



Western India Regional Council of  
The Institute of Chartered Accountants of India  
(Set up by an Act of Parliament)



# The New Normal For **Practicing CA** - Digital and Paperless Office

*The Way Forward*

**Author:** CA (Dr.) Mitil Chokshi

**Co-Authors:** CA Priyanshi Chokshi, Parsh Chokshi

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CA. Lalit Bajaj, Chairman, WIRC, Western India Regional Council of  
The Institute of Chartered Accountants of India,  
ICAI Tower, Plot No. C-40, G Block, Opp. MCA Ground,  
Next to Standard Chartered Bank, Bandra-Kurla Complex,  
Bandra (East), Mumbai-400 051  
Tel.: 022-336 71400 / 336 71500 • E-mail: [wirc@icai.in](mailto:wirc@icai.in) • Web.: [www.wirc-icai.org](http://www.wirc-icai.org)

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# Foreword

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Digitisation is a vital feature of our profession today and includes measures taken by a Practicing unit to implement a framework comprising IT Governance & Policy, Cloud Infrastructure and Security in order to deliver best services to clients.

Conversant with current trends, accounting firms have endeavoured to rapidly scale up their operations to meet growing client demands. While many have succeeded in their efforts at company-wide digitisation, systematic guidance in this arena is much appreciated by all stakeholders.

Taking these factors into consideration, I am pleased that this highly relevant

e-publication titled 'The New Normal for Practicing CA – Digital and Paperless Office The Way Forward' is being made available for all. It will throw light on the digitisation of various processes related to the numerous activities undertaken by a CA firm and has been meticulously prepared to include areas which are of primary importance in an office.

This publication is a practical guide to understand the various aspects of a digital office properly and it offers a series of flowcharts which cover the processes and procedures which can be used as guidance to form the foundation of a firm's digitisation strategy.

Implementing a quality digital system goes a long way to assuring your practice is operating in the best possible working environment, an effective and essential component of good practice management. This e-guide can help you make your firm digitally capable and ensure optimum utilisation of processes.

I deeply appreciate the efforts of CA (Dr.) Mitil Chokshi, past Chairman WIRC, CA Nikunj Shah, CA Priyanshi Chokshi, Parsh Chokshi, for contributing their valuable time and expertise towards this endeavour. I compliment CA Manish Gadia, RCM, WIRC for co-ordinating and ensuring the successful completion of this publication.

I also express my thanks and acknowledge Jay Vakil and P Shreekanth for their assistance towards this publication.

I am sure that 'The New Normal for Practicing CA – Digital and Paperless Office The Way Forward' publication will prove to be immensely beneficial to all our members and students. We look forward to producing and disseminating increased number of relevant e-publications for the betterment of all professionals.

**CA. Lalit Bajaj**  
*Chairman, WIRC*

# Preface

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We are pleased to present the e-publication on 'The New Normal for Practicing CA – Digital and Paperless Office The Way Forward'. Digitisation is now an integral part of the accounting profession as a service and more importantly for maintaining high quality standards for practicing Chartered Accountants.

In the past year, WIRC has initiated the creation of quality e-publications which have been made freely accessible to all members to enhance their professional knowledge base.

The current publication will provide guidelines to implement digitisation, improve productivity and thereby help build capacities in individual firms. I am sure this guide would be of much use to all members.

Digitisation requires strong commitment of management and inclusion of employees to create a relevant and efficient strategy. The publication includes various processes and recommends guidelines relevant to practicing Chartered Accountants in order to make it implementation friendly. The guidelines intend furthermore to be strategies which enable members to provide high client satisfaction.

Digitisation is the present and future of the profession and we hope that members take advantage of this publication to strengthen and grow their practice. As an ongoing process, the topic of digitisation has been addressed by WIRC in the past through various webinars, workshops and discussions. This guide takes it further, to address requirements in a concrete and lucid manner.

I take this opportunity to thank CA (Dr.) Mitil Chokshi, Past Chairman WIRC, CA Nikunj Shah, CA. Priyanshi Chokshi, Parsh Chokshi for creating a truly relevant publication which will be much appreciated by all members and students across the country.

I also appreciate the assistance given by Jay Vakil and P Shreekanth towards the creation of this publication.

I am confident that all members and other professionals would derive maximum benefit from this publication, enabling them to stay current, relevant and ahead of the curve in the present scenario.

**CA Manish Gadia**  
*RCM, WIRC*



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## LIST OF ABBREVIATIONS

<b>AI</b>	Artificial Intelligence
<b>CA</b>	Chartered Accountants
<b>CaaS</b>	Consulting as a Service
<b>COVID-19</b>	Coronavirus Disease 2019
<b>DLP</b>	Data Loss Protection
<b>DLT</b>	Distributive Ledger Technologies
<b>ERP</b>	Enterprise Resource Planning
<b>FEMA</b>	Foreign Exchange Management act, 1999
<b>HRMS</b>	Human Resource Management System
<b>IAM</b>	Identity and Access Management
<b>IDS</b>	Intrusion Detection Systems
<b>IoT</b>	Internet of Things
<b>IPS</b>	Intrusion Prevention Systems
<b>IT</b>	Information Technology
<b>JAM</b>	Jan Dhan-Aadhaar-mobile
<b>LAN</b>	Local Area Network
<b>PC</b>	Personal Computers
<b>RPA</b>	Robotic Process Automation
<b>SA</b>	Standards on Auditing
<b>WFH</b>	Work From Home

## Foreword

In today's digital era, an effort has been made to present a research publication on ***Digitisation Of CA Firms*** by our past chairman CA (Dr.) Mitil Chokshi along with CA Priyanshi Chokshi and Parsh Chokshi. We aim at providing our insights on what digitization means for the modern day CA firm.



## Introduction

*“Modern technology has elevated our imagination to an extent communication among co-workers has become a mere facile activity.”*

In the corporate sector, the technological advancements achieved in the past two decades have brought about a major revolution, changing every aspect of our working life. Starting from the way employees enter in the office premises to the way they attend meetings, or collaborate remotely, technology has become an integral part of the modern business world. While these modern technologies present unbridled opportunities and open various avenues for development and professional growth, their aim is to ensure a smooth workflow, increased productivity and outreach.

Technology has changed the way people communicate in the modern workplace. The arrival of smartphones, social networking sites, applications for virtual meetings has brought communication to a whole new level. Communication among the employees, or from management to subordinates, or from management to management has become fast, instantaneous, more deliberate, collaborative, and unified.

You can send emails, text or video chat or even videoconference with subordinates or superiors through varied applications. With the help of technology, you no longer need to be present at your workplace all the time. You can engage in other important works outside office, and yet keep in touch even face-to-face with your colleagues at the office through video chats and conference or while *on-the-go*.

Digitization in India over the past decade has been increasing at a steady rate, however, since the pandemic there has been a stimulus for further expansion and adoption. Technology and digital has been an integrated part of our crisis response, and are used efficiently by the central as well as various state governments to monitor, track and to contain the spread of the virus, map hotspots, to keep people informed, and also to deliver welfare measures and citizen services, utilizing the *Jan Dhan-Aadhaar-Mobile Trinity*.

Countries have been under lockdowns and this has called upon firms and offices to revolutionize the way work is conducted and establish the same from home. The dual challenges to our health and to our economies have forced us to rethink how we work and how we live. But times of challenge can lead to incredible moments of innovation, leading to long term benefits from this wave of innovation and disruption.

It has made it imperative for the government, corporates, as well as consumers to rely on digital channels for accessing goods, services, information, and entertainment. Fortunately, the investments and capacity building we have undertaken over the years through initiatives such as Digital India and Smart Cities have come handy, for the government as well as firms to effectively respond to the dynamic situation and to deliver relief measures.

During this time, the ability to be online has been a lifeline to so many of us: whether you're a small business trying to stay afloat, a parent company looking for updates on how to keep its group entities healthy, or a partner/business owner trying to keep in touch with his employees.

From the excitement of young people using the latest apps and services, to the ways people are using smartphones and video calling applications to connect to clients on a national and international scale, every new piece of technology brings new opportunities to learn and grow. One such application being Zoom — a formal and informal video calling app that one can use with colleagues, family or even friends.

With the young discovering old ways to connect and the old connecting with the new, the Covid-19 outbreak has turned some assumptions about technology and the demographics of the Internet on its head. The global pandemic has supercharged the adoption of digital tools.<sup>1</sup>

Digital payments, for example, have enabled clients across India to access services from any firm, pan-India, of their choice, during the lockdown.

Companies have been quick to incorporate new technologies, but the coronavirus pandemic is now accelerating the digitalization of the corporate sector in such a way that mostly organizations would continue to work from home, being the new normal in a COVID, and, most probably, a post-COVID future – a possibility of working from home for the rest of the year or permanent. By leveraging technology and Artificial Intelligence across various levels within and outside the organization, corporate firms have been empowered as they continue or embark on their digital transformation.

Thus, for the corporate sector, the change has been swift and dramatic. In a very short period of time companies had to adapt to remote work arrangements and the ones that were better prepared were able to manage the operations in a seamless manner and minimize disruptions. Though the corporate sector has been proactive and mature in technology adoption and usage, COVID-19 has catalyzed the technology usage and digital adoption to a new level, and now technology is fully integrated into the day to day functioning of enterprises, from managing remote work and employee engagement to managing customer experience, operations, as well as supply chain networks and partner ecosystems. Digital platforms that support live-video communication have seen a massive surge in adoption and this trend could very well permanently alter the pattern of business travel in the years to come. As digital tools have been integral to crisis response, the relevance of technology in managing and optimizing business operations is likely to only increase in the near future.

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1 Anandi Chandrashekhar, Technology Adoption gets new life in COVID-19 Times, <https://government.economictimes.indiatimes.com/news/technology/technology-adoption-gets-new-life-in-covid-19-times/74858420>.

The current situation has also forced our hand on business continuity planning and investments in disaster recovery systems. Technologies such as virtual private networks, end point security, data security, etc. have become more relevant in the current context where the entire workforce is outside the perimeter of secure corporate firewalls. A range of technologies from broadband connectivity and cloud-based infrastructure to virtual private networks and teleconferencing solutions are enabling enterprises to manage work virtually. There is also an increasing focus towards creating resilient, flexible and secure networks, disaster recovery systems, cyber security systems, etc., and also in ensuring the availability of mobility devices to enable remote working for employees. With major corporations around the world, announcing their intent to embrace flexible/remote work from a medium to long-term perspective, digitally enabled future of work tools will likely become an integral part of core business operations. In the medium to long term, we could witness an increasing adoption of emerging technologies such as data sciences, artificial intelligence, internet of things, etc., as business look to operational transformation in the changing global environment.

Corporates nowadays rely on business productivity software that provides many tools to overcome challenges of executing on strategy every day. It enables managers to easily track progress during every phase of goal completion and offer immediate reinforcement or coaching to keep performance and deadlines on track. This is another example of the role of technology in improving the productivity and performance of the organizations. Access to new technology has enabled the employees to do things faster with precision and has helped in discouraging workplace distractions, thus raising productivity.<sup>2</sup>

From a client perspective, the current situation brought about a behavioral shift in the usage of digital channels for receipt of services. This combination of behavior shift and safety requirements from consumers is likely to catalyze the growth of firms all across the country, whether small or big, with the traditional brick and mortar offices adopting work from home to survive and thrive in the changing market landscape. Thus, the corporate sector has witnessed a massive shift towards digital provision of services in this current external environment, and are likely to witness elevated adoption in the next two-three years as the market adjusts to this new equilibrium.

For firms and fresh graduates, just starting off, the current crisis is truly an inflexion point in their journey. It should be noted that the current environment of extreme dynamism is naturally suited for agile and nimble footed firms to survive and thrive, and new or old firms that are quick to adapt to the changing dynamics and seize the

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2 Amit Prasad, 10 Ways Technology Has Reshaped the Modern Workplace, (Oct 08, 2018), <https://www.quickfms.com/blog/how-technology-has-reshaped-the-workplace>.

immediate opportunities are likely to survive through this phase and be better placed to grow faster even amidst a pandemic.

COVID-19 pandemic and the resultant disruptions have irrevocably altered the technology and digital adoption for corporates, big and small, alike, and technology is also likely to play an important role in recovery as well. It's important for the industry participants to understand the strategic importance of technology and bring a strong digital orientation in designing their services and experiences to obtain a competitive or first-mover advantage in the changing market dynamics.<sup>3</sup>

With respect to Chartered Accountancy firms, in particular, whose major work is conducted from verification of physical documents and walkthroughs of their client's workspaces, the Covid situation was something unforeseen and hence the transformation would have been difficult for small and mid-sized firms in particular. Hence, this situation called for Mainstream Digitisation.

Let's start with our understanding of the term digitization, within the 'new normal'.

