behavior is contributing immensely while they make their random choices for existence and thus far forcing a lot of carbon or equalists behind and it disturb the ecological balance. Building the premises of SDGs seems to have high implications on sustainable practices of countries in particular and the hemisphere in general. The present paper brings in the apprehensions of United Nations SDGs Agenda and how the corporate world is answering to it. On the other far end business community, despite the economic priorities of commercial ecosystem legitimate business entities make conscious efforts to reiterate their green-commitments on sustainability through Environmental, Social and Governance (ESG) framework. Apparently the two aspects converge in to same plane with robust care for planet and life on it. Countries and corporates at general and citizens in particular as buyers and investors share the stakeholder ship precisely in attaining the goals. The interrelationship of UN Sustainable Development Goals and the Environmental, social and Governance (ESG) is addressed in this paper pragmatically. There are cleavages in SDGs caused by the huge government sponsored anti-sustainable militia driven actions. ESG framework reconcile the business/commercial sustainability quotient by reducing the corporate carbon footprint. It may be futile, if we go without scaling the extent of damage that each stake holder is causing to the planet to discuss the actions. Different sectors exhibit a unique pattern of pay offs including the planet on their vision.

disturbing the ecological balances for instance, the land, water and the surrounding atmosphere. When we burn fossil fuels, the Green House Gases or other CO₂ and equal gases, we

increase our carbon contribution or the quantum of carbon footprint. With improved capabilities, it is possible to calculate the carbon footprint of a country, business, individuals, products and events. With such competencies, we can now weigh our economic stance in terms of our spending, investing and other choices for life styles. Giant corporates undertake largescale extraction from Lithosphere and bringing it to the biosphere is a savage physical manipulation having no regard for the next generations. It is worth noting that a new way of looking Sustainable Development Goals with biosphere as the foundation layer followed by society and economy as the third layer each addressing environment, society and economy. (Stockholm Resilient Centre, Stockholm University). SDG Agenda, having fixed its focus on environment, society and economy is envisaging a multi-dimensional approach to the contributors for making the planet a better place for life. It is then the turn of sovereign nations to evolve necessary time framed action to materialize these agenda. Legal framework is a core area in this frame. Countries by far moved a great deal in tune with the UN agenda. But it is not much there in public domain to motivate the civic sense.

UN Initiatives

Civilized world and forums have arrived at certain points converging their shared views on sustainability. With the awakened awareness on the threats on the life on planet and human contribution, world community has resolved to guard it by Sustainable Development Goals (SDGs). In 2015, UN has instrumented it as a charter with signatories of 193 sovereign nations for a sustainable life fixing scalable goals at 17 points. sustainability and its implications through the UN Charter can be traced back on the following stake holders such as sovereign nations, corporate or business and individuals. Sustainability as a broad social construct it conveys different meaning to different people. as a common platform through UN it has made a common appeal to the 193 signatories to evolve directive programs, policies and initiatives with the foundation of Sustainable development Goals. It has taken a perspective of 15 years with indicators. Looking at the other side, A Brazilian warship was made to sink in Atlantic Ocean containing huge toxic elements recently, it shows the weakness of UN agenda recently. There are many other examples abnornements of heavy war machineries which are apparently crucial to human survival now made detrimental to the nature. The thin onion skin-like biosphere is vandalized by human interference including industrialization. Deforestation, emission of carbon and equal ants.

Sovereign Nations Initiatives

It goes without saying that sustainability as an ideal talisman for decisionmakers, although it can re-size their GDP, developing countries daringly take on the issues of regulations for sustainability. Few developing countries have abruptly introduced SDG driven policies on their production, distribution and consumption systems causing incidental damages on their economic stance. How effectively States are making legal framework to enact through legislature is a billion Dollar question. The vision of politicians on development its various implications on energy requirements,

budgetary allocation and control all plays much importance. The lessons from Sri Lankas financial crisis is to be read along the execution phase of SDGs, a decision to abstain from the use of chemical fertilizers was one among the reasons that has marked the beginning of a drastic financial fallout in the backdrop of poor governance. Sovereign states, corporates, society and individuals are definitely given a framework for governance through the SDGs of UN. But while running it down to the nations, political-will or vision of the country to adopt sustainable policy is a question with implications on the domestic production and political leveraging. Geo-political dynamics too form formidable bearing on states sustainable actions and policy. Ukraine war has some narratives from this angularity.

Financial Performance Vs Sustainability

For the business world it is quite a piece of information that ESG factors as set of standards for a company's operations that focus to consider the impact of its business on environment, society and governance. How the companies are managing their environmental impact along with their corporate governance, it is fairly dealing with the positioning of the corporate entity in the space amidst the appeals of the planet. It is conveyed through their policies, programs and processes related to the environment and social issues. It can be like the carbon footprints, labor policies or good process to minimize the risk and conflicting interest in board rooms. it is calculated by surveying public domain, interviews with experts and stakeholders. When we look at the ESG compliance with a different perspective, ESG is not certainly about a set of compliances rather it should be viewed as corporate systems which intake many inputs from the environment and society and through a structured corporate governance offers utilities to the society with minimum harm to the planet. When it comes to corporates, sustainability through fair business with minimum carbon footprint is now scalable with standardized norms. The Business Responsibility and Sustainable Reporting has made the investor community informed and made them more accountable to the planet.

ESG and Sustainability Reporting

To turn the theories in to practice of ESG, strategic approach is pursued. they are long term game plans that corporates follow to attain the goals of the entities. The concerns on environment are added to the vision of corporates all over. The vision of the company on the profit, planet and people are reflected in the Corporate Strategic Intent. The product and process of the business reflect the degree of involvement in sustainable practices. Areas of action can be set on extracting resources, labor policies, technologies, reducing carbon foot prints etc. the vision should be based on a coherent and consensus mode. There are empirical evidences on how portfolio decisions are influenced by sustainability practices of companies in US and Europe. From an average rating point of view, ESG and SDG sorted portfolios do not overlap much, so high ESG rated companies are not necessarily the best SDG contributors. Corporates have started communicating their vision on people, planet and profit in more vivid terms. Societies at large started acting more sensibly but slowly on different indicators of SDGs, they presented more innovative

systemic changes to cater the heterogeneity.

ESG as Mediating Role

Markets on the other hand present a bewildering scene with choices for customers yielding cost, convenience and sustainability. Can awakened buyers make real difference in choosing products and services with Green brand loyalty? Is an incredible question. SDGs and ESGs are dealing the same issues in two different dimensions. Sustainable investing yet another connotation which has enabled the investing class to choose and reflect individual inclinations for sustainable driven companies. This is also true the other way around. Further, study finds that ESG rated companies are not necessarily the best SDG contributors. This is also true the other way around. SDG-driven strategies carry a structural sector bias in both the US and European investors. Neutralizing the sector effect, the US case sees its SDG premium vanish while the European case keeps a significant positive one.

Stakeholders in Sustainable initiatives

Stake holders	Actions	Implications
➤ Nations	Policies and Legislations	Creating political and legal Environment
➤ Corporate Business	ESG and Business Sustainability Social Reporting	Corporate Social Responsibility Scaling carbon foot prints of Business
➤ Individuals	Sustainability Investing and Spending	Choosing products and services for consumption Portfolio construction with ESG coefficient.

Unlisted Business

Thus, it talks about a corporate eco system which is more responsible and accountable to the planet. In other words, ESG frame is just an operating system in which corporate social responsibility is justified in terms of the biosphere. Unlike in the past, investors are very much aware of their individual appetite for a green globe; they can use their mighty power in investments for mar welling those corporate who share their same philosophy. In this context ESG provides a medium of communication signaling the haves and the have-nots. Different sectors yield different pay-offs from practicing ESG for instance hotel industry, arguments are there as there is a mismatch of SDGs with ESGs as it is based on the narrow environmentally based view on sustainability. Further, it is argued that industry specific redesign is advocated to finetune the ESG -SDG alignment.(Legrand, W. and Matthew-Bolofinde, A. 2022). Based on the type of ownership also, there is a notable difference in the practice of SDG. A study highlights where private sector firms contribute to SDG impacts and where their financial priorities might lie. Where firms are either not contributing or perhaps unable to, we point

to the need for public sector activities. Although the body of empirical literature on the ESG and financial performance of a company link is vast, it remains inconclusive. There are studies reporting positive, negative as well as neutral relationships between ESG and financial performance of a company (Fernández-Feijóo Souto and *et al* 2017). Thus, ESG bridges the cleavages of SDG. There are Whistle blowers are very active on corporate type of entities with lots of legislations on corporate governance and legislations; but Small Micro and Medium Enterprises out of the corporate framework irks the SDG driven ESGs practices

Conclusion

To conclude, UN had made a general roadmap by inking the SDGs in 2015. The achievable strategies and economic pursuits have been initiated by the business community worldwide. Precisely, they have made milestones in sustainable practice reporting to its spectrum of stakeholders at length and breadth. But, alarmingly, the small Business units in developing states could have a lot of space left unattended in sustainable quotient. No matter how so ever important is sustainability as an ideal talisman for decisionmakers, the question on How do the developing countries take on the issues of regulations for sustainability at the cost of sizing down their GDP bears heavy social costs. Even if those developing countries abruptly introduce SDG driven policies on their production, distribution and consumption systems, will the governance be sustainable? Whistle blowers are active on corporate type of entities with lots of legislations on corporate governance and legislations; but how do the Small Micro and Medium Enterprises out of the corporate framework? Buyers being the kings in the market; can awakened buyers make real difference in choosing products and services with Green brand loyalty? Answering theses question seems to have high implications on sustainable practices of countries in particular and the hemisphere in general. There are cleavages in SDGs caused by the huge government sponsored anti-sustainable militia driven actions. ESG frame work reconcile the business/ commercial sustainability quotient. **MA**

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GREENWASHING AND SEBI INITIATIVES TO CURB IT



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Abstract

With the rise of ESG as a major element in business, there is a need to granularly look at what is being termed as 'green', including the concept of 'greenium'. Even absent a greenium, the funds earmarked for 'green' could get deployed due to the deception/greenwashing, which is harmful to such funds as investors. This article attempts to unravel the maze that is greenwashing and also highlights the recent SEBI measures – among the first in the world by a regulator – to curb it.

Introduction – the term

Greenwashing is a portmanteau¹ of the words 'green' and 'whitewashing'.

It refers to misleading the general public into believing that companies, sovereigns or civic administrators are doing more for the environment than they actually are.

Greenwashing is also referred as "green sheen"².

Interestingly, the term originated in the 1960s, when the hotel industry devised one of the most blatant examples of greenwashing. They placed notices in hotel rooms asking guests to reuse their towels to save the environment. The hotels enjoyed the benefit of lower laundry costs³.

What is it?

In short, Greenwashing is a practice adopted by companies by way of an advertising spin, essentially using public relations mechanisms to give a spin to projects that are less green than they are touted to be. This leads to a market for such goods, which is in reality based on deception. Nowadays, the scope of greenwashing has expanded to apply to fictitious environmental reporting or even activism as well as deceptive marketing practices.

Greenwashing is when an organization spends more time and money on marketing itself as environmentally friendly than on actually minimizing its environmental impact. It's a deceitful marketing gimmick intended to mislead consumers who prefer to buy goods and services from purportedly environmentally conscious brands.

Why greenwashing – 'greenium'

Funds borrowed for 'green purposes' generally command

a *greenium* - A 'greenium', or green premium, refers to pricing benefits based on the logic that investors are willing to pay extra or accept lower yields in exchange for sustainable impact⁴. 'Greenium' is fast becoming part of finance dictionaries. Companies need debt for achieving sustainable goals as well as transitioning to green business. Towards this, they borrow funds and since the purpose is noble, investors, particularly institutional investors are willing to settle for a lesser return than a conventional bond or a bond that is used for 'brown' purposes. Thus a company is able to borrow funds at a low rate.

Greenwashing is also present in climate and environment related disclosures in the reports on sustainability and climate combat that companies put out to the public. To avoid this, the FCA, UK, has provided certain guidelines to companies, as under⁵:

"Where you are making net zero commitments, we encourage you to consider the TCFD's guidance on Metrics, Targets and Transition Plans, and to ensure that your disclosures are not misleading."

"We remind you of the direction of travel in corporate reporting on climate change and other sustainability matters, as set out in the Government's Roadmap on Sustainable Investing. We intend, subject to our usual public consultation processes and cost benefit analysis, to adapt our regime to reference forthcoming International Sustainability Standards Board (ISSB) standards – so, we strongly encourage you to continue to deepen your familiarity with the TCFD's recommendations and further improve your internal processes to ensure that you are ready to disclose effectively against the ISSB's standards once finalised and adopted."

¹ A portmanteau is a blend of two words.

² <https://www.britannica.com/topic/greenwashing>

³ <https://www.investopedia.com/terms/g/greenwashing>.

⁴ <https://www.undp.org/blog/identifying-greenium>

⁵ <https://www.fca.org.uk/publications/newsletters/primary-market-bulletin-42>

The COMPETITION and Markets Authority in the UK published its Green Claims Code for companies in 2021.

Seven Sins of greenwashing⁶

TerraChoice, in 2007, identified the seven sins of greenwashing, as follows:

Sin of the hidden trade-off

A claim suggesting that a product is green based on a narrow set of attributes without attention to other important environmental issues. (environmental issues in making of paper, for example)

Sin of no proof

An environmental claim not substantiated by easily accessible supporting information or by a reliable third-party certification. (E.g. Plastic, tissue paper)

Sin of vagueness

A claim that is so poorly defined or broad that its real meaning is likely to be misunderstood by the consumer.

Sin of worshipping false labels

A product that, through either words or images, gives the impression of third-party endorsement where no such endorsement exists; fake labels, in other words.

Sin of irrelevance

An environmental claim that may be truthful but is unimportant or unhelpful for consumers seeking environmentally preferable products.

Sin of lesser of two evils

A claim that may be true within the product category but that risks distracting the consumer from the greater environmental impacts of the category as a whole. (Organic cigarettes, for example)

Sin of fibbing

Environmental claims that are simply false.

Recent instances of greenwashing:

It is pertinent to discuss a few recent international cases on greenwashing.

Case of DWS

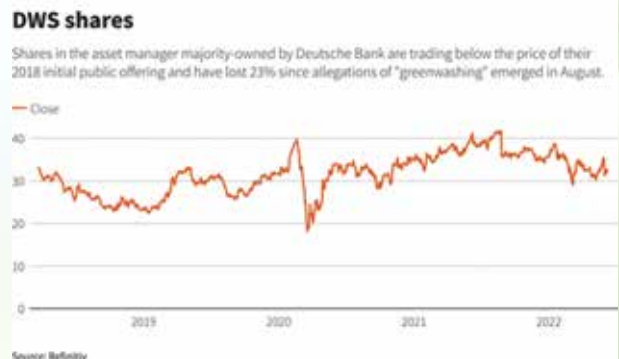
First, the case of DWS, an associate company of Deutsche Bank, which exaggerated the green credentials of investments it sold to investors. In fact, in May 2020, DWS showcased its sustainable investment credentials, saying it will use artificial intelligence to identify companies with climate risks.

In 2021, one Desiree Fixler, a former head of sustainability at DWS, blew the whistle and stated the company overstated how it used sustainable investing criteria to manage

⁶ <https://www.ul.com/insights/sins-greenwashing>

investments. Initially DWS denied the allegations – Its Board, in July 2021, cleared any wrongdoing on the part of the company - but in June 2022, German regulator BaFIN found that the ESG factors had not been taken into account in many investments marked as ‘ESG investments’ and sold to investors.

This was after both the SEC, USA and BaFIN had launched separate investigations in August 2021. The CEO of DWS also had to reign in the wake of the investigations. The impact of greenwashing on the scrip of DWS can be seen from the below graph:



(Image source: Reuters, June 2022)⁷

Case of Goldman Sachs

In November 2022, Goldman Sachs Asset Management agreed in November to pay \$4 million to the SEC, USA to settle alleged violations of its own environmental, social and governance policies and procedures⁸. In this case, the asset manager required staff to complete a questionnaire for every company it planned to include in the ESG investment portfolio prior to their selection. However, the SEC, USA, found out after investigations that “*personnel completed many of the ESG questionnaires after securities were already selected for inclusion and relied on previous ESG research, which was often conducted in a different manner than what was required in its policies and procedures*”⁹.

“*Today’s action reinforces that investment advisers must develop and adhere to their policies and procedures over their investment processes, including ESG research, to ensure investors receive the advisory services they would expect to receive from an ESG investment,*” said the SEC in its Goldman Sachs charge press release.

In May 2022, BNY Mellon paid a penalty of \$1.5 million for misstatements and omissions in its statements related to ESG funds. The SEC, USA said that “*it represented or implied in various statements that all investments in the funds had undergone an ESG quality review, even though that was not always the case.*”

⁷ <https://www.reuters.com/business/finance/deutsche-banks-dws-allegations-greenwashing-2022-06-09/>

⁸ <https://www.ai-cio.com/news/walter-kress-receives-cios-2022-life-time-achievement-award/>

⁹ <https://www.sec.gov/news/press-release/2022-209>

SEBI and the regulatory framework on greenwashing

Nowadays, companies are increasingly tomming their environmental, social and governance-related (ESG) credentials in an attempt to tap the investors eagerly awaiting such avenues to invest money, thus looking to have climate- and socially-friendly impact. Hence there is an increasing need for regulators to look into such issues with an eagle eye. SEBI has also taken a step in this regard.

Recently, SEBI revised its green bond framework, applicable for green bond issues after April 1, 2023. Pursuant to the review of the green bond regulatory framework, the following changes have been brought in by SEBI:

- ⊙ *Expanding the scope of 'Green Debt Securities' by revising the definition through the of SEBI (Issue and Listing of Non-Convertible Securities) Amendment Regulations, 2023 ("Amendment Regulations")*
- ⊙ *Enhancement of disclosure requirements and mandating third-party reviewers through amendments to existing Chapter IX of the Operational Circular and*
- ⊙ *Guidance on avoidance of green-washing through introduction of Chapter IX-A to the existing Operational Circular, and*


As part of the same framework, SEBI has also released a list of 'Dos and don'ts on Greenwashing', vide circular dated February 3, 2023. SEBI is one of the few regulators to issue such a list and it is expected to act as a strong deterrent to the deceptive practice.

1. Regulation 2(1)(q) of the SEBI (Issue and Listing of Non-Convertible Securities) Regulations, 2021 (NCS Regulations), defines "green debt security" and Chapter IX of the Operational Circular dated August 10, 2021, *inter-alia* provides the initial and continuous disclosure requirements for entities issuing/ proposing to issue green debt securities.
2. The extant framework of 'green debt security' was reviewed recently and consequential changes were brought in the SEBI (Issue and Listing of Non-Convertible Securities) Regulations, 2021 vide Gazette notification dated February 02, 2023. In the process of consulting the stakeholders, comments/ representations from the market participants, particularly investors, were also received to address the concerns of 'greenwashing'.
3. While there are no universally accepted taxonomies on greenwashing, the generally accepted definition of 'Greenwashing' is, 'making false, misleading, unsubstantiated, or otherwise incomplete claims about the sustainability of a product, service, or business operation'.
4. SEBI has said in its circular that to address the concerns of market participants, regarding greenwashing, an issuer of green debt securities shall ensure the following to avoid its occurrence:

- i. While raising funds for transition towards a greener pathway, it shall continuously monitor to check whether the path undertaken towards more sustainable form of operations is resulting in reduction of the adverse environmental impact and contributing towards sustainable economy, as envisaged in the offer document.
- ii. It shall not utilize funds raised through green bonds for purposes that would not fall under the definition of 'green debt security' under the NCS Regulations.
- iii. In case any such instances mentioned in (ii) above come to light regarding the green debt securities already issued, it shall disclose the same to the investors and, if required, by majority of debenture holders, undertake early redemption of such debt securities.
- iv. It shall not use misleading labels, hide trade-offs or cherry pick data from research to highlight green practices while obscuring others that are unfavourable in this behalf.
- v. It shall maintain highest standards associated with issue of green debt security while adhering to the rating assigned to it.
- vi. It shall quantify the negative externalities associated with utilization of the funds raised through green debt security.
- vii. It shall not make untrue claims giving false impression of certification by a third-party entity.

Conclusion:

Newer white collar delinquencies continue to evolve and are discovered every other day. Greenwashing is one such wrongdoing. It is important for companies that market ESG to establish equitable policies and procedures governing ESG factors. They have to ensure compliance with such policies and procedures so that they are able to provide investors with true information about their products and services. Regulators across the world are dealing with greenwashing in their own way. SEBI has been one of the few regulators to come out with an explicit circular on what constitutes greenwashing and how the same can be avoided by companies.

It is important companies avoid greenwashing in issues of green bonds by claiming that they are green when they are not or make false claims in the BRSRs. In case they launch green bonds, they must undertake due diligence before attaching sustainability or climate friendly labels to them. For example, proper reporting of emissions, logical and unbiased assumptions where needed, financial claims with proper proofs, labels denoting the true nature of the product etc. The potential and material impact of the risks shall be included in the financial statements. It is also important that the Board of companies also sensitize and institutionalise ESG systems. 



DIGITAL TRANSFORMATION OF AUDIT FUNCTIONS - THE SMART AUDITOR AND SMARTER RPA AUDIT TOOLS



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Abstract

Digital transformation is progressing across industry sectors in an overwhelming speed. Stakeholders across the spectrum are participating in this process. The outcomes are influencing a common man's way of living life. Auditors discharge critical responsibilities by, inter alia, verifying, and re-establishing quality, reliability, trust, safety, security, and risk enabled performance

management. In this digital era, they cannot continue to follow traditional post facto routine and use legacy tools and techniques. Future is calling them with imperatives of the inescapable need to evolve and be smarter with digitally transformed systems, processes, and tools. This article aims to bring out how digital transformation of audit functions would help auditors to better meet stakeholders' expectations in the digitally enabled dynamic business ecosystem by applying smarter processes and online audit tools.

Introduction

The axiomatic statement that, if winter is there spring cannot be far behind, is most aptly applicable to questions revolving around the theme of this article. Digital technologies are being adopted and adapted at an overwhelming speed by business entities across industry sectors and governmental agencies. There seems to be no scope for argument as to why business operations should not be digitally transformed for multifaceted operational improvements, minimisation of value destruction and maximisation of value creations. It has almost been established to be a strategic imperative for sustaining with competitive advantages. In the contemporary era of

Image Source: https://nanonets.com/blog/content/images/2022/06/shutterstock_2015463743-1.jpg

Industry 4.0, Web2.0 for platform economy, and Web3.0 for ownership economy, digital transformation (DT) of operations is emerging to be a fast-evolving phenomenon.

Almost all digital technologies are evolving with upgraded versions and collaborative integrations within shorter span of time. For example, blockchain technology is now in its fourth advanced version with industry infrastructure-based ecosystem. In such a business environment with paradigm shift it cannot be wise and practical to think that audit, as an assurance and risk-enabling function, will continue to follow the traditional manual practices and only excel based exercised be done for data analytics. Conventionally auditing is performed after a time lag from completion of transactions. In a few exceptional instances concurrent audit is done at the instance of a court order or in certain large public sector enterprises and government departments. In such cases no transaction, particularly involving acceptance of liability and outflow of funds, can take place without approval of the designated concurrent auditing authority.

Because of all-round digitalisation and digital transformation of industry trade and commerce conventional auditing systems and processes are gradually proving to be outdated and ineffective. This is particularly true because transactions are becoming voluminous and complex day by day. Because of online operations books of accounts are directly getting populated. Organisations under BFSI sector and large corporations are deploying robotic process automation obviating human interventions for routine mundane transactions. If transactions are conducted through blockchain platforms, post facto audit procedure may prove to be a challenging task. Therefore, like spring cannot be far behind of winter, system, processes, and tools for both statutory and internal audit must have to undergo digital transformation, which is again a journey and not a destination.

Objective

In this third article on digital transformation of audit functions under this Column the author has tried to deal with imperatives of the unescapable need for audit functions to evolve from legacy systems befitting the third industrial revolution aided by ICTs. Business entities and government agencies are fast moving ahead with smarter digital transformation of operations to cope with continuous increases in volume of operations, rising complexities and newer elements of risks in business coupled with higher compliance requirements. Auditors, therefore, cannot continue to follow traditional post facto routine, and legacy techniques.

This time the metamorphosis must be from too much of dependence and human judgement and excel aided audit systems, processes and tools that was good for ERP systems of clients, to smart audit processes powered by digital tools, including robotic process automation. This article would bring out how digital transformation of audit would also help them to meet stakeholders' expectations in the dynamic

business ecosystem by applying smarter audit tools and processes, and shifting from post facto audit to concurrent online.

Metamorphosis of Audit3.0 to Audit4.0 - Emerging Views

Auditing techniques and judgements must have to be powered by effective professional scepticism (PS) because of increasing complexities of business operations and financial transactions which are being handled by equally complex software and digital tools. PS is that approach, attitude, agility, and questing capabilities of an auditor that help to improve effectiveness of the deployed audit processes and tools.

Professional scepticism is an important factor to be considered while planning and scheduling audit processes, reflect on issues, critically assess audit evidence, and so on. These in turn would help detecting possible risks, errors, non-compliances, misstatements, and fraud in financial reporting with improved speed and effectiveness of audit functions. However, auditors, with the given time constraints and pressure from both clients and the firm to complete tasks. generally, do not get much time to think, reflect and apply PS. Most of the available time is spent for conducting transactions review, ledger scrutiny and checking accuracies. Unless they can save time from such core tasks it would not be possible for them to improve the much-needed quality of audit. Therefore, time is here and now to digitally transform their auditing processes particularly those which involve more hands-on tasks than thinking and reflecting.

At the instance of the International Auditing and Assurance Standard Board (IAASB) a research paper was published in 2022 by Dereck Barr-Pulliam et al^{1 and 2}. The researchers concluded that, *"Using technology in an audit continues to evolve and, by examining relevant literature published over the last 20 years, insights can be learned about evolving trends and the trajectory of digital transformation in audit. ... The research identified person, task and environmental factors which affected digital transformation in audit engagements and distinguished between the types of analytics used by auditors - descriptive, diagnostic, predictive and prescriptive - and the research findings relevant to each."* The author recommends audit professionals, including practicing Cost and Management Accountants to read these two publications.

Time is therefore not very far when IAASB to come out with comprehensive guidelines and standards for digital transformation of audit and assurance functions befitting the dynamics of Industry4.0 era and evolving digital technologies. Auditor must also frame out digitally transformed audit procedures to remain relevant and discharge their duties and responsibilities to meet expectations industry across sectors. Their innovative initiatives and action steps must run parallelly with the innovations in industry. One should not be surprised if large audit firms organise 'Hackathons for innovative and digitally enabled audit process.

The Comptroller and Auditor General of India (CAG)³

on the 74th Chartered Accountants Day on July 1, 2022, opined that, *“On the flip side, technology can also be a huge audit enabler whether in auditing through or around the computer. ... ICAI must make more efforts to ensure that digital audit technologies are available to all members and all of us need to stay abreast of these developments.”*

Digital Transformation of Audit Functions

Research work and studies of the author indicate industry’s expectations from auditors. Most of the CXOs and CIAs are of the view that internal audit, statutory audit and cost audit professionals must minimally be equipped with knowledge and capabilities for reviewing and auditing digitally transformed operations. They must attain functional knowledge and application skills related to digital technologies for auditing their digitally transformed business operations. The minimum ones they should be proficient with are cognitive technologies like AI, ML, and DL, Blockchain, Web3.0, DAO, and Metaverse, IoTs and AIoTs, Robots and Robotic Process Automation (RPA), Drones, and Edge Computing.

The author has earlier written two separate articles under this Column on Audit4.0⁴ in a digitally transformed business environment befitting the present Industry 4.0 era, and the second one on auditing of transactions performed through Blockchain⁵ platforms in April and August 2021 respectively. In the first article the role of Internal Auditors in the context of digital transformation projects taken up by business entities has also been covered. It will be useful for readers to go through those two articles. Accordingly, various aspects covered in those articles have not been repeated in this. The following are some of the major points for consideration while transforming auditing function to conduct audit in a digitally transformed environment:

Internal Audit: Major emphasis should be laid on making

Internal Audit (IA) team as an integral and concurrent part of the team identified for digital transformation for business operations followed by operating with the transformed systems and processes. For these the following three actions are important:

- Members of IA team must be first trained and equipped with knowledge and capabilities with equal rigour and intensity like that of officials of operations team for handling digitally transformed business systems and processes.
- Members of IA Team should be involved at all stages of the journey right from the beginning of organisations taking the decision for DT, selection of technology, implementation, operating with digitally transformed systems and processes, and continuous review and advancements from time to time.
- Helping the business entity to pursue proactive risk-enabled performance management and ensure compliance of all legal and statutory provisions, including even those of GDPR of the European Union, should be the primary responsibility of the IA Team.
- Ethical hacking must be made a compulsory functional responsibility of IA Team before implementation of any digitally transformed systems and processes and repeat that after every modification and upgradation. For this a specialised group should be identified within the team and allowed to function independently.

The following graphic brings out a Module containing some of the major aspects of next-generation internal audit function in a three-dimensional framework of ‘Governance’, ‘Enabling Technology’ and ‘Methodology’. Authors of the concerned article David Lehmann and Michael Thor⁶ suggested that the next generation internal auditors must harness value from innovation and transformation.



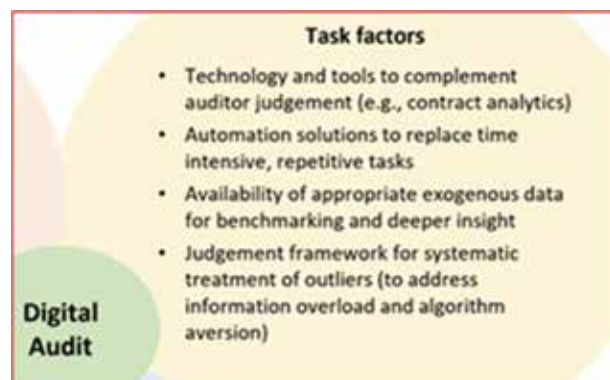
Source: <https://www.cpajournal.com/2020/02/18/the-next-generation-of-internal-audit/>

Given the constraint of space the above major aspects are not being expanded with narratives. Readers may please refer the article hosted at the quoted URL and reflect. However, only Robotic Process Automation has been taken up for writing in details in a subsequent section.

Statutory Audit

It should be the responsibility of each corporate to help external statutory auditors and provide facilities so that they can suitably deploy the digitally transformed auditing tools and techniques remaining within realms of data privacy, security and safety. For this any corporate's internal policy and processes, upgraded ERP systems and other ICT facilities, digitally transformed systems and integration thereof with the ERP system must be implemented keeping room for audit facilitation. Statutory auditors must be allowed to conduct concurrent/online audits and permit their software tools to be run in the entity's digital and ICT systems. They should also be allowed to review and audit the data, tools for performing analytics, processed information and inferences drawn by clients by applications of digital technologies.

An extensive industry-based research project, that was conducted at the instance of IASB as state above, identified three sets of factors which positively influence digital of audit viz, 'Person factors', 'Task factors and 'Environment factors'. Out of the trio, Task factors have been reproduced below, Readers would appreciate the very fast factor has reinforced that the adopted technology and tools must complement the auditor's judgement and they must apply tools for conducting analytics that would help them to form audit judgement and identify outliers. In those outliers may lie the issues which the auditors would look for forming judgements to help client with advices for further improvements and filling gaps.



Source: <https://www.ifac.org/knowledge-gateway/supporting-international-standards/discussion/digital-transformation-innovation-auditing-insights-review-academic-research>

Based outcomes of the said research IAASB has identified the following "... *four common themes about how technology is, and will continue to disrupt the audit and assurance professions*":

- ⊙ Auditing procedure should be conducted on a continuous and real time basis which is a diagonal departure from the legacy system. According to this author online real time audit should compulsorily be conducted at least for transactions through Blockchain platforms.
- ⊙ Tasks for auditing should increasingly be aided by data analytics through applications of tools from the stable of Artificial Intelligence.
- ⊙ Audit and assurance engagements should increasingly be performed by working from distance which in commonly understood language is called working from home. This would be essential for entities which operates following 'Decentralised Autonomous Office' (DAO) concept mostly using Blockchain platforms.
- ⊙ Audit functions should more and more be powered by digital technology-based smarter tools and auditors should be smarter with attained application-oriented knowledge and skills to deploy such tools for more effective service deliveries.

Cost Audit

Cost auditors are in no way any different from the above two groups in terms of duties, responsibilities, professional competencies, and importance of services rendered to industry. Rather their role is quite unique because they have to also understand in detail every single functional elements of clients' operations which have bearing on their cost of production and rendering services. They must be more familiar with exactly what her/his client has done by digital transformation and how that have impacted various elements of costs, their collection, analyses, and allocation to products. This is important for determining the ultimate cost of the product from the perspective of determining price that will finally affect common people. In such a role their task is expected to be a unique one and should in some senses be a combination of the duties and responsibilities of both management auditors and statutory auditors.

When all these are read in conjunction the perception that get generated is that internal, statutory, and cost auditing functions must undergo paradigm shift. Participation in this process of metamorphosis would require lots of learning, unlearning, and relearning as well as attainment of many new skills for dealing with digital technologies. Capabilities

for change management will determine the success in adopting and adapting digital technologies.

Robotic Process Automation - Auditors' New Software Tool

The phrase Robotic Process Automation (RPA) is a combination of three words which have their individual meaning. The word 'Robotic' is a derivation from 'Robot'. Oxford Dictionary has defined a robot as *"A machine that can perform a complicated series of tasks by itself."* and suggests the meaning of 'automation' as *"the use of machines and computers to do work that was previously done by people."* The word robot here would not mean any physical robot which is a product mechatronics. The word robotic has been adopted as the adjective for the software tool. Combination of these three words in the context of auditing as a process, irrespective of its nature being internal, statutory or cost, would remit a meaning for auditors using a software tool that would have the capability to automatically perform a complicated series of tasks by itself following a set predetermined rules which have been embedded in the software for RPA.