Digitization refers to the process of creating a digital representation of physical objects or attributes, services in the context of professionals. For instance, a process as simple as scanning a paper document and saving it as a digital document in soft-copy format. In other words, digitization is about converting something non-digital into a digital representation or artifact. Once digitised, the same can be used for various purposes online. Digitization is foundational. This is the connection between the physical world and software. A concept as old as the 1960s, it is an enabler for all the processes that provide business value because of the need for consumable data.<sup>4</sup>

Digitization is the process by which analogue content is put into binary code to be readable by the computer.<sup>5</sup> Digital information, irrespective of where it is stored on our Personal computers, laptops, tablets, among others; can be linked to other materials to create multimedia, without degradation of the original. Digitization is also a means of creating resources that can be re-purposed for unforeseen uses in future. Changing trends in research may alter the demand for services and access to consumable data.

In a nutshell, especially during a pandemic, digitization would mean the process of holistically shifting business operations and processes online, in order to enable off-site or remote working from any part of the world. Digitization is the working

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3 P.N. Sudarshan, Technology As the Way Forward: The New Normal, (June 08, 2020), <https://www.entrepreneur.com/article/351612>.

4 Mark Sen Gupta, What is Digitization, Digitalization, and Digital Transformation?, (Mar 24, 2020), <https://www.arcweb.com/blog/what-digitization-digitalization-digital-transformation>.

5 Satyabati Devi, The need for digitization, [https://www.researchgate.net/publication/215658181\\_The\\_need\\_for\\_digitization](https://www.researchgate.net/publication/215658181_The_need_for_digitization).

of automated processes in such a way that it is able to tackle any unforeseen circumstance. It could be considered as a cure or an alternative remedy to an ailing business unable to operate or cope with physical closure of business operations and lack of employees, such as in a time like the one prevalent. This process requires an overall plan to use digital technologies to update, modify or completely revamp a business model to provide for continued streams of revenue.

Present professional firms ought to have a 360 degree view of their clients and must use that view to create a seamless, organic experience round the clock. The volatility of the services provided calls for a more agile hybrid system and networking capabilities to provide the best services to the client. Hence, this calls for building a digital process and integrating the entire group of services with modern technology to stay ahead of the curve. This entire process could be termed as a digital transformation or *a surgical strike to digital firms*.

India is digitising faster than most other countries. Forecasts post the outbreak of the virus indicate that India has a growth potential of 435 billion dollars by 2025.<sup>6</sup> This is why the *e-corporate sector* ought to be capitalised upon by professionals and clients.

## **I. SHIFT TO MODERN OFFICES**

“To win in the marketplace, the firm must win at determining its workspace,” Doug Counant,

Traditional offices are basically brick and mortar structures wherein employers would hire employees who would physically work therein approximately for a stipulated period of time. A traditional office is reliant on physical attendance and is affected by daily commute time. Repetitive tasks and compliance related aspects are manually undertaken, leading to a wastage of time and resources, thus, reducing overall productivity and effectiveness as a whole. Physical offices are also affected by negative informal communication commonly described as grapevine occurring between employees, affecting their morale. These offices are bound by timings which are heavily monitored by the senior level management and employees. Employee evaluation tends to be impersonal. Fixed costs such as rent, electricity and other essential services cause employers to have year round costs and increase in their cost-expense ratio. Refreshment facilities in the form of canteens, game rooms, among others, additionally used to boost employee performance lead to additional pressure on cost. From the perspective of a small or medium-sized CA firm, a traditional office refers usually to a rented space having bifurcated departments for the different services so provided. Traditional offices include a physical visit to client places and factories. The traditional office involves a physical study of the clients business

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6 Financial Express, Digital Economy Could Create Up To 65 Million Jobs By 2025, (Apr 06, 2019), <https://www.financialexpress.com/opinion/digital-economy-could-create-up-to-65-million-jobs-by-2025/1539712/>.

processes and their overall needs such as physical verification of the clients fixed assets/inventory or their accounting or information technology systems and manual filing of returns. Overall, a traditional office is a relatively cost ineffective approach which revolves around the importance of employee communication and rigid work hours.

However, the recent decade has witnessed a shift from traditional offices to modern ones. Modern offices often termed as virtual offices treat physical spaces as secondary. Employees disperse, either working from couches or coffee shops or else taking up space in a co-working building or at a workspace made available on a short-term basis by a virtual office provider.<sup>7</sup> The virtual office rents a mailbox from a physical building, sets up phone and email services, and uses many of the applications any other company might use. Communication is primarily mediated through technology, including Information management systems, internal texting, phone calls, video conferences, project management software, emails, flexible work hours, and 'work from anywhere' policies, among others. Instant connectivity is prized, and all company recommended communication programs are effectively installed and maintained, requisite training provided along with employee upskilling, to keep everyone in the loop.

Remote workspaces helps in reduction of ancillary time such as commute resulting in an increase in overall productivity since employees have the convenience to work as per their convenience as long as deadlines are met. Remote work spaces promote overall accountability and judge employee performance on an individual basis, enhance personal one on one interactions and also encourage employees to put in longer hours. A virtual office is ideally based on a virtual foundation known as the Cloud, along with an extensive use of applications namely Google meet, Zoom calls, Skype, etc. to communicate with clients. Such firms create digital tools that enable companies and their employees to collaborate in the simplest, most convenient and time-saving manner.

For the better part of the first half of this year, practices would have quickly adapted to the challenges brought on by these unprecedented times. As one would have navigated the impact of the pandemic across his practice and with his clients, he would have turned to technology and tools to continue operating as close to 'business as usual' as possible, while still adding value to his clients.

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7 Grundig IT, The Virtual Office v/s the Traditional Office,  
<https://grundigit.wordpress.com/2016/11/15/the-virtual-office-vs-the-traditional-office/>.



## II. NEED FOR DIGITISATION AND ITS IMPACT- THE NEW NORMAL

*"At least 40% of all businesses will die in the next 10 years... if they don't figure out how to change their entire company to accommodate new technologies."*

– John Chambers, Cisco System

Data is the new oil, but digitization is perhaps the modern day coal needed to keep the office running. Digitisation is the new core strategy. It is now required by every firm to ensure that business operations remain intact during emergencies and professionals are able to keep up with deadlines and meet client needs. It is focused on connectivity and accessibility to services of general interest, intends to reaffirm the importance of a robust digital infrastructure and widespread digitization of services, especially for a continued revenue stream.<sup>8</sup>

Digitisation or a digital future is the answer to adapting to change. Many firms already on the path to digitalisation would have seen this period of prolonged remote working and online collaboration as a justification for their continued investment in technology to meet changing times. Technology is becoming the key component for firms going forward for them to thrive and compete in the post-COVID world.

The most famous company which was the first one to apply the concept of Digitization was Microsoft. On facing losses Microsoft was the first company to move its entire process into cloud-based solutions and forging relationships with software and technology vendors quite a departure from its previous approach. Both revenue and stock prices saw a dramatic upturn in response, going from \$38 per share in 2014 to \$139 in 2019 and \$93.5 billion to \$122 billion respectively.<sup>9</sup>

Forward-thinking firms continue to invest in new technology to their advantage, while conservative firms don't prioritise this.<sup>10</sup> Technology can unlock time and resources within your practice to deliver an excellent client experience by applying automation to tasks that don't need those human qualities of intuition, empathy or mental agility. Automation can create space for you to embrace the future of practice growth - business insight, accountability and transparency.

While going digital is not new to the CA office, the pandemic has significantly boosted the adoption of digital technologies, which is going to shape the future. The new normal post the pandemic calls for the CA offices to conduct their business operations, whether advisory or compliance based, virtually or remotely. Post the

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8 The Importance Of Digitalization In The Covid-19 Crisis, (Apr 21, 2020), <https://www.alpine-region.eu/news/importance-digitalization-covid-19-crisis>.

9 Benedict Clark, 5 Digital Transformation Examples to Inspire You, (Nov 4, 2020), <https://acquire.io/blog/digital-transformation-examples/>.

10 Wolters Kluwer Tax and Accounting UK, Are you set to steer your clients out of uncertain times? <https://www.wolterskluwer.com/en-gb/expert-insights/are-you-set-to-steer-your-clients-out-of-uncertain-times>

pandemic being agile, adaptive and flexible is key. And it's often in times of crisis that these kinds of seismic shifts take place. As new business models emerge and cash positions remain cautious, companies will look for technology capabilities and functionalities that directly impact business objectives. These will not only reduce the cognitive load of repetitive tasks but also free up resources for next level work. Capabilities must be consumption-based so that costs are accounted for once the business attains benefits. We may even see work itself becoming consumption-based, with more employees dedicating their hours per project, rather than contractually sitting in an office from morning to evening. Perhaps work will be rewarded based on the outcomes delivered, and people (and machines for that matter) will work from anywhere and at any time.<sup>11</sup>

One of the many benefits of technology in the workplace is the ability to completely digitize workplace dynamics. The importance of digitization can be seen from a simple, yet important, change of practice from using traditional calendars to using digital ones to schedule that help to improve planning and focus instantly, and act as constant reminders while working on our Personal computers, laptops or tablets. Digital workflows can totally replace human interference in setting up routine, repetitive, and mundane office tasks. Task management systems can be used to assign, monitor and track tasks in a team. They offer features that enable best use of resources in an office space. From a CA firms perspective, digitization is required for conducting remote audits, attendance of online court hearings and assessments and automation of regular compliance based activities, while sitting at home.

The digitized office would also entail the use of Enterprise resource planning or private clouds to manage enterprise functions including accounting, financial management, project management, and procurement.

Restricted access to physical workspaces for CA firms and increasing demand for professional services to cater to change in laws and reporting requirements during these emergent times calls for a modern day paperless office. The segregation of employees across different parts of the country has given an impetus to the idea of work from remote locations.

Consequently, automating routine tasks like data entry and complex calculations, provides enhanced time for your team to put on their thinking cap, work more on strategy and advisory related aspects and provide those services that your clients value most viz. providing an insight into their future operations and cash flows, building tax efficient future models, minimising any potential scope for litigation and supporting their business ambitions and its growth, economically. Client service is

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11 Nemo Verbist, How COVID-19 Is Accelerating Digitalization, (Apr 15, 2020), <https://hello.global.ntt/en-us/insights/blog/how-covid-19-is-accelerating-digitalization>.



often viewed as the most important driver of client satisfaction in a profession such as chartered accountancy, as it is in many other industries and markets. After all, accountancy has never been about numbers, it's more about continued relationships and enhanced client satisfaction.

The need for such digitization today, is felt now more than ever, with everyone in a race to survive and modernize. The best way for a firm of any magnitude to tackle the crisis is by learning to be more agile, simplifying processes, work patterns and taking steps to retain and engage customers. Life and operations may have changed significantly. But it's an opportunity for every firm to become more learning-agile. The faster we accept new things, the better we will be able to deal with the unfortunate but different circumstances, going forward. I believe that's at the core of every organization.

Covid-19 has reshaped this thinking over the last four months by debunking many conventional assumptions he had about how firms should function. One such myth being the fact that you need to travel to meet customers and be in office to be able to forge the right collaborations and inspire and engage employees. At many places, productivity of employees has actually increased by working remotely. And where employees are concerned, employees were never psychologically strengthened to work from home. It's a complex issue wherein people like to work from home twice a week or thrice a week, but if you ask them to work from home for six months, the loneliness catches up. Further, people in India are not really prepared for work from home. While they may have internet and devices, houses are not really designed for work from home. This can be quite trying, especially at a time when the entire family has to compete for space where they can work or learn, undisturbed. We need support systems to sustain the level of enthusiasm and productivity. Thus, while the initial few days may have been difficult, going ahead, firms have been able to catch their imagination and innovate in many creative ways. Deployment of technology has become more democratised instead of tiered. Thus, the current crisis is actually an opportunity for firms to get back to their offices, put everything on the table and re-imagine how they could change their businesses, while assuming they can start from scratch.

Thus, increased digitization will provide businesses with both opportunities and risks. There is always a trade-off or a balancing act to be maintained. However, moving forward, technology today will always be the mainstay around which such transitions, across every facet of organisations, take place. Firms will fundamentally change how they do things and reinvent everything from cost models and client engagement and management to various other aspects of provision of services and catering to client needs. Firms will also have to truly leverage data, being real-time, and use analytics to make decisions. The risk is that they will gravitate back to the old and leave themselves vulnerable to the next big disaster by not learning from the current crisis.

We have always witnessed the huge potential for absorption of technology. However, people today have actually got a chance to embrace technology in a big way due to this unusual situation.

Thus, the bottom line is technology and digitization is here to stay. It is imperative to make it part of every office space so that human efforts can be diverted to more productive avenues.

## **DIGITISATION OF CA FIRMS: FIRMS NEED A SURGICAL STRIKE TO RISE**

*“Every industry and every organization will have to transform itself in the next few years. What is coming at us is bigger than the original internet and you need to understand it, get on board with it and figure out how to transform your business.”*

*— Tim O'Reilly, Founder and CEO of O'Reilly Media*

The pandemic has indeed acted as a technology accelerator for several countries including India. It has also made digital integration a vital organization continuity enabler across verticals. When there's a crisis it can go one of two ways — everybody starts to butt heads or they start to collaborate. And underpinning these changing needs and concerns will be a rise in the intensity of tech as more and more people are starting to appreciate technology.

Back in 2000, CA offices were paper based, type writers were used to furnish important information. From the days of the early typewriter to the growth of Internet of things, technology has grown leaps and bounds and with this modern CA firms have left no stone unturned.

CA offices earlier were all about accounting skills involving verification from the viewpoint of substance over form, considering materiality to form a true and fair view, etc. Accounting was considered to be all about accounting standards, be it IGAAP or IFRS, and about the disclosure requirements along with Balance Sheet, Profit & Loss A/c and Cash Flow Statement. While we were trying to cope up with the international standards during all these years, there were drastic changes globally in an individuals approach in carrying out their business. CA offices were all about understanding the business environment of their clients and their supply-chain. However, since the traditional days we have seen a major digital transformation in CA firms, in particular.

Digital, over the past few years has firmly established itself as one of the most important factors driving innovation and consequent success and competitive advantage for firms. With the advent of the '*Experience Era*', the medium has evolved to become even more critical for enterprises to understand their clients and forge meaningful relationships for the long term. As the world adapts to a new normal, the rules for business success have changed and are ever more reliant on harnessing the power of digital to create new values and experiences in times of disruption.

The pandemic has been a watershed moment for the digital transformation of businesses and only ones that adapt and adhere to the new customers, evolved expectations, communicate their messages with empathy, have a much higher chance of succeeding.

The process to cope up with industry automation so as to understand the overall professional business environment is known as digital transformation. A simple example of digital transformation is the transition from the use of the notebook to store important information to using electronic devices to keep track of the same. Needless to say, post offices to the evolution of WhatsApp has also been a digital transformation in the Communication sector.

Digitisation is not a one-step procedure for firms, but a multi-stage process starting from the basic step of building the correct infrastructure, by systemizing. There are three pillars to a successful digital transformation - network evolution, digital business and client experience. End-to-end security, policy, customer data management and analytics across all three pillars can bring the digital experience to a whole new level. By using a process that is centered around the client, a firm can create a digital thread through to analyse data across the service lifecycle and create actionable processes that add value.

Recent events have thrown the world into disarray. We, as chartered accountants, are working away from our usual environment, working longer hours, or not working at all. And where we, as professionals, are working we face new challenges that must be overcome. The professional sector is going through a digital revolution, which is combining traditional processes with digital tools to create smart and effective solutions. The longer we face restrictions, the greater the challenge, however, the more innovative and creative firms become. We are seeing it in other businesses, where focus changes from bricks to online, from dine-in to take-away, from perfumes to sanitisers, from fashion and formula 1 motor racing to personal protective equipment and ventilators. These changes have been impressive and rapid, and show great versatility and agility. CA firms may also need to follow suite, with changing both the way and when work is conducted. The longer the world is fighting this virus, we will see changes in the way firms also operate. What emerges could be an innovative professional CA world.

Under the new normal, where normal is most definitely not normal, we are forcing ourselves into making greater use of technology to conduct remote visits, be it inventory counts, asset inspections or reviews of component auditor files, to thinking about what documents we need to see and what format is acceptable. ***Changing behaviour changes behaviour.***

In such a scenario, digital technologies have been helping and advancing CA Firms into the direction of innovation and disruption. Today, CAs have come to believe that digital transformation will be a key enabler for unlocking unknown growth opportunities. This is aimed at an over-arching objective of improving stability, visibility, and cost. In order to actively achieve these, we believe, that the timely application of technologies such as real time automated performance measurement

of employees and personnel, condition monitoring of machines, data flow with digital traceability, connectivity, adaption of the latest technology infrastructure, cloud based systems, information management system, among others will further be beneficial to our digitization growth trajectory.

It is not only important to survive but equally important to stay relevant in this crisis. Every firm must work on its own strategy with respect to a digital future. The focus should be two-fold- on the short-term goals and immediate actions to overcome current market challenges. The other, based on proactive thoughts and decision-making and post covid-19 challenges vis-à-vis opportunities. The foremost priority is about ensuring continued relevance of the team, services and clients. The idea is to use the digital medium of online meetings, webinars and technical trainings, to keep the firm abreast of technological developments and improvised services. The most logical way would be for manufacturers to augment their front-line staff with the right technology to increase their efficiency and productivity to cope with the current workload and beyond. It would be opportune to mention here that the lurking fear which the industry had about automation taking away jobs is now gradually being replaced by a better understanding that on the contrary it will help improve business and create employment but with suitable re-skilling.<sup>12</sup>

*Remote and flexible working, is an old privilege but a new norm.* Remote working has taken on a new dimension as firms navigate the uncertainty around COVID-19. With many of us now facing the prospect of that uncertainty lasting for an extended period, powering your practice with the right tools will be important during this pandemic.

Tools that have enabled secure online communication and collaboration, not only with your team members but also clients, have been an eye opener for many. Many practices have witnessed, perhaps for the first time, how productive they can be out of the office environment.

Growing technologies such as blockchain aim to provide a new benchmark to modern accounting. Cloud-based firm solutions have transformed how CA firms conduct business, improving productivity and expanding capabilities. Remote work would boost technologies like virtual private networks (VPNs), voice over internet protocols (VoIPs), virtual meetings, cloud technology, work collaboration tools and even facial recognition technologies that enable a person to appear before a virtual background to preserve the privacy of home. To keep up with the digital age, training on such concepts and the overall digital considerations need to be kept in mind before commencement of any audit which is being managed in the Digital environment.

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12 Jayashree Mendes, New Normal: The Metamorphosis, (Oct 03, 2020), <https://www.manufacturingtodayindia.com/sectors/8561-new-normal-the-metamorphosis>.

Instead of hiring more and more office space, many may adopt more flexible operational structures going forward. This would be a huge change with huge potential benefits including reduced costs, hiring from a wider location pool, employee up-skilling and flexible working patterns for key team members, especially women, who have family commitments. It could be a key differentiator for attracting new talent from all across the country now to your practice.

Crowded meeting rooms, hours in gridlocked traffic commuting to work, attending networking events, packed seminars; all could become a thing of the past. Discretionary spending will reduce. Health and well-being considerations will become a priority. Work-life balance will shift towards family. And people will want to take charge of their own careers and job security. Work from Home (WFH) will re-architect the daily routines of millions in India's urban clusters. Business travel and daily commutes may sharply fall, with teams having realised that they are more productive over video calls and would rather avoid the overhead and health risks of travel. WFH may lead to dramatic second and third-order effects in the way we live and work.

We are likely to see more virtual events, both on the national and international scale, being held in the future, long after the necessity to work remotely has passed. While we may be navigating the challenges of creating engaging virtual content for the time being, it's likely that many exhibitors and presenters will become more adept at delivering virtual content in an engaging and compelling way. We will witness how professional skills are put to use in the future.

We will also witness a more intentional and permanent shift of compliance and approval routines, digitally signed contracts, securely authenticated approvals, digital Know Your Customer requirements and on-demand retrieval of documents and disaster recovery systems thus leading to cost and time savings, increased productivity and deeper resilience against such future shocks.

If past economic downturns have shown accountants anything, it's that those who were in the best shape to make the most of the economic upturn when it came, succeeded despite the uncertainty. Accountants are in prime position to be the trusted partners businesses' need as they navigate their way back to the office and to growth. Intelligent, creative and hard-working people will always be in demand. Investing in people, technology and relationships, and adapting practice management and collaboration in the new normal, is ultimately not just a strategy for making it out of an economic downturn but a strategy for riding the economic upturn.

*For instance,* any major change in the business and economic landscape often triggers businesses to review their professional advisers. COVID-19 is no different. To mitigate the challenges so faced, businesses might look to new advisers for fresh ideas and



advice on how to survive the change. This is an opportunity for your practice to shine and obtain a competitive edge, both to existing clients and to prospects, with valuable insight.

Accountants need to think differently and develop new skills in assisting their clients through the covid-19 re-boot and 'out the other side'.

For your clients, business intelligence can mean actionable insights and information that can inform their strategic and tactical decisions about products, pricing, competition, markets, cash flows, investments and growth. As a professional advisor, having the right technology in place will be key to you in making the most of this opportunity. Consider investing not only in the technology to automate your compliance work, but also in powerful insight tools that will help you turn complex figures into graphics, making it easier for you to proactively communicate that valuable insight to your clients in a language they will understand. Who better to advise your clients on how to improve their profitability, prepare forecasts and build a strategic narrative than an accountant? You have the intuition, experience and resources to guide them through the changes and help them put their business in the best financial state possible. In becoming their partner of choice in these troubling times, you can help them recoup any losses they may have made and, in turn, recoup any short-term losses of your own. It's a rewarding cycle of insight and gain.<sup>13</sup>

It is a three-pronged approach: 1) If you haven't done so already, move to the digital platform. 2) Empower your workforce to perform wherever they find themselves – on the road, in the office or at home. 3) Develop advisory service lines that line up with your firm's areas of expertise and specialization. Such services will aid in demonstrating the value of professional firms in another way – by providing greater resiliency for the business operations of accountants and their clients.

Today, We're spending a lot of time thinking, how do you manage the next week, the next month? And that's inevitable and important. The situation has changed the way businesses think about risk profiles and potential scenarios. It has changed investment returns and client portfolios. It has changed the nexus, of global asset prices, interest rates and taxation policies. It has been a trigger for some big adjustments. Thus, going ahead, strategic planning is going to be a vital activity for any firm.<sup>14</sup>

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13 Wolters Kluwer tax and Accounting UK, The New New Normal: Accountancy After COVID-19, (June 01, 2020), <https://www.wolterskluwer.com/en-gb/expert-insights/the-new-new-normal-accountancy-after-covid-19>.

14 Why It's Time To Think About Your Business's Post-COVID-19 Recovery, (June 02, 2020), <https://www.acuitymag.com/business/why-it-is-time-to-think-about-your-business-post-covid19-recovery>.

Not having a clear understanding of the opportunities and challenges that lie ahead is akin to driving at night with your headlights off. The way in which this planning is undertaken is also critical. Rather than being an annual process that sets goals and actions for the year ahead, it needs to be an ongoing activity that is continuously revised to match changes in customer demands and market conditions. No business in the world could have foreseen the economic disruption caused by the pandemic or made allowances for the long-term impact. Any annual plans set in January are now essentially works of fiction.

Certain elements of this strategic planning process have been elucidated hereinafter:

### ***Accelerating Decision-Making***

Faced with such disruption, the ability to undertake agile planning is not just a nice-to-have capability; it's something that could mean the difference between a professional firm continuing to function or closing its doors. The crisis has really emphasised the need for collaboration across teams, and accelerated Decision Making through Digital Transformation. The importance of having accessibility to data in a responsive way has been made clear. Now, the ability to undertake agile or accelerated decision-making relies on having access to core data. For plans to accurately reflect current conditions, they need to be based on the most up-to-date and reliable data available.

Challengingly, it is highly likely that the data required to support accelerated decision-making won't be available in a single location. It will have to be drawn from different parts of the organization as well as from external sources such as suppliers, partners and clients. This is particularly important when things are changing so quickly and unexpectedly.

### ***Accessing Quality Data***

To make decisions and plan in these conditions, however, a business needs more than just data. It also must have in place tools that will allow it to make sense of that data and use it as the basis for informed decisions.

"Within our clients, there was a lot of interest in digital decision-making prior to the pandemic," says KPMG Manager of Financial Strategy and Performance Consulting, Georgina Woolf, another Board virtual event speaker. "Now it's moved from being an interest into prioritising a transformation."

Firm's clients want to be able to make decisions more quickly and have them based on reliable information. They also want strategic planning to shift from something that's undertaken once a year to an ongoing process that can respond to changes in business conditions. This process is streamlined by having in place digital tools



that allow different data sources to be brought together to create what is termed a 'single version of the truth'. This gives managers and decision-makers the confidence the data they are viewing is as current as possible and reflects the very latest impact of changing conditions. The tools can also help to represent data in different ways. Rather than needing to comb through multiple spreadsheets, data can be displayed on digital dashboards that enable trends to be spotted quickly and easily. What-if scenarios can also be readily tested. Rapidly changing external conditions can also be swiftly taken into account during planning. For example, sudden viral outbreaks in one area could mean that strategies need to be changed essentially in real-time. Having both accurate data and powerful tools to analyse it in place will ensure the business can react as quickly as is required.

### ***Ready For The Future***

It's clear that conditions are going to be very different for a very long time. Business strategies that made sense in late 2019 and early 2020 are likely to be significantly different and require capital and human resources to be deployed in new ways.

Trent Fuller, Chief Financial Officer and Director at Followmont Transport, says having access to quality data and the ability to extract value from it will continue to be critical for his company. Accountants in public practice need to schedule a time-out from helping clients during the COVID-19 emergency to consider how their own business survives the current pandemic. Older accountants will draw on their experience in hard times encountered before: the 1990, "recession we had to have" and the Global Financial Crisis for example. Others will emulate the responses already announced by large accounting firms.

Each practice will have unique issues to consider, and responses will differ accordingly.