Capgemini⁷, has defined RPA, *"As a virtual worker, RPA replicates user actions to reduce or eliminate human intervention in mundane, repetitive, and manually intensive processes."* It would be useful to appreciate a further elaborated definition of RPA, articulated by Deloitte⁸ as, *"RPA is a computer-coded software, commonly referred to as BOT, that emulates human actions and is able to drive automation of rule-based processes. It is an ideal automation technique for any process that has a heavy dependence on data entry, data manipulation, triggering responses and communicating with other digital systems"*.

Therefore, adoption of RPA by an auditor would reduce auditing time because the RPA tool, if appropriately and effectively designed and appropriately deployed for achieving the desired audit objectives, would takeover, and deliver routine mundane tasks hitherto performed by junior team members. RPA would allow the auditor to embed into the software the rule to be followed by the tool while performing review and analyses of transactions, data, etc., hitherto being done by juniors.

PwC⁸, while recognising RPA tools as the primer for auditors have opined that, *"....Testing of controls and other departmental tasks can be automated through RPA, expanding internal audit's capacity and freeing auditors to focus on more value-added activity. As RPA momentum increases, internal audit professionals can keep pace by helping the company understand and control RPA risks*

and by embracing RPA within their own organization".

Besides saving manpower cost, benefits would come in the form of speed, accuracy and performing review of the entire population of transactions and data. This would also obviate the need for sampling and partial audit review, the resultant error and/or bias which would have otherwise vitiated the auditors' judgement and affect conclusions from audit. Moreover, an RPA tool auditor would be more efficient in detecting non-compliance of statutes and regulations. Adoption of RPA for auditing will call for three steps, viz., defining and designing, building and refining, testing and deploying.

In the context of using RPA for their clients Deloitte⁹ has concluded that, *".... This can add to the effectiveness of risk management. As robots follow precisely-defined action protocols and procedures, they can also capture and retain required audit trails and automatically report on matters such as exceptions."* Nanonets¹⁰ in their publication titled *'Future of RPA in Audit and Compliance'* has suggested seven-step approach for adopting and deploying RPA as an auditing tool. These spans from identification modularisation of audit process to prototype experimentation, feedback and evaluation. Readers can learn more about these from their publication at the quoted URL

None of the digital tool are devoid of their adverse impacts unless appropriately designed and deployed for the right purpose in the right way at the right time. RPA may create negative impacts if the tool is not appropriately crafted with embedded software capabilities to check transactions and conduct data analyses for ensuring compliances with policies and SOP, legal and regulatory provisions, risk detection and operational effectiveness. Auditors must exercise due cautions and follow steps to first make the RPA tools error-free by repeated testing to render the process of audit smarter with RPA.

Future is Calling - Ten Commandments

Indications have been provided in the above discourse to the effect that future is calling auditors across the spectrum for digital transformation of auditing systems, processes, and tools. But in the ultimate analysis one must also think why the entire humanity is so much engaged with digital technologies and the process of digital transformation. According to the author the ultimate of all ultimate objectives from the perspective of any stakeholder should most certainly be rendering services to humanity living anywhere under the sun and across all societal strata.



Mankind must not miss this opportunity to achieve sustainable inclusive growth for inclusive smile and happiness. Auditors' contributions for this goal can in no way be considered as small and be demeaned. Their role is critically important because they deal with the last set of tasks for establishing trust, reliability, quality safety and security. Therefore, the author would like to repeat for auditors the same **'Ten Commandments'**, as engraved in the above graphic which he has articulated for digital transformation of business. Hopefully, auditing professionals would agree with the above Commandments and take up as the guiding lights while rendering services to industry trade and commerce.

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EMERGING CONTOURS OF COST REPORTING: A SYSTEM EMBEDDED APPROACH

Abstract

This article aims at a contemporary approach to Cost System Design with an operational focus, with emphasis on cost drivers and shaping the cost management system to an equivalent of quality management system, to make the process owners the cost assurers. The approach looks at creating a system driven Cost Dictionary, to enable a Multi-Dimensional Cost Sheet, to help internal decision making. It also suggests using the contemporary IT Architecture Design, making use of measurable and verifiable data that is already available in the entity.



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INTRODUCTION

The evolving business intricacies and the multi-dimensional pulls from different directions, make decision making more difficult for the organisations at different levels. The decisions taken at various levels have positive and negative organisation wide impact, due to ambiguities surrounding various factors which affect policy making. The best practices by entities, aim to reduce the negative risk effect, if any, by providing a reasonable level of assurance to the decision maker.

Most of the organisations depend upon the historical cost data, which has a high level of certainty due to its measurability and verifiability

aspects. The emergence of contemporary information technology features, which enable large volume data processing, is yet to be harnessed for better reporting of finance and costing. Data Analysis and its associated tools can provide a solid platform for building up managerial cost models, which can provide real time and predictive profitability scenarios.

Developments of the modern cost management systems have tended to become real time and analytical, to link the cost and the drivers of cost into the major business outcomes. While all business decisions may not be primarily driven by cost factor, the policy makers will be able to look at the cost trend of the decisions taken

by them.

This will require a metamorphosis in the measurement and reporting system of cost, which will be open to cost modelling, algorithm-based cost structure, cost management, cost analytics etc. and which can offer real time cost information as well as predictable cost information. This will shift the cost sheet from single dimensional value-based approach to a bi-dimensional (or even multi-dimensional) cost driver-based approach, where the real cost management must be done at the cost driver level rather than from a monetary approach. The Changing Cost Management Design, giving focus on these points, enable policymakers throughout the entity

to become assurers of cost.

ACTIVATE THE SYSTEM EVALUATION APPROACH FOR COST INFORMATION

The basic requirement of any decision-making process is the up-to-date analytical information on key factors impacting the managerial decisions. Decisions are taken from a futuristic view point whether on a short-term, medium or long-term basis. The core components of the information are verifiability and auditability to enable evaluation of expected and actual results. This needs a data structure, providing current details, and allows a comparison for course correction.

The contemporary cost accounting and reporting system should be system driven. System driven means that basic data is input in the system, by the data generators, handled by the system through the process flow logic and the output is in the form of reports, which are either generated or extracted from the system. In a system driven exercise, drilling down to the primary data is easily available, which can detect deceptive data, which are not reasonable or scientifically authenticated.

This calls for a system-based methodology, which is built on a building block of a cost accounting system, with other related business information flowing into the system and incorporating the same for a strong cost reporting and cost control systems. This empowers the policy maker to utilize the relevant cost and cost related driver information from a multi-dimensional perspective. Since the information flow inwards is from a verified information extensively used by internal users, the necessity of a trustworthy data for decision making is satisfied. Taking inference from the financial reporting jargon, this can be called “Internal Cost Reporting and

Control System”. Unlike a financial reporting system, this does not limit itself to the past records but extends to the present and future period also. This is due to the user demand of cost data for almost real time cost monitoring and pricing decisions, which expand to the future.

SCIENTIFIC COST MEASURING SYSTEM: CONNECT THE PROCESS AND QUALITY KPIS TO A BI-DIMENSIONAL COST SHEET, WITH FOCUS ON COST DRIVERS.

In any manufacturing entity, the major components of cost, in terms of cost drivers, which influence decision making, are usually within acceptable bounds. They are divided in two major groups of cost drivers. One affecting the input – output ratio and the other impacting productivity. There may be many sub-groups, being sub-sections of the main groups.

The contemporary continuous Improvement programs, have been designed to assess, check and take remedial action, in case of variations from technical standards, to enable high degree of quality products. The variations are measured by comparing the actual with set technical standards, which get revised regularly when new technologies or process improvements emerge.

The technical standards mentioned in the earlier para are different from standard costing methodology which is the child of a historical financial reporting approach. They are the real time standards applicable predictively also. A technical standard based scientific cost measurement system aims at granular modifications, which can be process specific, batch specific data and are customer centric.

This necessitates formation of technical standard data base, to cover as much as possible the

process variations, batch variations and customer driven variations. This approach generates large volume of data from which appropriate data for cost evaluation purposes has to be mined. The new industry standard information technology makes the work much easier, using “BOTS” or “RPAs”. This also facilitates the decision maker to flawlessly “Bind the process and quality KPIS to a bi-dimensional cost sheet, with the emphasis on cost drivers”.

The technical standards cited above may be flexible enough to try various alternatives to arrive at the desired objective. An algorithm-based cost system enables trying out various alternatives on a cost platform, to attain the objective.

EXAMINING BUSINESS PERFORMANCE THROUGH ‘COST DRIVER APPROACH’ FOR PRIORITISING STRATEGIC & OPERATIONAL INTERVENTIONS.

Most of the entities have a well-designed business performance measurement system, supported by balanced score card with a robust KPI matrix. These have enabled short, medium and long-term review, interlinked with business strategies. The operational reviews, requiring process interventions, can be tested on the cost platform to enable top line and bottom-line growth. The same is applicable even for strategic interventions. As previously stated, the uni-dimensional cost sheet approach, can only give a macro view, which is once again based on the weighted average cost of past performance.

The operational involvements are based more on process/batch cost drivers, linked to customer-specific needs. The cost driver deviations which are already overseen by them with continuous improvement

initiatives, will enable them to set priorities, once translated to cost terms.

Similar to the TQM approach which enables the operators to be the quality assurers, this approach too makes them the cost assurers

SHIFT COST ACCOUNTING AND REPORTING SYSTEM FROM A SINGLE DIMENSIONAL COST SHEET (CONTRIBUTION AND EBITDA) TO A MULTI-DIMENSIONAL ONE WITH THE EMPHASIS ON PRESENT AND FUTURE (PAST IS HISTORY WHICH CANNOT BE CHANGED).

The transformational approach in the cost accounting and reporting system converts the single dimensional cost sheet to a multi-dimensional one with focus on present and future. This also changes the basis from the financial accounts-based cost system to the cost driver based cost system.

The prevailing financial system driven cost accounting system will continue to exist as a separate domain providing measurable, auditable and verifiable information for external financial reporting focused on the historical data. The emphasis will continue to be on accounting of costs rather than managing costs. The process owners of accounting of costs are finance professionals whereas the process owners of managing of costs are the operational professionals, who are more concerned with the present and future.

The contemporary approach discussed here does not aim to focus on reconciling the profit between costing and finance, as in traditional cost accounting system. The focus is on costs based on operational performance metrics and cost trends under alternative scenarios. The cost driver approach emphasises

that “causality is important for the effective performance management systems” and the root cause analysis, which are the building blocks of continuous improvement initiatives.

LINK COST MANAGEMENT TO KEY BUSINESS METRICS FOR COURSE CORRECTIONS

For effective managerial decisions, there is a need to dig out as much variable and specific cost of a cost object as possible which are hidden in “semi-variable costs” and “fixed costs.” Understanding the nature of the cost like whether linear or marginal, distinguishing limitations in ranking the preferences for selection, are all required for appropriate managerial decisions. Probing for the presence of “indifference point” to find out the point of variation in the range and creation of more exhaustive record of costs as much as possible, for various actions and to use them effectively under different circumstances, are all key for perfecting the quality of the managerial decisions.

Management decisions are situation-based and it will differ from organisation to organisation, as the facts of each case may differ. Thorough analysis of the situation, recognizing the nature of the costs, knowing whether the cost is linear or marginal- are all vital for quality decisions.

Management should ascertain the limitations such as, (a) plant capacity (machine- hours), (b) R.M quantity (Kg available), (c) skilled-labour hours, (c) power (units available mainly during power cut), (d) the maximum quantity marketable and so on. In a product-mix choice, the contribution w.r.t. limitation should be the benchmark for the “ranking” and choosing product.

The “cost” of a product, resulting from “average cost”, like average labour cost per machine hr, average

power cost per m/c hr, and so on, results in cross-subsidization to the other product(s) produced. i.e., the product that appears to be of less cost would be of more cost (and vice versa) and will result in wrong decision in the product selection. Likewise, use of improper basis for allocation of common costs (apportionment) results to improper cost, because of which activity based costing (ABC), is promoted.

Facilitate building a unit focussed cost dictionary or cost table, that will be the master data base of bi-dimensional cost or multi-dimensional cost from where relevant cost information can be derived across the users within the business.

COST MEASUREMENT – PROCESS VIEW OF COSTS

One of the basic principles of activity based costing system is the process view of costs. Activity based costing looks at the costs both from product and process view. All the processes/activities consume overhead resources and are considered cost objects. The nature of the business process dictates the most predominant among them. In manufacturing-oriented sectors, it is quite natural that the prominence is given to manufacturing process right from the input of raw material to the process to the stage where it gets packed for despatch.

Each of the main processes and sub-processes are already well plotted and checked in the usual production monitoring system. Decisions are being made based on the measurement of outcomes from each process. Every process will have varying types of machineries and the assignment of the category is decided by the end use of the product that is to be delivered to the customer. The process view mentioned under this caption has two aspects, viz., technical and resources

consumed. The technical aspect takes supremacy, where the same is specifically required to assure the final product specifications strictly as per customer requirement. In some cases, where there is an option between the categories, the cost viewpoint comes into the picture.

In the case of the traditional cost accounting system, the product becomes the primary focus and only the aggregate of the cost consumed by the resources gets reported to arrive at the product cost. If the costs dissection as stated earlier is required, it needs a repeat work on an *ad hoc* basis to track down the costs for the category of the process. The process view of costs, makes it simpler, since the process becomes the main cost object rather than the product. The process cost gets assigned to the product through the cost driver associated with the resources consumed by the product in that process.

Although the above-mentioned parallel seems to relate to manufacturing process, the logic becomes equally applicable to non-manufacturing process also. The key identifier is the activities and the resources consumed by the activities. Another important factor is the materiality and significance principle which decides whether the process view for that process is required or not.

The system approach to cost management is concentrated on the current and the target cost. The process view looks at the processes that are important from that perception. The action point is to make possible decisions down the line by delivering near real time cost information to the operational policy makers. The traditional costing system looks at the reconciliation between costs actually incurred and spent as per Finance, as sacrosanct, whereas the process

view method aims to provide the cost trends, at that timeline, so that any corrective action can be taken up at the earliest possible time frame or on a near real time basis.

While the monetary value is the focus for a normal cost sheet, it is the cost driver for a process view cost sheet. The control point for a process is the cost driver, which is in the hands of the process owner, who need not wait until the cost driver numbers get converted into monetary terms for any decision making. The aggregate of the cost driver numbers across the process gives the macro view and provides the comfort level on whether that is adhering within the planned range. The data that gets collected for technical and quality purposes in manufacturing also indicates the outliers that are action points. Where possible, the evaluation of those action points in terms of costs, also provide the ground for prioritising them.

Another key use of the process view of costs, is the budgeting and forecasting process, which enables drill up from basic information to provide a strategic or macro view of business. This helps comparison between the forecasts or estimates as per budget to the actuals. The variance trend in the process view cost drivers, will indicate if the resources are consumed within the limits based on the outcome. Since the estimates or forecast are best guess assessments, any major change in the market, customer or product mix can be considered as the basic database that deal with all these changes.

COST MEASUREMENT – COST INFO SOURCES

Most of the key industry sectors aim on meticulously evaluating productivity, efficiency, and quality on a regular basis. The industry focussed Associations also cover all

key aspects of the sector and come out with regular guidance for the members in the form of technical guides on productivity and quality norms.

With the experience spread over many decades, many units have developed a set of key technical performance indicators, as part of the regular process information enabling slice and dice over timelines. The machinery manufacturers of each of the key sectors have also embedded modernized IOT based systems with automatic collection of critical data online machine wise. Independent production management software is also available from software vendors, for interface with critical machines for collecting and accumulating data and convert the same into useful production monitoring information.

The cost system evaluation framework depends on these data, which help technical and operations decisions. It only adds value to the cost sensitive technical data enabling decision makers at the process level. One foremost factor in the cost information resources is to build a cost data base or cost table. This will be very useful to industries where many range of products can be produced from the same production facility. The productivity and process efficiency may also vary from machine-to-machine category for the same product, which also may be due to the level of modernisation and automation. The most modern unit may require less labour compared to a normal unit. At the same time, the power consumption will be much higher than normal machines for such modern units. The production support facilities also may be much higher for modern units as compared to normal units.

The cost table which can be updated after new product introduction will be a valuable look up table for auto

computing the cost sheet. This can include all the critical operations that are material and significant from cost point of view.

COST MEASUREMENT – IT ARCHITECTURE AS FACILITATOR

The current developments in IT architecture have facilitated the evolved cost system architecture discussed above. In the present-day scenario, the focus has been shifted from a past to the current and future perspective. The presence of technical validation of information provided, for process control and product quality, enables data quality. Moreover, all these KPIs are looked at for each batch, as the batch is the key driver for production process. This is to maintain traceability of the product to the batch and time of process, in case of customer complaints and redressal. Since cost system adopts the batch as the main cost storage tower where costs are accumulated, the process information already available can be used to arrive at key process costs. In addition, since the process segregation is done for process related activities and process support activities, the cost is identified separately for process and process support and aggregated to arrive at total operation cost. The key cost methodology also focuses on the material and significant resources consumed in the operations.

Modern developments in IT design and the available support standalone software has eased the processing of large volume of data than ever before. With the accessibility of business intelligence tools, fair amount of process automation has been made possible. Even if the requirements of each entity may vary according to its business focus, the availability of an IT tool has become a game changer. There is one caution which must be noted. The cost system does

For effective managerial decisions, there is a need to dig out as much variable and specific cost of a cost object

not get addressed by the operation of a normal costing module, which is used in any ERP environment. The costing module, especially in the Indian context, at best, addresses the inventory valuation requirements and the COGS determination. Wherever cost system approach is used, whether for current costing or target costing, a standalone system is usually developed, which can connect to the ERP and extract the relevant information for decision making purposes. It may also be possible that some entities have been able to use the ERP costing module for a cost system approach also.

COST REPORTING – HISTORICAL (DOES) COST

The historical cost system takes care of macro level MIS reporting on cost and profitability at the business unit level as well as drilled down product cost for the period which gets reported. The main purpose is to enable Inventory valuation for financial accounting purposes and the reconciliation between cost and financial profit. The cost sheet under this system is uni-dimensional and reports the cost only in value terms. Moreover, it provides a weighted average view of cost over a timeline, which is useful again from the macro point of view.

COST REPORTING – CURRENT (WOULD) COST

The emphasis under this method is almost real time costing, where the costs are identified shift wise,

daily or batch wise. Although the analogy used is manufacturing, the same reasoning applies to other functions such as marketing also. In manufacturing sector, the production plan which decides the allocation of machines and line balancing is the key aspect of current cost. The cost working is built into the production plan itself. For ease of computation, only key conversion costs (Eg. power labour, fuel etc.) which are significant cost resources are focussed on. The key difference between the historical and current cost is the introduction of cost drivers viz., Units for power, labour hours for labour and Kcals for fuel. The Units consumed by the respective machines are calculated from the HP rating, machine efficiency, machine loading factor. Productivity variations within a range resulting from variations in speed and machine efficiencies do not affect the power consumption per machine per unit time. Apart from this method, the data can also be adapted from special studies conducted under normal running conditions for each of the critical machines. The unit per product (by weight or number as applicable) for each product can be arrived at factoring planned productivity as per production plan adopted by the PPC. In the bi-dimensional cost sheet, the Units per Kg is the key input for arriving at cost and the same is directly taken from the production plan. The same approach as mentioned above, can be adopted for labour also.

To simplify the cost calculations, the entire operations can be divided into process blocks. In case of any one process block, the standard rates (Eg. UKG) arrived at earlier can be adapted instead of calculating for each production plan. This is because from the materiality and significance point of view, there can be no major changes and their impact on operations cost will be

minimal. Any of the block which is a major consumer of resources with process variations dictated by the specifications, can be evaluated. This will enable, the cost and the cost drivers are clearly identified for each product range. The key aspect of current cost is the capability provided for a real time comparison of the actual with planned to enable immediate corrective action.

COST REPORTING – SHOULD (TARGET) COST

The systematic approach to the cost system, as foreseen by the cost system evaluation, automatically enables the ‘should’ cost. Once the basic structure is strong, any iterations of processing the cost information forwards and backwards is possible among various timelines, whether they are related to current or future. All the three types of cost systems mentioned in this section are aimed at addressing the short-term outcomes, as they deal with day-to-day operations.

CONCLUSION

The evolution in business models combined with developments in support systems, dictate a major change in the past approaches to the cost management and reporting systems. The changes in the information technology have started enabling detailed cost analysis, on a real time basis, which were not available earlier. This development has started providing vital information support to internal decision makers on a near real time basis and work on a predictive managerial cost model. The Cost and Management Accountants who are the process owners of a cost accounting and reporting systems, should realise the changing environment and re-tune the system methodology to add value to the cost information provided for internal decision making. **MA**

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IT COSTS - MANAGEMENT AND MONITORING CONTROLS STRUCTURE



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Abstract

IT costs (whether capex/opex/outsourced) incurred in an organisation are all pervasive in nature and hence organisations must involve cross functional teams to structure the present and future needs. It requires vast knowledge in business and market needs, visualisation of tech trends, regulatory compliance, vendor capability, cost effectiveness and user adaption. It is essential to capture requisite quantitative and financial data to monitor the metrics and continuous reporting from IT Strategy to implementation and adaption.

1. BACKGROUND

Information technology refers to the use of computers and electronic means for collecting, storing, processing, sharing, transferring and exchanging data and information.

(IT costs herein refers to those costs falling under the purview of CIO / IT Head)

The annual IT spend in India is about USD 95 billion. The year to year crease is 8 per cent

The global -worldwide IT spend is USD 4 trillion

IT costs may be for hardware, software, projects and its accounting treatment may be Capex / Opex / Amortise / Outsource.

During the pre-cloud, pre-digital transformation days, IT costs were discretionary & IT budgets

declined during bad economic days. Currently IT is a basic necessity for the growth of business and not just to run accounting operations. Digital transformation in business supports online business, manages supply chain and remote work force, enables scalability, accuracy with speed. Information technology with expanded exponentially with Government and industry investment in the following:

Internet connectivity, Digital workplace, e-governance, CRM, social media, digital marketing, AI, cloud solutions

Websites, Apps, BOTS, GIS, BI & data analytics, security, BCP, shared services, data integration and sharing tools

Due to advancement in technology, although there is a decline in cost for the previous technology product, such cost savings in the organisation are

invariably outweighed by expansion in automation or use of new IT services.

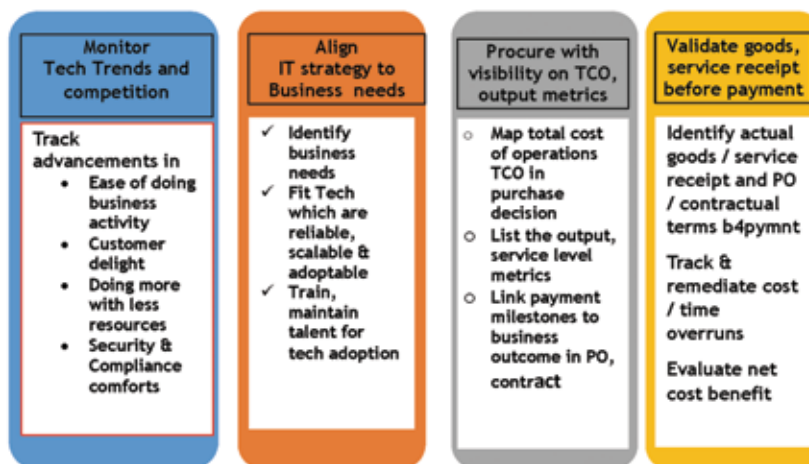
2. OBJECTIVES

Primarily the objectives of IT costs monitoring controls structure are:

- ⊙ To set technology vision and streamline progress towards technology adoption
- ⊙ To track IT operational efficiency and user comfort with scale and security
- ⊙ To define and realise IT procurement effectiveness

3. MONITORING IT COSTS

IT costs must be monitored continuously from strategy to implementation and adoption to track total cost of operation (TCO)



In case of IT services and projects it is essential to align accounting treatment on capitalisation, GST ITC etc as per the accounting system and budgets to interpret budgeted costs to accounts data

4. NATURE OF IT COSTS - CAPEX/OPEX/AMORTISE/OUTSOURCE

A. Software & Service	B. Hardware & Maintenance	C. Projects
<p>>IT Software for core business</p> <p>>Software for other functions with license rights at premises or subscription basis in cloud</p> <p>>Apps development and maintenance costs,</p> <p>>Websites, Portal dev & sup</p> <p>>MS Office, Adobe, Antivirus & security software, workflow solution tools</p> <p>>Cloud hosting</p> <p>>Software consulting /professional charges for IT strategy, Sourcing, Security Controls, Software testing, DR,BCP,</p> <p>>pre or post implementation development, maintenance, support</p>	<p>>IT Hardware</p> <p>Computers – Desktops, Laptops, Tablets</p> <p>Copiers, Printers, Scanners</p> <p>>Data Center, Network Equipment, DR site, Voice/Data carriers, internet, email AV Communication- Servers, Routers, Switches, Firewalls, Network equipment, Internet wifi, Audio, TV, Video conferencing equipment, Projectors, Speaker phones, Mobiles</p> <p>>Security Access related monitoring tools, devices, CCTV recording tools, Auxiliaries – headphone, Mouse, Screen pad, Power chord, Data card, Hard disk, storage devices, sensors bar code, RFID, OCR, Consumables – toners, tapes, ribbons</p> <p>>Energy Utility Equipment, AMC, UPS, Batteries</p>	<p>>Legacy system application modernisation</p> <p>>Self developed software / websites / portals / apps with inhouse resources and /or with vendor resources</p> <p>>Costs in Development stage – designing, coding, quality testing, data migration, cloud cost ;</p> <p>Co-existence and parallel run cost;</p> <p>>Software purchased & customised - implement in one go – big bang</p> <p>- Develop and implement in agile mode in sprints</p> <p>--Implement in phases,</p> <p>--Enhance periodically</p>

5. IT COSTS DRIVERS

- To monitor IT costs, it is essential to capture and report financial cost and other quantitative data correctly to bring visibility on cost effectiveness and optimization
- “What Is not measured or what is not measured correctly cannot be analysed for corrective actions”.

Hence, capture and report financial and quantitative data consistently and correctly on:

1. **No of Users** – Increase / decrease in number of users fluctuate wildly due to changes in business operations with new product or service offerings or expansion or diversification or mergers or acquisitions or demergers or closure –change in count of users will invariably impact IT costs
2. **No of Software applications** - Workflow automation, batch/

online processing, interfaces in e-governance, data intensiveness, dependencies in processing / analytics, portability, cloud storage, CRM sms, BOTS, etc impact IT Costs

3. **Business Model change** – Example from branch to distributors or e-commerce impact change in system Increase or decrease in number of locations / geographies / digital marketing mode impact hardware / network costs significantly
4. **Change in Regulations** – Example of data privacy / tax laws involving changes in business & systems-integration or connectivity, or security compliance or adaption, Asset Replacement period, can result in higher IT costs
5. **Type of software sourcing / payment model can give different perspectives on cost**

pattern -Acquisition mode may be: Own or hire the application – Capex or Opex mode; build in-house or joint or outsource ; install at campus or cloud browser; import or domestic, off the shelf or customise lump sum payment with service benefit realisation over future period; usage or outcome based fee, built-in AMC, T&M-resource time basis , FPB-fixed price basis linked to outcomes.

6. **Project Management efficiency or its failure:** Overrun in project time, scope, resources

Number of new initiatives, number of CR-change requests for enhancements, development or maintenance impact IT costs. User acceptance test failures or rework costs, workforce attrition, project write off etc can further enhance IT costs

Establish analysis of IT cost trend to compare periodical pattern /Industry Metrics

- Total IT costs (Capex+Opex excl deprn) → Trend this year. Last year vs. respective budget and estimate for ensuing year
- Total IT costs average per User →Trend as above
- Total IT costs per computer system →Trend as above
- Percentage of IT spend outside IT Budget → this year, last year
- Cost with ref to business applications →Trend as above
- New IT initiatives Cost -->Trend as above
- IT Personnel Head count, Costs, attrition % →Trend as above

6. MONITORING CONTROLS – BASICS For IT services

- ⊙ All services must have effort estimation for the total business requirements
- ⊙ Effort estimation template with skill matrix, no of days/ man hours efforts - assumption and the basis of estimation, contingency for time delays and scope creep
- ⊙ All service providers – both in-house team and T&M based resources must submit time-sheets on efforts to enable data based decision making and remote work
- ⊙ Project tool must capture the

project progress with reference to work break schedule, key milestones, efforts to complete, dashboard on cost so far, cost to complete and expected overruns

- ⊙ Establish monthly report on project-wise progress, Stage of completion, cost to complete, scope-change, time/cost overruns, corrective action
- ⊙ Service contracts must have safety clauses vetted by legal team with regard to the following:
Contract tenure and extension conditions
 - ▲ Contract termination clause and those terms during

termination period and post termination

- ▲ Indemnity and Liability
- ▲ Force majeure conditions, data privacy and protection
- ▲ IP rights
- ▲ Communication on SLA breach especially on those interrupting the business, causing errors /risk in operations
- ▲ Turnaround time –TAT on essential functions –escalation
- ▲ Right to audit, SOC 1, SOC2 compliance
- ⊙ Software development specifications and

documentation responsibility (whether inhouse or outsourced) must be specified in BRD/PO/WO/Contract.

- ⊙ Clarity in handling source code / IP rights and resource backup to mitigate risks. Also clarity those jobs which must be done in house and those which can be outsourced
- ⊙ For large projects –evolve Project Steering Committee to decide upon cross functional team responsibilities fulfilment status, phases of project, cut over dates, Go live date, transition period risks monitoring and reporting aspects
- ⊙ Service receipt note (similar to goods receipt note) must be used to capture contractual terms compliance--For all services publish SLA metrics, format of monthly reports to track compliance / deviations to SLA

7. IT Procurement - General

- ⊙ As a part of enterprise risk management, publish IT strategy, data retention policy, ISMS, continuously track market insights on technology trends, new product launch by vendors, new service offerings & benefits
- ⊙ Web crawlers can facilitate extraction of web info on products / services across the world
- ⊙ IT Purchase Committee with representatives of users, procurement, IT security, finance lead to decide on major tenders & projects
- ⊙ Business requirements document (BRD) must be insisted by the IT Committee before discussing tender / proposals
- ⊙ BRD must be detailed to highlight the requirements –as is process ??, to be process ??, gaps, business case expectation like revenue expansion, cost controls, compliance comforts, time or resource savings,

To monitor IT costs, it is essential to capture and report financial cost and other quantitative data correctly

customer service, immediate or short term or long term benefits, intellectual property ownership rights, risk analysis.

- ⊙ Investment required for the new project solution
- ⊙ Alternatives if any available within the organization including tweak in process or products or tech must be obtained from tech vendors / consultants before choosing the project solution
- ⊙ Standardise templates for business requirements and Gap analysis data sheet for software development / maintenance projects.
- ⊙ In case of purchase of Software, assess customisation requirements, reusability, existing other software integration & modification needs, data migration / data sharing needs to have total cost of operations
- ⊙ Structured evaluation on existing hardware infrastructure, its age and replacement schedule, incremental hardware requirements for in house use upon considering activities planned to be outsourced – buy or lease, import or source locally etc
- ⊙ Set a specific outline for major products for the respective type of functions and class of users. For example-
 - ▲ Tablet configuration for salesman
 - ▲ Basic desktop for helpdesk centre staff
 - ▲ System configuration for a software developer, MIS teams etc to optimise

cost and to rationalise maintenance

- ▲ Printer type for invoice, records printing, for other office use
- ⊙ PO/WO must specify the responsibilities of vendors; in the event of vendor functions being performed by inhouse team or other external consultant or vendor the efforts therein and cost recoverable must be specified and responsibility of monitoring these must be tracked in GRN/SR stage
- ⊙ Outsourcing contract must have clarity on initial work specification, transition, inhouse resource responsibilities, vendor resource responsibilities, skill matrix, system supports, turnaround time for activities/tasks, reports and escalation matrix.
- ⊙ Evaluate tax and regulatory compliance terms on vendor and those to be fulfilled by in house team including those relating to data protection, e-waste

8. CONCLUSION

- ⊙ Gather data or cost attribute accurately to an activity, user or device since IT costs evolve with process, technology and level of adaption
- ⊙ Evaluate alternative mode of sourcing - flexibility in service can influence combination of cost in fixed or variable pattern; hence related metrics to be aligned in vendor negotiation
- ⊙ Within the organisation-structure cost ownership, service acceptance controls and track success benchmarks to strengthen project management
- ⊙ Monitor actual user adoption to mitigate uncertainties and to derive overall net benefit **IMA**

UNIFORMITY AND FINANCIAL IMPLICATIONS OF CORPORATE SOCIAL RESPONSIBILITY IN INDIAN MINING PSUs

Abstract

This study intends to analyze and compare the CSR performance of the top seven Indian mining PSUs from 2014-15 to 2020-21 and determining its impact on the financial performance of the companies. The relevant hypotheses have been developed and tested through one-way ANOVA and linear regression analysis. The results demonstrated no significant difference in CSR approach towards expenditure of each mining company over the years while they differ significantly from one another. Moreover, CSR has been found significantly impacting all the considered variables of CPF except return on net worth (RONW) underlining that CSR should be taken care of effectively and efficiently to ensure long-term financial benefit.

INTRODUCTION

Companies must make efforts to take into account the interests, concerns, and objectives of their diverse stakeholders and their frequent disparate needs in order to embrace CSR (Guerra, 2002). The practice of 'responsible business' involves anticipating and planning for any possible adverse social impacts to ensure that operations are environmentally friendly, respect human rights and minimize pollution (Warhurst, 2001). The mining companies' CSR is an indicator of their commitment to enhanced sustainability, which means implementing sustainable goals in everyday life (Jenkins and Obara, 2008). Companies' stakeholders have become more cognizant about their benefits and business management in recent years. Whether or not a firm's performance is influenced by this factor is either directly or indirectly dependent on it (Iwata and Okada, 2011). The relationship between corporate social responsibility and corporate finance has been the subject of previous studies for a long time till date. Although empirical research has been conducted there has still been no consensus. The relationship between CSR and CFP has



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been determined differently by different researchers and has yielded varied results. Various CSR elements and specific

industries have been the subject of new research during the last few years on the relationship between CSR and CFP.

In this particle the impact of CSR on CFP has been explicitly studied, while analyzing and comparing CSR expenditures of mining sector PSUs in India, supplementing the existing literature.

REVIEW OF LITERATURE

Mining companies worldwide have addressed their social and environmental responsibilities in recent years and there have been numerous factors contributing to this, and the mining industry plays an important role in sustainable development discourse (Cowell et al., 1999). Organizations must ensure that CSR is in place within the company, demonstrate how it is implemented, and demonstrate the results. Thus, establishing a set of guidelines and evaluating CSR performance should be based on specific criteria. In relation to this, companies can adopt those systems in a moderated manner based on their size (Vintro and Comajuncosa, 2010). Both companies and local communities have benefited economically from the mining sector in the past. Resistance to mining activities has also been attributed to increasing environmental concerns (Das and Ram, 2012). In the context of relationship with financial performance of the companies, it is correlated with CSR in different industries in different ways (Pan et al., 2014). In this context, a study underlines that the financial performance of companies is negatively affected by corporate social responsibility (Hirigoyen and Poulain-Rahem, 2015). The results are in agreement with those presented by Makni et al., 2009. The results, however, contradict those demonstrating that financial performance and CSR are positively correlated (Orlitzky et al., 2003). Moreover, it also refutes the results depicting the neutrality in the said association (Mahoney and Roberts, 2004). Stakeholder engagement and CSR disclosure should be improved in the mining sector, guided by corporate stakeholder relationships, two-way symmetrical communication and dialogic theory (Pons et al., 2021). In order to improve corporate-community relations, mining companies must provide better information, facilitate public involvement and be transparent in their deliberations (Zamroni, et al., 2022).

METHODOLOGY

The data of top seven mining PSUs were collected for a period of 7 years from 2014-15 to 2020-21 for two aspects viz. corporate social responsibility for which CSR expenditure has been considered, while, five variables viz., revenue from operation (RFO), profit after tax (PAT), return on capital employed (ROCE), return on net worth (RONW) and earnings per share (EPS) have been the proxies of financial performance. This accounts for 294 firm-year observations. In order to evaluate the

CSR performance of the companies in the context of CSR expenditure, trend analysis has been carried out and the intra-company comparison of CSR expenditure has been analysed considering the following hypothesis:

H₀: There is no significant difference in CSR expenditure of each mining sector PSU over the years.

The inter-company comparison of CSR expenditure has been carried considering following hypothesis:

H₀: There is no significant difference in CSR expenditure of mining sector PSUs.

Further, for hypothesis testing, ANOVA (both company-wise and year-wise) has been applied. For intra-company (year-wise) testing, absolute values have been used whereas for inter-company (company-wise) testing, percentage of CSR expenditure of PAT has been calculated to have relative values which has eliminated the effect of small and large firm size.

On the other hand, in order to examine the impact of CSR and financial performance of the companies, following hypothesis has been developed:

H_{0t}: There is no significant impact of CSR expenditure on the financial performance of the companies.

The multiple linear regression equations have been formulated and tested for exploring the impact of CSR expenditure on firm performance:

$$Firm\ Performance_{i,t} = \alpha + \beta\ CSR\ Exp_{i,t}$$

$$ROF_{i,t} = \alpha + \beta\ CSR\ Exp_{i,t}$$

$$PAT_{i,t} = \alpha + \beta\ CSR\ Exp_{i,t}$$

$$ROCE_{i,t} = \alpha + \beta\ CSR\ Exp_{i,t}$$

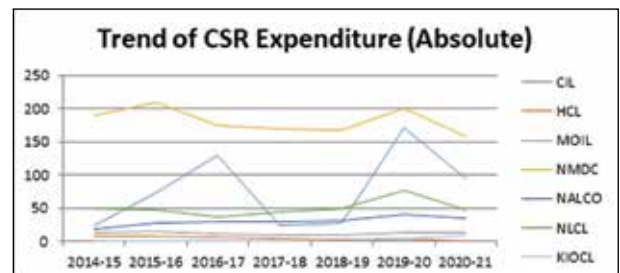
$$RONW_{i,t} = \alpha + \beta\ CSR\ Exp_{i,t}$$

$$EPS_{i,t} = \alpha + \beta\ CSR\ Exp_{i,t}$$

ANALYSIS AND DISCUSSION

Trend of CSR Expenditure

FIGURE 1: TREND OF CSR EXPENDITURE



It has been found that NMDC has the highest level of CSR expenditure throughout the study period. CIL is showcasing high fluctuations in CSR expenditure, highest in 2019-20 and lowest in 2014-15. A big drop has been

observed in CSR expenditure of the company in the year 2017-18. NALCO and NLCL have moderate and consistent level of CSR expenditure as compared to peer companies.

CSR expenditure of KIOCL, HCL and MOIL are the lowest and do not exhibit any major fluctuations over the years.

TABLE 1: RESULTS OF ONE-WAY ANOVA FOR CSR EXPENDITURE

ANOVA (Company-wise)					
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>
Between Groups	169438.8	6	28239.8	50.7751	0.00
Within Groups	23359.31	42	556.1742		
Total	192798.1	48			
ANOVA (Year-wise)					
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>
Between Groups	0.017136	6	0.002856	1.231781	0.309643
Within Groups	0.097381	42	0.002319		
Total	0.114517	48			

It has been found from Table 1 that for inter-company comparison the calculated value of F is 50.78 with a p value of 0.00. This rejects the null hypothesis H_{01} at 5 per cent level of significance which depicts that CSR expenditure (%) is significantly different for different PSUs. For intra-company comparison, F value was observed as 1.231 with a p value of 0.31. Thus, null hypothesis H_{02} is accepted at 5 per cent level of significance and it can be concluded that absolute amount of CSR expenditure for PSUs does not differ significantly in different years.

Impact of CSR on Firm Performance

TABLE 2: CORRELATION MATRIX

Variables	CSR Exp.(₹)	RFO (₹)	PAT (₹)	ROCE (%)	RONW (%)	EPS (₹)
CSR Exp.(₹)	1					
RFO (₹)	.576**	1				
PAT (₹)	.465**	-.059	1			
ROCE (%)	.335*	-.136	.925**	1		
RONW (%)	.275	-.173	.917**	.974**	1	
EPS (₹)	.363*	.056	.628**	.755**	.668**	1

*and ** imply significance at 5% and 1% level of significance respectively.

It has been found that CSR expenditure has significant positive correlation with RFO, PAT, ROCE and EPS but positive insignificant correlation with RONW. It depicts that CSR expenditure and firm performance variables (except RONW) increase or decrease together. The highest correlation of CSR expenditure was observed with revenue from operations (RFO) and profit after tax (PAT).

TABLE 3: REGRESSION RESULTS FOR IMPACT OF CSR ON FIRM PERFORMANCE

Models	Variables	Coefficient	t Statistic	P Value	Adj. R-Square	F	P Value (F)
Model 1 (RFO)	Constant	2494.939	3.781	0.000	0.318	23.37	0
	CSR Exp.	39.441	4.834	0.000			
Model 2 (PAT)	Constant	1162.916	1.681	0.099	0.199	12.933	0.001
	CSR Exp.	30.764	3.596	0.001			
Model 3 (ROCE)	Constant	12.388	3.307	0.002	0.093	5.937	0.019
	CSR Exp.	0.113	2.437	0.019			
Model 4 (RONW)	Constant	11.552	2.292	0.026	0.056	3.842	0.056
	CSR Exp.	0.122	1.960	0.056			
Model 5 (EPS)	Constant	6.866	4.773	0.000	0.114	7.155	0.01
	CSR Exp.	0.048	2.675	0.010			

From the estimation results presented in Table 3, it has been found that for RONW model, CSR expenditure

Establishing a set of guidelines and evaluating CSR performance should be based on specific criteria

is insignificant. For remaining all models, F value has been found to be significant. This implies that CSR has a significant impact on RFO, PAT, ROCE and EPS but has insignificant impact on RONW.

CONCLUSION

Mining companies have been found to be conservative in nature which emphasize on mere complying with the guidelines prescribed by the Government and not in the spirit of social contribution. Also, the results of analysis carried out in study reflect that the companies adhering to CSR efficiently get perceived by the community positively, thus uplifting its image eventually leading to favorable financial performance in terms of profits and benefits.

The study recommends to expand the scope of CSR expenditure for not mere adhering to mandatory guidelines but to contribute towards society and community in a true spirit of social well-being. The practice of transparency in information and imparting education pertaining to the project should be followed by the mining sector companies in favour of the local communities. Since, local communities affected by mining activities, should be provided with adequate employment opportunities and benefits, the CSR programs of mining companies should prioritize the health and safety aspects while drafting policies at workplace and auxiliary initiatives for surrounding community. The environmental protection and sustainability should be the focus areas which should be looked into by the proficient team dealing with the management of social responsibility. It has been suggested that the best way to alleviate the difficulties associated with mining should be by implementing corporate social responsibility (CSR). MA

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DOES SPIN-OFF AFFECT CORPORATE FINANCIAL PERFORMANCE?

Abstract

Corporate rebuilding has gained popularity in the current era as more number of corporates are adopting various methods of corporate restructuring. This research focuses on the effect of spin-off on the financial health of the demerged entities from the perspective of long-term solvency and profitability. Ten sample demerged companies have been taken into consideration over a period ranging from 2011-12 to 2018-19. Sample paired t-test has been applied to analyse the effect of spin-off on financial performance of the demerged entities both short-term and long-term basis. Results suggest that spin-off may not be an appropriate strategic decision in the long-run, but in the short-run it may be an effective decision.

INTRODUCTION

The introduction of the New Economic Policy (liberalization, privatization and globalization) has increased the unpredictability in the corporate world by scaling down the boundaries in exchanging, yet additionally expanding the fight among the corporate monsters. In this time of vicious rivalry, corporate rebuilding has acquired tremendous fame as an essential advance towards long haul maintainability.

LITERATURE REVIEW

Sisodiya (2000) highlighted the company's future financial forecast by analyzing the parameters like cost and different financial ratios of Tata Tea and Tetley before the acquisition, as it is evident that Tata Tea will derive the advantage of Tetley's blending and branding skills. The study also justifies leveraged buyout by analyzing the reduction in debt-equity ratio and the synergy that leads to the integration of Tata's manufacturing efficiency with Tetley.

The implied process element configurations were tested by *Ellis and Lamont (2004)* for four hypothesized approaches to ideal integration – preservation approach,



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absorption approach, symbiotic approach and holding approach. The analysis consisted of 305 transactions which ensured beguile spans-one year after purchase itself and one year after completion of the integration system. Analysis of the factor showed that the two output measures were combined into a single factor explaining 73 per cent and 70 per cent of the difference for the year after the acquisition and the year after the separate completion of the integration process. Similarly, for both periods, the correlation coefficients associated with these two yield variables were statistically important. The study found that match score was a significant predictor of progress in financial-based results for the two occasional courses, using an integration strategy where the aim is to integrate operations of the two organizations completely.

Md Hamid Uddin (2010) evaluated the effect of 25 corporate spin offs on shareholder's value with

reference to the Stock Exchange of Singapore. He applied Event Study methodology with Wilcoxon signed rank test to determine that the existing shareholders of the demerged company gained significantly after spin off. He also concluded that there was a significant correlation between spin off value gain and debt asset ratio of parent firms.

Padmanabhan, P. A. (2018) examined the effect of demerger declarations on investors' wealth with the help of Event Study methodology. Demerger declarations made by 63 organizations from 2003 to 2014 were taken into consideration for this research. With the help of two unique models, the stock market efficiency was also studied in this research. The outcome displayed positive unusual returns. Findings suggested that Indian stock market displayed signs of semi-strong form efficiency.

OBJECTIVES

1. To assess whether spin off influences the financial performance significantly in terms of long-term solvency.
2. To assess whether spin off influences the financial performance significantly in terms of profitability.

RESEARCH METHODOLOGY

The sample size for this research is ten. Ten demerged companies from ten different sectors have been taken into consideration along with ten control companies for a period ranging from 2011-12 to 2018-19 in order to negate the effect of Covid-19. Another rationale behind such period selection is to negate

the effect of global financial crisis totally. We have taken companies which have demerged in 2014-15 and 2015-16. For the purpose of our study, we have taken long-term debt equity ratio and total debt to total asset ratio as measures of long-term solvency and return on equity (ROE), return on capital employed (ROCE) as measures of profitability. We attempted to investigate the immediate impact by considering a period of one year prior and after spin-off for both the sample demerged companies along with their control non-demerged companies. Further, we tried to evaluate the sustainable impact of spin-off by calculating the average for a period of three years pre and post spin-off for both the sample demerged and control non-demerged companies. In the process of analysing both immediate and sustainable impact, we have considered the combined figures of both demerged and spun off entities as post spin off data for the sample demerged companies. Sample paired t-test has been applied to test the significance of the impact of spin off.

The following hypotheses can be formulated in line with our objective.

A) PROFITABILITY

H01: There is no substantial impact of demerger on ROCE of first year immediately after demerger for demerged and control companies.

H02: There is no substantial impact of demerger on average ROCE after demerger for demerged and control companies.

H03: There is no substantial impact of demerger on ROE

of first year immediately after demerger for demerged and control companies.

H04: There is no substantial impact of demerger on average ROE after demerger for demerged and control companies.

B) LONG-TERM SOLVENCY

H05: There is no substantial impact of demerger on long-term debt equity ratio of the first year immediately after demerger for demerged and control companies.

H06: There is no substantial impact of demerger on average long-term debt equity ratio after the demerger for demerged and control companies.

H07: There is no substantial impact of demerger on total debt to total asset ratio of the first year immediately after the demerger for demerged and control companies.

H08: There is no substantial impact of demerger on average total debt to total asset ratio after the demerger for demerged and control companies.

RESULTS AND DISCUSSIONS

In order to evaluate the impact of spin-off on profitability, we have analysed the significance of that impact on the measures of profitability, i.e. ROCE and ROE.

We will be analysing the impact on ROCE first. It will give us a clear picture of the effectiveness of spin-off in improving the overall return generation capacity of the firms on investment.

TABLE I: PAIRED SAMPLE T TEST OF ROCE

Entity	Effect	t statistic	df	Sig (2 tailed)
Spun-off	Immediate	-2.465108173	9	0.035856892
	Sustainable	0.852386534	9	0.416105395
Control	Immediate	-0.578945782	9	0.576826031
	Sustainable	-0.598086788	9	0.564527206

The above Table displays the immediate and sustainable impact of spin-off on ROCE of the sample demerged and control companies. The **p** value of 0.03 indicates that the impact of spin-off is significant on ROCE for a period of one year

for all sample demerged companies, considering a level of significance of 5 per cent. The sustainable impact of spin-off is not significant for both demerged and control companies. The immediate impact of spin-off is not statistically noticeable for control

companies.

Now, we will analyse the impact on ROE, which will showcase the importance of spin-off in generating returns for the shareholders, both in the short run and long run.

TABLE II: PAIRED SAMPLE T TEST OF ROE

Entity	Effect	t statistic	df	Sig (2 tailed)
Spun-off	Immediate	-2.072740811	9	0.068061151
	Sustainable	-0.039060375	9	0.969694984
Control	Immediate	-1.009609865	9	0.339053711
	Sustainable	-0.455354329	9	0.659640634

The above Table displays the immediate and sustainable impact of spin-off on ROE of the sample demerged companies. The **p** value of 0.06 indicates that the impact of spin-off is significant on ROE for a period of one year for all sample demerged companies, considering a level of significance of 10 per cent.

The sustainable impact of spin-off is not significant for both demerged and control companies. The immediate impact of spin-off is not statistically noticeable for control companies.

In order to evaluate the impact of spin-off on long-term solvency, we have analysed the significance of that impact on the measures of

long-term solvency, i.e. long-term debt equity ratio and total debt to total asset ratio. We will begin with long-term debt equity ratio, which portrays the financial risk of the firm and also measures to what extent can shareholder's equity cover outstanding long-term obligations.

TABLE III: PAIRED SAMPLE T TEST OF LONG-TERM DEBT EQUITY

Entity	Effect	t statistic	Df	Sig (2 tailed)
Spun-off	Immediate	-1.380480188	9	0.200755846
	Sustainable	-0.313690847	9	0.760904474
Control	Immediate	-0.807153327	9	0.440387051
	Sustainable	-1.36731705	9	0.204698744

It can be observed that **p** value is 0.20 and therefore it can be asserted that there is no significant difference between the long-term debt equity ratio one year before spin-off and one year after spin-off. So, spin-off does not seem to immediately

influence long-term debt equity to a great extent. The sustainable impact of spin-off is not significant for both demerged and control companies. The immediate impact of spin-off is not statistically noticeable for control companies.

Now we will analyse the impact of spin-off on total debt to total assets ratio which is another metric of financial risk for a concern. This ratio also helps the stakeholders to determine the debt repaying capacity of the firm.

TABLE IV: PAIRED SAMPLE T TEST OF TOTAL DEBT TO TOTAL ASSETS

Entity	Effect	t statistic	df	Sig (2 tailed)
Spun-off	Immediate	-3.056190652	9	0.013655481
	Sustainable	0.996645881	9	0.344976038
Control	Immediate	-0.824238415	9	0.431105095
	Sustainable	-0.667147793	9	0.521413557

The above Table displays the immediate impact of spin-off on total debt to total assets ratio of the sample demerged and control companies.

The **p** value of 0.01 indicates that the impact of spin-off is significant on total debt to total assets ratio for a period of one year for all sample

demerged companies. Thus, total debt to total assets ratio of the first year post spin-off is significantly different from that of the year prior to spin-off.

Spin-off may not be an excellent strategic decision in the long-run, but in the short-run it may be an effective decision

The sustainable impact of spin-off is not significant for both demerged and control companies. The immediate impact of spin-off is not statistically noticeable for control companies.

CONCLUSION

In terms of profitability, spin-off has significant immediate impact on ROCE and ROE, but in the long run demerger may not be a good strategic decision for improving the profitability as its impact on ROE and ROCE is not significant.

For long-term solvency, spin off has insignificant sustainable impact on both long term debt equity ratio and total debt to total assets ratio. But the impact of spin off in the short run differs in the case of both the measures of long-term solvency. In the case of total debt to total assets ratio, the immediate impact of spin-off is significant. On the other hand, the immediate impact of spin-off on long-term debt equity ratio is insignificant. Therefore, it can be concluded that spin off may not be an effective decision to improve long term solvency.

Thus, it is evident from the above findings that spin-off may not be an excellent strategic decision in the long-run, but in the short-run it may be an effective decision. **MA**

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COUNTRY RISK MANAGEMENT: A PERSPECTIVE



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Abstract

History is replete with periodical occurrence of global events inflicting unanticipated exogenous shocks affecting virtually everyone in the global economy. Country risk is the single most important risk factor for corporate operating away from domestic market be it in emerging markets or developing markets. Organisations that have built up their expertise and put in place effective country risk management system can effectively mitigate their impacts on their business and activities. The article attempts to briefly outline important aspects of effective Country Risk management.

Introduction

Over last three decades the global business environment (political, economic and financial environment) evolving on the wave of widespread globalisation movements, has become highly interconnected and complex. Effect of globalized markets are felt in almost all countries and at all levels of societies. Even several small and medium sized business entities are engaged with foreign clients and/or suppliers and facing foreign competitors in their export/import business or in producing locally. Several large multinational companies have grown business volumes in countries outside the countries they are incorporated. Revolutionised longer and leaner supply chains make business entities more vulnerable to disruptions far away from home land. Business entities in their quest for improved

margins have escalated the chances of disruptions in supplies and services to their customers due to happenings in elsewhere outside the domestic domain. Alongside increased the volume of direct foreign investments of business entities and concomitantly enlarged access to foreign financing. Consequently, the cross-border transactions increased manifold both in volume and in value involving foreign markets and currencies, foreign funding, and payment & settlement activities. In this backdrop banks have enlarged cross border activities to subserve the banking and financing needs of their clients abroad and are engaged in routinely borrowing and lending on a worldwide basis. Portfolio investors also look for opportunities in markets around the globe as a means of enhancing their returns and exploiting diversification opportunities. In the wake of World War II shared

common interest and interdependency grew so strong that there prevailed a sense of complacency as to the impossibility of reversal of globalisation process. Let us take the example of Germany the country which taking full advantage of the globalisation movement, outsourced a substantial part of its energy production to Russia, its defence to US/NATO, monetary policy to ECB and its export dominant economy to China. However, pandemic 19, and Russian attack of Ukraine have shattered the complacency exposing the vulnerability of the system to such shocks.

Globalisation provides opportunities for cost minimisation, wider market access, diversification benefits and increased returns. But these opportunities come with incremental risks of the kind and type that otherwise would not be entailed in restricting business

within the home country. The risks embedded to international economic and financial transactions includes a host of complex factors covering political, social, geographic, and strategic considerations that have potential influence on the outcomes of an economic or financial transaction. 'These risks are rooted in the fact that the world economy is organized around the concept of country and national sovereignty'. These species of risks can be termed as country risk which are complex having ramified implications. It refers to the potential effects of events connected with a particular country, not to the events associated with a particular entity or assets, on economic and financial transactions and activities of economic agents. In other words, Country Risk encompasses country-specific economic risk, country-specific financial risk and currency risk. Country risk may be considered as the probability that a governmental/political action will have significant impact, may be positive or negative, on business. Economic agents in their business activities beyond their respective home countries, aiming at a competitive edge, must manage the forces, factors and agents having potential to create impacts on the business outcomes and prospects. Thus, Country risk has long been of significant concern for manufacturers, retailers and financial institutions, well prior to the unfolding of recent geopolitical events having significant bearing on the global trade and business dynamics and consequential escalation of attendant risks.

Definition of Country Risk

Cambridge dictionary defines country risk as the level of risk connected with doing business with another country, relating to whether that country will be able to pay back loans or pay for imports.

Collins dictionary defines country risk as 'the risk associated with an overseas investment due to the conditions prevailing in the country in which it is made.

Generically the term "country risk" can be taken to connote any risk specific to a given country. Country risk is a comprehensive term for several types of potential risks in foreign business transactions. It is the business risk inside a country attributable to the economics, demographic, political, legal and social factors pertaining to that country. The risk may emanate from events purely political in nature specific to the Country. It may be risks entailed in economic performance of the specific economy. While country specific financial risk may refer to the ability of the specific country to generate sufficient foreign currency to meet its foreign obligations and maintain desired levels imports, currency risk can also be taken to be the volatility of the value of the local currency. In other words, country risk typically denotes the risks emanating from an array of national differences in economic foundations, policies, socio-political culture and institutions, geography and currencies. Country risk persists with varied probability and impact across all countries irrespective of their respective state of economic development (i.e., developed or otherwise). Country risk in particular points to investors' concern about country's ability or inability to honour its financial obligations as and when accruing. Country risk covers transfer and convertibility risk. These are the risks that a government enforces capital or exchange controls prohibiting an entity from converting local currency to foreign currency and/or transferring funds to creditors located outside the country and includes cases of *force majeure* (e.g. war, expropriation, revolution, civil

disturbance, floods, earthquakes). From the foregoing we may summarise and take Country Risk", as the risks connected with those factors that are attributable to the ability and willingness of a sovereign state or borrower from a particular country to honour their obligations towards one or more foreign lenders / investors.

It may be mentioned here that Country risks and sovereign risks are conceptually two distinct risks. While sovereign risks captures risk of default by a country in meeting its commercial debt obligations, Country risk relates to the potential downside of a country's business environment which inter alia, includes legal environment, state of predominance of corruption, and socioeconomic factors viz., income disparity obligations. Sovereign and country risks are often found correlated. However, the relationship between them may often be quite tenuous. Nations having a past record of sovereign default may also tend to exhibit high and persistent country risks. However, a stronger sovereign rating does not necessarily mean that the country is free of endemic corruption tending to distort corporate cash flow and profitability and impeded corporate strategic decisions. Countries with low levels of country risk also end up in default.

Investors demand country risk premium for investing in a foreign country by way of compensation for bearing incremental risk entailed in investing away from home to a foreign country. The country risk premium associated with developing market is generally higher than that for developed nations.

Benefits of comprehensive Country risk assessment

Country risk evaluation is a crucial exercise in making international

investment decisions and choosing international business location. It facilitates in evolving a risk-return framework given the risk appetite. Some countries' risks might be requiring higher returns commensurate with the higher risks. The study of country risks also enables risk simulation in alternative scenarios. This would help mitigating shocks and surprises of inherent uncertainties, which cannot altogether be eliminated, with contingency plans in place.

Country risk assessment would enable identification and evaluation of country-specific risks. Based thereon businesses can assess how much of those risks might be material and might significantly impacting the specific businesses and evolve strategy to be adopted to manage or mitigate those risks. It facilitates decision making while expanding or managing business operations in another country. It provides incisive insight into the risk factors within and across countries in evolving a better-informed investment/ business strategy. It helps enhancing the efficacy of supply chain management through evaluation of countries' ability to manage shock. Provides wherewithal for stringent regulatory compliance in setting limits while lending overseas. Without it, businesses could face unexpected and potentially devastating changes and nasty surprises altering the business environment upsetting the business decision logic altogether.

Assessment of Country Risk

Each entity confronts a unique set of country risks. Therefore, there cannot be a common formula for assessment of country risk.

Country risk assessment is concerned mainly with assessment of a country's potential ability and willingness to honour its

foreign payment commitments. Several factors are attributable to determination of this status of a country. These factors can be classified into three broad categories viz., political, economic and financial. The exercise boils down to assessment of these factors which are to be weighted as per their specific importance and impacts to conclude about a country's ability to pay. Risks of actions by sovereign triggering changes in the business climate which has potential to reconfigure the cost and profitability of existing or forthcoming business transactions are also to be reckoned in country risk assessment exercise.

The political landscape facing the business today are more complex, crowded and uncertain. The space is filled with rising states, declining states failed states, rogue states and nonstate actors (viz., terrorists, cybercriminals). Climate change is major global challenge having potential to trigger political actions from social activism (e.g., the events or opinion going viral), facilitating collective actions and new regulation to civil wars and interstate conflicts.

Interstate wars, multilateral economic sanctions and interventions have the potential to bring business to abrupt halt with attendant significant adverse impacts.

Internal conflicts like social unrest, ethnic violence, migration, nationalism, separatism, civil wars, coups, and revolutions might vitiate the business climate rendering the environment filled with heightened uncertainty wherein business decision making turns into an onerous exercise.

In light of above narratives, the country risks can be grouped in to following five basic categories.

- ⊙ Macroeconomic risk: This category covers the threats arising out of the fiscal and monetary activism of the

country during the course of natural cyclicity of its economy.

- ⊙ Financial Risk: Potential shifts in valuations of assets and liabilities due to probable interest rate and exchange rate shocks.
- ⊙ Social Risk: Wide spread social commotions as also risks like crime, and disease affecting individual human resources.
- ⊙ Political Risk: potential significant changes in political conditions and policy uncertainties.
- ⊙ Security Risk: Potential threats to human life from war, epidemic, climate changes, geopolitical disorder and other natural disasters.

Although identification, measurement and understanding of the each of the above risk categories for a country would be of immense value, scorecards combining together the effects of these factors into a single number attributing appropriate weights to each significant risk factor, would facilitate assessing risks in multiple jurisdictions.

Political risks persist when business environment changes in unpredictable manner resulting from political changes. The dimensions of political risk may be summarised within three broad groups viz., Transfer risk, Operational risks and Risk of control of capital. Transfer risk refers to potential restrictions on transfer of funds, products, technology and people. Operational risks emanate from uncertainties of policies, regulations, and from governmental and administrative procedures having potential to create hindrance to management of operations. Risk on control of capital refers to discriminations against foreign firms,

expropriation, and forced local share holdings.

Political instability has potential to trigger many a problem in investing, trading and lending abroad. The adverse impact of political instability perhaps matters the most in the context of country risk management. Therefore, ability to measure political stability forms an important part of country risk management.

Country risk management framework

To best manage the country risk business entities need inculcate four competencies viz., understanding risks, analysing risks, mitigating risks which cannot be avoided and putting in place capability to respond effectively to crisis management needs as and when arising and continuously learn from events including near misses.

A shared understanding of risk appetite is an important starting point. Risk appetite varies across agencies governed by factors like time horizon of the major investments, available alternatives, ease of exiting, and visibility of customers. Companies engaged in industries like oil, gas, mining etc., make long term investments and their key assets are not easily moveable. Therefore, they have greater appetite for political risks unlike for example, the hotel chains susceptible to reputational damages have lower risk appetite for political uncertainties. The country risk must be a concern for everyone in the organisation and therefore aligning the views on risk across the organisation is very important task of the top management. The answer to the simple question “What if things go wrong” each associate must think through. Scenario simulation, experiential group exercise to test the robustness of existing strategy etc., might help the organisation in

discovering the hidden weaknesses and risks.

Getting good quality and authentic information about country risk facing the institution is perhaps most important matter needing pointed attention of the risk managers.

Future is not predictable. Precise quantification of vulnerability is nigh impossible task. But that notwithstanding the risk managers can reduce uncertainty to a significant extent if not altogether. The goal of risk analysis is to evolve ways and means to understanding of the key drivers of risks and possibilities so that surprises cease to spring real surprises! Effective risk analysis must challenge the assumptions and instinctive models about how it might unfold so that the organisations might be in better preparedness to face the eventualities.

Methods and techniques of country risk analysis involves tryst with limitless range of heterogenous sources of country risk. The methods are classified into two broad categories viz., qualitative techniques and quantitative techniques. Rating system is best known popular form of qualitative risk analysis technique. This system involves construction of analytical grid based on identified relevant parameters that are used to compare the countries in the analysis. The chosen set of parameters are wide ranging and may vary from one system to another. The rating system has three stages viz., selection of parameters and assignment of weightage to each; assignment of value to each parameter for each country; working out the weighted sum of the assigned grade for each country which makes the global score comparable across countries. Some better known risk rating services are Business Environmental Risk Intelligence, Political Risk Service, The Economists Intelligence Unit etc.

A number of reputed rating agencies provide opinions on a country’s ability and willingness to honour their financial commitments.

The rating agencies use a set of common indicators for assessment of a country’s debt and political risks. These are macroeconomic performance, public and external debt sustainability, external financing needs, Structural features (e.g. openness to trade and investment), Social pressures (demographics; civil liberties; income growth; religious and ethnic pressures; domestic conflicts); regime legitimacy (political rights, political freedom, and nature of corruption) and international securities (cross-border conflicts, relation with neighbouring countries). Although the methodology and volume data coverage of the rating agencies in these exercises may be quite extensive, the actual rating outcome may substantially involve subjective interpretation of the relevant data. Therefore, without solely depending on the external ratings, these ratings may be best used to benchmark or compare against the internal rating of the organisation concerned. The significant discrepancies if any may be drilled down to re-examine the validity of the internal assessments. In the present fast paced dynamic business climate the ratings might be too far behind the curve. However, the ratings are important for its having bearing on country’s ability to access cheaper funding.

Mitigation of identified country risk exposures is one important concern for the risk managers. Useful strategies may be diversification of critical assets, ‘surge’ capacity creation and built-in slack in supply chain besides collaborating with industry peers to share country risk assessment and mitigation strategies.

A system of timely warning and

action if in place will help in good stead the risk managers to avert possibilities of omissions and commissions. The system should have well set out protocol for automatic triggering of sequence of actions to be taken in response to specific conditions by preidentified people.

Inculcation of greater situational awareness demands a systematic scan of a wide range of sources of authentic information systems. A dedicated team entrusted with sensing the devolving risk at incipient stage and triggering warning signal may add value to the process.

To respond effectively the risk managers, need focus attention to assessment of the emerging situation and press into action a response team eschewing any delay. Although precise quantification of vulnerability inherent in future course of outcomes is impossible neither can the uncertainty be substantially reduced, rigorous analysis of the emerging situation will help developing ways and means to understand the key drivers and possible outcomes to mitigate the surprises that might be embedded in eventually unfolding events.

Robust crisis response system must have feedback loop for learning before disaster hits to lower the odds of crisis occurring and make nimbler response when it actually strikes.

Assessment of country risk poses greater challenge in interpreting the available data and information! Data analysis and interpretation need be consistent, concise, informative and decisive. However, over reliance on number crunching might blur the broad vision which often might lead to myopia of the obvious. Each risk decisions must pass through the intuitive tests based on the analyst personal experience, knowledge and biases since the country risk analysis cannot be purely objective

Country risk is the single most important risk factor for corporate away from domestic market be it in emerging markets or developing markets

undertaking. Politics often defy logic. The data validity and accuracy need be subjected to qualitative assessment. Official statistics are not sacrosanct. Analyst's own experience and interpretive competencies have the potential to add substantive values to the analytical process. Qualitative risk assessments might undo all quantitative approaches. These are some of the caveats for the risk analyst to bear in mind.

Although plethora of information and data sources available now a days render data collection much easier for the risk analysts, finding the required authentic information continues to be challenging task as hitherto.

Conclusion

Country risk is the single most important risk factor for corporate away from domestic market be it in emerging markets or developing markets.

History is replete with periodical occurrence of global events inflicting unanticipated exogenous shocks affecting virtually everyone in the global economy. Organisations that have built up their expertise and put in place effective country risk management framework can effectively mitigate their impacts on their business and activities.

While globalisation has lifted many out of poverty and destitution and facilitated growth of wealth

for many, it created losers as well creating threat and instability in their struggle for survival. However, nativism, protectionism, populism, and isolationism have of late been seen to stage a comeback. In this backdrop, in the wake of the recent pandemic and subsequent Russian invasion of Ukraine inflicting significant dislocations in global supply chain the complacency about the assured seamless flow of benefits of globalisation has received a serious jolt muting the voice the vocal advocates of globalisation and free trade. The entities have been revising their business models and country risk management framework factoring in the effect of hitherto left out and ignored risk factors.