It's unlikely that any business will pass through times of instability unscathed. However, those who manage to survive adversity –even in the most trying times – are the businesses that possess the most resilient structures and foundations. Transitioning out of COVID-19, some businesses will thrive, some will tread water and, for some, the adverse impact won't be realised until it's too late.

On account of the technological shifts in workflow, moving forward, firms will think twice about undertaking a long commute for an hour-long meeting, which can be conducted using technology; think twice before employing people not adept with technology and will even think twice before actually purchasing a physical workspace. This crisis has presented an opportunity to change service patterns to ensure technology reaches the bottom of the pyramid, both for firms and clients.

Firms that will not just survive but even thrive during these times are those that embrace the situation, get creative with new ideas, push themselves out of their comfort zones and find support in like-minded communities.

“Those who won’t survive are the ones currently sitting back, hoping the world will just return to normal. It won’t and they will be left behind”, Dr Jason Talbot CA Graphite i2i.<sup>15</sup>

## **I. BUILDING THE RIGHT INFRASTRUCTURE- SYSTEMISATION**

*“For a business to survive and thrive, 100 percent of all the systems must be functioning and accountable. For example: An airplane is a system of systems. If an airplane takes off and the fuel system fails, there often is a crash. The same things happen in business. It’s not the systems that you know about that are the problem – it’s the systems you are not aware of that cause you to crash”. - Robert Kiyosaki, The Cashflow Quadrant.*

The key aspects for firms as they strive to help enterprises achieve efficiency as their employees work from home are tools for collaboration and interaction, creating the infrastructure to support these tools, and building new capabilities and opportunities. Going forward, firms are expected to adopt a more ‘hybrid work culture’, along with an increased use of data and public cloud as more people realise the speed, scale, and security one can get from using digital resources.

CA offices need to have a different approach towards digital infrastructure. An aggressive, balanced approach is the most important step towards digitisation. The way organizations develop digital engagement strategies with a focus on data-driven, insightful solutions backed by a compassionate experience will have a lasting impression on their relationship.

Most importantly, having a digital strategy will go a long way in the growth of CA firms-

### **1. Raising Of Hardware Standards:**

One of the first things that offices must do in order to undertake a digital transformation is an assessment of the infrastructure within the organisation viz. evaluating the hardware situation and examining the quality and effectiveness of the network infrastructure. Network infrastructure includes both software and hardware components and is an integral part of the overall Information Technology infrastructure. For software components to work efficiently, the enterprise network must be of great quality, possess great connectivity and must be in line with the latest versions and trends. Evaluation of existing routers, operating systems, network security applications, network operations, IP addressing, wireless protocols, etc, is an integral part of the process.

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15 Ben Hurley, Why It’s Time To Think About Your Business’s Post-COVID-19 Recovery, (June 02, 2020), <https://www.acuitymag.com/business/why-it-is-time-to-think-about-your-business-post-covid19-recovery>.

## **2. Investing In A Friction-Free, Touchless Future:**

The pandemic marks a historic shift in the way the global economy operates. The pace of technology-driven and digitally-enabled change is now, faster than ever, challenging organizations to transform their capabilities to target and fulfill evolving customer needs. As no-touch self-service models become a norm, ensuring a frictionless digital experience is now essential for business survival and customer retention.

## **3. Time For The Weather To Get CLOUDier:**

Today, CA offices can practically move every legacy technology to the cloud and reap the benefits of reduced costs, increased efficiency, and access to technology which you previously didn't have. The Cloud platform itself provides a wide range of services. Software as a Service (SaaS) helps you to access and use software programs which were probably out of reach for small CA businesses. The concept of remote access has been made possible only because of the software as a service capability.

For mid-sized CA offices, SaaS is equally important to reduce dependency on physical infrastructure and keep the office scalable. SaaS models offer pay-as-you-go schemes, which will allow CA offices of all sizes to upscale or downscale depending on their situation. In addition, the cloud can also help you to access infrastructure via the cloud. Storage, data centers, and even networks can be used based on an infrastructure as a Service (IaaS) model. Development of new systems can be done under Platform as a Service. Thus, one can say that the use of Cloud platforms ensures that even the smaller firms are on an equal footing with the larger ones, and provided an opportunity to compete with multinational companies having a substantial presence in the market.

According to global research and advisory firm Gartner, enterprise IT spending for cloud-based offerings will grow faster than traditional (non-cloud) IT offerings through 2022. Moreover, Cloud shift across key enterprise IT markets is projected to increase to 28% in the next couple of years, up from just 19% in 2018. The general consensus among experts is that companies that don't adopt cloud-based applications and services will fall behind their competitors. Given how the majority of companies are operating remotely, it becomes imperative that the cloud becomes an integral part of every workplace.<sup>16</sup>

On a national level, there has never been a stronger case for every country's economy to be ready to move business functions to cloud-based systems. It

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16 Gartner Says 28 Percent of Spending in Key IT Segments Will Shift to the Cloud by 2022, <https://www.gartner.com/en/newsroom/press-releases/2018-09-18-gartner-says-28-percent-of-spending-in-key-IT-segments-will-shift-to-the-cloud-by-2022>.

is time for India also to focus on building a native cloud ecosystem. Cloud is classified as an industry of national importance in most countries and deeply tied with national security. The US now requires companies like Amazon and Microsoft to provide exclusive cloud infrastructure to host sensitive data and regulated workloads that adhere to the strictest government security requirements. India must now aim to become a large global cloud ecosystem. There is enough local demand, with the country being host to some of the largest IT industries and start-up ecosystems globally. This move will also lend unchallenged support to the call for data residency—the requirement for Indian citizens' data on global platforms to be hosted locally and regulated by Indian law. The local agglomeration of cloud infrastructure will strengthen India's digital future and become a comparative advantage as data becomes the new oil globally.

#### **4. Automation As The Road Ahead:**

With more businesses using tools to automate processes, modern Enterprise Resource Planning Systems (ERPs), available in many forms, like SAP are almost an integral part of every successful business. CA offices find it difficult to transfer data between individual departments and hence this, data can be shared between integrated tools, leading to better insight and more accurate predictions. For instance, CA offices may also use integration of tax and audit services for special areas of tax audit under Section 44AB of the Income Tax Act, 1961.

For eCommerce clients, for instance, CA offices can integrate the study of ERP with Customer Relationship Management models (CRM), so that purchases made by customers online are immediately reflected by the inventory department. The possibilities are endless, and such a heightened level of coordination is only possible when integration of data and services, using digital tools, is enabled.

#### ***Leveraging Tech Conferencing For Work From Home***

As cases of coronavirus continue to increase exponentially, a large percentage of India Inc. has been working from home. They are leveraging video-conferencing platforms, workflow & communication tools like Google Meet, Slack, Skype, Zoom, Microsoft Teams, Cisco WebEx etc., or even developing their own platforms, to remotely collaborate with their co-workers, host meetings, motivate employees, celebrate festivals, and even participate in informal brainstorming sessions in real-time. In fact, productivity among employees has gone up significantly in the time of lockdown. Major tech giants like Google, Facebook and Amazon have already extended their work from home policy until the foreseeable future. Twitter has also announced that it plans to give

its employees an option to work from home permanently. While the concept of remote working is far from novel, advanced technologies have made it a seamless transition from working from office to working from home, in an efficient and productive manner.

### ***Tracking Productivity Remotely***

Up until recently, the productivity of employees was mainly measured by the number of hours they spent inside the office and the number of weekends worked. In a remote working environment, this is not possible, owing to the lack of difference between office and home hours. However, there are software solutions like TeamViewer, project management tools such as Jira, as well as communication tools such as Slack & Microsoft Teams, that allow the company management to keep a track of the employees' daily work progress and ensure that each task is getting completed on time and deadlines are being met to maintain customer satisfaction. Similarly, companies can use tech-based platforms to measure the time it takes an employee to complete tasks, evaluate where time is being lost and work upon ways to further improve productivity, if need be. This enables them to not only maintain but also improve the turnaround time for achieving better results.

### ***Employee Upskilling***

Retaining the staff, and more importantly, retaining their morale, has been one of the major challenges for firms during this pandemic. With revenues being cut, thousands of employees have been fired or furloughed. Against this backdrop, technology has emerged as a saviour for employees to upskill and reskill themselves. Many Artificial Intelligence (AI)-based personalized platforms are offering courses in AI and machine learning, data analytics, digital marketing, etc. for professionals. Curated by experts, these courses are set across different difficulty levels. This is also enabling companies to optimize the skillsets of their existing base of employees without having to resort to firing someone.

In times of economic crisis, firms often resort to retrenchment policies wherein the decision of which employees to retrench is often based on the level of experience or skill of such employees. In such a scenario, obtaining the relevant and latest expertise, will certainly offer certain employees a competitive edge over others. Even for those firms that are resorting to retrenchment during such tough times, on account of the technological resources available, the opportunities for employees are no longer limited. Easy access to upskilling and e-learning platforms, has also encouraged employees to stay relevant in such times, to develop new skills and even explore different job avenues, be it within the scope of their current job profile or beyond.

### ***Contactless Entry Control And Exit***

As most organizations start opening up or resort to limited work from office policies, it has become imperative for organizations to have stringent entrance controls and checks for employees, visitors or contractors who are entering the premise to ensure compliance with the requisite safety requirements. The Contactless Visitor management system for entrance control purposes has been one of the key areas that can help organizations control and manage the people entering office premises and take precautionary measures. By replacing the legacy of manual visitor entry and exit registration with AI-based contactless visitor management systems; these technology-enabled systems facilitate seamless visitors, contractors authentication with QR code, re-registration, automated host notification, track visitor health form, control and have visibility of the number of people in the premise at a particular point of time, generate digital passes for visitors with zero human-to-human interactions, among others.

## **5. Embracing the New Age:**

These may seem like disparate terms often used by IT honchos, but they are very important for firms of all sizes. IoT, or the Internet of Things, uses sensors embedded in devices to intelligently communicate with servers and perform functions that ordinary devices cannot. These can further be connected to smartphones so that device-users have more control over how they interact with it. In case of offices, these could also be connected to smart devices, laptops or tables. From a firm's perspective, the sales and marketing teams can use IoT-enabled devices during promotional events, while logistics and product-handlers can use IoT enabled product or service tracking.

Blockchain is another digital technology which can help businesses immensely. You can use smart contracts to ensure security, and distributed ledgers allow you to process transactions in a safe and secure manner. Blockchain has a number of applications for businesses, right from identity verification to automated approvals. Artificial intelligence is another emerging technology that has now become mainstream for business use. Regardless of the size of the CA office, you can use AI-enabled chatbots for communication between employees between departments. AI can also be used for making financial predictions as well as estimating the results of your financial actions, understand market conditions in the best way and make it easier for you to come up with ways to improve your profits. These technologies are accessible, affordable, and easy to implement. Firms only need to decide to embrace them early before the competitor does.

*"I think there is just a better appreciation of what analytics, AI (artificial intelligence), and machine learning (ML) can do potentially because in this space*



*today, we are creating models from different parts of the world, bringing it together and then seeing how do we tackle something of the unknown,” says the Microsoft India President.<sup>17</sup>*

The automation of repetitive or compliance based tasks such as filing of basic excel information, filing of returns or forms, filling in requisite information or analysing where information is missing, conducting due diligence, managing documentation, among others; all such routine tasks can be undertaken by online bots. All in all such tools can also aid in preparing the perfect blueprint for your company’s accounts, taxes and other requirements which can in turn help you to carry out your business plans in an effective manner

## **6. Protect Your Digital Self:**

To ensure business success, it is not just enough to have the best infrastructure in place. Digital infrastructure’s success depends on how secure it is against various kinds of threats, and how well the firm is able to tackle them. The first step towards making sure that your digital infrastructure is safe is by conducting a risk assessment and security based due diligence. Your next step is to evaluate and predict threats that may occur in the future, based on the inefficiencies identified in the system or past trends.

Finally, making security a part of IT governance and digital policy is very important. A definite IT governance and cyber security policy needs to be in place. For instance, most businesses have now begun to include Bring your Own Device (BYOD) policies, along with access management and two-factor authentication. BYOD though a unique concept has its own risks of data corruption and data security. Securities like Firewall, Antivirus softwares (like McAfee) and Virtual Private Networks are needed to keep CA offices digital data safe at all times.

Just as infrastructure that we build and see in the form of power, water and roads enables us to go about our everyday lives, digital equipment and systems are core to our everyday offices – they help make sense of the vast amount of data we are faced with when dealing with different types of clients, put together processes and create a service of our own.<sup>18</sup>

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17 Saheli Sengupta, Tech Is The ‘New Normal’ For Companies Post-COVID-19, (June 12, 2020), <https://yourstory.com/2020/06/new-normal-post-covid-19-anant-maheshwari-microsoft-india>.

18 Australian Government, Why Does Digital Infrastructure Matter?, <https://www.industry.gov.au/data-and-publications/australias-tech-future/digital-infrastructure/why-does-digital-infrastructure-matter>.

In our opinion, the correct IT infrastructure replaces the need for physical infrastructure almost in entirety. We believe, for a CA firm the right way to initialize change is to systemize and digitize it.