Rigorous country risk analysis presupposes availability reliable and good quality of data/information and suitable data analytics.

In the emerging scenario interest in tools to anticipate potential crises has greatly increased. Historically mostly crises emanated from the interplay between economic or financial vulnerabilities and specific trigger events. Though early warning crisis triggers are inherently weak predictors, they have inherent value in attempting to identify underlying vulnerabilities. MA

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OUTPUT-OUTCOME MONITORING FRAMEWORK- RADICAL SHIFT IN GOI BUDGET

Abstract

Output- Outcome Monitoring Framework (OOMF) is one of the important elements of the GOI annual budget exercise. The detailed indicator wise output and outcome linked to the annual budget allocations for various schemes of different ministries, gives an elaborate framework for qualitative implementation and effective monitoring of the vast number of indicators set up for the concerned objective outcomes.

Perhaps the much better implementation of the government schemes for the desired objective in the recent years is also due to the specific end objectives detailed in the OOMF which seems to have stabilized now as an effective base. Example of OOMF of a few schemes have been detailed with the objective to elaborate the efficacy of the framework.

A) Introduction:

While working in the Inland Waterways Authority of India (IWAI) during the FY 2018-19, self had the first exposure to OOMF. While it was just a beginning of this form of performance budgeting for most of the GOI departments, by 2022 this seems to have really evolved as a fine framework of integrated long term approach for far reaching impact on the Indian economic development as well as improvement of the overall ease of living standards of the masses.

Till 2017 GOI budgeting has traditionally been an area of allocation of funds on various schemes. With OOMF it was radically changed for better qualitative results giving the very exercise of the GOI budget a meaningful objective linked framework with clear targets for implementation and monitoring.

As mentioned by the Development Monitoring and



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Evaluation Office (DMEO) attached to the Niti Ayog, the OOMF represent a paradigm shift from simple physical and financial budgeting to a governance model based on the outcomes, which aims for improving the a) development impact and b) public accountability of GOI spending, thus becoming the enabler of performance-based budgeting.

B) Preface of 2023-24 OOMF Document:

Since 2017-18, in addition to the financial outlays of schemes, the expected outputs and outcomes of the schemes are also being presented under OOMF. These Outlays, Outputs and Outcomes are being presented to the Parliament in measurable terms, bringing-in greater accountability for the agencies involved in the execution of government schemes and projects for open, accountable, pro-active and purposeful governance.

Outlay is the amount that is provided for a given scheme or project in the Budget; while Output refers to the direct and measurable product of program activities, often expressed in physical terms or units. Outcomes are the collective results or qualitative improvements brought about in the delivery of these services.

OOMF represent a paradigm shift from simple physical and financial budgeting to a governance model based on the outcomes

C) Main Schemes (of the total 53) covered under OOMF of FY 2023-24 are as under: (Ref#1)

<u>Ministry</u>	<u>Scheme</u>	<u>Allocated Funds</u>	<u>Page Ref</u>
Min of Agriculture	PM Kisan Samman Nidhi	Rs 60,000 crore	Page 3
Min of Chemicals	Urea Subsidy	Rs 131.100 crore	Page 18
Min of Consumers	National Food Security	Rs 137207 crore	Page 39
Min of Education	Samgra Shiksha	Rs 37453 crore	Page 57
Min of Health	NHM	Rs 22095 crore	Page 101
Min of Housing	PM Awas (Urban)	Rs 25103 crore	Page 152
Min of Rural Dev.	PM Awas (Rural)	Rs 54487 crore	Page 200
Min of Jal Shakti	Jal Jeewan Mission	Rs 70000 crore	Page 165
Min of Railways	New Railway Lines etc.	Rs 67199 crore	Page 195
Min of Road Tran.	National Highways	Rs 107713 crore	Page 199

D) Detailed Break up of Select Schemes: the following 4 scheme details will give a good idea of OOMF:

1) Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana (AB – PMJAY) (CSS) (Ref page 113)

<u>Fin.Outlay (Rs in Cr)</u>	<u>Output 2023-24</u>			<u>Outcome 2023-24</u>		
	Output	Indicators	Target 23-24	Outcome	Indicators	Target23-24
Rs 7200 crore	1. Hospital Admissions	1.1 Hospital Admissions	99.1 lakh	1. Hospitalization Rate	Per lakh beneficiary	5 per lakh
	2. Beneficiary Identification	2.1 Ayushman cards	330 lakh	2. Incremental coverage	% of population	10%
	3. Claim Payments	3.1 Amount of claims	Rs 10,000 crore	3. Increase of OOPE Savings	% of OOPE	5%
	4. New Empanelment	4.1 New Hospitals in PMJAY	1000	4. Expanding the Base of Quality health providers	% increase	4%

Inferences which can be drawn based on above are that:

1. With an allocation of Rs 7200 crore, GOI aims to expand PMJAY to cover an additional 330 lakh families during the FY thereby increasing the coverage of the scheme to another 10% of the population.
2. Also the scheme aims to bring another 1000 private and public health providers to accept the card for cashless treatment of beneficiaries under the scheme thereby expanding empanelment by 4%.
3. Also it is estimated that nearly 99.1 lakh population (around 5 per lakh of the beneficiaries under the scheme) may need the various services under the cashless scheme estimated to cost nearly 10000 crores (claim estimates) which may result in nearly 5% savings in the Out of Pocket Expenses (OOPE).

Also the continuous impact of such outlays can be clearly appreciated when the same is noted with reference to similar provisions under the Budget of the previous year (FY 22-23 Budget as under):

Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana (AB - PMJAY) (CSS) (Ref page 116) (Ref#2)

<u>Fin.Outlay (Rs in Cr)</u>	<u>Output 2022-23</u>			<u>Outcome 2022-23</u>		
	Output	Indicators	Target 22-23	Outcome	Indicators	Target22-23
Rs 6412 crore	1. Hospital Admissions	1.1 Hospital Admissions	90.01 lakh	1. Hospitalization Rate	Per lakh beneficiary	2% increase over prev yr
	2. Beneficiary Identification	2.1 Ayushman cards	300 lakh	2. Incremental coverage	% of population	5% increase over prev yr
	3. Claim Payments	3.1 Amount of claims	Rs 9574.14 crore	3. Increase of OOPE Savings	% of OOPE	10% increase over prev yr
	4. New Empanelment	4.1 New Hospitals under the cover	2200	4. Expanding the Base of Quality health providers	% increase	10% increase in total

PERFORMANCE BUDGETING

Possible Inferences:

1. Based on FY 22-23, the FY 23-24 outlay as well as the beneficiaries covered and claims seems to be raised by nearly 10% while the incremental empanelment target seems to be cut by 50% of FY 22-23.
2. Targets have been qualitatively modified in 23-24 under Outcome as compared to FY 22-23.
3. Overall the integrated nature of this massive health insurance scheme can be seen by the trends.

2) Production Linked Incentive(PLI) Scheme for Food Processing Industries (CS) (Ref page 96) (Ref#1)

Fin.Outlay (Rs in Cr)	Output 2023-24			Outcome 2023-24		
	Output	Indicators	Target 23-24	Outcome	Indicators	Target23-24
Rs 1530 crore	1. Incentivize Incremental units Food Processing	1.1 Support Applicants	100 nos applicants	1. Incremental levels of sales etc.	Sales	1,08,000 cr
					Exports	3000 crore
					Employment	10,000
	2. Enabling Ecosystem for Indian Brands	2.1 Branding & Marketing expenditure	Rs 800 crore	2. Increasing Exports of Indian Brands	Incremental export of Indian brands	1500 cr.

Inferences:

1. Through the PLI provision of Rs 1530 crore for the FY 23-24, GOI wants to induce an incremental sales of estimated 1.08 lakh crore under the food processing sector.
2. It is expected to support 100 new applicants in the sector and generate at least 10,000 jobs in these 100 units related to the farm sector.
3. The PLI is further oriented to develop Indian brands of these sector by promoting the related Branding & Marketing expenditure of estimated 75 applicants for a targeted exports of Rs 1500 crore in these Indian brands within the overall estimates of incremental exports of Rs 3000 crore.

3) Faster Adoption of Manufacturing of Electric & Hybrid (FAME II) in India (CS) (Pg 117)(Ref#1)

Fin.Outlay (Rs in Cr)	Output 2023-24			Outcome 2023-24				
	Output	Indicators	Target 23-24	Outcome	Indicators	Target23-24		
Rs 5172 crore	1. Promote the EV and Hybrid vehicles deployment	1.1 Buses	4090	1. Increase in adoption of EV sales in India	1.1 As % total vehicle sales in the yr	7% of total vehicle sales		
		1.2 4 wheeler	15000			1.2 India's world rank	Not Amenable	
		1.3 3 wheeler	100000		2. Reduce fuel and emission in life time of such vehicles		2.1 Fuel savings	0.24 billion litre
		1.4 2 wheeler	320000			2.2 Carbon di-oxide redn.		0.30 Million ton
	2. Establish charging stations in India	2.1 Cities	600	2. Stakeholders Awareness	3.1 IEC activity		10	
		2.2 Highways	600			3.2 IEC Reach		50 crore
		2.3Operational%	90%					

Inference:

- a. With Rs 5172 crore, GOI would promote EVs in all categories of vehicles so that 7% of the new vehicles sold

during the year will be either EV or Hybrid for substantial savings of fuel and reduction in emission of CO2 gas.

- b. Communication (IEC) activity for awareness is targeted to cover nearly 50 crore consumers. (it can be seen that the activity itself is a combination of Output and Outcome and hence the last column is blank)

4) Jal Jeewan Mission (CSS) (Ref page 165) (Ref#1)

Fin.Outlay (Rs in Cr)	<u>Output 2023-24</u>			<u>Outcome 2023-24</u>		
2023-24	Output	Indicators	Target 23-24	Outcome	Indicators	Target23-24
70000 cr.	1.Sustainable infra for drinking water connection in rural houses	1.1 Number of additional Functional Household Tap Connection (FHTC)	400 lakh	1. Improved Regularity and quality of water supply	1.1 Tap connections 2.1 Min 55 LCD supply 3.1 Potable water 4.1 Daily water supply	90% 80% 80% 80%

Inference: Massive effort when seen in tune with similar targets of last year for raising rural life support:

Jal Jeewan Mission (CSS) (Ref page 175/183) of Budget for FY 2022-23 (Ref#2)

Fin.Outlay (Rs in Cr)	<u>Output 2022-23</u>			<u>Outcome 2022-23</u>		
2022-23	Output	Indicators	Target 22-23	Outcome	Indicators	Target22-23
60000 cr.	1.Sustainable infra for drinking water connection in rural houses	1.1 Number of additional Functional Household Tap Connection (FHTC)	300 lakh	1. Improved Regularity and quality of water supply	1.1 Tap connections 2.1 Min 55 LCD supply 3.1 Potable water 4.1 Daily water supply	90% 80% 60% 80%

E) Supplementary efforts for concurrent monitoring:

The OOMF exercise involves the coordination of the DMEO attached with the Niti Ayog with a vast number of the ministries as well as the states departments implementing the various schemes which seems to be the most critical process of the qualitative change in overall governance.

Also the recently held 41st meeting of Pro Active Governance and Timely Intervention (PRAGATI) under the chairmanship of the PM of India reviewed in depth 9 key infra projects spread over 13 states with a cumulative investment of over 41,500 crores (meeting dated 22nd Feb reported in ET of 23rd February 2023) - indicates concurrent monitoring of

government schemes from the top most office of India.

F) Conclusion:

The coverage of the vast budgetary allocations under the OOMF details shows that almost all the governmental developmental budgeting is now linked to this cardinal document which may be a very good base for not only the concerned departments but also the service providers to plan their business.

Despite the revenue growth, the government finances are always limited and hence a reliable base line survey (for correctly identifying the priority needs for budgetary allocations) as well as post-implementation Impact

survey (preferably by 3rd party) for neutral analysis of the efficacy of the governmental intervention and monitoring of the allocated funds to keep a watch on value for money expenditure, is the crux of all such exercise. This seems to be better achievable through the OOMF which seems to be the right kind of framework for keeping track of the multifarious schemes. MA

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DEVELOPMENT OF MICRO, SMALL AND MEDIUM ENTERPRISE SECTOR: A STUDY ON WEST BENGAL

Abstract

Micro, Small and Medium Enterprises (MSMEs) are the engine of growth. It aids in improvising the socio-economic condition of an economy. In the context of the Indian economy too, the same thing holds good. Hence it becomes of utmost importance to identify the factors which affect it. This article attempts to determine whether the overall business situation, individual entrepreneurial capability and time have any impact on the MSME growth in terms of the number of units and employment in this Sector. For the study, West Bengal is chosen for analysis since it is in the second position regarding the number of units established and employment generated in the MSME Sector among all other states in India.

INTRODUCTION

Micro, Small and Medium Enterprise (MSMEs) Sector is one of the major employment-generating sector, a major contributor to the Gross Domestic Product (GDP) and export earnings in the backdrop of the Indian economy. MSMEs are any manufacturing and service enterprises whose annual turnover (T) and investment in Plant and Machinery (I) are categorized as under:



Figure 1: Categories of Micro, Small and Medium Enterprises in India

Source: Compiled by the Researcher

As per the reports of NSS 73rd Round (2015-16) and Fourth All India Census, West Bengal ranks second in



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terms of employment and number of units in the MSME sector. Hence this state had been chosen for the purpose of the present study.

LITERATURE REVIEW

There is a vast literature on MSME but they are of different dimensions. The majority of research is done on the role, benefits, problems and financial aspects or on the factors that lead to the growth in the MSME Sector. Few literatures that discusses the development factors or the problems of the MSME is briefed below:

Bekele and Worku (2008) identified inadequate finance, poor management and technical skills are the main hindrances in the path of development of MSME in Ethiopia. **Allan Gibb and Jun Li (2003)** identified local empowerment, freedom from regulatory frameworks, and bottom-up and grounded development are the basis for development of MSMEs in China market. **Ahmed (2012)** found out in Saudi Arabia cash crunch, lack of credit policy, bureaucracy and unfriendly business environment are the major setbacks in MSME sector. **Yahaya, Geidam and Usman (2016)** pointed out the reasons behind the failure of MSMEs in Nigeria are manpower and finance crunch, lack of electricity, government policies, poor credit interest rates and corruption.

OBJECTIVES

From the above literature, it can be concluded that the MSME sector, in every part of world, faces some hinderances. Hence it is important to identify its problems and above all, its development factors. In this article, the extent of employment (Emp) and the number of units (Nos) operating in the MSME sector are considered as development parameters. Now some factors trigger the development parameters. It can be deduced that the development parameters of the MSME sector is based on the overall economic environment and individual entrepreneurial capability.

Information regarding the overall economic environment and also individual entrepreneurial capability are not available, it is necessary to surrogate these two variables. Overall economic environment and individual entrepreneurial capability are assumed to be reflected in Gross Domestic Product (GDP) and Per Capita Income (PCI) respectively. Therefore, the development parameter can be taken as a function of GDP and PCI i.e.

Development Parameter (Emp, Nos) = f (GDP, PCI)

Secondly, time may also have an impact on the development parameters. Time can be measured by year and given the circumstance, the revised function will be as follows:

Development Parameter (Emp, Nos) = f (GDP, PCI, Year)

The above contemplations bring out the following objectives:

1. To investigate whether the overall business environment and individual entrepreneurial capability represented by the GDP and PCI

It can be deduced that the development parameters of the MSME sector is based on the overall economic environment

respectively have any impact on the development parameters which are Emp and Nos;

2. To examine whether the passage of time (Year) has any effect on the development parameters (Emp, Nos).

RESEARCH METHODOLOGY

The data used in the study is secondary in nature and is mainly collected from the publication of BAES (Bureau of Applied Economics and Science) which was published from the years 2009-10 to 2013-14. Recent data on Emp and Nos is not available in the public domain. The data i.e., employment generation, number of units, Gross Domestic Product and Per Capita Income are collected for each of the districts in West Bengal year-wise.

Regression Analysis is performed to identify and measure the impact of independent variables, such as GDP, PCI and Year on Emp and Nos which are dependent variables in this analysis.

DATA ANALYSIS AND INTERPRETATION

For the first objective, a regression model has been formulated to examine whether development measures are affected by the overall business environment and individual entrepreneurial capability, surrogated by GDP and PCI respectively. Development measures, i.e., employment (Emp) and the number of units established (Nos) of all districts of West Bengal across different years in this study are considered.

The following models are considered for analysis:

$$\text{Nos} = a_0 + a_1 \cdot \text{GDP} + a_2 \cdot \text{PCI} + \epsilon_n$$

$$\text{Emp} = b_0 + b_1 \cdot \text{GDP} + b_2 \cdot \text{PCI} + \epsilon_e$$

Where a_0, a_1, a_2, b_0, b_1 and b_2 are regression coefficients and ϵ_n, ϵ_e are model errors.

In order to verify the strength of the functional relationship depicted in the model, multiple correlation coefficients (R^2) calculated for each year are shown in the following table:

Table 1: Model Summary^a

YEAR	R^2	
	Calculated on Dependent Variable	
	Number of units	Employment
2009-10	0.468*	0.405**

2010-11	0.520*	0.362**
2011-12	0.559*	0.724*
2012-13	0.658*	0.666*
2013-14	0.587*	0.503*
a. Predictors: (Constant), PCI, GDP * : Significance at 1% ** : Significance at 5%		

Source: Researcher's Calculation

From the above table, it is evident that the model turns out to be significant for all years at either 1% or 5% level in all cases.

Subsequently, the model $Nos = a_0 + a_1.GDP + a_2.PCI + \epsilon_n$ is estimated and the results are shown in the next table:

Table 2: Estimation of Co-efficients^a associated with the independent variables (GDP, PCI)

	2009-10			2010-11			2011-12			2012-13			2013-14		
	Unstandardized Co efficient Beta	Standardized Co efficient Beta	Sig	Unstandardized Co efficient Beta	Standardized Co efficient Beta	Sig	Unstandardized Co efficient Beta	Standardized Co efficient Beta	Sig	Unstandardized Co efficient Beta	Standardized Co efficient Beta	Sig	Unstandardized Co efficient Beta	Standardized Co efficient Beta	Sig
Constant	-608.909		.161	-405.080		.225	51.800		.874	34.112		.893	-229.063		.375
GDP	.018***	.388	.096	.019**	.531	.023	.024*	.749	.002	.020*	.847	.000	.012*	.612	.005
PCI	.022***	.387	.098	.011	.271	.219	.000	-.003	.989	-.002	-.067	.707	.006	.238	.228
a. Dependent Variable: Nos * : Significance at 1% ** : Significance at 5% *** : Significance at 10%															

Source: Researcher's calculations

The above table denotes that PCI, except in one year, is insignificant throughout which shows that individual entrepreneurial capability does not affect the number of units established in the MSME Sector but GDP is significant in all the years which means the overall business situation has a definite impact on the growth of the number of units established in MSME Sector.

Similarly, $Emp = b_0 + b_1.GDP + b_2.PCI + \epsilon_e$ has been estimated and the results are tabulated in the below table:

Table 3: Estimation of Co-efficients^a associated with the independent variables (GDP, PCI)

	2009-10			2010-11			2011-12			2012-13			2013-14		
	Unstandardized Co efficient Beta	Standardized Co efficient Beta	Sig	Unstandardized Co efficient Beta	Standardized Co efficient Beta	Sig	Unstandardized Co efficient Beta	Standardized Co efficient Beta	Sig	Unstandardized Co efficient Beta	Standardized Co efficient Beta	Sig	Unstandardized Co efficient Beta	Standardized Co efficient Beta	Sig
Constant	-9752.881		.126	-1086.109		.833	-2382.011		.408	-1150.284		.640	1250.223		.721
GDP	.189	.294	.224	.290**	.589	.028	.294*	.834	.000	.185*	.798	.000	.146*	.762	.003
PCI	.331***	.423	.087	.012	.022	.929	.012	.030	.854	.009	.031	.861	-.036	-.120	.577
a. Dependent Variable: Employment * : Significant at 1% ** : Significant at 5% *** : Significant at 10%															

Source: Researcher's calculations

The above table shows that except for 2009-10, in all years PCI is insignificant but GDP is significant. It can therefore be concluded that though individual entrepreneurial capabilities do not affect employment in MSME; the overall business environment does.

In this context, the passage of time may also have an effect on the number of units generated and employment created in the MSME Sector. Consequently, the following models are formulated for further analysis:

$$Nos = a_0 + a_1.GDP + a_2.PCI + a_3.Year + \epsilon_n$$

$$Emp = b_0 + b_1.GDP + b_2.PCI + b_3.Year + \epsilon_e$$

It is necessary to judge whether the functional relation between dependent variables and independent variable is robust or not. The results are tabulated below:

Table 4: Model Summary^a

Model	R ² on the basis of	
	Nos	Emp
1	.486*	.421*
a. Predictors: (Constant), GDP, PCI, Year * : Significant at 1%		

Source: Researcher's calculations

From the above table, it can be clearly stated that the model is highly significant since the R square turns out to be significant. Thereafter the following model $Nos = a_0 + a_1.GDP + a_2.PCI + a_3.Year + \epsilon_n$ has been estimated and the results are shown in the following table:

Table 5: Estimation of Co-efficients^a associated with the independent variables (GDP, PCI, Year)

Model		Unstandardized Coefficients	Standardized Coefficients	Sig.
		B	Beta	
1	(Constant)	168.534		.168
	GDP	.018	.645	.000
	PCI	.005	.165	.123
	Year	-107.391	-.307	.001
a. Dependent variable: Nos				

Source: Researcher's calculations

It is obvious from the above table that PCI does not have any impact on the number of units operating in the MSME Sector but GDP and Year have an impact on the number of units. Both the variables are significant at 1% but the Beta value of Year is negative, so, it can be concluded that as time is progressing, there is a fall in the number of units in MSME but again the overall industrial situation is providing aid in the growth of units in the MSME sector. But if we compare the Beta of unstandardized co-efficient, then we find that the positive impact of GDP is much stronger than the negative impact of time, hence negativity of time is offset by the positivity in GDP.

Now the following model $Emp = b_0 + b_1.GDP + b_2.PCI + b_3.Year + \epsilon$ has been analyzed and the results are tabulated below:

Table 6: Estimation of Co-efficients^a associated with the independent variables (GDP, PCI, Year)

Model		Unstandardized Coefficients	Standardized Coefficients	Sig.
		B	Beta	
1	(Constant)	2845.483		.088
	GDP	.203	.597	.000
	PCI	.048	.123	.275
	Year	-1685.502	-.396	.000
a. Dependent variable: Emp				

Source: Researcher's calculations

PCI again does not have any impact but GDP and Year have an impact on the employment. Beta value of Year is negative, so, it can be concluded that as time is progressing, there is a fall in employment in the MSME sector but again overall industrial growth is providing aid in the extent of employment. On the basis of the standardized Beta associated with GDP and Year, it can be concluded that the positivity of GDP is cancelling out the negativity of time.

CONCLUSION

The conclusions of the study are comprehensible and are enumerated below:

1. Gross Domestic Product, the surrogate variable to the overall business environment, has a clear positive impact on the number of units and employment created in the MSME Sector.
2. Individual entrepreneurial capability whose surrogate variable is Per Capita Income does not affect the MSME Sector development parameters, i.e., the number of units and employment. The financial performance of any business can be taken as a parameter to judge entrepreneurial efficacy.
3. Time or Year have a negative impact on the development measures of MSMEs which implies that as time progresses, the number of units and consequently, the employment is reducing. Due to a lapse of time, people engaged in this sector are losing hope and hence they are finding alternative employment.
4. When the positive influence of GDP and the negative effect of the Year is brought in the same platform, the positivity of GDP suppresses the negativity of the year. Hence, when the overall assessment is made, there is a rise in the number of units and employment. Thus, West Bengal holds the second position among all other states in India in the backdrop of number of units and employment in the MSME Sector. MA

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STRATEGIC COMPETITIVE ANALYSIS OF INDIAN ROBOTICS AND AUTOMATION ORGANIZATIONS

Abstract

Robotics and Automation (RAA) is being like a repertoire in almost all of industrial applications. This article aims at competitive analysis, formulation, management, and execution of winning strategies for above average business growth with focus on Indian RAA companies. The entire task revolves around using three proven and standard management frameworks namely Competitor Analysis, Boston Consulting Group (BCG) Growth Share Matrix, and Technology Portfolio Matrix. The competitive analysis was reinforced by using the linkage of these frameworks with the formulation of the winning strategies.

INTRODUCTION

Robotics and Automation [RAA] has touched almost all aspects of industrial applications but the competitive analysis of a RAA company has not been clearly defined so far. In order to achieve this, we have chosen to use proven management frameworks. India is on the fast track of becoming an international production hub. The manufacturing sector has surfaced as one of the high development areas in the country. The phenomenal economic growth has seen an unprecedented acceptance of the applications of RAA in the manufacturing industry. RAA in turn has contributed towards higher productivity, overheads minimization and precision manufacturing to augment the strength of every avenue it has been deployed in.

OBJECTIVES OF THIS PAPER

The primary objective of this article is to derive the strategies for Indian RAA industry to focus their resources and take advantage of the high growth potential of this emerging field. The next objective is to arrive at decisive conclusions for future course of growth in RAA companies with agility. Also, the derivation of impactful strategies



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required for growth in turbulent times on the basis of the application of standard and proven qualitative and quantitative management frameworks and we conclude on the facts as to who should invest into the field of RAA.

COMPETITOR ANALYSIS-RADAR CHART

This analysis showed how Cognitive a company involved in Robotics and Automation warded off threats from competitors by focusing on key strategic parameters in real time. The competitor analysis conducted used six parameters i.e., Technology, Quality, Responsiveness, Delivery, Cost, and Innovation for comparison and is shown in Fig 1. The relative competitive superiority of Cognitive considering the six strategic parameters effectively and efficiently depicts the spectrum of relative advantage against its rivals. This visual depiction was used as wallpaper for the war room wall. Being surrounded by many concise summaries of relevant strategic parameters, this greatly facilitated the brain storming sessions during the strategy development process of Cognitive Automation. Thus robust competitor analysis turned out to be an essential component of corporate strategy. Cognitive took the forward-looking stance of competitor profiling to predict the future strategic actions of rivals and this proactive orientation systematically put to advantage this RAA Company by evaluating the response of rivals to their own strategies. This also helped to predict the changes in the competitive environment exogenous to business strategies. Armed with this knowledge, the analysts were able to put Cognitive in a superior position to craft both defensive and offensive winning strategies. Superior knowledge of rivals became the natural substance of competitive advantage in Cognitive’s preferred market. Competitor profiling gave the following advantages to the RAA Company: -

- ⊙ It revealed the strategic weaknesses in the rivals that were exploited by Cognitive.
- ⊙ The active perspective of rival reporting allowed Cognitive to foresee the strategic reaction of their rivals to the firm’s scheduled strategies.
- ⊙ This proactive knowledge of their rivals gave Cognitive strategic agility.

The competitive portfolio framework was tailored to excel the RAA Company in operational excellence over their competitors.

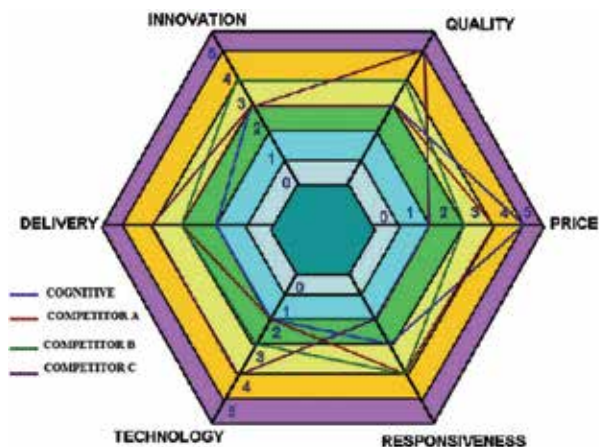


Fig 1. Competitor Analysis

BOSTON CONSULTING GROUP’S (BCG) - GROWTH/ SHARE MATRIX

The BCG growth/ share business portfolio matrix (Fig. 2) was intended to support supervisors of varied multimarket, multinational, and multiproduct companies detect strategy at a corporate level. This was done by delivering an analytical structure to establish the optimal business portfolio; recommending collection of standard policies to direct resource provision across the optimum business portfolio; and giving a structure for evaluating competitive business portfolios.

The BCG matrix permitted the multi-business development areas’ firm like Cognitive to compare the advantages of its specific business units to decide appropriate market strategies for each business. The business units were assessed based on, the turnover and ROI of the RAA industry in which they participated and their relative competitive position. Win-Win strategies were then advised depending on the status of each business unit in the portfolio matrix.

1) Stars-High Growth Rate, High Market Share

The high growth rate of stars i.e., Business Growth Areas (BGAs) D-Welding Solutions, E-Defense Industries, and I-Nuclear Projects required a heavy cash investment. An offsetting factor was their strong market share position that helped infer that stars D, E, and I would have moved alongside the knowledge curve the farthest. Consequently, these stars rapidly developed elevated margins causing in potentially robust cash flow in the future.

2) Cash Cows-Low Growth Rate, High Market share

The low growth rate of cash cows BGAs i.e., B-Pharmaceutical Companies’ Projects, C-Food & Beverages Companies’ Projects and H-Automotive Industries related Projects resulted in a higher generation of cash inflows. These BGAs in mature markets required lower cash investments and therefore were a source of cash flow from which would fund companies in other more encouraging quadrants.

3) Dogs-Low Growth Rate, Low Market Share

The low growth rate of dogs such as A-Textile Industries related Projects helped us infer that growing market stake would be an expensive proposal. Furthermore, the small market shares of dogs implied a collegial cost composition by virtue of their lesser position on the knowledge curve. Therefore, dogs were fruitless and required hefty cash funds just to retain their low share of market. Cognitive judiciously took the decision to divest from these projects and hence phased them out.

4) Problem Children-High Growth Rate, Low Market Share

The elevated growth rate of problem children BGAs namely F-Medical Equipment related Projects and H-Research Laboratories related projects required a hefty

cash investment. An escalating element was their low market share that also implied a collegial expense arrangement by virtue of their mediocre status on the experience curve. As the maturity stage sets in, the problem child followed one of the two ways on the matrix. If market share could not be cultivated, the problem child would become a dog. Otherwise, if market share increased by large amounts, the problem child projects of Cognitive would be exalted into a star status and, ultimately, a cash cow. The BCG matrix recommended that the most hopeful problem children should get cash investment to raise market share. Those problem children with bleak prospects should not get more cash funding.

The business portfolio BCG framework focused on investing in those strategic RAA Business Growth Areas (BGAs) that increased market share, improved profitability, and helped in achieving above average growth of the organization.

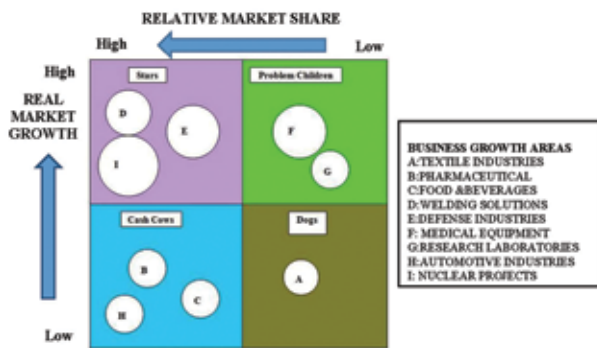


Fig 2. Boston Consultancy Group's (BCG) Growth Share Matrix

TECHNOLOGY PORTFOLIO MATRIX

This technology portfolio matrix Fig. 3 indicated which RAA technologies the Company 'Cognitive Automation' should invest in order to remain profitable and have sustained business growth. This matrix graphically shows all of the STUs (Strategic Technology Units) of the organization as per 'Technology Strength' and 'Technology Attractiveness'. These two factors are evaluated on environmental scan and internal scrutiny processes, respectively. The strategic business 'A' Assembly Automation in the current position i.e., 2022 is medium technology strength and medium technology attractiveness BGA and in the future position i.e., 2027 has an improved position of high technology strength and high technology attractiveness. Likewise, the BGA 'E' Standard Products, in the current position was at low technology strength and medium technology attractiveness. This BGA in the future will be at Medium Technology Strength and high technology attractiveness. The technology attractiveness i.e. environmental scan process is calculated for current '2022' and future '2027' positions for a specific business growth area 'STU A-Assembly Automation Solution'. Also, the quantification of Technology Strength i.e., internal scrutiny process is calculated for current and

future positions. The versatile strategic technology portfolio matrix helped consistently to augment our focus on those strategic technologies that the business had invested in today and helped derive what will be the future state of technology and business strategies.

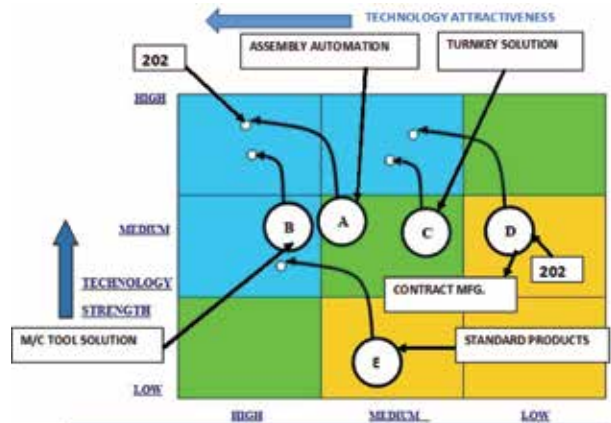


Fig 3. Technology Portfolio Matrix

LINKING MANAGEMENT FRAMEWORKS WITH WINNING STRATEGIES

The key to the success of adopting qualitative and quantitative management frameworks and monitoring them in real-time through-out the exponential growth period of Cognitive has helped in forming winning strategies for business, technology, and operations. The fact that helped Cognitive to overpower competitors and deliver superior customer value by focusing on those six critical strategic factors as considered in Competitor Analysis both in the short and long runs indicates the established position of this organization. The coherent focus on these factors would incessantly ensure their leadership in the RAA industry overwhelmingly. All these exercises made useful contribution to the organization when growth and innovation were stumbling blocks in Cognitive initially. The formation of competitor strategies critical to Cognitive in comparison with other competitors led to operational excellence of the organization and resulted in leading the way towards formation of winning competitive strategies across the industry.