While technology has been redefining and reinventing the corporate sector since a while now, the COVID-19 crisis has forced companies to take a hard look at their existing practices and adopt new technologies to tackle unprecedented challenges, train the workforce with new skillsets, and optimize time as well as resources. Some of the current technology trends observed in the corporate space may not be permanent, but it goes without saying that technology is here to change the face of CA firms as we know it.

Each of the above has been elaborated on in detail later in the publication.

## II. READINESS ASSESSMENT- SKILLSET WORKABILITY, INTEGRATION, IT POLICY

*"If you don't innovate fast, disrupt your industry, disrupt yourself, you'll be left behind."*

*– John Chambers, CEO of Cisco*

The purpose of this digital readiness assessment is to test the cognitive skills and behaviour that underpin an employee's preparedness and level of readiness to adapt to the digital culture of the organization. It evaluates whether the employees possess the ability, skills and the will to adapt and manage the digital transformation process.<sup>19</sup>



A digital readiness assessment helps in understanding the overall maturity of the digital technology of the firm and those operating it. The digital readiness assessment for a firm can be evaluated by answering the following simple but important questions:

1. Does your office have an innovative approach to the assessment and application of new technology?
2. Are opportunities to automate business processes identified, assessed and implemented where appropriate?

<sup>19</sup> Digitization, Digitalization, Digital Transformation & Digital Readiness, <https://blog.mettl.com/digital-readiness/>.



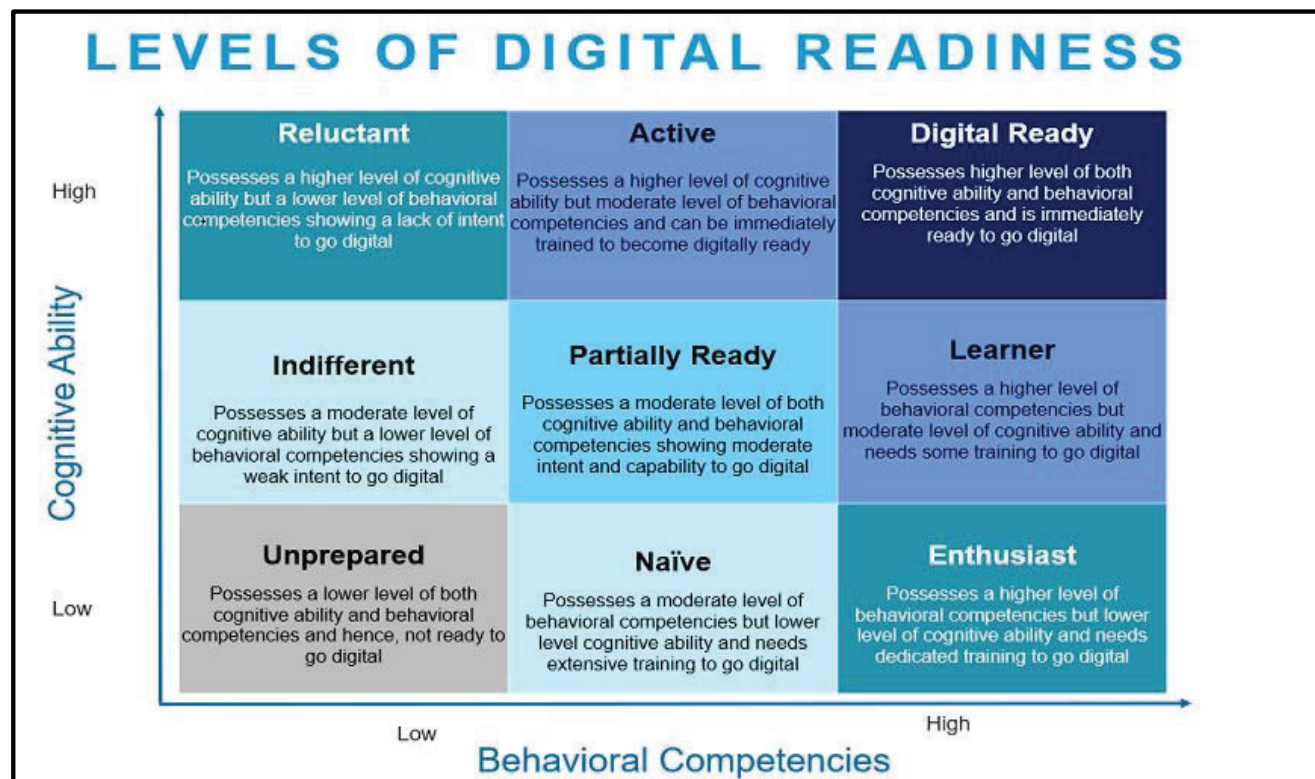
3. Is your organization using new technologies like AI, Big Data and Robotic Process Automation?
4. Have technology implementations in your office been successful in the past or during the crisis? Has a prototype been run for testing such technologies prior to its implementation on a larger scale?
5. Who, in your office is accountable for digital decisions?<sup>20</sup>
6. How often do you change your technology for regular departments such as audit, tax?
7. Are you able to access the office Virtual Private network from any location?
8. How does your office manage repetitive tasks?
9. What is your digital vision for your office?
10. Do you have the requisite cloud infrastructure?
11. Are the employees, at any level within the organisation, equipped to deal with technological advancements? If not, are there training mechanisms in place to upskill such employees with the latest developments and updations?
12. Does the firm have the requisite resources to acquire the right technology infrastructure viz. hardware, latest software, cloud infrastructure, relevant personnel and experts (if need be), among others?

Digital readiness assessment framework aims to assess whether the employees possess suitable behavioural competencies and cognitive skills to adapt and manage the digital transformation process. The purpose of this assessment is to test the ability and behavioural competencies that underpin employee's' preparedness and level of readiness to adapt with the digital culture of the organization.

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20 <https://www.scopism.com/questionnaires/digital-transformation-readiness-assessment/>

Based on our research, the digital readiness level of an individual employee can be reported in terms of a 9 box model as illustrated below:<sup>21</sup>



### **Skillset Workability:**

Employee skills are the core of an organization's progress. CA offices today may digitize leaps and bounds but if the same technology is not adopted by the employees, the digital boost would be redundant. Hence, employee training is at the core of digitisation. CA offices should hold brainstorming sessions, trainings, monthly or weekly follow-ups and grievance redressals so as to make sure that the employees working within the organisation have the necessary knowledge before they scale up the ladder of technological advancements. When it comes to professional firms engaged in the service sector, our biggest asset is our human resources. One of the major factors that would help differentiate one firm from another would be the quality and consistency of employee upskilling. With time and the relevant training, performance appraisal and motivation, employees will not only be able to add value to the existing processes and clients but also be able to bring in an element of innovation and creativity into the current operations, into their work or build on new ones.

<sup>21</sup> [https://mettl.com/test/digital-readiness-assessment?utm\\_source=www.google.com&utm\\_medium=blog](https://mettl.com/test/digital-readiness-assessment?utm_source=www.google.com&utm_medium=blog)

In order to evaluate the performance and understanding of employees from time to time, and to voice their concerns or ideas, employees must be provided with a survey so as to learn their understanding of the technology containing the following non-exhaustive list of questions:

1. Is the training provided for the use of the technology sufficient?
2. Do you have suggestions towards the training you have been provided?
3. Does the new technology reduce the time taken to complete the repetitive tasks? Is the technology used flexible and adaptive?
4. Is there any area which can be improved upon?
5. How much time has been saved since the arrival of the technology? Have employees been able to save time and resources on routine compliance based activities?
6. Are there any glitches or problems faced when the data is very heavy?
7. Are the employees getting familiar with the new technology? Any problems faced by them with respect to transition, implementation or operation of the same?
8. Are the employees aware of the availability of any new trends or disruptive technologies, whether in India or abroad, that could be implemented within the firm for ease of business and provision of services?
9. Understand the mindset of employees, with respect to a transition from traditional to digital operations, to evaluate their level of motivation.

### **Integration:**

Integration of technology is the most important factor for modern cloud based workspaces today. Technology integration as a whole is based on the willingness to embrace the change within the organization, adopt it and use it effectively to the best advantage of the firm.

Technology integration for the modern CA office is the process of aligning of CA departmental areas like tax, audit and litigation with appropriate technology so as to produce an effective output, automate such activities, and enable easy flow of common data between different departments.

### **1. Understanding The Advantage Received**

It is essential to understand if there is a need that a given technology tool can address. From a CA firms perspective, needs would include areas such

as tax computations, audit documentation and several others. A needs based assessment needs to be carried out for successful technology integration. Robotic Process Automation or RPA can be<sup>22</sup> used by modern CA offices for reducing the overall time taken for repetitive processes in areas, distributive ledger technologies technologies can be used to verify reported transactions without further manual inputs and analysis of data, providing an opportunity to alleviate these labour and time-intensive actions within the workflow.

## **2. Evaluating The Objective Of Using The Technology**

Every mid-sized CA firm needs to ensure that it uses technology that is aligned with its stated objective. If a CA firm aims to improve and smoothen its overall audit process, it should use a technology which addresses the wholistic issue right from obtaining and managing documentation, analysis and evaluation to preparing the financials and releasing the audit report, identifies the relevant lacunae and improvises or modernizes that particular part or the system as a whole. Hence it is important to identify what is the core objective, and then determine whether that objective can be addressed by the technology. If the answer is in the affirmative, it would be important to determine how and which technology could be used to achieve that objective.

## **3. Analyse The Readiness Of Employees**

As stated earlier, while reshaping technological outlook and moving towards a digital transformation, the CA firm must understand whether the employees are first ready to accept the change. The employees should also be skilled enough to understand how the technology works and would be utilized by them in their daily operations. A major issue that mid-sized CA firms face is resistance and the lack of willingness on the part of employees to adopt and implement the requisite technology or modernize their practice; and also the lack of requisite training tools. Since employees are the individuals who ought to eventually run such technology, this mental barrier ought to be addressed before bringing in the technology.

## **4. Trainings And Other Learnings:**

Once the technical and mental barriers to the adoption of technology are overcome, the next important step is to assess the level of knowledge and expertise of employees and the level of training needed to make them adept with the use of such technology. Experienced or higher level employees can study the technology first and then impart knowledge to all the other

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22 Will Distributed Ledger Technology Benefit the Audit Process or Create More Challenges for the Future?, <https://www.treasury-management.com/blog/will-distributed-ledger-technology-benefit-the-audit-process-or-create-more-challenges-for-the-future.html>.

employees within the firm. A major issue faced by smaller firms is the lack of investment of adequate hours into training, performance appraisal and skill development; impacting the long term performance of the organisation. Training hours can be adequately allocated, to train in the use of digital tools for best results. While it may seem like a major investment of time and resources in the initial few days, it will eventually lead to saving of time on account of enhanced efficiency, automation and unnecessary wastage of resources in the future.

## 5. Analyse Results And Implementation:

Integration may seem like an end-to-end term however integration as a process does not end with implementation of the technology. Effectiveness of the technology must be judged on a month on month basis for the first few months to understand whether the major issues are being addressed. A feedback system should be in place which asks the employees basic questions such as the amount of time they believe that technology has reduced and the technical glitches they faced, if any, while using that technology.

Integration of technology is what makes a firm relevant in a dynamic ever-changing environment. Many CA firms believe that the introduction of better technology will result in greater operational efficiency. However, merely adoption of technology is not enough. While this may be achieved, it is important that the correct integration sequence is followed for consistency and longer term benefits. Consistency, adaptability and resilience are what differentiate a modern firm from a top notch one. All of these can be achieved through the right integration of technology based on business processes, professional services and client needs. This being relevant right now, more than ever, for Work from Home calls for better usage of technology, not only from their workspace or from our houses, but also from a remote working environment.

It would be opportune to quote Daniel Wilson when he said, *"Things Grow Stronger When You Integrate."*

## III. INFORMATION TECHNOLOGY POLICY

*"The advance of technology is based on making it fit in so that you don't really even notice it, so it's part of everyday life."*

*-Bill Gates, Co-founder of Microsoft*

In the age of emerging technologies and ideas such as BYOD (bring your own device), it is important to set regulations for the usage of the firms resources.