The BCG Growth share matrix is the manifestation of integration of experience curve logic and Product Life Cycle (PLC) theory. The BCG matrix plots market charisma (as measured by market growth and derived in PLC theory) and competitive status (as measured by market share and derived from experience curve theory) to evaluate the situation of numerous BGAs. Market attractiveness is computed by the Company's development rate, while competitive position of Cognitive is assessed by the corporate growth area's market share relation to that of its largest entrant in the industry and not based on the market as a whole. The general strategy of Cognitive as hypothesized by the BCG matrix is to boost market share in as many high growth BGAs as is likely. The superior limit of this opportunity is constrained by cash

flow since the model presumes a requirement of internal cash balance between cash generation and uses. Thus, the strategic target for top executives is to assign restricted cash resources across the BGAs to maximize firm profitability. Each quadrant of BCG matrix offers varied winning strategies to attain highest productivity under this restriction of reduced cash resources. The BCG matrix spearheaded the business strategy by helping the organization to adopt the PESTEL (Political, Economic, Social, Technological, Environmental, and Legal factors) focus formula in full force. By this the RAA business growth areas were segregated into those profitable and not-so profitable categories, thus leading to invest only in those that would give good ROIs and decent payback periods.

The technology portfolio matrix helped to choose those technologies for the various business growth areas in the organization that were attractive with reference to technological evaluation and had high technology strength now and those that would remain attractive and stronger in the future state of business. The technologies in which the various sectors were improving on technology strength and technology attractiveness were only the focus areas of Cognitive. This ultimately led the management to remain with the band wagon on most frontiers and lead the industry on the technological front in all the areas of focus. Each of the focus areas was like a Strategic Technology Unit (STU) and this helped the company to keep their technological leadership inundated as against those of the competitors. The strategic administration of technology is defined as a methodology to connect technology strategies to business strategy and permits them to position R&D subject urgencies in consistency with company's global strategy. From a strategic viewpoint, all technologies are not likewise important and have various impact on the organization's competitive benefit. The technology life cycle analysis derived from technology portfolio matrix of Cognitive provided important perceptions into several aspects of technology strategy. They included understanding the natural boundaries of the company's present technology, quantity of effort needed to improve technical performance, presence of threatening technological S-curves, best technology upon which to build winning technology strategy, and the timing of swapping to another technological S-curve encouraging the view of discontinuing those that do not have opportunity and challenge.

It must be buttressed that the end result of this competitive strategy resulted in using the state of the art and appropriate technology, meeting the right quality standards, winning all the way on responsiveness to internal and external customers, meeting time to market goals, shortening customer deliveries, maintaining optimum costs within budgetary limits, achieving cost reduction targets, and remaining innovative in applying all winning strategies across the organization.

CONCLUSION

This article shows how the successful application of

management frameworks helped the RAA Company "Cognitive Automation" dynamically and in real time. This helped the organization to successfully ward off threats of tough business environment and successfully formulate winning strategies. The decision maker in the organization had the choice to focus on those business growth areas depending on the competitive business environment in which they were operating. Applying qualitative and quantitative proven management frameworks helped the Company to form business, technology, and competitive strategies. Indian RAA companies thus can focus on the derived parameters to grow sustainably. RAA business could achieve above average growth in spite of turbulent times in industry, economic slowdown, and hostile competitive environment. The end result of the above exercise was a delighted customer leading to customer retention, enhancement, and eventually had created an evangelist customer. Cognitive because of their proactive orientation and forward-looking stance of systematic competitor profiling could stride ahead of their competitors, thus crafting themselves the leadership position in the Indian RAA industry. MA

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FINANCIAL REPORTING SYSTEM FOR ENABLING TRUSTED ACCOUNTING USING BLOCKCHAIN

Abstract

Traditional financial reporting is restricted to software solutions like ERP Finance, which call for manually recording the value of the business transactions in their own systems of Information technology. It is fraught with shortcomings like human errors/oversights (due to manual feeding of transactional data) and fraud (as there is no way to authenticate the transactions and/or their true value).

To counter these limitations, we need to reimagine the way a company's financial transactions get recorded and classified. We propose a solution that would maintain a company's financial data, while increasing trustworthiness and transparency of the system. This is done by way of integrating Cloud, Big Data and Blockchain technologies, and provide a trusted access to all its stakeholders.

A blockchain, kept on Hybrid cloud infrastructure, records accounting transactions between two companies serves as the single source of truth for both the companies, thus eliminating chances of fraud. The article explores the InterWork alliance, which standardizes blockchain code for business transactions. It also explores how it can be linked to Government blockchains to make the tokens (blocks) as indelible and trustworthy.

Red Hat Cloud helps pull data to build reports like Profit and Loss and Balance Sheet while extracting data from blocks kept on multiple servers and in different geographies. Meaning can be given to these financial transactions through Big data. This article explores how to bring together these concepts to build an implementable Financial Accounting solution.



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An enterprise's financial transactions are recorded for and reported to its various stakeholders, namely, shareholders for share pricing, banks for lending, Government for taxation and others. There are some standard accounting rules and principles to be followed for this reporting. Auditors are appointed in companies to review such transactions and compare their true values with the reported ones. Their reports are submitted every year, along with the annual report.

ERP finance are standard software for recording financial and cost accounting functions of business. Currently ERP Finance have over half a million clients worldwide and is most widely used software for reporting. This software's are multilingual, trustworthy, indelible records, most widespread and globally accepted. These provide standard functions for record keeping of General ledger, Journal, Profit and loss posting and Balance sheet formulation.

Problem statement

However, there are certain limitations with the current system of recording and reporting financial transactions. Financial transactions are recorded manually into the Finance software solutions which could lead to cases of intended fraud or human errors. *The invoices generated during such transactions may sometimes be either under-quoted or over-quoted and hence disguise the true value of the transactions.*

There could be human error in putting in the value of the transaction that took place between the company and the vendor/supplier or customer. It could also be that the

invoice is deliberately entered with a false value while recording the transaction.

These software's have Storage, Servers and Transactional data maintained in *hardware and software purchased by individual companies themselves*. Value of transactions undertaken by the company are fed in manually into the computer. The hardware, storage system, servers and data is as of today, is purchased by the companies and owned by the company themselves.

Because of the manual feeding in of transaction values by company employees, there is currently no way to authenticate if the transactions reported actually took place or not and the true value of transactions is not known. In case any company wants to fudge their book of accounts, they can do it easily by entering in wrong value of financial transactions in their system.

In the present system auditors are appointed by every company who match the transactions reported in the book of accounts with the invoices received and the actual money in the bank accounts of the company. There is required to be a rotation of audit companies over a period of few years by law. But, still discrepancies in finance system are reported all over the world.

Mitigating pain area

A solution is hereby recommended which aims to achieve the following benefits over the traditional accounting system:

- ⊙ Enhance the trust factor associated with the financials of a company (especially listed companies), to help

banks, customers, vendors, shareholders take more informed decisions.

- ⊙ Augment the audit function.
- ⊙ Provide an interoperable finance system to encourage greater participation in world commerce by hitherto under-represented groups/companies.
- ⊙ Feed data into existing ERP FI systems from blockchain blocks in order to make them trustworthy.

The idea is to leverage on Blockchain, Cloud and Big data technologies together to build a Financial Reporting System for companies which all entities in the economy can trust, regarding the financials of that company. A blockchain, kept on Hybrid cloud infrastructure, records accounting transactions between two companies serves as the single source of truth for both the companies, thus eliminating chances of fraud. Red Hat Cloud help build reports like Profit and Loss and Balance Sheet while extracting data from blocks kept on multiple servers and in different geographies. Meaning can be given to these financial transactions through Big data.

The solution proposed

A solution, based on latest technologies in the IT industry and the Growth Plays - Blockchain, Cloud, Artificial intelligence and Big Data based technologies, can bring with it the capabilities of higher transparency and increased trustworthiness in financial transactions. An end to end implementable solution can hence be prepared by IT companies by leveraging this vast knowledge and experience.

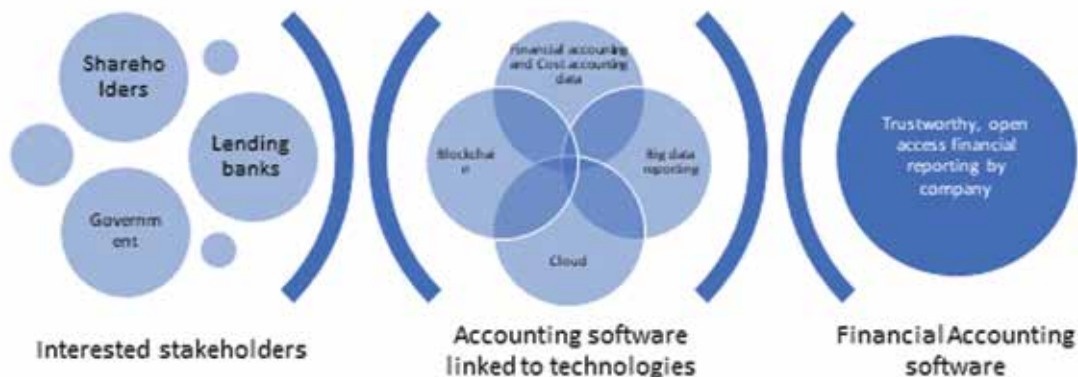


Diagram 1: Financial accounting software capability.

(Source: Researched from multiple sources)

Now, let's delve deep into the details of the proposed solution:

ERP Finance are standard software used by over half a million companies worldwide for financial reporting and cost accounting functions. They provide standard functionalities of record keeping, including General Ledger, Journal, Profit and Loss posting and Balance sheet

formulation. These are owned only by the company that invests in the software.

They have submodules like General ledger postings, Accounts Payables, Accounts Receivables, Cash Record Keeping, Bank Reconciliation reports, Asset Accounting and Depreciation in Financial accounting. They also keep a record of costing data like cost element reporting, Activity

Based Costing, Valuation of inventory (WIP and finished goods), Sales data, Cost reporting in heads like Overhead costs, Fixed costs, Land cost, Administrative costs, Labour cost and Material costs.

The idea is to integrate Blockchain, Cloud and Big data technologies for the company's accounting software and build a financial reporting system, utilizing the existing FI systems, that can be trusted by all entities in the economy.

Block chain is a distributed ledger for keeping indelible record of financial records across entities. The technology can thus be extended to maintain all Financial Accounting, Cost Accounting and Asset Accounting data of any company on the cloud and provide its trusted access to all stakeholders like Stock Exchanges, Government, Banks, Money Lending institutions and Shareholders along with the company. Currently ERP FI are owned only by a few particular companies which invest in the software. IT Companies can leverage its growth play technologies for all these purposes.

All the financials of the company can be placed on to the **Hybrid Cloud**, make it trustworthy to all entities (through **Blockchain**), and draw only what is required through meaningful predefined reports using **Big Data**. (Detailed explanation of each technology's role in the solution follows)

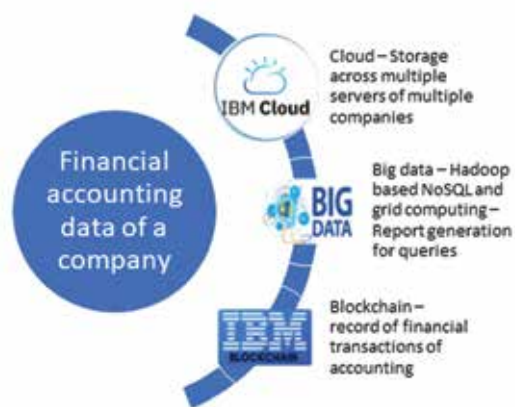


Diagram 2: Technologies leveraged for Financial accounting software

(Source: Researched from multiple sources)

Leveraging Blockchain:

Let us now look at the role Blockchain plays in our proposed solution. We can use Blockchain to record transactions of any company with its vendors, customers, owners, asset sellers, purchasers, etc. by drawing one single block per transaction for both the parties. This block, which is common between the buyer and the seller of goods, serves as the single source of truth for both the parties. *It is, therefore, less likely that either of the parties would agree to recording a transaction value which is less than or more than the actual transaction (because the same amount be would have to declared in their Profit and Loss statements).* The system will also become free of any human errors or oversights, as it obviates the need of manual entries of transactions by

the company clerks/accountants.

Use blockchain blocks to record transactions of any company with its vendors, customers, owners, asset sellers or purchasers etc by drawing one single block per transaction. This blockchain single block is common between the buyer and the seller of goods (company and the other party). There is no multiple recording of transactions here – once in books of seller company who sells and once in books of buyer company which is currently done manually by keying in the amount of the transaction. Blockchain will bring here is that the transaction between the two entities will no longer be recorded twice (once in the books of the company and the other in the books of the vendor).

Consequently, Blockchain can be considered as a distributed ledger for keeping indelible records of financial transactions across entities.

Blockchain cannot be owned by any single company - It has to be owned by a cloud network. Transactions between two companies to be recorded for reporting transactions cannot take place over an asset owned by one of them. It has to be implemented on the cloud which is owned by third party.

The InterWork Alliance (IWA) has formally launched operations as a platform-neutral, non-profit organization dedicated to creating the standards frameworks needed to increase innovation across token-enabled ecosystems. Major players in the technology industry landscape came together to build the Interwork alliance.

With the development of the InterWork alliance in the space of standardizing blockchain records for recording business transactions of any value, is a step in the right direction. The latest news on interworks alliance is a giant step in the space of creating set rules for blockchain solutions as a token to record all kinds of business transactions. The alliance sets rules for policy makers and companies to agree on commonly agreed principles on how to legally recognize tokens. This will pave the way for policy makers to make regulations on tokenizing the business transactions.

In order to make the blockchain tokens indelible or not delete-able, the industry could explore chain of blocks with both ends of the chain linked to the Government and transaction tokens linked in between these blocks.

To make the solution implementable, Blockchain is being given open governance standards for recording finance transactions in a set format for all companies in the world, so that the finance solution can be built by extracting the right data from blocks of blockchain to build their own reporting.

Leveraging Cloud:

The cloud should host blockchain solution for finance transactions for all the companies. A separate cloud finance solution can be built for the same. Block chain transactions of financial accounting of companies can be kept on the hybrid cloud since no single company owns the transactional data individually. It has to be owned by a third party since

transactions are common to both the companies and no single one can own it.

Solutions of Cloud especially the solution of Kubernetes can help in recording transactions in multiple servers, in different geographies and between different companies (parties). This is because companies can be operating in multiple geographies across the world. Blockchains can be present in multiple servers in different countries for the same client company.

IBM Red Hat solution standardizes the chunks of application and data into same size blocks which can be easily managed by the Kubernetes. This also enables minimal downtime of applications and also enable anytime anywhere access of the applications (through mobile or any other device).

Some solutions like block chain can reside on the public cloud and some solutions like cost accounting can reside on the private cloud. Cost accounting solutions need to be on the private cloud since they pertain to assessment of value of inventory and costing data of Primary Costs and Secondary Costs of a company, which is company sensitive data. Primary costs are about direct costs like raw material, labour, electricity costs. Secondary costs are about administrative - salary of management, land costs, capital costs etc.

A cloud solution can be built for the same and data can be extracted from Blockchain and fed into the existing ERP FI software.

Leveraging Big Data:

Next let us look at how big data plays a critical role in classifying blockchain transactions to feed into financial accounting solutions. Big Data works on grid computing and uses the analytical capability of database queries across multiple servers. It also enables access of data in a reporting format. Combined with AI, Big Data analytics can be used to extract meaningful reports for decision making.

Big data is implemented by **Hadoop** which is a **NoSQL** solution - which means implementing *SQL queries on data kept in multiple servers*. This is also called grid computing, known as Hadoop which is used to implement NoSQL.

Big data analytics here will use the analytical capability of database queries across servers. Also known as NoSQL queries. The NoSQL queries run on multiple servers and can be implemented through tools like Hadoop and Spark.

AI and big data analytics are for extracting meaningful tags to data for the purpose of feeding into FI systems. This can thus implement the extraction of inputs for Profit and Loss statements and Balance Sheet by reorganizing the data in block chains. AI can help accountants to map a corresponding entry in the company accounts and thus define Double Entry Accounting system. P&L, Balance sheet can all be implemented by Big data analytics since it's just about reclassifying entries.

Big data analytics can be used to group together these

block chain transactions and categorize them as Debit or Credit for the company whose financial accounting is to be prepared. Big data analytics can be built on top categorize these transactions.

Big data analytics can be used to prepare financial reports like General Ledger, Trial Balance and Profit and Loss statements among others in existing FI solutions.

To make the solution implementable, one can use Big Data analytics to group/club/re-organize Blockchain transactions together (just as if they were journal entries) and categorize them as Debit or Credit for preparing the company's financial reports like General Ledger, Trial Balance and Profit and Loss statements among others. This can be done by Kubernetes. Kubernetes is solution for containerization of data on the cloud. With Kubernetes, it enables processing of these blocks (block chain entities) across multiple servers.

Big Data tools like Hadoop or Spark will help in restricting an entity's access to the company's financial reports based on the requirement. E.g. Lending Banks will have access to only the reserves, investments, assets, liabilities and profits data.

Accounting knowledge used

Finally, accounting knowledge is leveraged by all the ERP FI and will also be useful for the proposed solution as well. The knowledge and expertise of a company's accountants, in classifying the ledger entries into the right heads for preparing Profit & Loss statements and Balance sheets is used in these solutions. They will only be required to label the company's financial transactions as Debit or Credit.

The company accountants will just require labelling these transactions as Debit or Credit with respect to the finances of that company in question and then reports can be built by an IT software or the existing ERP finance solutions can be leveraged.

The benefit that block chain will introduce here is that the transaction between the company and the other party will no longer be recorded twice and that too manually by the company clerks – once in the books of the company and the other in the books of the vendor. There will thus be trust that this transaction actually took place and was of this mentioned value only in the accounts of both the companies who participate in the transaction.

To make the solution implementable, one needs Cost Accountant and Chartered Accountant professionals to serve as SMEs for extracting the transaction details from Blockchain blocks and categorizes them as entity-wise Debit/Credit entries. All financial reports like Profit & Loss statement, Balance sheet, key metrics and segment wise data will be built using existing FI solutions.

The accountants need to build a software, or leverage existing FI solutions in the market, for client company which extracts the transaction details from blockchain blocks and feeds it into an IT software thus depicting Debit to which party and Credit to which party. The accountants can then build Journal and Ledgers from the values they have got of

the transactions. It uses concepts like summing up the right group of transactions, categorizing the transactions into different heads and making sum total calculations.

Profit & Loss statement and Balance sheet is built from the trial balance by classifying the ledger entries into right heads which an accountant knows well.

Thus, the abstraction function of data in blockchain can be performed using the concepts of accounting to feed into the existing ERP FI systems.



Diagram 3: Layer architecture - Blockchain, Cloud and Big data based Financial accounting

(Source: Researched from multiple sources)

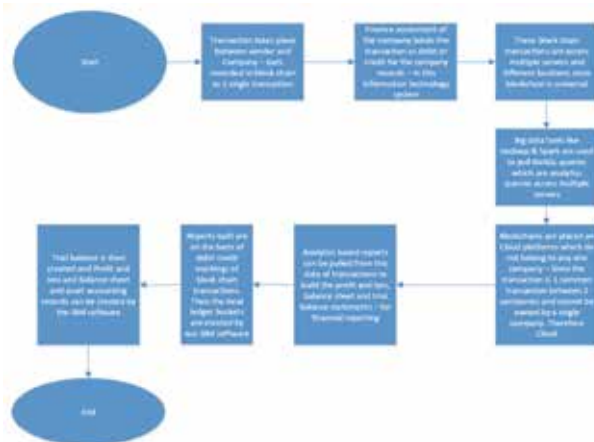


Diagram 4: Workflow depiction of life cycle of a transaction in new finance reporting system

(Source: Researched from multiple sources)

The diagram above mentions the steps as suggested in the new financial accounting system. The transaction between the company and vendor gets first recorded in a single blockchain transaction. The accountant then labels the transaction as debit or credit for the company in question. The transactions get recorded as block chain blocks which are kept in multiple servers in different locations. Big data tools like NoSQL help to pull in data from multiple servers to do analytics on them. This architecture is placed on cloud platform which do not belong to any one company. This is because the transactions are common between the

two companies and cannot be owned by any single one of them. Analytics based reports are pulled to build profit and loss statements and balance sheet for financial reporting. Reports are built based on debit and credit markings of each transaction. Local ledger buckets are created by the software owned by the company. Trial balance is thus prepared, and final financial reports get created.

How proposed solution helps solve the problem at hand

The proposed solution utilizes transactions recorded in blockchain as a single source of truth for both the parties involved in the transaction. If the value of the transaction is required to be under invoiced or over-invoiced on a request of one party, it is less likely that the other party will also agree to fraud in invoicing. This is because the books of accounts of the other party are depended on the same block chain value noted. They will not agree to show the difference in payment as a fraud in their books of accounts as well. Thus, this will make the transactions more trustworthy.

Summary

Thus, the proposed solution is not a simple case of use of products or tools, but it is about linking the right concepts together to build a solution which has a synergistic value far more than the sum of the parts. Right concepts, trusted technologies and special expertise can therefore be put together to build a trusted and credible finance solution, which goes beyond just an IT software.

The value-add which brings to the table is that it makes the financials of the company trust-worthy to all stakeholders. Blockchain provides a single version of the truth for both parties. Cloud enables sharing of data over internet to all entities who want to see it. Big data enables access of data in a reporting format which the entities want to use for the company. Also, an abstraction function of data in blockchain can be performed using the concepts of accounting to feed into the existing ERP systems.

Thus, if Information technology companies invest in this proposed solution, financial transactions in accounting can become more trustworthy. MA

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Direct & Indirect Tax Updates - February 2023

DIRECT TAXES

- **Notification No. 03/2023 dated 7th February 2023:** In exercise of the powers conferred by sub-section (2) of section 168 of Finance Act, 2016 (28 of 2016), the Central Board of Direct Taxes hereby makes the scheme for processing of statement furnished under section 167 of the Act. This Scheme may be called the Centralised Processing of Equalisation Levy Statement Scheme, 2023. This Scheme shall be applicable in respect of processing of the Equalisation Levy Statements.

(1) Every assessee or e-commerce operator shall furnish the Equalisation Levy Statement under sub-section (1) of section 167 of the Act within the time stipulated under sub-rule (2) of rule 5 of the rules. (2) An assessee or e-commerce operator may furnish an Equalisation Levy Statement or a revised Equalisation Levy Statement, as the case may be, under sub-section (2) of section 167 of the Act at any time before the expiry of two years from the end of the financial year in which the specified services was provided or e-commerce supply or services was made or provided or facilitated. (3) An assessee or e-commerce operator may furnish a Equalisation Levy Statement in response to notice sent by the Assessing Officer under sub-section (3) of section 167 of the Act in accordance with rule 6 of the rules.
- **Notification No. 04/2023 dated 10th February 2023:** In exercise of the powers conferred by section 139 read with section 295 of the Income-tax Act, 1961 (43 of 1961), the Central Board of Direct Taxes hereby makes the rules further to amend the Income-tax Rules, 1962. These rules may be called the Income-tax (First Amendment) Rules, 2023. (2) They shall come into force with effect from the 1st day of April, 2023. In the Income-tax Rules, 1962 (hereinafter referred to as the principal rules), in rule 12

(a) in sub-rule (1), in the opening portion, for the figures “2022”, the figures “2023” shall be substituted.

(b) in sub-rule (5), for the figures “2021”, the figures “2022” shall be substituted.

In the principal rules, in Appendix-II, for Forms ITR-1 SAHAJ, ITR-2, ITR-3, ITR-4 SUGAM, ITR-5, ITR-6, ITR-V and Indian Income Tax Return Acknowledgement, the Forms shall, respectively, be substituted.
- **Notification No. 05/2023 dated 14th February 2023:** In exercise of the powers conferred by

section 139 read with section 295 of the Income-tax Act, 1961 (43 of 1961), the Central Board of Direct Taxes hereby makes the rules further to amend the Income-tax Rules, 1962. In the Income-tax Rules, 1962, in Appendix-II, Form ITR-7 shall be substituted.

- **Notification No. 06/2023 dated 16th February 2023:** In pursuance of sub-clause (ii) of clause (a) of sub-section (1) of Section 138 of the Income-tax Act, 1961, the Central Government hereby specifies ‘Secretary (Information Technology & Digital Service Department), Directorate of e-Governance, Government of Tamil Nadu’ for the purposes of the said clause in connection with sharing of information regarding income-tax assesseees for identifying genuine beneficiaries and proper implementation of all the Centrally sponsored schemes and welfare schemes of the state of Tamil Nadu.
- **Notification No. 07/2023 dated 21st February 2023:** In exercise of the powers conferred by clause (b) of the tenth proviso to clause (23C) of section 10, sub-clause (ii) of clause (b) of sub-section (1) of section 12A read with section 295 of the Income-tax Act, 1961 (43 of 1961) (hereinafter referred to as the Act), the Central Board of Direct taxes hereby makes the rules further to amend the Income-tax Rules, 1962. In the Income-tax Rules, 1962 hereinafter referred to as the principal Rules, for rule 16CC, the following rule shall be substituted, “16CC. Form of report of audit prescribed under tenth proviso to section 10(23C)” The report of audit of the accounts of a fund or institution or trust or any university or other educational institution or any hospital or other medical institution which is required to be furnished under clause (b) of the tenth proviso to clause (23C) of section 10 shall be in (a) Form No. 10B where

(I) the total income of such fund or institution or trust or university or other educational institution or hospital or other medical institution, without giving effect to the provisions of the sub-clauses (iv), (v), (vi) and (via) of the said clause, exceeds rupees five crores during the previous year; or (II) such fund or institution or trust or university or other educational institution or hospital or other medical institution has received any foreign contribution during the previous year; or (III) such fund or institution or trust or university or other educational institution or hospital or other medical institution has applied any part of its income outside India during the

previous year

(b) Form No. 10BB in other cases

“17B.Audit report in the case of charitable or religious trusts, etc” The report of audit of the accounts of a trust or institution which is required to be furnished under sub-clause (ii) of clause (b) of sub-section (1) of section 12A, shall be in

(a) Form No. 10B where

(I) the total income of such trust or institution, without giving effect to the provisions of sections 11 and 12 of the Act, exceeds rupees five crores during the previous year; or (II) such trust or institution has received any foreign contribution during the previous year; or (III) such trust or institution has applied any part of its income outside India during the previous year

(b) Form No. 10BB in other cases

- **Notification No. 08/2023 dated 28th February 2023:** In the notification of the Government of India, Ministry of Finance, Department of Revenue (Central Board of Direct Taxes), published in the Gazette of India, Extraordinary, Part II, Section 3, Subsection (ii), vide number G.S.R. 91(E), dated the 10th February, 2023: (i) at page number 224, in Part C, in column 10, in row 2, the words “Any other deduction as per the e-filing utility” shall be inserted.
- **Circular No. 02/2023 dated 6th February 2023:** The Finance Act, 2022 as passed by the Parliament, received the assent of the President on 30th March, 2022 and has been enacted as Act No. 6 of 2022. The Explanatory notes to the Finance Act, 2022, explaining the amendments made in direct tax laws vide the Finance Act, 2022 were issued vide Circular no. 23 of 2022 dated 03 .11.2022. In the said circular, in sub-point (iii) of the point (1) of sub-paragraph (A) of paragraph 28.5, the words “two assessment years preceding such assessment year” shall be read as “any assessment year preceding such assessment year”

INDIRECT TAXES

CUSTOMS

- **Notification No. 02/2023-Customs dated 1st February 2023:** Seeks to further amend notification No. 50/2017-Customs, dated the 30th June, 2017, so as to revise/provide exemption(s) on the specified goods.
- **Notification No. 03/2023-Customs dated 1st February 2023:** Seeks to further amend notification No. 11/2021-Customs dated 1st February, 2021, so as to levy/exempt Agriculture and Infrastructure Development Cess (AIDC) on certain items.
- **Notification No. 04/2023-Customs dated 1st February 2023:** Seeks to further amend notification No. 11/2018-Customs, dated 2nd February, 2018, to revise/provide Social Welfare Surcharge (SWS) exemption(s) on specified goods.
- **Notification No. 05/2023-Customs dated 1st February 2023:** Seeks to rescind notification Nos. 13/2021-Customs and 34/2022-Customs, related to Social Welfare Surcharge (SWS).
- **Notification No. 06/2023-Customs dated 1st February 2023:** Seeks to further amend notification Nos. 25/1999-Customs, 25/2002-Customs and 57/2017-Customs related to certain electronic items.
- **Notification No. 07/2023-Customs dated 1st February 2023:** In exercise of the powers conferred by section 157 of the Customs Act, 1962 (52 of 1962), the Central Board of Indirect Taxes and Customs hereby makes the regulations further to amend the Project Imports Regulations, 1986.
 - (1) These regulations may be called the Project Imports (Amendment) Regulations, 2023
 - (2) They shall come into force on the 2nd day of February, 2023.
 - (3) In the Project Imports Regulations, 1986, in the TABLE, against Sr. No. 4, in column 2, for the words “Any other Plant and Project”, the words “Any other Plant and Project, other than solar power plant or solar power project” shall be substituted.
- **Notification No. 08/2023-Customs dated 1st February 2023:** Seeks to further amend notification No. 22/2022-Customs regarding India-UAE Comprehensive Economic Partnership Agreement.
- **Notification No. 09/2023-Customs dated 1st February 2023:** Seeks to further amend notification No. 57/2000-Customs which exempts gold, silver and platinum imported under specified schemes. In the said notification, in the TABLE, against Sl. No. 1, in column (4), for the entries “11.85%” and “6.1%”, the entry, “9.35%”, at both the places, shall be substituted. This notification shall come into force on the 2nd day of February, 2023.
- **Notification No. 10/2023-Customs dated 1st February 2023:** Seeks to further amend notification No. 146/94-Customs, dated the 13th July, 1994 to extend the exemption benefit to Warm blood horse for equestrian sports and

extend the validity of said notification up to the 31st March, 2028.

- **Notification No. 11/2023-Customs dated 1st February 2023:** Seeks to amend the notification Nos. 90/2009-Customs, dated the 7th September, 2009, 33/2017-Customs, dated the 30th June, 2017, and 41/2017-Customs, dated the 30th June, 2017 to extend the validity of said notifications up to the 31st March, 2028.
- **Notification No. 12/2023-Customs dated 1st February 2023:** Seeks to amend 32 notifications in order to provide a specific end date for these notifications.
- **Notification No. 13/2023-Customs dated 23rd February 2023:** Seeks to exempt BCD on ships/vessels for breaking up. In the said notification, in the Table, after S. No. 555 and the entries relating thereto, the following S. No. and entries shall be inserted.

(1)	(2)	(3)
555A	8908 00 00	All Goods: Provided that nothing contained in this S.No. shall have effect after 31st March, 2025

- **Notification No. 14/2023-Customs dated 28th February 2023:** Seeks to amend notification no. 104/94-Customs, dated 16.03.1994. A device such as tag, tracking device or data logger already affixed on the container at the time of import shall also be eligible for exemption from the duty of customs and the integrated tax as is available to the said container under this notification.
- **Circular No. 03/2023-Customs dated 7th February 2023:** Amendment in Circular No. 29/2020-Customs dated 22.06.2020 for allowing transshipment of Bangladesh export cargo to third countries through Delhi Air Cargo notifications related thereto with reference to appointment of officers of customs and assignment of functions.
- **Circular No. 04/2023-Customs dated 21st February 2023:** Amendment in Circular No. 25/2016-Customs dated 08.06.2016 for including details of Ex-bond Bill of Entry/Shipping Bill in Form A.
- **Circular No. 05/2023-Customs dated 21st February 2023:** Amendment in Circular No. 26/2016-Customs dated 09.06.2016.

EXCISE

- **Notification No. 05/2023-Central Excise dated 1st February 2023:** Seeks to exempt Compressed Natural Gas (CNG) from so much of the duty of

excise leviable on amount of GST paid on Biogas or Compressed Biogas which is blended with CNG.

- **Notification No. 06/2023-Central Excise dated 3rd February 2023:** Seeks to amend No. 18/2022-Central Excise, dated the 19th July, 2022 to increase the Special Additional Excise Duty on production of Petroleum Crude and export of Aviation turbine Fuel. The said notification, in the Table, -(i) against S.No.1, for the entry in column (4), the entry “Rs. 5,050 per tonne” shall be substituted;
(ii) against S.No.2, for the entry in column (4), the entry “Rs.6 per litre” shall be substituted
- **Notification No. 07/2023-Central Excise dated 3rd February 2023:** Seeks to further amend No. 04/2022-Central Excise, dated the 30th June 2022, to increase the Special Additional Excise Duty on Diesel. In the said notification in the Table i) against S.No.2, for the entry in column (4), the entry “Rs.6 per litre” shall be substituted
- **Notification No. 08/2023-Central Excise dated 15th February 2023:** Seeks to amend No. 18/2022-Central Excise, dated the 19th July, 2022 to reduce the Special Additional Excise Duty on production of Petroleum Crude and export of Aviation turbine Fuel. In the said notification in the Table: (i) against S. No. 1, for the entry in column (4), the entry “Rs. 4,350 per tonne” shall be substituted;(ii) against S. No. 2, for the entry in column (4), the entry “Rs. 1.50 per litre” shall be substituted.
- **Notification No. 09/2023-Central Excise dated 15th February 2023:** Seeks to further amend No. 04/2022-Central Excise, dated the 30th June, 2022, to reduce the Special Additional Excise Duty on Diesel.
- **Circular No. 03/2023-Central Excise dated 7th February 2023:** Amendment in Circular No. 29/2020-Customs dated 22.06.2020 for allowing transshipment of Bangladesh export cargo to third countries through Delhi Air Cargo notifications related thereto with reference to appointment of officers of customs and assignment of functions.
- **Circular No. 04/2023-Central Excise dated 21st February 2023:** Amendment in Circular No. 25/2016-Customs dated 08.06.2016 for including details of Ex-bond Bill of Entry/Shipping Bill in Form A.
- **Circular No. 05/2023-Central Excise dated 21st February 2023:** Amendment in Circular No. 26/2016-Customs dated 09.06.2016.

Sources: incometax.gov.in, cbic.gov.in



THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

Statutory Body under an Act of Parliament

www.icmai.in

Advisory for Renewal of Certificate of Practice For 2023-24

The members of the Institute holding Certificate of Practice (CoP) having validity up to 31st March, 2023 are requested to comply with the following guidelines for renewal of their Certificate of Practice:

1. The following changes consequent to amendment of the Cost and Works Accountants Regulations, 1959 vide Notification dated 4th February, 2011 published in the Gazette of India may be noted:

- a. The validity of a Certificate of Practice (CoP) is for the period 1st April to 31st March every year unless it is cancelled under the provisions of the Cost and Works Accountants Act and Regulations, 1959 as amended.
- b. The Certificate of Practice issued shall automatically be renewed subject to submission of prescribed Form M-3 (duly filled in) and payment of renewal fee* and annual membership fee*.
- c. From the year 2011-12 onwards, letter for renewal Certificate of Practice is not being issued. However, the members concerned may download the renewal status from the Institute's website www.icmai.in.

Link: <https://eicmai.in/MMS/Login.aspx?mode=EU>

2. It may please be noted that under Section 6 of the Cost and Works Accountants Act, 1959, **both the Annual Membership Fee* and Fee for Renewal of Certificate of Practice*** falls due on 1st April each year.

3. Special attention is invited to the fact that the validity of a Certificate of Practice expires on **31st March** each year unless it is renewed on or before the date of expiry in terms of the amended Regulation 10 of the Cost and Works Accountants Regulations, 1959. Hence, a member shall be required to renew the certificate of Practice within **31st March** every year.

4. If the Certificate of Practice of a member is not renewed within 31st March, 2023, his/her status of CoP from 1st April 2023 till the date of renewal would be "Not Active".

5. Subject to what has been mentioned in Sl. No. 3 & 4 above, a member can get his/her Certificate of Practice for 2023-24 renewed within **30th June, 2023**. If application for renewal of Certificate of Practice is made after 30th June, 2023, the member's Certificate of Practice for 2023-24 will not be renewed but will be considered as a case of restoration of Certificate of Practice till 31/03/2024. This restoration is applicable only to the CoP holders whose CoP is valid till 31/03/2023. For restoration of Certificate of Practice, he/she has to pay Rs.500/-* as restoration fee in addition to the **prescribed fees * along with duly filled in form 'M-3'**.

6. It may please be noted that mere payment of fees * alone will not be sufficient for renewal of Certificate of Practice. Application in prescribed Form M-3 is to be used for Renewal of Certificate of Practice duly filled in and signed is **mandatory**. The soft copy of prescribed Form M-3 for Renewal of Certificate of Practice can be downloaded from Institute's website www.icmai.in.

Link: <https://eicmai.in/external/PublicPages/WebsiteDisplay/PractitionersForms.aspx>

7. The Institute has introduced a scheme of Continuing Education Programme (CEP) and the same is mandatory in accordance with provision to sub-regulation (1) of Regulation 10 of the Cost and Works Accountants Regulations, 1959, as amended, whereby no Certificate of Practice and renewal thereof shall be issued unless a member has

undergone minimum number of hours of such training. The detailed guidelines in this connection are available on Institute's website www.icmai.in.

Link: https://icmai.in/upload/Institute/CPD/CEP_Guidelines_01042021_31032024.pdf

8. For renewal and application of new CoP issued on and from 1st February, 2019, please refer to Notification **F. No. CWA/21/2019 dated 1st February, 2019 and subsequent corrigendum dated 8th March, 2019.**

Link: <https://icmai.in/icmai/news/5435.php>). Accordingly new CoP holders on and from 1st February, 2019 are required to comply with Mandatory Capacity Building Training (MCBT) requirement for renewal of CoP for the FY 2023-24.

9. Other relevant issues for Renewal of Certificate of Practice are as follows:

- a. Application for renewal of Certificate of Practice upto 31st March, 2024 has to be made in prescribed Form M-3 which may be filled online or through hard Copy of form duly filled in and signed on both sides together with Renewal Certificate of Practice fee of Rs.2,000/-* and all other dues to the Institute on account of annual membership fees * and entrance fees *.
- b. The annual membership fee for Associate and Fellow members are Rs.1,000/-* and Rs.1,500/-* respectively. The entrance fee * for Associate and Fellow members is Rs. 1,000/-* each payable at a time at the time of application for admission to Associateship or advancement to Fellowship, as the case may be.
- c. The fees * may be paid online or by Demand Draft/at par cheque payable at Kolkata if remitted by post to the Headquarters of the Institute.
- d. Members should note that the **renewal of Certificate of Practice can be effected only after receipt of the prescribed fees * along with duly filled in form at the Headquarters of the Institute and on meeting the stipulated CEP credit hours.** Mere submission of the same at the Regional Councils or Chapters will not be sufficient. Members are advised to make payment directly to the Headquarters or use the online facility of submission of application and payment to avoid any delay.

All practising members are advised to send their application for renewal of Certificate of Practice for the year 2023-24 along with other requirements as indicated above immediately so as to reach the Institute's Office at Kolkata well in advance to enable the Institute to issue the renewal of Certificate by 31st March, 2023.

Renewal of Part-time Certificate of Practice

1. For renewal of part-time Certificate of Practice, it is also essential to furnish a certificate from the employer in the following form or in a form as near thereto as possible if the practising member has undertaken any employment or there has been a change in employment:

“Shri/Smt is employed as designation)

..... and (name of Organisation) he/she is

permitted, notwithstanding anything contained in the terms of his/her employment, to engage himself/herself in the practice of profession of Cost Accountancy in his/her spare time in addition to his/her regular salaried employment with us.

Signature of Employers with seal of Organisation”

2. It may be noted that members holding Part-time Certificate of Practice (CoP) are not eligible to undertake statutory assignments like Cost Audit, Central Excise Audit, etc.

**GST is applicable against payment*

To
ALL MEMBERS OF THE INSTITUTE

You are requested to send the duly filled in and signed form printed below to the **Secretary, The Institute of Cost Accountants of India, CMA BHAWAN 12, Sudder Street, Kolkata - 700016** by post or coloured scanned copy of the filled up form through email attachment to membership.response@icmai.in. This will be maintained at the Institute's end and used for verification as and when required. Clear coloured scanned copy preferably in pdf format is only acceptable.

(Kaushik Banerjee)
Secretary

	THE INSTITUTE OF COST ACCOUNTANTS OF INDIA (STATUTORY BODY UNDER AN ACT OF PARLIAMENT) SPECIMEN SIGNATURE CARD
Members of the Institute are requested to provide their specimen in the following format and send the same positively	

PLEASE AFFIX ONE RECENT PASSPORT SIZED PHOTOGRAPH HERE
SIGNATURE IN BLACK INK

(Please affix one recent passport-size photograph and sign below the same in black ink. Please don't sign across the photograph)

I, Shri/Ms. am giving below my specimen signature for the Institute's record.

Previous Signature :	
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Current Specimen Signature	
1.	2.
3.	4.

Salutation	Mr. / Mrs. / Ms. / Dr.	FULL NAME OF THE APPLICANT				
First *						
Middle						
Last *						
Membership No. *		Date of Birth *				
			Day	Month	Year	
Mobile					Email	

ISD Code		STD Code		Phone No.	
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Place :

Date :

Signature of Member
(In Black Ink)

Note:

- (*) marked fields are mandatory.
- The above form should be sent to the **Secretary, The Institute of Cost Accountants of India, CMA BHAWAN, 12, Sudder Street, Kolkata - 700016** or coloured scanned copy of the filled up form through email attachment to membership.response@icmai.in.
- Please use **Black Ink** for signature.
- Please put your **specimen signature in all the 4 boxes**.
- Please intimate your Email-id and Mobile No.

Benevolent Fund

FOR THE MEMBERS OF THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

CMA Bhawan, 12 Sudder Street, Kolkata - 700016

OBJECTIVE

The Fund has been created to provide outright grant of prescribed amount to the member in the event of critical illness of a member / beneficiary of the Fund. It is also for outright grant of prescribed amount to the beneficiary in the event of death of a member of the Fund.

LIFE MEMBERSHIP FEE

Onetime payment of ₹7500/-

BENEFITS

- ⊙ **Income Tax Benefit under section 80G**
- ⊙ **Outright grant not exceeding ₹3,00,000.00/- in each case to the beneficiary in the event of death of the member.**
- ⊙ **Outright grant not exceeding ₹1,50,000.00/- in each case to the member and beneficiary for critical illness duly certified by the doctor under whom the treatment is continuing.**

Coverage of Critical Illness, leading to hospitalization, may cover the following -

- ⊙ Cancer / Malignancy
- ⊙ Coronary Artery Bypass Graft Surgery
- ⊙ Stroke / Cerebral Attack / Paralysis
- ⊙ Heart Valve Replacement Surgery
- ⊙ Myocardial Infarction (heart attack) / Heart Failure / Pace Maker Surgery / Kidney Dialysis(CKD)/ Renal Failure
- ⊙ Major Organ Transplant
- ⊙ Hemophilia
- ⊙ Thalassaemia
- ⊙ Neurological Diseases
- ⊙ Flue Blown acquired Immune Deficiency Syndrome
- ⊙ Multiple sclerosis
- ⊙ Tuberculosis / Bronchopneumonia/ Pleurisy
- ⊙ Permanent disablement
- ⊙ Any other disease that may be considered by the Board of Trustees to be critical in nature.

To apply for life membership or for further details please visit

<https://eicmai.in/External/Home.aspx#>

RNI NO. 12032/1966

Career Oriented Professional Courses offered by The Institute of Cost Accountants of India

Board of Advanced Studies & Research

- ⊙ Diploma in Forensic Audit (DFA)
- ⊙ Diploma in Information System Security Audit (DISSA)
- ⊙ Certificate Course in Data Analytics for Finance Professionals (DAFP)
- ⊙ SAP Finance Power User Course (SAP Learning Hub & SAP S/4HANA)
- ⊙ Certificate Course in Advanced Business Excel for Finance Professionals (ABXL) (with Microsoft Certification)
- ⊙ Diploma in Financial Modelling & Valuation (DFM)
- ⊙ Executive Diploma in Cost & Management Accounting for Engineers (EDCME)
- ⊙ Advanced Certificate Course in Internal Audit (ACIA)
- ⊙ Certificate Course in Arbitration (CCA)
- ⊙ Executive Diploma in Business Valuation (EDBV)

*For more details, please visit:
https://icmai.in/Advanced_Studies/*

Tax Research Department

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- ⊙ Advanced Certificate Course on GST (ACCGST)
- ⊙ Advanced Course on GST Audit and Assessment Procedure (ACGAA)
- ⊙ Certificate Course on TDS (CCTDS)
- ⊙ Certificate Course on Filing of Returns (CCFOF)
- ⊙ Advanced Course on Income Tax Assessment and Appeals (ACIAA)
- ⊙ Certificate Course on International Trade (CCIT)

Courses for Colleges & Universities:

- ⊙ **GST Course**
- ⊙ **Income Tax**

*For more details, please visit:
<https://icmai.in/TaxationPortal/OnlineCourses/index.php>*

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- ⊙ Online Certificate Course in Investment Management
- ⊙ Certificate Course on Concurrent Audit of Banks
- ⊙ Certificate Course on Credit Management of Banks
- ⊙ Certificate Course on Treasury and International Banking

*For more details, please visit:
https://icmai.in/Banking_Insurance/Courses.php*



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Prof (Dr) Upinder Dhar
Chairman, Editorial Board

Book Review 02

Marketing 4.0: Moving from Traditional to Digital

(Authors: Philip Kotler, Hermawan Kartajaya and Iwan Setiawan. New Jersey: John Wiley, Year of Publication: 2016, ISBN: 9781119341208) Pages: 208, Price: \$25.00

Sarita T Aurangabadkar*

The Book is a sequel to Marketing 3.0, which highlighted a shift from product driven marketing (1.0) to customer-centric marketing (2.0), human-centric marketing (3.0). The book is about the trends that shape the knowledge economy and further broadens the human-centric marketing to uncover every aspect of the journey that the customer takes. Marketers need to adapt to the changing customer needs and modify their plans and programs. It is a well written book, backed by research for graduate, post-graduate students, teachers and marketing management professionals. It is also available in the e-format. The content is divided into eleven chapters and comprises of 208 pages. Each chapter consists of a summary and is followed by reflection questions. Towards the end of the book glossary index is included.

The authors begin by mentioning that technology convergence will ultimately lead to the convergence between digital and conventional marketing. The more social people become, the more they want custom-made products and services. The book has three parts. The first one deals with the marketing trends of the current times, and the second one is about how can companies be effective through new frameworks in the digital economy. The last part delves into the tactical applications in the digital economy. In the prologue, the authors state the role of marketers: to guide the customers from being aware to advocacy.

Part I on Fundamental Trends Shaping Marketing consists of four chapters. The first one discusses how power is shifting to connected customers. It illustrates beautifully, how inclusion is the new business mantra, and deliberates on shift of innovation flow from vertical to horizontal. Chapter two is about the paradoxes of marketing to connected customers. The first paradox is online vs. offline; customers' expectations will be personalized touch, when buying products and services. This is even though the

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customers are technology savvy and search information through an online mode. The second paradox mentioned is informed customer versus the distracted customer; the informed customers in spite of awareness are not in control of what they want to purchase and surprisingly, rely on the opinion of others. The third paradox is negative versus positive advocacy. Connectivity facilitates voicing of opinion for the customers. Thus, many a times customers believe in advice given by perfect strangers about a product or service, rather than recommendations through celebrity brand endorsements.

In the third chapter, three influential digital subcultures -youth, women and netizens (YWN) are highlighted as the key segments in the digital era. The chapter begins by the lines, "Youth for Mind share, Women for Market Share, and Netizens for Heart Share". The fourth chapter, "Marketing 4.0 in the Digital Economy" begins with opening statement, regarding a list by McKinsey of top innovations having the most significant economic impact; namely, mobile phones, internet, automation of knowledge work. These technologies shall soon see convergence. The traditional Marketing Mix (four p's) is redefined by the authors as four c's; co-creation, currency, communal activation and conversation.

Part II on New Frameworks for Marketing in the Digital Economy has three chapters. Chapter five is about the new customer path. The conventional route was about AIDA (Attention, Interest, Desire and Action) whereas, the modification suggested by Derek Rucker was four A's (Aware, Attitude, Act and Act again). The customer path in the connectivity era is of five A's (Aware, Appeal, Ask, Act, and Advocate). The next chapter deals with Marketing Productivity Metrics. A set of new metrics purchase action ratio (PAR) and brand advocacy ratio (BAR) have been introduced to measure productivity. These aim at finding out the moving of customers from one stage to another through increase in attraction of customers towards the brand, optimizing curiosity, increasing commitment and increasing affinity.

Chapter seven is titled, "Industry Archetypes and Best Practices". It discusses the path customers take towards purchase of a product or service. Commenting on the conversion rates of customers as they move from five A's, the authors have identified four patterns across industries. The first is, "door knob", for consumer goods, which typically have pre-determined preferences, low attachment and many competing offers. The second, "gold fish", which may be seen in B-to-B context, where standard buying process with multiple stakeholder involvement exists. "Trumpet", is the third

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pattern, marked by high involvement of the customer in the purchase process, with reliance on word-of-mouth and need for confidence in the quality of the offering.

Part III on Tactical Marketing Applications in the Digital Economy has four chapters. The eighth chapter is about "Human Centric Marketing for Brand Attraction". Marketers need to increasingly embrace human centered marketing. The chapter introduces readers to digital anthropology, i.e., how humans interact, behave and use technologies. Social listening; what is said, discussed about a brand on the social media. Netnography, developed by Robert Kozinets, aims to study humans through immersion into their own natural online communities in ways which do not obstruct others. Emphatic research, requires in-person observation, brain-storming and discussions among researchers to derive better insights into the research problem. Brands should be physically attractive, intellectually compelling, socially engaging, emotionally appealing and demonstrate strong personality and morality.

Chapter nine deals with, content marketing, production of useful messages that is of value to the consumers. Eight steps are detailed namely; setting goals, mapping of audience, content ideation and planning, content creation, distribution of the content, content amplification, evaluation of the content and improving the content as required. The next chapter is about integration of traditional and digital media and experiences. Companies should aim at having a good combination of online and offline channels and see to it that the customers have a seamless experience. Three steps for an effective omni-channel marketing are given, mapping of all possible customer touch-points, identify the most critical touch points in the channel, and keep on efforts towards improving and integrating the same. The final, eleventh chapter represents Engagement Marketing, for creating lasting brand affinity. Even after the first purchase is made by the customers, it requires a series of customer engagement activities. The chapter discusses techniques that will help companies to facilitate a better experience for their customers. The three techniques are, use of mobile applications, customer relationship management application and use of gamification.

The book provides valuable insights to students and professionals into the rapidly changing Marketing environment. It helps readers to understand how customers are undergoing a change and how to give them a better and improved experience.



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Dr. Sarita T. Aurangabadkar

In recognition of the publication of the paper entitled
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Accessibility of Healthcare Services -A Literature Review

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¹JDC Bytco Institute of Management Studies and Research, Nashik (MH), India

Abstract: Access is an important concept in health policy and health services research, yet it is one that has not been defined or employed precisely. Access has been defined in many ways by different researchers, to some authors "access" refers to entry into or use of the health care system, while to others it characterizes factors influencing entry or use. Access is a general concept that encapsulates a set of more precise dimensions, explaining the fit between the customer and the health care system. The specific measurement of 'access' can be done by analyzing availability, accessibility, accommodation, affordability, and acceptability dimensions associated with healthcare access. This literature review aims to review the published articles related to the accessibility of healthcare services and analyze the factors influencing accessibility in healthcare services. It was found that various socio-economic factors, behavioral factors, and spatial setup affect the customer's perception regarding accessibility of healthcare services. There is a scope for further research on factors affecting accessibility and its relationship with customer perception using specific geographic healthcare setup.

Keywords - Healthcare services, accessibility, affordability, adequacy

I. INTRODUCTION

Access is a measure of the "fit" between the characteristics of providers and health services and the characteristics and expectations of clients. The access concept includes five reasonably distinct dimensions: availability, accessibility, accommodation, affordability, and acceptability. "Perceived accessibility" seems to be based merely on basic physical access, without consideration of the real needs and issues of persons with mobility deficiencies. Perceived and actual accessibility carries a difference and it changes according to the demography, culture, population, and service provider. In India, inequalities are observed in socioeconomic status, geography, and gender, and the effect is compounded by high out-of-pocket expenditure burden which hinders the efforts of equal access to healthcare services.

The key operating principles for a sustainable healthcare system are accessibility, affordability, acceptability, and awareness. Access is influenced by nearby distance, neighborhood capacity building, learning by exploring, adaptable authoritative structure, dynamic initiative, innovation coordination, and adaptability. To understand various dependent factors related to the accessibility of healthcare services and to understand the areas of further investigation related to scope suggested by various researchers on accessibility literature is reviewed using secondary data sources and results suggest that there is a need to probe into various factors affecting access to healthcare services which changes according to the socio-economic background of the users, healthcare mechanism established by the local administrators, financing and affordability factors, physical infrastructure set up, availability and adequacy of healthcare service providers and many more factors which contribute and constitute "Healthcare Access" concept as a whole.

II. OBJECTIVES OF THE STUDY

Study is based on following objectives.

1. To search and analyze research articles related to keywords
2. To review concept of access mentioned in the literary works
3. To find out factors affecting accessibility of healthcare services
4. To analyze relationship of access to service quality, customer satisfaction, and perception
5. To interpret the findings from the review in the form of discussion
6. To find out scope for further research

III. RESEARCH TYPE & SAMPLING

This research work is non-empirical and traditional in nature, wherein electronic databases and print databases were used for searching the literary work. Time frame of the work reviewed ranges between 1974 to 2016. Around 70 scholarly articles were shortlisted which were found relevant to the topic of the research paper and after careful analysis 21 articles are mentioned in the discussion of this research paper.

IV. METHODOLOGY

A traditional review of the research articles, journal proceedings, and books was carried out using the keywords accessibility, affordability, adequacy, and healthcare services. Literature across the globe was searched using electronic databases like Google Scholar, Wiley online library, and PubMed. Print media literature in terms of research journals, periodicals were also considered for the investigation.

Research articles under review were analyzed and interpreted to find out the conceptual base of accessibility in healthcare services and factors affecting accessibility are also identified. The relationship of accessibility with customer perception and customer satisfaction is analyzed to get an understanding of the best fit between service offerings and customer's response to healthcare mechanism. Literature review analysis is presented in chronological sequencing and discussion section findings from the analysis are presented along with the research gap identified on the topic of review.

V. OBJECTIVE WISE ANALYSIS OF THE LITERATURE

Firstly it is necessary to understand the importance of a literature review as a method of analysis in research. A powerful survey makes a firm establishment for propelling information and encourages hypothesis improvement, closes territories where plenty of examination exists, and reveals regions where exploration is required (Webster & Watson, 2002). An exhaustive and modern literature survey is the establishment and motivation for a generous helpful exploration of the body of knowledge (Boote & Beile, 2005). The literature review is a method for exhibiting a writer's information about a specific field of study, including jargon, speculations, key factors and phenomena, and its strategies and history (Randolph, 2009).

Accessibility of healthcare services has been an area of investigation for many researchers and various studies are carried out with various purposes like establishing a formal definition of the concept, designing a framework of factors affecting the concept, finding out new variables which might affect the accessibility but are not yet considered, understanding the effect of socio-economic, geographic, political, educational disparities on access to healthcare and so on. In this review broad area like the conceptual definition of access, factors affecting access, the relationship of access to customer satisfaction, and perception are discussed with a chronological sequence.

5.1 Concept of Access

The framework introduced by (Aday & Andersen, 1974) suggests the value of considering the economic and organizational aspects together, in any efforts to evaluate the success of existing health policy or to predict the potential effectiveness of any proposed mechanisms for improving access to and increasing satisfaction with the health delivery system.

The concept of access is associated with health policy and is referred to extensively in studies of health services utilization and satisfaction. Access is most often seen as an idea that in one way or another identifies with shoppers' capacity or readiness to go into the medical services framework. The requirement for such awareness gets from the repeated perception that passage into (or utilization of) the medical services framework can't be completely clarified by investigating the health condition of customers or even their overall doubts with medical services. Access is viewed as the general concept which summarizes a set of more specific areas of fit between the patient and the health care system (Penchansky & Thomas, 1981). Facilitating access is concerned with helping people to command appropriate health care resources to preserve or improve their health. (Gulliford, et al., 2001). Patients' perceptions of how and in what conditions they have had impacts on their evaluation of the overall quality of care, responsiveness of the health facilities, and satisfaction with services. To provide improved access to healthcare and medicines and to reduce the financial burden of health care expenditures on households, policymakers should improve the affordable provision of quality healthcare, increase health insurance spread, and expand medicines benefit policies in health insurance systems. Protecting households from a high burden of health care costs are associated with better access. Improvement in healthcare access is the prime goal of many governments and political party's because it is one of the important parameters in measurement of success of healthcare policy (Wagner, Graves, Reiss, LeCates, Zhang, & Degnan, 2011).

Governments strive to improve the health of the people by adopting effective strategies that will enable equal access to healthcare through the policy framework. Access to medical services has been customarily estimated by utilizing population-level boundaries, for example, accessibility, dispersion, and distance of the healthcare offices corresponding to the population. Nonetheless, customer-based factors, for example, their desires; encounters, and discernments that sway their assessments of medical care access are not very much contemplated and coordinated into healthcare strategy structures and execution programs. Healthcare access is the magnitude the health system matches, hinders, or initiates the willingness and ability of individuals to enter to, to receive, and benefit from the outcomes of, and to get satisfaction from the services. It is the process of knowing about, seeking, entering, passing through, getting satisfaction from the care, and benefiting from the outcomes of health service, and it is not merely having a consultation with the doctors and/or getting treatments. How clients perceive these processes has been termed as 'perceived access'. Perceived access to healthcare services is correlated with perceived quality of care, health system responsiveness, perceived financial fairness, transportation convenience, and satisfaction with and it affects the healthcare performance (Yakob & Ncama, 2016).

5.2 Factors affecting access

Various authors have analyzed and presented their findings in terms of frameworks, theoretical concepts, and guidelines towards factors affecting access to healthcare services. Accessibility of healthcare services can be analyzed on two aspects namely socio organizational context and geographical aspect (Donabedian, 1973). Socio organizational aspects are those factors other than geographical factors that either facilitate or hinder the customers' effort of obtaining healthcare. Notable socio organizational factors can be the gender of the service provider, his expertise and fees charged, and the like. Geographic accessibility, on the other hand, refers to a function of the time and physical distance mandatory to be traveled to get the treatment. Consequently, it very well may be contended that openness is something other than the simple presence or accessibility of assets at some random time. Yet, in considering the variables that impact the usage of healthcare administrations, even the qualities of administrations and assets are insufficient to represent section or non-entry to the healthcare framework. (Aday & Andersen, 1974) Proposed a framework to study access wherein they state that "Improvement in access" should be the goal of every health policy. The health delivery system is characterized by its resource volume and distribution capability and perceived versus actual utilization of healthcare services. Only gaining entry into the healthcare framework is not a sufficient indicator of access but the opportunity of utilization for the needy and their entry is more important.

Analyzing the causal model of dimensions of health service provision in two provider system proposed by (Shortell, Richardson, LoGerfo, Diehr, & Weaver, 1977) makes it evident that, the relationship between access to healthcare and healthcare usage, quality, continuity, and satisfaction of customers with the services received needs to be tested in order achieve better impact on healthcare policy formulation. According to (Penchansky & Thomas, 1981) specific dimensions of access are availability, accessibility, accommodation, affordability, and acceptability. *Availability* refers to the match between quantity and type of existing services (and resources) to the clients' required quantity and types of needs. It can be treated as the adequacy of the supply of physicians, dentists, and other healthcare service providers; of facilities such as clinics and hospitals; and specialized programs and services such as psychological health and emergency care. *Accessibility* is the fitment between the location of supply and the location of clients, taking account of client transportation resources and travel time, distance, and cost. *Accommodation* is the match between service providers' organization of healthcare resources to accept clients like appointment systems, hours of operation, walk-in facilities, telephone appointment and support system, and the customers' ability to get accommodated to these factors and the customers' perception of their aptness. *Affordability* can be stated as the relationship of prices of services and providers' insurance or deposit requirements to the clients' income, ability to pay, and existing health insurance. Customer perception of value relative to total fee is a concern here, as our customers' knowledge of prices, total cost, and possible credit arrangements. *Acceptability* is the relationship between the opinion of customers' about individual and performance physiognomies of service providers to the real characteristics of existing providers, as well as to provider opinion about acceptable personal characteristics of clients. Access is dependent upon to a large degree by race/ethnicity, sexual orientation, gender, drug use, and primary language (Takahashi

& Rodriguez, 2002). According to (Hu, Dong, Zhao, & Li, 2013) the spatial access approaches rely heavily on objective measurements, such as the coverage and distribution of healthcare facilities and the utilization of services which mainly describe the population-level access to care essential to addressing the availability of health facilities and reach; however special health distribution reforms need to be taken for the equal spatial distribution of the healthcare services for effective implementation of policies. The burden of stigma and discrimination, depression and usage of alcoholic substances are found to be factors that impact the customers' accessibility perception (Negash & Ehlers, 2013).

Accessibility of healthcare services are often measured in terms of population-level parameters like availability, adequacy, and distance traveled however customer based factors such as their expectations, experiences, and perceptions which impact their evaluations of health care access also need to be analyzed and incorporated into health policy frameworks and implementation programs (Yakob & Ncama, 2016). Health characteristics of the customer like co-infection with the disease; years lived with the disease, mental depression has shown a significant relationship with satisfaction of care. Perceived access is found to have a relationship with perceived financial fairness. Customers weigh the worthiness of access in respect of its totality such as quality, responsiveness, satisfaction with care, and transportation convenience rather than merely the amount of out of pocket expenses incurred for the services. (Yakob & Ncama, 2016).

5.3 Relationship of access to service quality, customer satisfaction, and perception.

Seven attributes of healthcare quality described by (Donabedian, 1973) are efficacy, effectiveness, efficiency, optimality, acceptability, legitimacy, and equity. Most of these attributes are found to be variables affecting service quality (Penchansky & Thomas, 1981). Describing perceived service quality (Parasuraman, Zeithaml, & Berry, 1985) mentions access as a determinant of service quality and explains a gap between expected service and perceived service is termed as perceived service quality. Perceived service quality in turn has a relationship with customer satisfaction about care. Perceived quality is the evaluation process, where the consumer compares his/her expectations with his/her service perceptions (Grönroos, 1986). Some studies on patient perception conducted in developing countries show that customers can assess and evaluate service structure, process, and outcome (Andaleeb, 2000). Perception of accessibility as reported by clinic managers versus actual accessibility in healthcare clinics were measured by (Sanchez, Byfield, Brown, LaFavor, Murphy, & Laud, 2000) Sanchez in concluding remarks mentioned that a significant difference in perceived accessibility and actual accessibility was observed. Perceived service quality of healthcare services depends on health professional practice and conduct, adequacy of resources and service, health care delivery, financial and physical accessibility of care (Baltusen, YE, & Sauerborn, 2002). According to (Aagja & Garg, 2010) service quality is the inconsistency between customer perceptions and their expectations about hospitals offering such services. It is stated by (Eleuch, 2011) that health service quality perception is a verdict about the service performed for a patient was the most suitable to produce the best result that could be rationally expected by the patient.

There is a consensus that patient satisfaction in services is important for quality assurance in medical services and hospitals yet, there is a scarcity of empirical information on consumer's acceptance of healthcare practices. Customer satisfaction is explained by (Divis & Heineke, 1998) in-service organizations using the approach $\text{Satisfaction} = f(\text{Perception} - \text{Expectation})$ and when it comes to difficulties in measuring the expectations alternative approach proposes satisfaction as a function of perception only. Access to healthcare mechanisms is thus closely related to the concepts of customer perception, customer satisfaction, and ultimately service quality.

VI. DISCUSSION

After analyzing various works of literature available on the topic it can be concluded that various attempts were made to define "access to healthcare" and observed that it is a function of various factors like availability, acceptability, adequacy, affordability, accommodation, and so on. Factors affecting access to healthcare services are basically socio organizational, spatial, and behavioral (expectations, experiences, and perceptions) in nature. Customer satisfaction is a function of service quality and service quality is dependent upon customers' expectations and perceptions related to various accessibility factors. One of the major factors affecting accessibility is volume and type of resources made available for providing healthcare services which is concerned with physical infrastructure, trained manpower, machinery and supplies, information mechanism related to healthcare services. Accessibility is observed to have relationship with location of service provider and distance traveled by customer to get the treatment. Travel time, transportation facilities available, cost incurred for travel and distance covered has relationship with the overall accessibility perception of the customers. Accessibility is closely associated to the accommodation methods designed by the healthcare system like appointment system, operating hours of hospitals or clinics, telephonic consultation, walk in facilities to name a few. Affordability, of the healthcare service is one of the prime factors in defining access. Affordability is the relationship of costs associated with healthcare services like doctor's fees, consultation charges, insurance or deposit requirements to the clients' income, paying capacity, and existing health insurance. Customer perception of value relative to total cost is a deciding factor here, as is knowledge of prices, total cost and possible out of pocket expenses. Service provider accepting the characteristics of customers and vice versa is a deciding factor in perceived accessibility of the healthcare mechanism. Acceptability factor depends on following sub factors like patient attitudes toward doctors, nurses, support staff and their personal characteristics as well as toward other structures of the provider's practice. Analysis of accessibility factors and redesigning of healthcare framework according to findings helps in designing healthcare policies in a better manner and improves customer satisfaction.

VII. CONCLUSION

It is observed that customers' perceptions about access to the healthcare system vary according to their socio-economic factors, behavioral factors, and spatial setup. Various researchers have attempted to analyze the accessibility of healthcare set up according to contemporary variables. Factors affecting accessibility has a close relationship with the customer satisfaction which derives the overall success of healthcare policy of country or community. It is therefore necessary to carry out periodical research activity to investigate customer perception mapping surveys to analyze the perceived accessibility of customers and redesign/modify the healthcare policy and its implementation strategies. Comparative analysis of healthcare mechanisms like public domain services and private domain services can also be made in order to set up policy guidelines and strategies to improve perceived accessibility and in turn access to healthcare services.

VIII. FUTURE SCOPE OF THE STUDY (RESEARCH GAP)

Further study is possible in analyzing the accessibility using the spatial set up along with the socio-economic factors and behavioral factors in a particular geographical setting. Administrative and institutional factors like local government bodies, healthcare structure in the region, financing mechanism, customers' learning's can be further considered to reestablish the findings from the literature review. Comparative study of public sector services and private sector services can also be carried out on accessibility factors.

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An Analytical Study on Customers' Perceptions about Service Quality Dimensions of Private Hospitals in Nashik City

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Abstract: In today's dynamic environment every service organization is focusing on service quality gap analysis and achieving customer satisfaction through improving the service quality. This research paper thus focuses on analyzing the customers' perceptions of service quality dimensions about Private Hospitals using SERVQUAL model. The analysis is based on the service quality gaps identified by subtracting the expectations scores from perceptions of actually received services' scores.