A simple IT policy of a Modern CA firm should contain the following-

1. **The Purpose of the Policy:** (for example- the purpose of an IT policy could be to maintain the confidentiality, integrity and availability of the information of the firm, or in the difficult COVID scenario the purpose may also be to address Work From Home scenarios).
2. **The Scope of the Policy:** The scope basically defines the applicability of the IT Policy.
3. **Definition of important terms:** Various terms may have different meanings in different situations. Terms such as Confidential information, User, etc may be organization specific and the same may require an unambiguous explanation.
4. **Responsibilities of the User:** These responsibilities basically define what the user is responsible for in the case of the laptop being damaged or the laptop being stolen and the duties of the users in case any of the situations arise.
5. **Electronic Mail/ Email Policy:** This Clause basically informs the user that he will have to use only a particular email id as assigned to him. Spamming or forging of emails should be strictly prohibited. During COVID times, due to work from home availability, attachments should be checked before they are sent.
6. **File Usage Policy:** Due to the availability of various devices, CA firms should make sure that their employees can access the firm's confidential data only through a particular user id allotted to them. Admin access for servers must be given to certain IT professionals only. COVID has forced CA firms to move to the cloud and hence access to the files on the cloud should be monitored.
7. **Network Policy:** Unauthorised Access to networks should not be attempted. The most important thing during COVID times is the definition of a VPN or a Virtual Private Network, such that the firm's information can be accessed only through the virtual private network id and password which would be user specific.
8. **Internet Policy:** The internet policy basically restricts the usage of internet software only to the available licensed ones and also restricts the usage of certain websites so as to ensure confidentiality and privacy of the firm.
9. **Mailbox termination Policy:** Users who have not remained active for a particular time frame must authenticate before they start using the firm's assets again.
10. **Security Policy:** This Clause especially during COVID times is the most important part of an IT policy. It defines the security threats such as spamming, phishing



and viruses and also states what can be done to avoid any internal damage. The security policy also states the protocol to be followed in case of a security breach. Firewalls, Anti-Virus Systems are also defined so that there is consistency in the protection. Remote work including work from home calls for tighter, stricter IT policy so that the slack of certain employees can be easily monitored and necessary action can be taken before there is any harm caused to the data.

11. **Backup Policy:** Backup and data cleaning should be conducted quarterly so as to make sure all the data is readily available at all times.
12. **IT Committee:** Certain firms have an IT Committee in place which looks after the basic needs of the employees and tackles the matters related to the technology with regard to its implementation and upgradation.
13. **Approvals:** There are certain software which are extremely expensive and are role specific. Hence there should be an approval system in place which provides a framework to be followed in order for the license to get the necessary approval.
14. **Remote Working:** COVID times have called for an additional clause for management of work from different workspaces which maybe beyond the boundaries of the city in which the firm is located. It should address situations such as security, network access and also maintain confidentiality.
15. **Confidentiality/Security Policy:** This section basically states that all the information received by the employee is meant to be confidential and cannot be used for any other task apart from those that are explicitly ratified.
16. Apart from this IT policies may have general rules and regulations defined as a part of their Wireless Usage Policy, blogging policy, social media policy, etc to ensure employee productivity.

The IT policy of the firm defines the outline of the usage of Computer Assets and data within the firm. It also defines security protocols and manages any damage caused to the device. Overall, an IT Policy ensures the integrity, privacy, confidentiality and the accountability of the user.

The environment for a CA firm is changing. After the dot com revolution, it is the first time we are seeing an evolution in the way CA offices operate. The revolution of technology however may seem far-fetched for a CA firm which does not regulate the way it uses the technology. We hear of several viruses such as trojan, worms and other malware. During COVID, hacking cases have multiplied several times over. This calls for a security protocol.

In order to compete in the market, a CA firm should regularize the way they look at their IT assets and manage their employees while using the same. It is very easy to be

carried away by new and better technology which reduces our effort but to maintain the same level of work along with the requisite quality is equally essential.

#### IV. PROCESS AUTOMATION AND OPTIMIZATION

*“The first rule of any technology used in a business is that automation applied to an efficient operation will magnify the efficiency. The second is that automation applied to an inefficient operation will magnify the inefficiency.” -Bill Gates*

Process automation is the breaking down of complex business processes into small blocks so as to define the sequence and optimize the work performed to yield best results. An example of the same would be the use of spreadsheets on systems such as Microsoft Excel and how it has automated the recording of data.

The trend today for process automation in the CA environment is Robotic Process Automation or RPA.

Auditing has historically incorporated many computer-dependent tools and processes, which were often interlinked by many manual steps and keystrokes. A new set of overlay software has emerged, however, that combines these disparate actions into a single smooth automated process. Robotic process automation (RPA) uses these new software tools, such as those offered by Blue Prism or UiPath, to transform a still somewhat handmade audit process into a more assembly-line audit process. RPA represents a dramatic and disruptive change in current audit practice that promises to allow auditors to operate at a much higher level. Leslie Willcocks, a professor at the London School of Economics, has defined RPA as “a type of software that mimics the activity of a human being in carrying out a task within a process. It can do repetitive stuff more quickly, accurately, and tirelessly than humans, freeing them to do other tasks”<sup>23</sup>

For accountants, RPA represents the opportunity to improve audit quality; indeed, RPA is already demonstrating its ability to improve business processes.

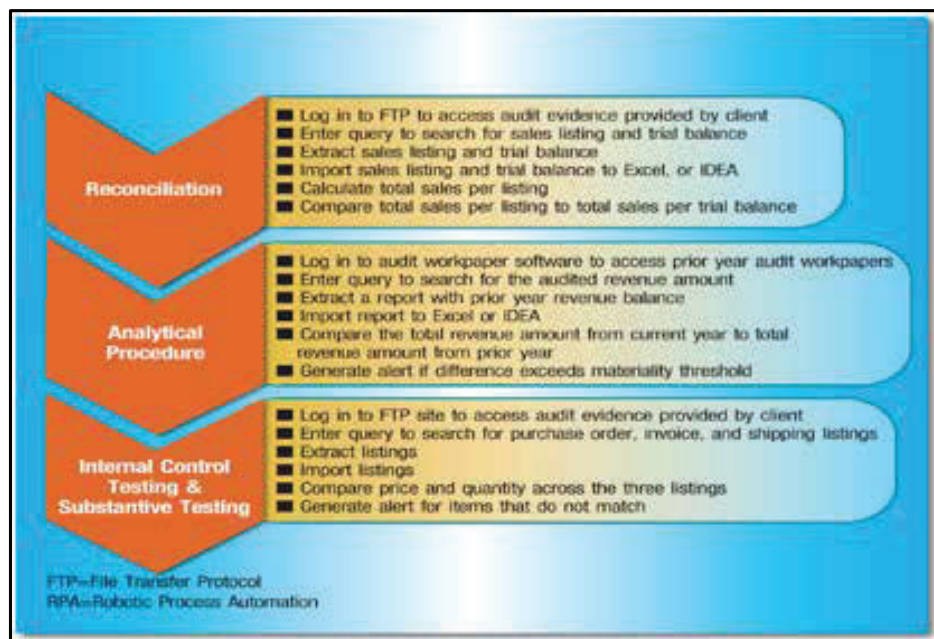
For example, a significant portion of tax activities, such as the calculation of book-tax differences and the preparation of tax returns, has been successfully automated by RPA software robots.

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23 Miklos A. Vasarhelyi, PhD and Andrea M. Rozario, CPA, How Robotic Process Automation Is Transforming Accounting and Auditing, (July 2018), The CPA Journal, <https://www.cpajournal.com/2018/07/02/how-robotic-process-automation-is-transforming-accounting-and-auditing/>.



An example of RPA is:



### RPA for Dual-Purpose Audit Tests

RPA can be programmed to calculate whether the price and quantity are different across sales invoices, sales orders, and shipping documents, and to generate alerts for sales transactions that contain differences in price and quantity. By automating these procedures, auditors can reallocate their time to more value-added activities, which will inherently increase audit quality. By leveraging RPA software, auditors can obtain a better understanding of the client's business operations and therefore be able to more precisely assess the risk of material misstatement.

### Three-Step Approach to RPA-Based Audits

RPA is a form of process improvement using technology; when applied to auditing, RPA is expected to not only replace manual and mundane audit tasks, but also to motivate the re-engineering of audit processes. When deciding whether RPA is a good fit, public accounting firms can refer to the RPA implementation roadmap suggested by K. Moffit, A.M. Rozario, and M.A. Vasarhelyi ("Robotic Process Automation for Auditing," *Journal of Emerging Technologies in Accounting*, forthcoming). According to the roadmap, RPA implementation consists of three main stages: 1) process understanding, 2) audit data standardization (ADS), and 3) execution of automated audit tests (i.e., audit apps).

#### Process understanding.

Theoretically, a large number of audit processes may be a good fit for RPA. The audit processes that would benefit the most from RPA are those that contain defined audit

tasks that are repetitive and time consuming and that do not require audit judgment. Public accounting firms may identify an audit process where RPA can add value by considering expert knowledge, such as that of revenue audit leaders, and calculating the actual hours spent performing audit tasks. Furthermore, the most important factor to justify automation is the number of times a firm needs to perform a particular function, which is mainly dependent on the number of similar audits being done.

Once a firm determines that a process is a good candidate for RPA implementation, the next step in understanding the process is to divide audit tasks into small audit modules that can be interpreted by software programs. For example, the task of importing or exporting data is intuitive to a human user, but for a software program, the task would have to be divided into a series of small steps:

- Defining the directory from which the file is to be imported
- Importing the file
- Saving the imported file
- Defining the directory into which to export the saved file.

### **Audit data standardization (ADS).**

To run as intended, RPA audit applications need consistency across data fields. Audit-related data may come from different sources, such as the client's ERP systems or third-party asset managers; thus, data field names in different audit-related reports that contain the same information may be different. If so, RPA software will not be able to execute the intended audit test. Consequently, the second stage in RPA implementation is for public accounting firms to create an audit data standard for each process that will be replaced by RPA.

ADS is becoming more relevant as public accounting firms consider the use of technology in financial statement audits. An ADS template incorporates the audit-related data that is necessary to execute audit tests. Similar data field names and formats can be designed by the firm to ensure the RPA audit application achieves its intended objectives.

### **Execution of RPA-based audit tests.**

The final step in the RPA audit implementation framework is to program the software to automatically execute audit tests and deploy it on real-world audit engagements. There are numerous RPA software tools that public accounting firms can leverage; BluePrism and UiPath are among the most well-known tools on the market. The advantage of adopting ready-to-use RPA software tools is that they require little to no additional programming. Nevertheless, programming languages such as Python and R can assist in the deployment of RPA-based audit tasks, though they require additional

programming skills. Python and R, however, already have libraries that are very useful for RPA functions. Programming audit tests as rules-based functions would enable the automatic execution of audit tests. Once audit tests are programmed, an auditor can simply click a button for the RPA-based audit tests to import and read data, perform rules-based audit tests, and export the results of audit tests into an audit workbook.

While RPA has the potential to automate most parts of audit processes, it is preferable for public accounting firms to start small. Targeting low-risk process areas that do not require audit judgment should improve the success rates of RPA projects at firms. Starting small can also increase confidence among RPA software users.

The deployment of RPA audit tests on audit engagements is critical in measuring the success of RPA-based audits. Parallel audit testing consisting of current (manual) audit tests and RPA-based audit tests should also be performed as a way to validate RPA audit tools. Moreover, for RPA to thrive in audit engagements, firms should leverage the support of their IT departments. Establishing an RPA support hotline can help auditors gain more confidence with these tools, and ongoing communication between the audit engagement team and IT support can also help ensure that RPA audit tools are fine-tuned to meet specified audit objectives.

### ***What's Next?***

The excitement around RPA is well founded, and the accounting profession is readily embracing this technology. RPA-based audit procedures have the potential to improve audit efficiency and effectiveness. More so than ever, change in the audit profession is slowly but steadily happening, and professionals should be ready to embrace RPA technology and enjoy the fruits of its labour.<sup>24</sup>

### ***What Is Optimization***

Optimization is the process of simplifying tasks in such a way that there is no loss of productivity at the expense of effectiveness.

Optimization as a process is required at several stages for a CA firm. A CA firm due to the various levels of communication may lose the overall effectiveness of the information shared. Optimization leads to sustainable growth.