Outcomes of the study show that overall private hospitals in Nashik city are not able to fulfill the customers' expectations through its service performance hence, perceived service quality is poor. Major dimensions affecting the service quality are found to be reliability and responsiveness while the tangibility factor is least affecting the service quality of private hospitals. To achieve customer satisfaction private hospitals in Nashik need to deliver its services more reliably and responsively.

Keywords: - Service Quality, Perception, SERVQUAL, Access, Private Hospitals

I. INTRODUCTION

Services are different from the product due to their characteristics like intangibility, inseparability, inconsistency and perishable nature. This makes it more difficult to deliver good quality service every time the consumer undergoes service encounter. Service quality is intangible and difficult to measure, so service quality depends on customer perceptions and expectations. Quality is considered as a vital factor during utilization or purchasing of a service or product and it has been well-thought-out as a tactical advantage for organizations to gain and maintain accomplishment in the business world (Irfan & Ijaz, 2011). The analysis of service quality is a necessity for success in today's world. Service quality is considered to be most important factor in achieving sustainable competitive advantage in business and in turn improved customer satisfaction, customer retention, and profitability. It has been concluded by many researchers, that service quality is an indicator of customer loyalty. Service quality analysis helps in attracting new customers, spreading positive word-of-mouth improves employee satisfaction level and commitment, enhances corporate image, and reduces costs and boost organization's overall performance (Berry et al., 1989). Achieving edge in service quality brings sustainable competitive advantages to the organization (Gounaris, et al., 2003)

Healthcare sector is an integral part of the service industry and plays a vital role in the country's overall growth. Various trends are coming in this sector which is making it more difficult for the healthcare institutes to cope up with the competition. This study, therefore, is an attempt to analyze customers' perceptions towards the service quality of Private Hospitals located in Nashik Municipal Corporation area. SERVQUAL model is the tool utilized to analyze the service quality gap between customers' expectations and perceptions based on the dimensions of service quality namely tangibles, reliability, responsiveness, assurance and empathy.

II. Literature Review:-

Service quality - According to Grönroos (2001), service quality is the difference between customer expectations and perceptions as it is being received by the customer (Parasuraman et al., 1988). Service quality analysis has undergone addition of various contributions from management thinkers and researchers. According to Parasuraman et al. (1985), service dimensions were consolidated into five dimensions of service quality namely Tangibles, Reliability, Responsiveness, Assurance and Empathy. These dimensions are described as follows:

- (1) Tangibles – physical amenities, apparatus, the presence of personnel and communication materials.
- (2) Reliability – the ability of the service worker to perform the undertaken service responsibly and accurately.
- (3) Responsiveness – the readiness of employees to help and provide rapid service to customers.
- (4) Assurance – the understanding, politeness and capability of employees and their ability to instigate trust and assurance in the customer towards the service provider.
- (5) Empathy – the compassionate, customized and tailored attention provided to customers.

SERVQUAL model is used in various service sectors like banking, healthcare, education etc. to measure the service gap and these studies have been referred as guidelines by the researcher for implementing the model in this study.

Grönroos, (1982); Parasuraman et al., (1985) have proposed that customer's perception of service quality is based on the comparison of their expectations (what they feel service providers should offer) with their perceptions of the performance of the service provider. Parasuraman et al., (1988, p.17) point out that expectation is viewed otherwise in both satisfaction literature and service quality literature. In satisfaction works, expectations are considered as 'predictions' by customers about what will happen during a service encounter while in service quality literature, they are viewed as desires or wants of consumers, that is, what they expect service provider to provide not what he provides. For this study, the researcher has considered expectations as desires or wants of customers. It is important to understand and measure customer's expectations to identify any gaps in delivering services with quality that could ensure satisfaction, Negi, (2009). Perceptions of customers are based only on what they receive from the service transaction (Douglas & Connor, 2003). Parasuraman et al., (1985) identified some important determinants used in

assessing service quality; reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding the customer, and tangibles. Most of these determinants of service quality necessitate the consumer to have some experience to evaluate their level of service quality.

III. OBJECTIVES OF THE STUDY

Study is based on following objectives.

- 1) To analyze customer perceptions about the service quality of private hospitals in Nashik Municipal Corporation area.
- 2) To determine the service quality gap using SERVQUAL gap analysis model
- 3) To identify the area of improvement in service quality dimensions

IV. METHODOLOGY

A cross-sectional study was conducted from January 2018 to March 2018 in 6 ward committees of Nashik Municipal Corporation area of Nashik city.

Research instrument: - A self-administered questionnaire was utilized as a research instrument. The questionnaire was divided into 3 parts; the first part contains questions relating to the expectations of the customer from a private hospital, the second part consists of the questions related to perceptions of customers about the various service dimensions and the third part contains questions related to demographic characteristics of these respondents. SERVQUAL questionnaire was used to assess the patients' expectations and perceptions of service quality that included 21 items across 5 dimensions: tangibles (4 items), reliability (4 items), responsiveness (4 items), assurance (4 items) and empathy (5 items). A 7-point Likert-type scale was used, ranging from strongly disagree (1) to strongly agree (7) to access the level of expectations and perceptions of service quality.

Sample design and data collection: - Questionnaire was administered to collect primary data from citizens of Nashik. Samples were selected using a stratified sample selection method and within the strata, convenience sampling was used. 12 samples from Nashik East, 6 samples from Nashik West, 14 samples from Panchvati, 13 from Nashikroad, 9 from Satpur and 16 samples from New Nashik were drawn for data collection.

Table No 1. Ward Committee Wise Profile of Respondents

Sr. No	Answer	Count	Per cent
1.	Nashik East	12	17.14%
2.	Nashik West	6	8.57%
3.	Panchvati	14	20.00%
4.	Nashikroad	13	18.57%
5.	Satpur	9	12.86%
6.	New Nashik	16	22.86%
	Total	70	100%

Table No 2. Gender Wise Distribution of Respondents

Sr. No	Answer	Count	Per cent
1.	Male	38	54.29%
2.	Female	32	45.71%
	Total	70	100%

V. RESULTS

MS excel software and Questionpro Enterprise portal were used to analyze data. Calculation of service quality is done using the formula Service quality (SQ) = Perception (P) – Expectation (E). Table 3 to 7 represents the observed values of mean scores regarding perceptions and expectations of the respondents for private hospitals on the five service quality dimensions.

5.1 Tangibles

Expectations: Table 3 displays the mean expectation scores for proposed 4 items representing the tangibles dimension for "Private Hospitals" and it were ranging from the highest 6.58 for — Private Hospital should have state of the art infrastructure to the lowest 5.63 for —Physical facilities like a consultation room, admission room, washrooms machinery are visually appealing.

Perceptions: - the mean perception scores for Private Hospitals were above 6.06 –ranging from the highest 6.52 for — State of the art infrastructure to the lowest 5.76 for — Modern looking equipment.

Table No 3. Mean expectation (E), perception (P), and gap scores for Tangibility dimension

Dimension - Tangibility	Mean Values		Gap Score
	P	E	P-E
State of the art infrastructure.	6.52	6.58	-0.06
Visually appealing physical facilities	5.84	5.63	0.21
Clean physical environment	6.10	6.54	-0.44
Modern looking equipment	5.76	5.96	-0.20
Tangibility Overall	6.06	6.18	-0.12

Gap scores: 3 mean gap score values are negative meaning that expectations are not fulfilled by the perceived service of private hospitals. The overall gap score for Tangibility dimension is found to be -0.12 suggesting poor perceived service qualities. Highest gap score is observed to be -0.44 in - *Clean physical environment* – while a positive score is observed in - *Visually appealing physical facilities*.

5.2 Reliability

Expectations: Table 4 shows the mean expectation scores for all 4 items representing the “Reliability” dimension for ‘Private Hospitals’ was 6.20 –ranging from the highest 6.43 for — *Sincere interest in solving patients problems* - to the lowest 6.01 for — *Keeping records accurately*.

Perceptions: - the mean perception scores for Private Hospitals were above 5.79 –ranging from the highest 5.97 for — *keeping records accurately* to the lowest 5.57 for — *Service delivery at the promised time*

Table No 4. Mean expectation (E), perception (P), and gap scores for Reliability dimension

Dimension - Reliability	Mean Values		Gap Score
	P	E	P-E
Sincere interest in solving patient’s problems	5.85	6.43	-0.58
Service delivery at the promised time	5.57	6.11	-0.54
Performing the service right the first time.	5.75	6.26	-0.51
Keeping records accurately	5.97	6.01	-0.04
Reliability Overall	5.79	6.20	-0.42

Gap scores: All 4 mean gap score values are negative meaning that overall private hospitals are performing poorly in terms of reliability dimension of service quality. The overall gap score for ‘Reliability’ dimension is found to be -0.42 suggesting poor perceived service qualities. Highest gap score is observed to be -0.58 in - *Sincere interest in solving patients’ problems* – while the minimum negative score is observed in- *Keeping records accurately*.

5.3 Responsiveness:-

Expectations: Table 5 shows the mean expectation scores for all 4 items representing ‘Responsiveness’ dimension for ‘Private Hospitals’ was 6.24 –ranging from the highest 6.39 for — *Willingness of staff to always help patients* - to the lowest 6.09 for — *Staff’s business to give time to patients*.

Perceptions: - the mean perception scores for private hospitals were above 5.83 –ranging from the highest 5.91 for — *making information easily obtainable for the patients* to the lowest 5.65 for — *Promptness of service given by staff to patients*.

Table No 5. Mean expectation (E), perception (P), and gap scores for Responsiveness dimension

Dimension - Responsiveness	Mean Values		Gap Score
	P	E	P-E
Making information easily obtainable for the patients	5.91	6.35	-0.44
Promptness of service given by staff to patients	5.65	6.14	-0.49
The willingness of staff to always help patients	5.86	6.39	-0.53
Staff’s business to give time to patients	5.88	6.09	-0.21
Responsiveness overall	5.83	6.24	-0.42

Gap scores: All 4 mean gap score values are found to be negative indicating a gap in perceived service quality and expectation. The overall gaps score for ‘Responsiveness’ dimension is found to be -0.42 suggesting poor perceived service qualities. Highest gap score is observed to be -0.53 in - *Willingness of staff to always help patients* – while the minimum negative score is observed as -0.21 in- *Staff’s business to give time to patients*.

Table No 8. Mean expectation (E), perception (P), and gap scores for 'Overall Service Quality'

Dimension - Empathy	Mean Values		Gap Score
	P	E	P-E
Tangibility	6.06	6.18	-0.12
Reliability	5.79	6.20	-0.41
Responsiveness	5.83	6.24	-0.41
Assurance	5.93	6.16	-0.23
Empathy	5.78	6.09	-0.31
Overall service quality	5.88	6.17	-0.30

Gap Scores: - Overall service quality gap score is observed to be -0.30 which denotes relatively poor performance against expectations. The overall service quality gap was narrow in 'Tangibility' dimension while the gap value was highest for 'Reliability' and 'Responsiveness'

VI. CONCLUSIONS AND DISCUSSION

The service quality dimensions measured through this study suggest that hospitals need to work on reliability and responsiveness dimensions of service quality to achieve customer satisfaction and customer loyalty. The recommendation status of the respondents suggests that there are still more than 30% of the patients who have never recommended these hospitals to others. These customers can prove that there is scope for improvement in service quality especially in areas where gap scores are observed to be highest. Mainly on 'Reliability' and 'Responsiveness' dimensions private hospital need to focus so that overall service quality gap score can be improved which will, in turn, improve service quality and customer satisfaction.

In terms of 'Tangibility' dimension, the overall service gap is less as compared to the mean value of overall service quality which can be interpreted as acceptable but has scope for the improvement. Tangibility dimension has minimum gap score in overall service quality dimensions and only positive score in terms of 'visually appealing facilities' on tangibility parameters, predicting institutes efforts on good infrastructure and facilities like classrooms, labs, computers etc.

'Reliability' and 'Responsiveness' are the two dimensions which have shown the highest gap scores value (-0.42) in terms of overall service quality. Observations related to 'Sincere interest in solving patients problems' and 'Willingness of staff to always help patients' is having the highest gap scores in 'Reliability' and 'Responsiveness' dimensions respectively. This implies that hospitals need to focus on devoting more time to solve patient's problems and should insist staff to put more sincere efforts in instilling the feeling of reliability and responsiveness in their service.

Overall this study has helped in understanding the service quality gaps in various service dimensions using the SERVQUAL model.

VII. LIMITATIONS AND FURTHER RESEARCH IMPLICATIONS

This study has focused on 'perceptions' of the patients about the services received from private hospitals from Nashik NMC area. 5 service quality dimensions are used to analyze the gap scores; further research can be done using more appropriate dimensions of service quality or maybe using more suitable methods/tools of service quality analysis. Here SERVQUAL was assumed to be the best suitable tool for the study which gives the scope of investing the usability of SERVQUAL as a tool to analyze service quality.

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The Effective Use of ICT for Distance Learning Process

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Abstract

Open and distance learning is getting more dependent on information and communication technology (ICT) and has been playing an important role in the delivery strategies of distance learning. With the advancement in technology in the field education has introduces variety of new techniques for educators and learners to enhance knowledge. Educational technologies (information and communication technology) are replacing direct teacher-student interaction. Anything that helps distance learners to communicate: learner with instructor, learner with learner and learner with the learning materials may be term as information technology. Technological advancements especially in the area of ICT allow teachers to employ various strategies that could actively engage student's interest. ICTs have impacted on educational practice in education to date in quite small ways but that the impact will grow considerably in years to come and that ICT will become a strong agent for change among many educational practices. The paper emphasizes the issues and challenges on the computing & network infrastructure, portability with respect to hardware & software and various learner support services. The paper also presents on use of technology in open distance learning system.

Keywords: Open and distance education (ODL), ICT, Teaching-Learning, Effective.

Introduction:

Open and distance learning (ODL) programs are making a significant influence to higher education. ODL may be defined as an approach that aims to broaden access to education and training by enabling learners to overcome temporal obstacles and by providing flexible teaching modes that can be adapted for individuals and groups. ODL offers enormous potential in education. Consequently, ODL is frequently viewed as an effective alternative for delivering higher education. This type of system allows accommodating more students at lower cost than face-to-face instruction. In addition, the flexibility of ODL allows serving a diversified client, from first-year students to working professionals. Accordingly, ODL could effectively contribute to develop a qualified work force.

The concept of distance education was introduced near about 1960 in India for making the changes in the education system for those who are not directly able to study at outstation. It has opened the door to provide wider opportunities for the students to undertake higher education. The distance education is very helpful for the student and the people who cannot involve in regular courses. The distance education system not only reduced the initial fear of students but also opened various dimensions of correspondences in education field. It has been noticed that around 30 percent students takes admissions in distance education every year in different field. The distance education institution may be the best option for increasing the literacy rate in education.

Objectives of the study:

1. To study the concept of Information and Communication Technology (ICT).
2. To study the use of ICT at distance learning education.
3. To study the challenges and benefits of Information and Communication Technology (ICT) in higher Education.

Methodology of the study:

The study is based on secondary data. Data was collected from various sources like website, research papers and books.



Discussion

There are various activities performed at higher education with the help of ICT tools. The ICT can be used for enrolment of students in any course of distance education in the University or educational institutes. In the distance education system, the ICT can be used for making better management of records by the preparation of complete database of all the students for various courses. A number of ICT tools are available that can be used at higher education level like Computer, LCD, Smart Board, Projector, mobile for communication etc. These systems provide various facilities like Software and Hardware use, Short Message Service (SMS), Interactive display, online tutorials and many more. Mobile phone is one of the major ICT tool and can be used for different purposes. The information like Exam dates can easily be sent to the student through SMS by Institutes concerned. Even more the enrolled students can be provided username and password for using various online services and resources in the form of academic repositories. The instructional material may be uploaded at the Institutional web portal and CDs of lectures can be provided to the students in place of printed paper or hard copy of educational material. Online fees payment is also possible on the portal of concerned Institute. The use of ICT can be helpful to sort out the problem of the delay in declaration of results of different exams by the institutes. The advantages of using ICT tools include saving of lot of paper work and help the environment by making it pollution free. This system can also bring the transparency in the whole system functioning.

The ICT can be helpful in quality education and distance learning for higher education by implementing it in various phases of education. It can be employed in formal and Non-formal types of education and may be socially useful part of the society. By employing ICT for the teachers training can save a lot of money of the institution and university. Good quality content is one of the major issues in distance learning which can directly affects the standards of education and quality. By the use of ICT effectively, a lot of quality improvement can be done after careful and planned implementation of ICT in education.

The use of ICT in distance education actually depends on at least five factors. These are:

- ✦ Geographical size and situation: Large countries with dispersed people and communities have an additional drive or motivation to use communications to deliver educational services cost-effectively.
- ✦ Policy on telecommunications: The Internet, IT and Education, Privatisation and Liberalisation of telecommunications and the Internet are improving quality, lowering costs and accelerating innovation around the world. Education policy is often the key to raising awareness and providing leadership in educational use of ICTs.
- ✦ Population and market size: Small markets attract fewer investors and less competition, and offer fewer economies of scale which would lead to price reduction, while regional schemes can overcome that, aggregate market size and achieve scale economies.
- ✦ Per capita means: To address start-up investment challenges and the market affordability to attract commercial players to ease the way to change and growth.
- ✦ Perceived educational or developmental needs: These can relate to educational delivery challenges due to geographic or cultural isolation, or appreciation for the more systematic challenges – such as adapting to the demands of the information economy which can only be seriously addressed with ICTs.

The Challenges of ICT:

1. **Infrastructure Setup & Usage:** ICT's playing a prime role in supporting various services in open distance learning in large scale and at same time there are many issues and challenges in setup and usage of ICT infrastructure.



- 2: **Application/service compatibility** :with respect to the computer hardware and software: Technology is changing very regularly, but it is difficult every time to develop application software for various services using such technology. New technology has always flexible features that are needed in ODL system to meet the demands of the learners in large scale, but it is a challenging task to choose ideal hardware and software that have compatibility with existing application software.
- 3: **Scalability issues:** ODL is a more flexible education system than any other conventional education system. Due to this, the student enrollment is very high and at same time expectations from learners also high. As learners are more in scale and remote to the institution, most of the activities being performed remotely through the online services that are provided by the institution. Since, the learners and their usage is increasing progressively, time to time ,it is a challenging issue to maintain always scalable resources in terms of memory space, handle number of users and their transactions. This issue can be addressed by anticipating the scalable load at network level, system level, application/service level and data storage level at least for a period of 5 to 7 years and place an adequate computing, storage and network infrastructure.
4. **Ensure data compatibility:** As database technology is changing time to time, ensuring data compatibility with changing database technology is a challenging task. If the old data is not compatible with new database technology, it is very difficult to use and access data through various services/applications. Data compatibility problem can be achieved by encouraging data migration process in various stages time to time so that the data is always compatible to new database technology to use and access it all the times.
- 5: **Dynamic allocation** of Internet bandwidth: Dynamic allocation of internet bandwidth to a specific service is a challenging issue. The accessibility of a service shall be ensured only with the availability of internet bandwidth as it is one of the prime parameters. As allocation of internet bandwidth to a specific service is directly proportional to the amount of usage of that service, there is a need of dynamically allocation of bandwidth time to time to that service. The problem can be achieved by introducing bandwidth management and load balancing system to ensure availability of a service. As online services are essential in ODL, it is ideal to have more than one ISP so that the availability of a service can be ensured always.
- 6: **Policy updates:** Due to flexibility in open distance learning system, there will be frequent changes in admission criteria, evaluation criteria and even in learning procedure and policies to be adopted accordingly. As there is a frequent change in policies, it is a difficult task to update the policies every time, but if policy updation has not been done in time, it leads to many other operational problems. This issue can be addressed by introducing dynamic policy updation and enforcement approach in open distance learning system.
- 7: **Dedicated network connectivity:** among various operational nodes In open distance learning system, learners are remote to the institution in many ways and getting services through one of its operational nodes (the headquarters, regional and study centres in case of IGNOU). It is a difficult to have proper network connectivity among various operational nodes to provide/access services due to non-availability of technical manpower. This problem can be achieved by establishing dedicated network connectivity among various operational nodes in form of intranet by using MPLS/VPN technology.
- 8: **Support services:** In open distance learning system, learners are remote to the institution many ways and require various online support services to perform their activities. Since ODL is a flexible system, the operational policies need to be changed frequently and is difficult to provide updated support services in time due to laps at various levels in the system.



Conclusion:

The study can be helpful to check the teacher's interest and knowledge in different field of technology. The results of this study also show that the teachers can use ICT effectively for teaching in distance mode. If the knowledge of technology and training of the software tool is given to the teacher for teaching purposes, the result would definitely be better. It is true that ICT is playing a vital role in open distance learning but at same time there are many issues and challenges that are to be addressed for smooth functioning of various online services that are to be implemented for its learners and other public. In this paper, the required ICT infrastructure and various issues and challenges in usage and setting up of ICT infrastructure in open distance learning are addressed. The institution that is providing education in ODL mode should look at all the addressed issues and challenges and take necessary precautions with a proper action plan along with timeframe.

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11. Innovative HR Practices

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Abstract

Innovation is very crucial from the view point of businesses with the intention to be present in the market. Without innovation and creativity, companies would not develop further and could not succeed within the globalized world. People are the centre point for creativity and innovation. Employees need to have the possibility to be creative because without creative minds no new ideas are generated and therefore no innovation takes place. There is a courting between creativity and innovation and it impacts on employee motivation which results to company's innovation. It's essential to have creative manpower within the company hence creativity and innovation are related to one another. The aim is to study the different HRM practices that help to cultivate creativity which leads to develop innovation processes.

Keywords: innovation, organizational behaviour, creativity, employee motivation, incentives

Introduction

Innovation is a word which has gained more importance in recent globalized world. When thinking about the meaning of innovation, the words novelty, change and new ideas can be associated with the term. Innovation is one the tools that entrepreneurs used to exploit changes to achieve opportunity. Innovation is necessary to develop and stay competitive. Innovation has distinctive sides together with technical, organizational, institutional or social innovation. There are many organizational factors which influence creativity and innovation but four have major consequences: leadership behavior, measurement systems, organizational structures and organizational cultures. Employees are an important resource for innovation but under which circumstances innovation can be created? It is necessary that the people have the available resources to be creative and innovative. Incentive for employees acts as a motivation in the course of work to attain the desired goals. If motivated by the reward system it leads to innovativeness in the company.

Companies can help nurture creativity by applying innovation processes providing the mental space for new ideas to take root. Therefore it is crucial that the company requires an open culture meaning to share extensively its knowledge with the entire enterprise. For continuous improvement there is need to measure the progress. The individual and the organizational dimension are the key factors in influencing and determining creativity. With the help of reward systems, employees stay motivated which furthermore leads to more creative minds. When employees have the possibility to be creative, they can share their new developed ideas with the entire organization which leads to innovation. For sustaining in competitiveness human resources management & Innovation plays crucial role. If we want change then improvement is not only needed but we have to look upon it differently. To get competitive advantage in the company it needs to be suitably harnessed. Analysis showed that structural flexibility and innovativeness are main drivers of future achievement. Now a day's organizations are facing dynamic changes in market situation. For the survival the companies rely on the performance and their ability to gain competitive position, adaptability and flexibility. There is growing interest in innovation as a strategy that allows the enterprise to improve its flexibility, competitive position and performance. A company will develop new products in an attempt to increase profits. . New products could be that fulfill the client wishes more effectively than other products in the market and thus will be accepted by most of the consumers.

Objective of the study

The aim is to study the different HRM practices that help to cultivate creativity which leads to develop innovation processes.

Research Methodology

The study was conducted using secondary data. It was collected from collected from books, journals and websites. This is a descriptive research.

Discussion

1. Relationship between Organisational culture, creativity and innovation

a) Creativity and innovation

Creativity and innovation though are closely interrelated to each other but there is a difference between in them. The word creativity is defined as the creation of ideas. Output is

achieved through creativity. Creativity has the capability to produce work which is both novel and appropriate.

New ideas are developed by innovative skills. The three key factors viz resources, management practices and motivation results in innovation. Innovation does not come by its own but rather is dependent on human beings taking initiatives and being creative. The combination of task motivation, creativity skills and expertise constitutes creativity which is the motor and driver of innovation. It is vital to understand that innovation has an impact on the creativity but creativity of employees is a necessary factor in order to establish innovation. The staff of an organization should aid improving business performance by creating ideas resulting for example in better products, services or work processes. Employee behavior are influenced by various factors, the two most important are reward systems and the organizational culture.

b) Organizational culture

Organizational culture is also known as corporate culture it is the values, attitudes, beliefs, and norms that are shared by human beings in the groups within the working area. Often the culture of an enterprise determines the preference for innovation. Employee conduct is fashioned by organizational lifestyle and therefore affects individual's movements.

To simulate creativity and innovation cultural values are powerful means. The reward system reflects who receives reward and for which reason. In an enterprise employee's behavior can be stimulated to acquire the favored results with the aid of reward systems.

Reward systems are not just installed in a company so that you can motivate employees but as well to control the outcomes. A reward system helps in stimulating innovation within an enterprise.

2. Motivation theories and rewards

Motivation plays a very important role when talking about the human behavior. Every person or employee has different goals and needs; therefore they can be differently motivated. Goal of a person is not only the factor that motivate but other factors such as needs, attitudes or desires also has an impact on motivation level of a person.

a) Need-based motivation theories

There is an existence of several need-based theories such as Maslow's Need hierarchy theory or Herzberg's two factor theory. In simple words needs is feeling that something is missing. Needs means imbalance or lacuna either physiological or psychological. For example

in an organization, a person is doing every day eight hours job but he is not satisfied because he has no chance to improve his work position. This is because he has the feeling that a lack of responsibility for example therefore he feels the desire of changing this status in order to satisfy his need. When considering at Maslow's motivational theory, it is observable that needs are organized in a hierarchy. This theory of Abraham Maslow is divided into five categories: psychological needs, safety needs, social needs, esteem needs and self actualization. This theory states that one need needs to be satisfied in order to reach the next category. A second need-based motivational theory is the one of Frederick Herzberg, the so called two-factor theory which is closely related to the one of Maslow. This theory states that persons have two different kinds of needs. On the one hand, they strive for survival; on the other side Herzberg said that persons are looking for personal growth.

In Herzberg theory, factors that are satisfying survival needs do not provide job satisfaction. They only prevent employees from getting dissatisfied. On the other hand factors that influence the personal growth are leading to job satisfaction. In a company when for example hygiene factors which surround the job (extra responsibility, promotion) are guaranteed, employees cannot be dissatisfied which leads to job satisfaction. According to Herzberg, companies should use the methods of job enrichment and job enlargement in an effort to encourage employees. In Job enlargement companies offer duties to make work more interesting. More complex tasks are given to employees to achieve the goals in Job enrichment

b) Economic strategies of motivation

There are number of theories that through light upon what motivate human beings at work. Money is the most essential factor that motivates personnel. In general the main incentive for people to work is gaining money. There are different possibilities on which an employee is paid: fixed salary, piece rates, commissions or fees. Furthermore there is as well the life of other extra strategies for example fringe blessings which are not made in cash in the direction of the employee but are contributions to pensions, a organization vehicle, private fitness or coverage. Performance related pay is also one which remunerates personnel in step with their performances. A overall performance associated pay machine is making differences in the ranges of success. This means when an employee is rated as excellent, he would receive a ten percent bonus.

c) **Non-economic strategies of motivation**

Pure monetary incentives may not be an effective motivator and other factors may be more important in motivating employees. For some personnel job growth or task rotation is probably an vital incentive. In job growth, the employee profits more obligation while in task rotation the obligations of an employee are changed. Another critical non-economic incentive is empowerment in which employee is diagnosed as capable of doing more than he did in the beyond ensuing in decision-making. Maybe some employees do not like to work alone and therefore prefer working in a team which gives the benefits of increased productivity due to pooled talents and shared responsibilities and risks.

3: **Innovation Inpractice**

For the survival or revival or both the situation innovative HR practices could be implemented by the corporate. But these are not exhaustive nor universally relevant. While allowing these practices for implementation, groups shall create proper environment to make sure their effectiveness. The determinants of the innovative HR Practices relies upon on certain elements such as the nature of business, size of the enterprise, the intensity of competition inside the enterprise wherein the organizations belong and many others.

4. **Ten Practices from Innovative Organizations**

To develop a culture of creativity the companies have to think differently. The Institute for Corporate Productivity published a have a look at surveying some of the agencies and those in the fields of management and innovation. They examined a number of the pleasant people management practices at corporations recognized for innovation and determined approaches that the ones corporations expand and control their human capital. 10 human capital practices that make innovation:

- i) **Use of Technology:** Collaboration drives creativity and innovation. Social media and conferencing technologies can help bring people together. Social media and conferencing technologies can assist bring humans together more often for collaboration.
- ii) **Promote Innovation:** The most innovative companies didn't just luck by hiring creative people they locate common humans into innovative cultures.
- iii) **Innovation as a Leadership Development Competency:** Building an revolutionary culture is by way of having leaders who price creativity and are innovative

themselves.

- iv) **Compensation with Innovation:** They have an effect on of incentives on creativity, however their use in agencies sends a signal that innovation is valued. And this signal is an crucial part of tradition building.
- v) **Use an "Idea-finding" Program:** Systems that faucet into the collective expertise of everybody and shall we anyone sell proper thoughts broaden them.
- vi) **Fund outside Projects:** For funding, to develop projects that are outside the company, but as per the market conditions continue to blur, Strategic innovation partnerships turn out to be even greater essential.
- vii) **Creativity Training:** Creative wondering capabilities can be grown and the maximum progressive companies fund training packages to increase them.
- viii) **Review Process:** The exceptional ideas don't come completely fashioned. There is a method from refining, developing and identifying the thoughts with the maximum marketplace ability. Creating a assessment method permits this to show up and suggests that modern ideas are valued.
- ix) **Creative Talent Recruitment:** At the undergraduate and graduate stages the struggle for expertise is slowly shifting its awareness from quantitative minds to innovative minds.
- x) **Reward Work:** Companies that are able to discover their most creative employees can growth their creative ability with the aid of presenting them autonomy. Maximum innovative Organizations which foster the ability to innovate and installation quicker and more profitably than competitors is a considered necessary for survival.

5. Innovative HR practices which could be implemented are:

- i) **Employer branding and Customer engagement:** In today's highly competitive business environment, companies are attracting, recruiting, and retaining the best brains and become an employer of preference. It is the best brains or quality workforce keeps the organization moving. In such a context, employer branding hasturned into sole proactive and long-term strategy with a clear message topromotetheorganizationAs an business enterprise of choice. Revenue comes from the existing customers. Organization should plan effectively to engage the existing customers and also the new customers. The focus should be on how to fiercely protect

customer base and spot potential customer mining with existing customers. To acquire new customers, put best sales talent for new customer acquisitions.

- ii) **Cost optimization, People investment and employee centric initiatives:** Avoid knee jerk cost cutting measures or hiring freeze which will impact adversely the productivity, salience the employees, customers and organizational brands leading to revenue loss, instead see a way through to optimize the cost. Cutting training budgets can be seen as a way to save money during downturn but this the right time for organizations to making an investment inside the capabilities and skills of its people for enhanced skills and abilities could be the top guarantee of future prosperity. Cost-effective approach of investing in developing could be followed by the organization. Not only talk about creating an employee-centric organization but need to provide a working example of how it's done. Organization provide conducive and flexible work environment so the employees need to feel that this is a great place to work. As the quality work place impacts directly on the issues of customer service and productivity, an increase in employee satisfaction results in an increase in customer satisfaction thereby leading higher profitability for the organization. Creating an informal workplace by itself is an innovative way of getting best out of employees. Cross functional orientation, recreational and help desk facilities, flexi-timings, profit-sharing, no class composition, compulsory training days, adventure sports are examples of innovative HR practices. Instead of workforce reduction or layoffs flexible work arrangements such as tele-working, telecommuting, job sharing, compressed hours, staggered hours, and annualized hours could be followed. Employees could be encouraged for skills upgrading and educational studies.
- iii) **Implementation of advanced Technology:** The introduction of amazing new technologies has increased the speed at which other organizations will copy the best practices to that extent that it is necessary to pace up innovation in business. Technology helps organizations to coordinate the complex task of HRM. HRM solutions are available in flexible, web-based modules like: workforce Performance Management Software including e-appraisal, Training & Development, Goal allocation & Tracking, Multi- Rater Feedback, Performance linked bonuses etc. some of the software support various HR functions are- Instant HR Software 2.0.94, ERP

Flex- HR 1, Human Capital Management including employee database (HRIS), employee self-services, Payroll manager, online compensation planning etc, E-recruitment and Strategic HR tools including succession planning, Manpower planning, leadership effectiveness Surveys and employee satisfaction Surveys etc.

iv) **Implementation of Green management initiatives:** Focus on Green HRM as a strategic initiative promotes sustainable business practices that involves project environment pleasant HR projects ensuing in extra efficiencies, decrease prices and higher employee engagement and retention which in flip, help groups to lessen worker carbon footprints by using the likes of digital filing, automobile- sharing, process-sharing, net or teleconferencing to reduce down on business travel, digital interviews, setting Summary Plan Descriptions (SPDs) or different organization facts on line to reduce printing, recycling, selling the discount of paper usage, implementing wellbeing packages around right vitamins, fitness, and healthful residing, telecommuting, on line training, power-efficient workplace areas and many others.

v) **Use of social media for employee recruitment, retention, and engagement:** Integrating social technology into their employee lifestyles cycles, from recruitment, abilities development and worker engagement to employee go out assist agencies to thrive higher. Social media is enriching human sources from an administrative feature to a fantastically enticing business companion that has a tremendous effect on effectiveness of a group's team of workers and its capacity deliver towards key techniques. Combined with cloud computing and mobility, human sources is becoming a thrilling and innovative area that commercial enterprise can leverage to maximize their people capabilities. HR department can make use of social media channels such as LinkedIn, Twitter and Facebook for various purposes such as communication, branding, promoting events, background checks, employee actions, benefit communication, weekly HR blog, research, recognize employee achievement and emergency notification.

Here are 3 things that HR can do to foster innovation:

- Hire for innovation
- Create a way of life of innovation
- Train and praise for innovation.

Hire for innovation: Hiring for innovation calls for that we become aware of those who can inspire out of doors the field. Let us no longer anticipate that everybody is similarly revolutionary, however as a substitute allows recruit people for his or her innovation competencies. 'You must have people with that hunger to always learn, who are always open and who think about things in a different way.'

Develop culture of innovation: The ability to help create, protect and build organizational culture is a critical role for HR to play, as it is a major driver for innovation. However, management needs to not just for and nurture an innovation way of life for innovation to be successful. The maximum powerful pressure in enterprise is subculture. While corporate culture isn't necessarily the obligation of HR leaders, the people who are hired and the education and cultural imperatives positioned on the enterprise are achieved so via the position of HR, so HR leaders will have a large effect on whether or not or how not the organization is culturally attuned to innovation. The Boston Consulting Group, McKinsey & Company and Booz Allen Hamilton completed studies, in 2007 on innovation. On the high quality side, the outcomes indicated that it stays a excessive priority for most company leaders round the sector, they recognize it as a key increase motive force. Unfortunately, they also determined that there is a extensive perception that most businesses don't have the leadership, systems, or gear to efficaciously and consistently innovate. As properly, they located no statistically full size correlation between the amount of money an corporation spent on innovation and its monetary overall performance.

Train and reward for innovation: The proper rewards gadget offers a powerful force for reinforcing dedication, directing employee expert growth, and shaping the corporate way of life to be greater revolutionary. HR departments need to take a look at the praise mechanisms in place and ask if they're doing the right things to expand the employees and subculture of the enterprise. This must consist of, compensation strategies, performance control equipment, and other targeted popularity and praise programs. Businesses with applications that apprehend, how lengthy an worker has been coming in on time, or have been with the agency for a protracted time frame. Yet few businesses praise employees for superb contributions. Performance evaluations also are a problem of mine on this region. Few groups are measuring the proper matters in terms of promoting the improvement of revolutionary-minded employees. HR managers must take a tough have a look at how they're seeking to broaden these essential assets.

Conclusion

As HR leaders, supporting business enterprise to achieve greater innovations, to create the subculture to help progressive thinking and to rent, train and praise is a prime assignment. Innovation is important inside the globalized world and furthermore it is vital to live competitive inside the market. As defined innovation has numerous drivers and may be diagnosed in various areas. This paper focused on the linkage between creativity and innovation and hence on the impact on the organizational culture along with motivation systems used in enterprises. Without employees being the basic essential participants in an organization, no innovation would be possible therefore it is evident that the staff plays an important role when talking about innovation. It is essential to understand that every individual employee has different needs and therefore responds in a different manner to various incentive and reward systems. Consequently it is necessary that the organization is establishing reward systems which appeals to all employees. Creativity is very important within an organization because it supports the innovation process. An innovative organizational culture needs creative employees but employees only can become creative if sufficient space is given to them.

It is essential to keep in mind that innovation and creativity are closely linked to each other. It is necessary to have in mind that creativity the technology of latest ideas mostly occurs at the individual level whereas innovation is the process where those ideas are captured. For an organization it is necessary to keep track of both sides: the frequent generation of ideas as well the use of its innovation process. By offering various and different rewards and incentives for employees, they get more motivated and therefore are more open for creativity and creative ideas. On the one hand organizational behavior is beneficial on the other side it also can be harmful. Organizational behavior supports creativity and innovation which leads to encouragement. In contrary control is diminishing organizational creativity and innovation.

In conclusion, it is evident that innovation can arise at various levels of an organization: the individual, the team or the organizational level. As said already, it is necessary that the individual needs to be motivated because if the individual employee is eager to work, this has as well a positive impact on the team which then consequently impacts again the entire organization.

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Attitude of Students and Teachers towards Use of ICT in Teaching Learning Process with Reference to Management Institutes in Nashik City

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Abstract:

The role of technology in education cannot be underestimated in 21st century. Indian education system especially higher education is currently facing lot of criticism in recent times. Currently formal education system is facing many issues like outdated curriculum, less employability of graduating students, under qualified faculty and lack of practical orientation of the courses. One of the constructive ways to deal with these problems is effective and efficient use of technology in education system by both teachers and students. However it is important for the both the parties to have positive attitude towards use of technology in teaching learning process as the prerequisite to using technology in education. This study is an attempt to study the first step towards adopting technology in education system. Management students and teachers in Nashik city were investigated about their attitude towards use of Information and Communications Technology in teaching learning process. It was found that both teachers and students have positive attitude towards use of ICT in teaching learning process.

Key words: Information and Communications Technology, students, teachers, attitude

Introduction:

The quality of higher education in India is under scrutiny in past few years and management education is no exception to this. More than half (53%) of the MBA graduates that graduated in 2016-17 were jobless (The Economic Times, 2017). MBA, which was considered as privileged degree, has now started losing its charm. One of the major reasons responsible for this phenomenon is outdated curriculum. The curriculum of MBA needs to be revamped with immediate effect focusing on contemporary issues in management.

Though technology is omnipresent, it remains highly underrated in present management education system. The entire world is changing with changing technology. Every technology that has been made available to man has been prolific. Technology has been used in almost all sectors to be more productive, enhance efficiency and effectiveness and remain sustainable that have made jobs and lives less complex. Emergence of Information and Communications Technologies is one of the major blessings for the mankind especially in education sector. UNESCO (United Nations Educational, Scientific and Cultural Organisation) has even emphasized on integrating ICT in education for equity and access to education. ICT makes it possible to initiate and develop new pedagogical tools in the classroom. The teaching of management requires the development of a broad range of technical, human and conceptual skills and therefore the use of ICT in the classroom teaching of management is quite extensive. ICT has many uses in the teaching-learning processes; it is the driver for some of these uses and the enabler for others (Bhaumik, 2012).

Despite huge capabilities of ICT, it is not widely used by students and teachers across India. One of the major reasons hindering the use of ICT is personal comfort and ease towards using the

technology. This research papers is an attempt to study Attitude of students and teachers towards use of ICT in teaching learning process with reference to management Institutes in Nashik city

Literature Review:

A positive attitude is a pre-requisite for willingness to learn and the first step in effective ICT integration in education (Islam et. al, 2017). However it is of paramount importance to be competent enough to integrate ICT fully with teaching learning process. Over time it has also become evident that the use of the ICT alone will not result in any benefits automatically. Only innovative use of the technology through innovative teaching initiatives can encourage and enable complete transformation of educational experiences (Garbin & Seric, 2014).

Another study on seeking solutions to problems faced by current formal education sector using ICT through bottom up approach has presented similar findings. In order to address the challenges of current formal education systems, ICT can represent a path towards the solution and bring about initial success, however, complex structural and institutional changes will be required, independently of the introduction of ICT in the educational system (Papic & Bester, 2012).

The potential of ICT is humongous and to realize this potential it's imperative for students and teachers to have positive attitude towards use and implementation in teaching learning process.

Objective:

To study attitude of students and teachers towards use of ICT in teaching learning process with reference to management Institutes in Nashik city

Hypothesis:

H₁: There is no significant difference in attitude of students and teachers towards use of ICT in teaching learning process

Research Methodology:

The research is based on primary and secondary data. Primary data is collected by using a structured questionnaire to know the attitude of students and teachers towards use of ICT in teaching learning process. Secondary data is collected and compiled by use of websites, journals, books and online resources.

This research study is of descriptive nature and used the quantitative research method. Data was collected during first three weeks of January 2019 covering Nashik city only. The study is focused on attitudes of students and teachers only.

Convenience sampling was used for selection of respondents from students and teachers. 150 respondents from students and teachers were selected. The respondents were given questionnaires to gauge their attitude towards use of ICT in teaching learning process. A total of 124 out of 150 respondents completed the questionnaire, representing a response rate of 83%. The data was collected from 96 students and 28 teachers.

The research instrument was constructed after analyzing the extensive literature review of the related works done in the past. The questionnaire consisted of 18 statements to understand attitude of teachers and students towards use of ICT in teaching learning process. The responses were collected using Google forms. The study predominantly used test of proportionality for analysis of data.

Analysis and results

Data collected from target respondents about attitude of teachers and students towards use of ICT in teaching learning process was tabulated and frequencies were calculated. For testing the difference in students and teachers, test of proportionality was used. The test statistic for testing the difference in two population proportions is:

$$Z = \frac{(\bar{p}_1 - \bar{p}_2) - 0}{\sqrt{\bar{p}(1 - \bar{p})\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

Where:

$$p = \frac{Y_1 + Y_2}{n_1 + n_2}$$

the proportion of "successes" in the two samples combined. For two tailed test, at 5% level of significance the value of Z_α is 1.96. We reject the null hypothesis H_0 if $Z \geq 1.96$ or if $Z \leq -1.96$. Following table shows the z value for attitude towards use of ICT in teaching learning process:

Table 1: z value for attitude towards ICT use

Attitude towards use of ICT	z- value
Use of ICT has great impact on learning process	-0.450923521
I like to use ICT in my lessons/studies.	0.769997516
ICT helps to speed up the learning process	-0.450923521
ICT makes things too easy for the students	-0.950958321
ICT helps students to experience things more actively	0.140882714
Use of ICT helps in improving examination scores	-0.100718641
ICT can help students to acquire better understanding and insight of the concepts	0.540364433
Teacher should use ICT during teaching	0.946939393
Using ICT encourages students to explore situations	-0.801137907
I know how to use ICT but not interested in using it for learning	-0.540364433
I feel fear from the use of ICT	0.93738189
Syllabus does not support in developing basic ICT skills	-0.616734779
I think getting information from print material/books is better than using ICT	1.241679656
I wish that ICT should not be used in classroom	-0.203560619
I find it time consuming to use ICT in learning	-1.858901792
A danger of using ICT is that students don't think anymore	1.375651656
The knowledge students acquire using ICT remains superficial	-0.375357534
The mixture of ICT use with other teaching formats is important	-0.934996984

Source: Primary data

From the above table it can be inferred that attitude of teachers and students towards use of ICT in education do not differ among teachers and students as z values fall in the acceptance region only. Thus, there is sufficient evidence at the 0.05 level to conclude that the two populations do not differ significantly with respect to their attitude towards use of ICT in education.

Conclusion:

Students of 21st century are very informed learners unlike their teachers and parents. They are growing up with the technology. Integrating this technology with education can reap fruitful benefits to the society at large. From the study it can be stated that both teachers and students have a positive attitude towards use of ICT in teaching learning process in Nashik city. Thus the major barrier of negative attitude is eliminated and ICT can be used effectively by both teachers and students in management education.

The use of ICT in education is the emerging trend and issue in recent times, and this is a challenge to the teaching profession. Recent development of innovative teaching technologies complimented by ICT have provided new possibilities for the profession calling for transformation in leadership, curriculum reform, and implementation strategies. (Nnoduka Olele, 2014). Both traditional and modern teaching methodology have their pros and cons. It is important for stakeholders to derive best out of the both methodologies as none is completely replaceable with another. Efforts therefore can be made towards blending ICT with traditional teaching methodology.

Limitations of the study and scope for further research:

One of the major limitations of this study is that data was collected from respondents belonging to Nashik city only, which could affect the results. Future studies can examine attitude of teachers and students towards use of ICT using a bigger geographical area. Another limitation of the study is that it contains perceptions of adults only. Researchers can conduct similar studies involving children or teenagers. Lastly, convenience sampling was used in the research study which has its own limitations.

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A study on awareness of youth towards e-waste with reference to Nashik city

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Abstract

Every coin has two sides and technology is no exception to this. Technology has given many products to modern human beings to simplify their lives. However the generation of e waste has also increased manifold in past few years that a pose a serious challenge for 21st century. Problems of not handling e waste effectively are numerous like pollution, hazardous materials like lead, mercury and cadmium entering the ecosystem, waste of important natural resources, health issues of sanitation workers who handle such waste without proper training and many more. Thus it is very important to have effective e-waste management. The first step towards achieving this is to create awareness about e-waste. This paper is an attempt to study the awareness of youth about e waste in Nashik city

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A study on awareness of youth towards e-waste with reference to Nashik city

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Abstract - Every coin has two sides and technology is no exception to this. Technology has given many products to modern human beings to simplify their lives. However the generation of e waste has also increased manifold in past few years that a pose a serious challenge for 21st century. Problems of not handling e waste effectively are numerous like pollution, hazardous materials like lead, mercury and cadmium entering the ecosystem, waste of important natural resources, health issues of sanitation workers who handle such waste without proper training and many more. Thus it is very important to have effective e-waste management. The first step towards achieving this is to create awareness about e-waste. This paper is an attempt to study the awareness of youth about e waste in Nashik city.

Keywords: e waste, e waste management, awareness of youth

I. INTRODUCTION

As human life has evolved over past several decades, technology has also evolved many folds. In 21st century, moreover, technology has become an integral part of human life. Almost all activities carried out by people involve a touch of technology. Though technology is eternal, technological products are not. As a new technology is developed, the current technology becomes obsolete. With technology becoming outdated, various devices and gadgets also become obsolete. The primary objective of technology is to make human life simple. To simplify complex lifestyle of human beings in this era, various products are found in almost all middle class and upper class homes like TV, refrigerator, microwave, air conditioners, coolers, computers, pen drives, smartphones, DVD players, CDs and DVDs, home theatre systems, toys, batteries, electrical chimneys and other kitchen and home appliances. The life period of such products ranges from 5 years to 15 years depending on the product. With increasing earning and spending capacities of people and declining prices of consumer electronics, some products are changed even earlier. When a new technological product is purchased, the old one is usually exchanged. However, when the technology becomes obsolete the old technological products are either thrown into regular dustbins or are stored in their houses for a long period of time before scrapping it. This creates lot of e waste and is very detrimental to the environment.

Besides, growing industrialization has also added to this grave problem of generating e waste. Problems of not handling e waste effectively are numerous like pollution, hazardous materials like lead, mercury and cadmium entering the ecosystem, waste of important natural

resources, health issues of sanitation workers who handle such waste without proper training and many more. Thus it is imperative to have effective e-waste management. Disposal and recycling will both help in appropriate management of e-waste. The first step towards achieving this is to create awareness about e-waste. This paper is an attempt to study the awareness of youth about e waste in Nashik city. Since youth are the segment of people that uses more of technological products than any other age groups, this study is focused on youngster's awareness and perceptions.

II. LITERATURE REVIEW

E-waste is an informal name of what is otherwise known as Waste from Electronic and Electrical Equipment (WEEE) (Pavan & Dasgupta, 2010). One kind of waste that human beings have failed to deal with until now is electronic waste. Despite the fact that this waste is actually a treasure trove of expensive metals, like gold and platinum, among others, not much is done by way of recycling it (ESR Gopal, 2013). India is a huge market for many global organizations as it seen as one of the fastest growing economies in the world. However, there are several disadvantages of this phenomenon. The Hindu (2016) had reported that India is the fifth largest producer of e waste in the world discarding roughly 18.5 lakh tonnes of electronic waste each year. E-waste consists of all waste from electronic and electrical equipment which have reached their end-of-life period or have been disposed of by the original user and are destined for recovery, recycling or disposal. The alarming e-waste generation is a serious issue more for the developing countries like India as the developed countries have to an extent addressed the issue

through policies and scientific methods for managing e-waste (Chaudhary M. et. al, 2018).

Objectives:

- To study awareness of youth towards e-waste in Nashik city
- To study disposal behaviour of electronic waste by youngsters
- To study perceptions of youth about recycling of e-waste

Hypothesis:

H0: Willingness to learn about correct ways of recycling e-waste is not associated with the gender of the recycler

III. RESEARCH METHODOLOGY

The research is based on primary and secondary data. Primary data is collected by using a structured questionnaire to know the awareness of youth towards e waste. Secondary data is collected and compiled by use of websites, journals and online resources. This research study is of descriptive nature and used the quantitative research method. Data was collected during the month of February 2019 covering Nashik city only. The study is focused on understanding awareness of youth as this is the major segment of people that uses lot of technological products than any other age groups.

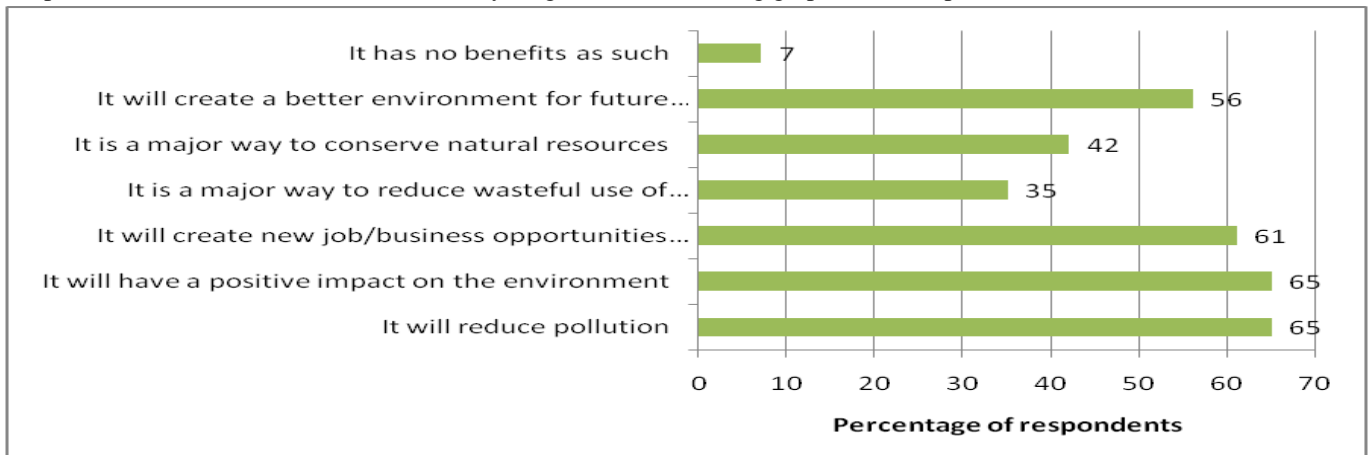
Convenience sampling was used for selection of respondents. Data was collected online using Google forms as this class of people are more likely to generate e waste. The research instrument was constructed after analyzing the extensive literature review of the related works done in the past. Apart from demographic details like age, gender and occupation, the questionnaire contained 10 questions to study awareness of e waste and perceptions about recycling among young generation. 157 responses were obtained at the end of the survey. The study predominantly used Pearson's Chi Square test for analysis of data.

IV. ANALYSIS AND RESULTS

Data collected from target respondents about awareness of e waste was tabulated and frequencies were calculated. 57%

Perceptions of youth about recycling of e-waste

Respondents were asked about benefits of recycling e waste. Following graph shows responses recorded:



(Source: Primary Data)

of the respondents were male and 43% of respondents were female. 77 % of the respondents were in the age group 20 to 25 years of age and rest 23% were in the age group of 26 to 30 years. 63% respondents were students, 28% were salaried employees and 9% were business persons/self employed professionals. Following are the results of the study:

Awareness of youth towards e-waste in Nashik city

It was found that 89% of respondents were aware of e waste and 11% of respondents were not aware of e waste. 77% of respondents considered their old/ un-used electronics as 'waste' while 23% of respondents did not consider their old/ un-used electronics as 'waste'.

82% respondents think that e-waste has hazardous impact on the environment, 4% respondents think that e-waste has no hazardous impact on the environment and 14% respondents are not aware if e-waste has any hazardous impact on the environment.

Disposal behaviour of electronic waste by youngsters

The treatment of e waste was found to be varied among the respondents as follows:

- ✓ 42% respondents sold their e waste to scrap dealers.
- ✓ 25% of the respondents gave their old and unused electrical and electronics equipment to a known contact for disposal.
- ✓ 21% respondents stored their old and unused electrical and electronics equipment for some period of time and later threw it in regular dustbins.
- ✓ 5% respondents threw e waste in regular dustbin immediately
- ✓ 7% respondents gave other responses like they keep it for standby, have not done anything about it yet and dismantle them and re use

89% respondents said that no one from their your personal contact dispose e waste in a professional manner while only 11% respondents said that some of their personal contacts dispose e waste in a professional manner.

Most of the respondents (65%) believed that recycling of e waste shall be beneficial to reduce pollution and have positive impact on the environment. It was also found that most of them agreed that recycling could provide new employment opportunities (61%) and create a better environment for future generations (56%). However 7% respondents believed that there are no benefits of recycling as such.

Majority of respondents (81%) are not aware of e waste recycling centre near them while only 19% of respondents are aware of e waste recycling centre near them. Also majority of respondents (75%) are not aware of the International E-Waste Day Celebrated that was first celebrated on 13 October 2018.

68% respondents feel that e waste will be a global major challenge in next 10 years after global warming, 4% feel that it will not be a problem while 30% are not sure if such problem will exist in future.

Testing of hypothesis:

Table 1: Crosstabulation

			Willingness to learn correct ways of recycling e waste		Total
			No	Yes	
Gender	Female	Count	6	61	67
		% within Gender	9.0%	91.0%	100.0%
	Male	Count	8	82	90
		% within Gender	8.9%	91.1%	100.0%
Total		Count	14	143	157
		% within Gender	8.9%	91.1%	100.0%

(Source: Primary Data)

The above table illustrates that both male and female have willingness to learn correct ways of recycling e waste. To test the hypothesis, Chi-square test is applied for which the results are presented below:

Table 2: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.000	1	.988

(Source: Primary Data)

As the test statistic is based on a 2x2 cross tabulation table, the degrees of freedom (df) for the test statistic is 1 and 5% level of significance. The p-value of the test statistic is p = 0.988. Since the p-value is greater than our chosen significance level ($\alpha = 0.05$), we accept the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender and willingness to learn correct ways of recycling e waste.

Thus on the basis of results, it can be stated that no association was found between gender and willingness to learn correct ways of recycling e waste.

V. CONCLUSION

With advent of technology, exponentially growing industrialization, emphasis of government on Digital India Initiative, growing consumer preferences towards technological products and falling prices of consumer electronics generation of electronic waste is inevitable. However, as of now, waste is segregated on only in two categories viz. dry and wet waste. Priority should be given to spread awareness about e waste and its proper disposal. It can be concluded from the study that general awareness regarding what constitutes e-waste, awareness about e-waste and benefits of recycling are well known to the youngsters of Nashik city. However, they are not aware of proper disposal methods. Also majority of respondents are not aware of any recycling centres near them. International E-Waste Day was celebrated for first celebrated on 13 October 2018 is also not known to many of the respondents. Attempt can be made by authorities to popularize this day by roping relevant and contemporary personalities to popularize the concept of recycling of e-waste. That shall ultimately help in increasing awareness of e waste and in turn, more responsible behaviour towards correct disposal for reuse and recycling of e waste.

Limitations of the study and scope for further research:

One of the major limitations of this study is that data was collected from respondents belonging to Nashik city only, which could affect the results. Future studies can examine awareness towards e waste using a bigger geographical area. Another limitation of the study is that it contains perceptions of youth only. Researchers can conduct similar studies involving children, teenagers, adults and senior citizens as well. Lastly, convenience sampling was used in the research study which has its own limitations.

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QUESTIONNAIRE

1. Are you aware of electronic waste?
Yes No
2. Do you consider your old/ un-used electronics as 'waste'?
Yes No
3. What do you do with your old/ un-used electronics?
Throw it in dustbin immediately
Store for some period of time and then throw it in dustbin
Give away to a known contact for disposal
Sell to scrap dealers
Others:
4. Do you think e-waste has hazardous impact on the environment?
Yes May be No
5. According to you, what are the benefits of recycling e-waste?
It will reduce pollution
It will have a positive impact on the environment
It will create new job/business opportunities for recyclers
It is a major way to reduce wasteful use of landfills.
It is a major way to conserve natural resources
It will create a better environment for future generations
It has no benefits as such
6. Are you willing to learn about correct ways of recycling e-waste?
Yes No
7. Does anyone in your personal contact dispose e waste in a professional manner?
Yes No
8. Are you aware of any e waste recycling centre near you?
Yes No
9. When was the first International E-Waste Day Celebrated?
13 Oct 2018 5 June 2018 22 Mar 2018 Not aware No such day celebrated
10. Do you think that e waste will be a global major challenge in next 10 years after global warming?
Yes No Not sure

Age:

Gender: M/ F

Occupation: Student/ Salaried/ Business

Prof. Sapna Mathur

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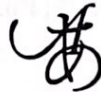
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Analysis of Brand loyalty in Young Mobile Phone Users

Ms. Sapna Mathure

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Abstract

Mobile phone industry is very dynamic. To survive in this industry, it is important for manufacturers to retain their customers. Customer retention is more important than customer acquisition as it is cheaper to retain customers than to acquire new ones. Also companies can effectively focus on their target groups while designing, implementing and controlling strategies. Customer satisfaction is the first step towards brand loyalty. Though customer satisfaction may not alone warrant brand loyalty, other parameters like Brand Image, Perceived Quality, Brand Experience and Brand Switching cost can be considered to assure brand loyalty. This study is an attempt to study brand loyalty of young mobile phone consumers in Nashik city on these dimensions of brand loyalty viz. Brand Image, Perceived Quality, Brand Experience, Customer Satisfaction and Brand Switching.

Key words: *Brand loyalty, Mobile phones, Brand Image, Perceived Quality, Brand Experience, Customer Satisfaction, Brand switching cost*

Introduction

Brand loyalty is the degree of attachment that a consumer has for a specific brand (Liu, 2012). Thus, consumers become committed to brand when they are brand loyal. This ensures repeat purchases. Also, consumers start referring brands to their friends and family which ensures increase in sales of the company. Thus, brand loyalty is of utmost important to organizations in any industry.

Customer satisfaction is the first step towards brand loyalty. However, customer satisfaction may not alone warrant brand loyalty. There are other parameters like Brand Image, Perceived Quality, Brand Experience and Brand Switching cost that can be considered to assure brand loyalty. In current times, all companies are prone to cut throat competition in any industry. Every business loses 25% customers per year whereas a small increase in customer retention can increase profits of the company by more than 25% per year. (Roopa

Singh, 2012). Thus, in recent times, customer retention has gained more importance than customer acquisition and the first step towards retaining customers is to earn loyalty from the customers. However, even brand loyals may decide to switch their brands owing to lot of options available in the market. Thus, it is important for mobile phone manufacturers to convert brand loyals in to brand advocates. However the scope of the study is limited to study brand loyalty of young mobile phone users in Nashik city.

Literature Review

Shah (2012) stated that brand loyalty had significant positive direct impact on brand equity. Also, high quality, brand name, brand associations from customer's perspective does not give gurantee for brand success in Indian mobile handset industry. Dr. Arti Gaur et. al (2014) has analyzed that teenagers are more concious towards their mobile phone brand as vis a vis other age groups and female customers are more influenced by brand, price, quality and performance of the mobile phone than male customers. Raut (2015) stated that female customers are more loyal towards their brand of mobile phone as compared to male customers implying gender of the consumer affects loyalty. The author also concluded that there is difference in brand loyalty levels of mobile phone users according to their age and income.

Dr. Mor (2015) argued that brand loyalty can be created effectively if marketers can tackle brand switching behaviour of consumers well. The author concluded that marketers should focus on creating brand loyalty in consumers to effectively survive and sustain in highly competitive industry. P.G. Mostert et.al (2016) indicated that there is a direct positive relationship between customer satisfaction and brand loyalty towards smartphone brands among Generation Y consumers implying that brand loyalty is the result of customer satisfaction. The authors also argued that there is a strong positive relationship between customer satisfaction and relationship intention. Further it was also stated that there is also a positive relationship between brand loyalty and relationship intention to smartphone brands among Generation Y consumers. The authors had suggested that all 3 factors are important in order to build long term relationships with Generation Y consumers.

Objectives of the study

1. To study brands of mobile phones used by respondents

2. To study brand loyalty of young consumers in terms of brand image, perceived quality, brand experience, brand switching cost and customer satisfaction

Research Methodology

The research study was of descriptive nature and used the quantitative research method. The research was based on primary and secondary data. Primary data is collected by using a structured questionnaire to study brand loyalty among young mobile users. Data was collected in the month of December 2017 covering Nashik city only. For the purpose of the study, convenience sampling was used. 300 questionnaires were distributed to respondents in order to study brand loyalty of young consumers. Consumers between the age group 22 to 26 were considered for the study. At the end of the survey, 196 usable responses were obtained, thus representing a response rate of 65%. Secondary data was collected with the help of websites, journals, books and online resources.

After extensive literature review of the related works done in the past following 5 factors influencing brand loyalty were identified:

- Brand Image
- Perceived Quality
- Brand Experience
- Customer Satisfaction
- Brand Switching cost

The questionnaire consisted of 19 items related to brand loyalty which was modeled from research work by Ahmed and Moosavi (2013). The analysis of data was done using frequency tables.

Analysis and Results

Data collected from target respondents about Brand Image, Perceived Quality, Brand Experience, Customer Satisfaction and Brand switching cost was tabulated and frequencies were calculated. It was found that the top brands commonly used by youngsters were Samsung, Apple, Oppo, Xiaomi, Lenevo and Vivo. Others include brands like Micromax, Karbon, HTC, Intex, Asus, Sony Ericsson, Blackberry, One Plus and Gionee.

Table 1: Mobile brands used by the respondents

Brand	Frequency	Percent
Samsung	50	25.5

Apple	32	16.3
Oppo	20	10.2
Xiaomi	15	7.7
Vivo	8	4.1
Lenovo	8	4.1
Others	58	29.5
Total	196	100

Source: Primary Data

The internal consistency of the constructs to measure brand loyalty was ensured using the Cronbach alpha. The Cronbach's Alpha for 19 items of the questionnaire was found to be .721, thus ensuring a reliable instrument. Scores of individual constructs of brand loyalty was analysed and is presented as follows:

- **Brand Image score**

It was found that 74.6% consumers had positive brand image about their mobile phone brands in terms of mobile phone being prestigious, well-known brand, fashionable, elegant and superior one as compared to others.

Table 2: Score for Brand Image

	Agree	Disagree
Other people judge me by the kind of mobile phone I use	56.1	43.9
I think my cell phone brand is well known and prestigious	91.3	8.7
I think my cell phone brand is fashionable and elegant	89.3	10.7
I think my cell phone is number one among cell phone brands	61.7	38.3
Average Score	74.6	22.2

Source: Primary Data

- **Perceived Quality Score**

It was found that 85.2% consumers regarded their phone as high quality one, with also reputation for high quality, durable and more than just a product.

Table 3: Score for Perceived Quality

	Agree	Disagree
The quality of my cell phone is good	95.9	4.1
I think my cell phone brand have a reputation for high quality	86.2	13.8
My cell brand offers very durable products	85.7	14.3
My cell phone brand is more than just a product for me	73	27
Average Score	85.2	14.8

Source: Primary Data

• **Brand Experience Score**

Most of the respondents (90.1%) had positive brand experience with their mobile phones. They considered their mobile phones as the ones with excellent features, gave pleasant experience which went with their life style and personality.

Table 4: Score for Brand Experience

	Agree	Disagree
My cell brand offers products with excellent features	96.4	3.6
I think this cell brand relate to the pleasant experience	90.3	9.7
I feel my cell brand products go with my way of life style and personality	83.7	16.3
Average Score	90.1	9.9

Source: Primary Data

• **Customer Satisfaction Score**

Customer satisfaction is the first step towards brand loyalty. It was found that 89.4% consumers were satisfied with their mobile phone brands. According to consumers, their mobile phone was value for money, had good hardware and software functions and they would recommend their brand to their family and friends.

Table 5: Score for Customer Satisfaction

	Agree	Disagree
My cell phone is a good value for the money I paid	88.8	11.2
I would recommend my cell phone brand to my friends	83.7	16.3
I am satisfied with the hardware functionality of my cell phone	91.3	8.7
I am satisfied with the operating functionality or software system of my cell phone	93.9	6.1
Average Score	89.4	10.6

Source: Primary Data

• **Brand switching cost**

It was found that consumers had low brand switching cost (67%) with respect to their mobile phones. Though they majorly had favorable brand image, high perceived quality, positive brand experience and high customer satisfaction with their mobile phones, they considered that brand switching cost was considerably less.

Table 6: Score for Brand switching cost

	Agree	Disagree
I am afraid that my choice of another cell brand may reduce the esteem I have among my friends	21.4	78.6
I am afraid that if I change my cell phone brand to another brand I will lose important files that I have on it	33.2	66.8
I do not have time to get the information and fully evaluate a new cell brand	43.9	56.1
It requires effort to learn and understand features and setting of a new cell phone, it seems difficult	33.7	66.3
Average Score	33.1	67.0

Source: Primary Data

Conclusion

Loyal customers are more probable of making repeat purchases and stronger loyalty can be achieved by building bonds and relationships with customers (Leckie et.al, 2016). Brand loyalty warrants commitment from brand users. Brand loyalty aids organizations from repeat purchases of loyal customers. Also, it helps in building positive word of mouth through referring their brands to friends and family.

Dimensions to measure brand loyalty viz. Brand Image, Perceived Quality, Brand Experience, Customer Satisfaction and Brand Switching cost were studied for young mobile phone users. It was found that consumers majorly had favorable brand image, high perceived quality, positive brand experience and high customer satisfaction with their mobile phones. However, it was also found that consumers considered that brand switching cost was considerably less.

Thus, it is important for mobile phone manufacturers to understand that consumers though after having positive brand experience may not necessarily lead to stronger brand associations as they can easily switch to any other brand owing to low brand switching cost. It is thus, imperative for mobile phone manufacturers to design effective marketing communication strategies to ensure loyalty of customers. Besides, they can also strive to increase brand switching cost to survive in ever changing dynamic market.

Limitations of the study and scope for further research

Data for the study was collected from Nashik city. Thus the results may not be applied to larger geographical areas. Further studies can incorporate larger areas in their studies.

Secondly, as the data is collected from young consumers only, further studies can examine other age groups as well. Lastly, convenience sampling was used in the research study which has its own limitations.

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