Examples firm optimization include:

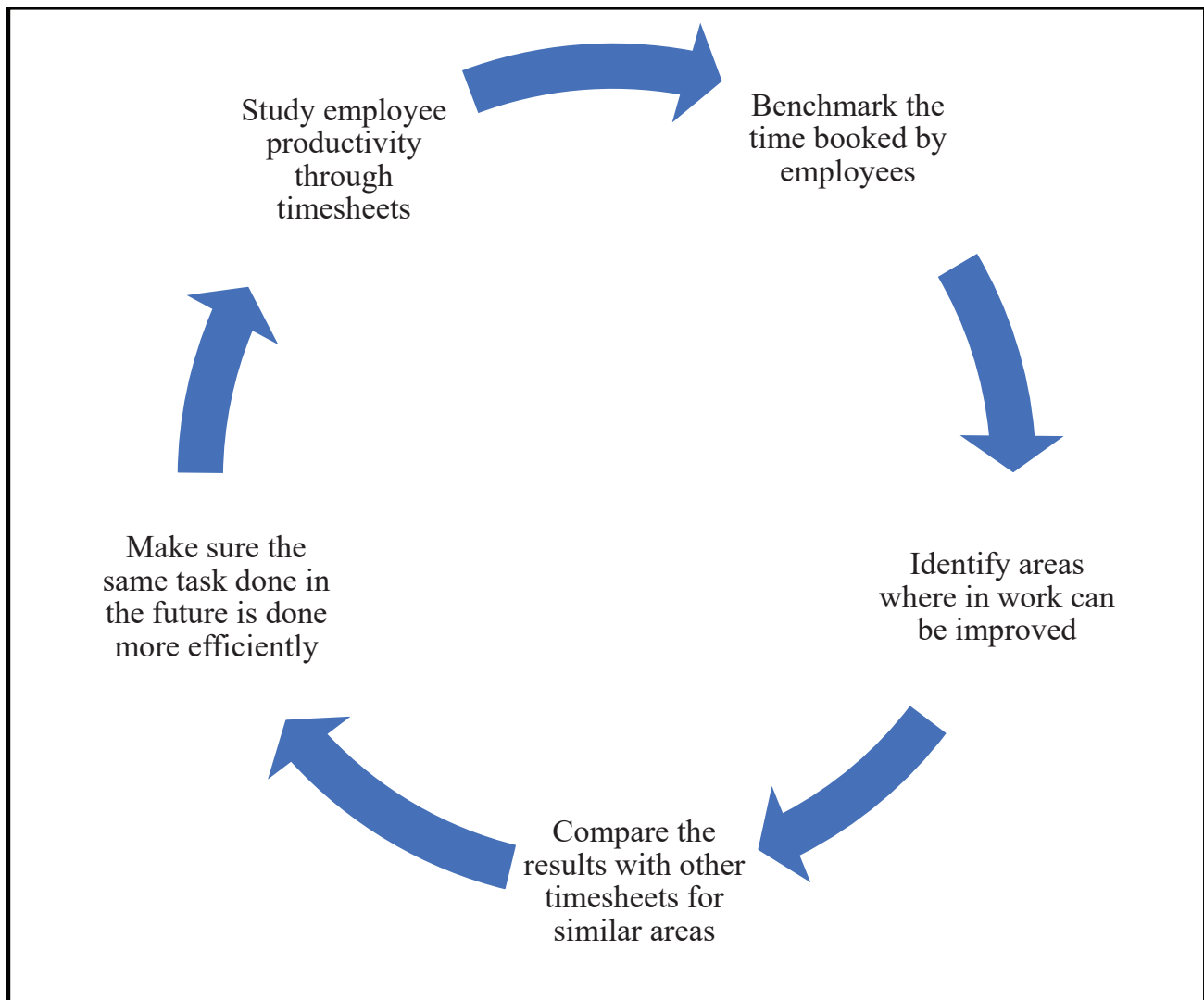
1. Introducing new methods, practices and systems that reduce turnaround time
2. Reducing costs while improving performance

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<sup>24</sup> Miklos A. Vasarhelyi, PhD and Andrea M. Rozario, CPA, How Robotic Process Automation Is Transforming Accounting and Auditing, (July 2018), The CPA Journal, <https://www.cpajournal.com/2018/07/02/how-robotic-process-automation-is-transforming-accounting-and-auditing/>.

3. Automation of repetitive tasks
4. Machine-learning techniques that improve equipment operation
5. Increasing sales through enhancing customer satisfaction
6. Reducing all kinds of waste such as wasted time, scrap production and repeat work.

Optimization includes simple elements like measurement of productivity, efficiency, understanding the areas that require improvement, measuring and comparing the results and continuing the same process.



Timesheets are an emerging technology. Many CA firms today use the concept of timesheets in order to measure employee productivity and effectiveness. The process of a timesheet is very simple and flexible. They are based on the concept of time booking. Each client of a firm is allotted a unique code. The unique code can be

accessed only by the members of that client engagement. If work is done on a particular client, the hours which have been effectively utilized by the employee have to be entered on a day to day basis on that client code. The total hours taken on the client not only helps in checking employee productivity but acts as a barometer for similar client engagements, a benchmark for the next employee who performs a similar task and acts as a factor for overseeing the allocation of the employees.

During COVID times, remote audit and work from home is the new normal and hence employees not working from office need to be kept under check. Optimization is the COVID era oil. Small time saved from optimization can be very valuable. Lockdowns have reduced face to face interactions but timesheets have given access to the employees without actually being present. Employers of a CA firm can hence unite and keep their firm relevant.

## V. ARTIFICIAL INTELLIGENCE – THE COVID COAL

*If our era is the next Industrial Revolution, as many claim, AI is surely one of its driving forces. - Fei-Fei Li*

Artificial intelligence is transforming the financial and accounting space with advancements that eliminate tedious tasks and free up time for the staff to prioritize time allocated to higher impact responsibilities and strategic thinking. Yet a majority of businesses still haven't employed AI in their workforce due to uncertainties around the business case or return on investment. This lack of understanding is a growing concern for staff (especially when it comes to managing a number of audit or tax documents) dealing with massive amounts of data. In the digital transformation era, more and more clients are digitizing processes, and in the meantime also leading to an increase in the amount of spreadsheets and documents that accounting and audit professionals ought to analyze.

To streamline processes and draw deeper insights, firms should explore the current opportunities offered by AI. Here are three ways such advanced technologies can take the grunt work out of daily tasks:

### 1. Streamline Data Entry And Analysis

Artificial intelligence helps financial managers stay on top of transactions amidst systems that are tedious and time-consuming. Instead of financial data being spread out over multiple documents, PDFs and spreadsheets and continuous reference to various documents; machine learning — a branch of artificial intelligence — extracts data from receipt images, automatically classifies it based on spend category, consolidates data and populates reports for analysis in one single place for ease of reference and analysis. These comprehensive reports can provide businesses with smart insights to improve financial planning, prepare documents and undertake an overall analysis of data for various processes.

Machine learning also draws deeper insights as it processes data over time, meaning businesses can gain a comprehensive view into long-term spending patterns and accounting staff can provide even greater value to organizations by advising clients on optimal budget forecasting.

## **2. Reduce Potential For Fraud In Terms of Company Spending**

Company spending has become increasingly decentralized. Today, employees spend more money across various categories, using multiple payment methods, making it difficult to keep track of all such payments. As financial data grows and spreads across additional payment channels, the risk of fraud and non-compliance also increases. According to the Association of Certified Fraud Examiners, the average organization loses 5 percent of its annual revenue to internal fraud. Organizations and auditors can typically only audit approximately 10 percent of expense reports manually, leaving the majority of potential fraud to go undetected.<sup>25</sup>

AI, on the other hand, can audit approximately 100 percent of spend reports, in a shorter span of time. By predicting patterns and detecting a wide range of anomalies in financial data, AI can help auditors catch fraudulent spending before the reimbursement occurs. Because it's scalable, AI can also easily handle influxes in financial data with the same level of accuracy. In fact, analyzing more data makes it smarter and better at tackling financial fraud.

## **3. Enforcement of Corporate Policy**

Artificial intelligence can be used to drastically reduce the time it takes to identify and detect areas of non-compliance or deviation from the company policy in data as well as operations. Professional fee receipts, purchase orders, employee receipts, travel bookings and credit card transactions are automatically scanned for purchases made outside of policy — enabling auditors to quickly note the error and help enforce corporate policies to the employees for the future. For instance, AI can automatically detect employee expense violations such as disallowed or personal spends claimed, unverifiable receipts, personal credit card usage, disallowed merchants and travel add-ons.

With increased visibility into corporate spending patterns, organizations can also determine which policies are working for the company, as well as whether certain policy violations are justifiable. For example, using shared economy

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25 Hendrik Vordenbaeumen, 3 Ways Accountants Can Implement AI Today, (Apr 24, 2019), <https://www.accountingtoday.com/opinion/3-ways-accountants-can-implement-ai-today#:~:text=In%20the%20digital%20transformation%20era,and%20audit%20professionals%20must%20analyze.&text=Artificial%20intelligence%20helps%20financial%20managers,are%20tedious%20and%20time%2Dconsuming.>



services could help save the company some money, suggesting an opportunity for updated policy procedures that better align with employee habits. Using an AI application to gather and summarize numbers helps finance managers identify trends to make data-driven recommendations for their client's corporate policies. In the modern firms, finance professionals ought to work together with technology assistants. By leveraging AI-powered solutions, they can streamline data analyses and focus on more strategic functions for their clients.<sup>26</sup>

Smaller organizations have an advantage of being more agile and quick to respond to market changes, owing to a smaller scale of operations. They can also bypass the requirement of significant investments that AI demands by finding the right mix between *Buy, Build, Or Partner/Collaborate*.

Don't focus on AI simply because it is a new technology. Identify and evaluate whether AI as a practice, can really add value to your firm and help you achieve your goals. Start small. It is imperative for accountants to start small but think big. Starting out by doing simple test runs on concepts or operations that are highly relevant for your business will ensure that your use of AI in the future will be suitable and effective for the firm, specifically. And once you start scaling up, expand your AI capabilities and leverage on the same to expand your scale of operations.

Ensure the team is open-minded. AI will mean new ways of working for everyone, so from the most junior to the most senior member of an audit team, we will all need to be open-minded and quickly pick up new technology, acquire new skills, and embrace career-long learning.

Measure success. Get stakeholders to buy-in, obtain an executive sponsorship, define what success looks like and how you will measure it. Perform an 'after action review', correct deviations and iterate — you don't get it right first time, but keep on iterating and reminding yourself of the larger picture.

Don't believe what works now will work in a span of 10 years. While incorporating the right technology is important; being adaptive, flexible and changing with changing trends is equally imperative. We need to consider how our clients consume services. While those of us above the age of 35 may still value the personal touch of a phone call or face to face communication rather than an email or text, accountants and firms have to consider whether this will be the same in the next 10 or 20 years — particularly with the rise of automated online bots.

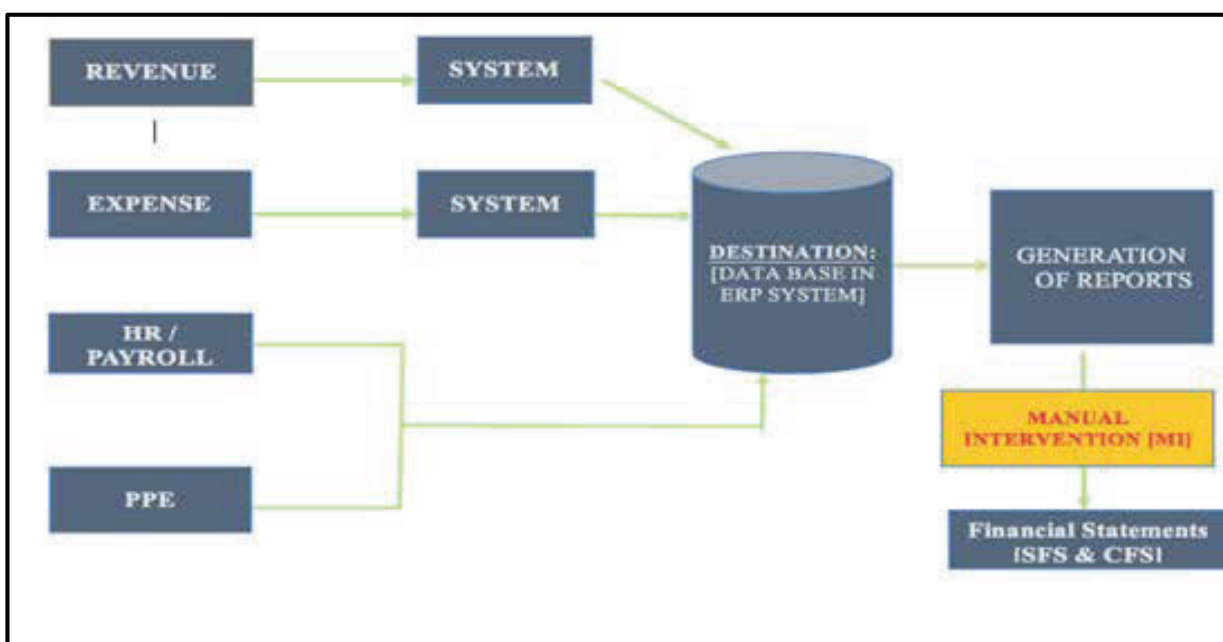
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26 Hendrik Vordenbaeumen, 3 Ways Accountants Can Implement AI Today, (Apr 24, 2019), <https://www.accountingtoday.com/opinion/3-ways-accountants-can-implement-ai-today#:~:text=In%20the%20digital%20transformation%20era,and%20audit%20professionals%20must%20analyze.&text=Artificial%20intelligence%20helps%20financial%20managers,are%20tedious%20and%20time%2Dconsuming.>



Forecasting isn't a crystal ball. Forecasts made through the use of AI should never be about predicting the future — it is far too complex — but about helping users to make decisions today that increase the probability of the client achieving their objectives. Advisers need to help clients make data-driven decisions considering this complexity and uncertainty.

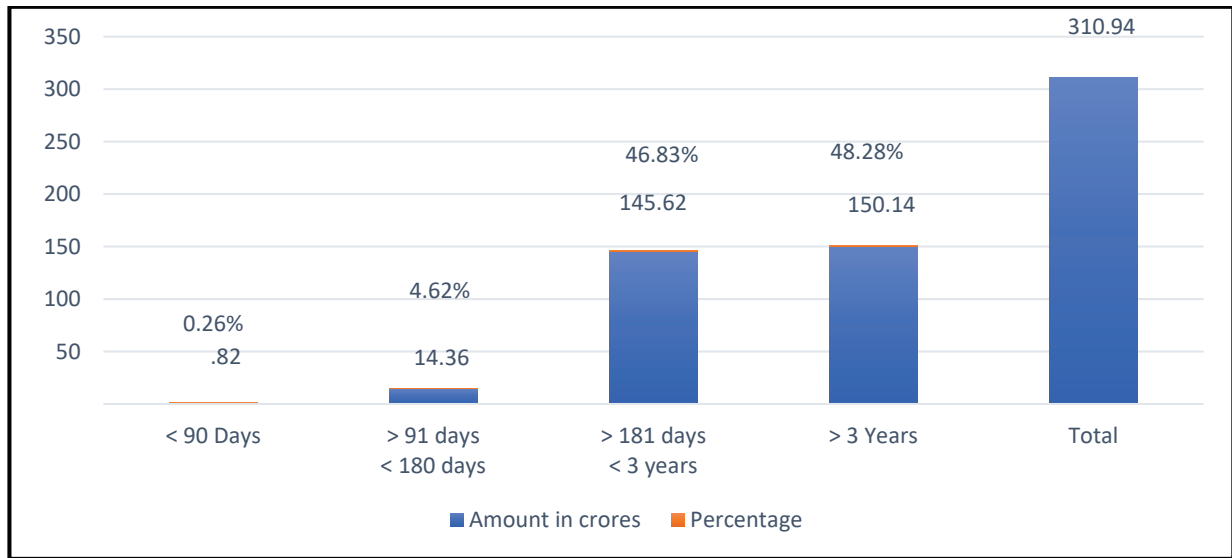
As we go ahead, we can understand the capability and the results generated by artificial intelligence as a whole. A world class CA firm should understand the areas wherein their time of work can be significantly reduced. There is no need to be working seven days a week if the AI functionality can process the same tasks within a period of 2 to 3 days. Let's have a look at some of the results an AI functionality can have:



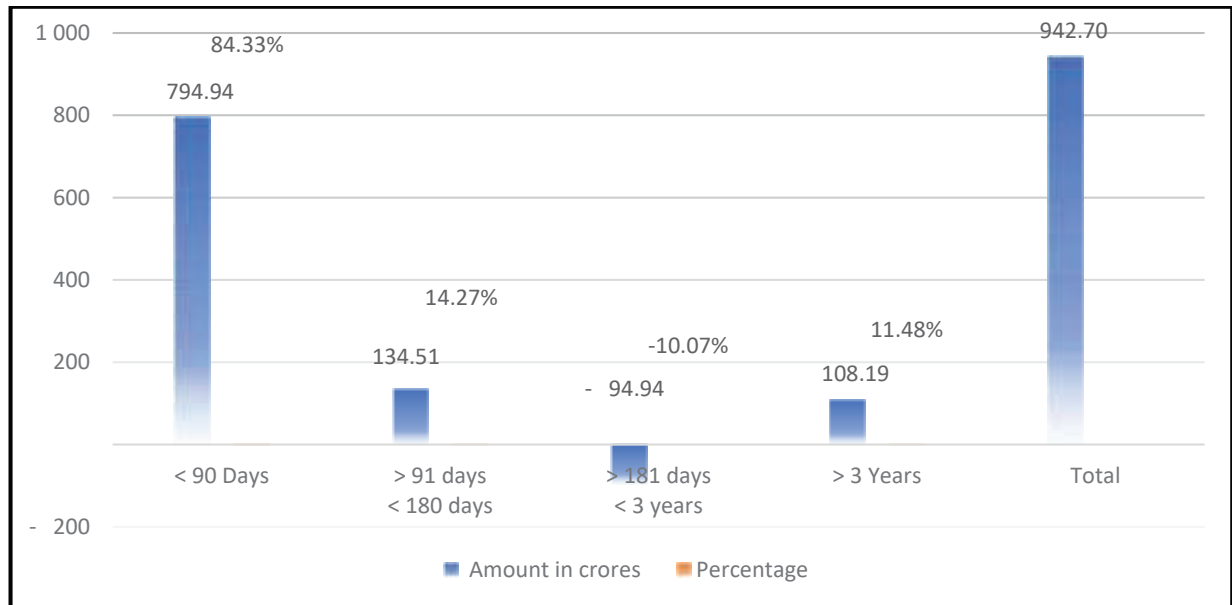
In the case of a normal audit not powered by AI every single stage as shown in figure 1.1 will require testing by the auditor, in many cases the auditors would sample out the given data. These samples would include an inherent sampling risk which may further lead to an audit risk.

However, in case we deploy AI in the same architecture as provided above, the role of the auditor would be reduced to testing data in the stage of "Manual Intervention" only. This will reduce the work of the auditor significantly. Workforce productivity would increase several times over. In our opinion, the great practices in the world are not those who deploy the largest workforce but those who have the capability to generate the highest amount of work within the limited set of resources they have. Other processes wherein the results can be simplified include:

### Long Outstanding Creditor



### Outstanding Debtors:



An ideal artificial intelligence technology can study raw data directly generated from the system and based on simple key words can assess the outstanding creditors and debtors and their overdue period. Based on the percentage of debtors/ creditors and their respective timelines it can mark the area under high, low or medium risk as maybe suitable.

These are few of the million uses of AI in generating results as per the needs of the client. AI if you used correctly can be the most efficient tool and should not be looked upon as a threat.

## VI. DATA ANALYTICS

*“The goal is to turn data into information, and information into insight.”*

*– Carly Fiorina, former executive, president, and chair of Hewlett-Packard Co.*

The use of past trends to predict the future is known as analytics. Each one of us today, whether professionals, businessman or normal students; are always trying to predict the future; be it in terms of cash flows, area of operations or simple in terms of career opportunities, in the form of what we claim a weighted analysis. However, when we give such an analysis and the data used to undertake the same, a definite form, we can call it analytics, a more refined process of predicting future trends. In the context of CA firms, data analytics would mean using past trends to predict the future in areas such as tax, costing, financials and cash flows, audit and litigation.

The advent of data analytics offers both challenges and opportunities for CAs. The challenges include undertaking appropriate training to develop the skills needed to initiate and support data analytics activities, the risk of inaccurate data leading to inaccurate forecasts and analysis, as well as altering the present models to incorporate appropriate analytics techniques. The opportunities include a technology-rich model that provides for greater thoroughness, efficiency, and accuracy, as well as new business opportunities to provide data analytics expertise to clients and organizations in the areas of financial modelling, business structuring and corporate restructuring, valuations, forensics, among others. CAs, whether working in public practice or industry, will be provided an opportunity to enhance their areas of practice along with an element of innovation by obtaining the requisite additional data analytics expertise, beyond the regular tax, audit or accountancy. Data analytics is used by all of us even today using basic applications like Microsoft Excel through features such as sorting, filtering and pivot table allow for categorizing data easily.

The importance of data analytics is evident, even more, when it comes to client audits owing to the vast amount of data, documents and other information to be analysed with little or no scope for error or inaccuracy. Technologies available for Data analytics in audit consist of CAAT, IDEA among others. An audit tool is generally used by an auditor to assist him in completing an audit proactively, efficiently and within the timelines suggested. An audit software is basically a computer program based on the premise of easing out the work of an auditor by reducing manual intervention and reducing the samples required to be tested. Audit Software can be built in house by large firms or can be outsourced or bought.

We have mentioned a list of ground breaking audit softwares used for the purpose of data analytics and creating a disruption in audit models, below:

1. AuditBoard- AuditBoard is a cloud-based company that provides SOX (Sarbanes Oxley Act) audit management software.

2. SiteDocs- SiteDocs is a cloud-based audit management solution designed for businesses of multiple sizes in the construction and maintenance industries.
3. MetricStream- The Product of 2020 as termed by many financial institutions. This looks after internal audit and quality management.
4. MasterControl Audit Management- Looks after compliance and is your one step destination for internal control management.
5. Monarch – An Indian based software technology which looks after TDS, Form management and Income Tax Calculation
6. Form.com
7. AppZen
8. Netwrix Auditor
9. ZenGRC.
10. iAuditor
11. Spectrum
12. Resolver

### ***Use of CAATs***

The common term used for audit tools having minimal manual intervention is CAAT or computer assisted audit techniques. CAATs are becoming more and more relevant due to changing dynamics and changing demands, with the idea of survival of the fittest doing the rounds. CAATs have enabled auditors to move from the era of manually marking to electronically clicking. The key reasons for the use of CAATs today are:

1. *Analysis Of Large Volumes Of Data.* Data with multiple line items which cannot be analysed generally can be made easier using CAATs.
2. *100% population testing.* With CAAT one can analyse each and every part of raw data provided, instead of resorting to sample testing, especially in case of large multinational corporations.
3. *True and Correct View.* As auditors, we are well versed with the requirements of SA 230, 'Audit Documentation', stating that an auditor must provide a true and fair view of the financials provided to him. The word "fair" has been used rather than the term "correct" on account of the fact that it is practically impossible for the auditor to manually or physically check 100% of the population and not face a Sampling risk. CAAT allow for checking data of the same format in its

entirety. CAAT in turn would reduce the time and effort taken to select samples and hence, this would result *in a true and correct view* wherein the auditor will be able to check every aspect of the data correctly and subsequently, provide a detailed and accurate analysis.

4. *IT risk.* On account of everything moving online, right from transfer of payments to transfer of personal or confidential business data; the risk related to information systems have increased two-fold with information being more widely available in public domains. Especially during COVID time, wherein cases of system fraud have been rising significantly. Since the lockdown has been implemented, cases of hacking have multiplied five times over and data breach as well as breach of privacy has become a serious issue. The use of a limited risk software such as CAAT could prove to be beneficial and could offer enhanced data protection in such trying times.
5. Every auditor has experienced the frustration of carrying out an audit on site, filling out reams of paperwork, then having to return to the office to type up their notes. It's an unnecessary duplication of effort, and adds no value to the audit process, rather making the process even more mundane and tedious. Continuous Audits involve a lot of planning and preparation. It means finding the right documents, categorising the same, managing and storing them and ensuring on a continuous basis that no such document is missing; to reduce the risk of any non-conformity. Using audit software would enable an auditor to have information ready at the click of a button. Customisable reports make it easy to display data visually, if need be. There's no more paperwork – and preparing for an audit is much quicker as non-conformances are quickly highlighted and can be addressed in good time.

While we have stressed on the importance of paperwork and documentation when it comes to an audit, it is also relevant to note that a good auditor is one who can strategically think, identify every nuance and the reasoning behind every extraordinary activity, look beyond the financials and arrive at a conclusion based on an evaluation of all relevant factors. This requires an auditor to don his thinking cap, rather than focusing on the routine compliance based activities. This is also where the importance of the software comes into picture. While the software can complete every relevant routine task and check in a jiffy and even arrive at an analysis, the software can also free up time for an auditor to strategically use his skills and experience to identify fraud, areas of potential fraud, colourable devices used as subterfuges to avoid taxes or payments or prevent a statutory misuse or abuse of provisions.

6. Paper audits are not only time-consuming but limit the disclosure of all requisite evidence or information relied upon to arrive at a conclusion, at the discretion

of the individual or firm undertaking such an audit. Thus, leading to significant scope for human error and bias, as a description of a non-conformance can be as detailed (or as vague) as may be convenient. Audit management software would mean you could capture evidence in real time and attach any type of common file, including accompanying documents, videos, photos and sound recordings; which may be relevant to arrive at a conclusion. The advantage being, non-conformances and reasons supporting the conclusion thereof, would be open to everyone to review. This further enhances transparency and accountability; and eliminates the need to manually maintain working papers or verify and reverify documents with additional notes.

7. Demonstrate Compliance Throughout The Audit Trail. Referencing through paper documents and creation of paper trails makes compliance related aspects difficult to prove on account of the risk of missing, incorrect or incomplete documents– one missing file and you risk non-conformances or issuing a qualified report in entirety in accordance with SA 700. When a business ought to comply with regulations and standards, downtime to correct issues can be very costly.<sup>27</sup> Simultaneously, when an professional accountant ought to take responsibility for the financial statements being audited and the report issued thereto, the scope for error can be very costly in terms of a professionals reputation and goodwill. This stresses on the need of a more accurate and time-saving means of documenting and following paper trails.

### **Requirements To Obtain Data For An Audit Tool**

1. Discuss with the client about the requirement of raw data for audit and issue a request letter for getting the requested data in a specified form based on the audit objectives.
2. Discuss with the IT personnel responsible for maintaining data/application software and obtain copies of the record layout and definitions of all fields and ensure that you have an overall understanding of the data. The record layout should describe each field and provide information about the starting and ending positions and the data type (numeric, alphanumeric, character, etc.).
3. Obtain a sample list of the first 100 records in the data file and compare this with a printout of the obtained data to confirm they are correct.
4. Verify data for completeness and accuracy by checking the field types and formats, such as identifying all records with an invalid date in a date field.

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27 Emily Hill, 5 Undeniable Advantages Of Using Software For Auditing, (Feb 27, 2017), <https://quality.eqms.co.uk/blog/5-undeniable-advantages-of-using-software-for-auditing#:~:text=Using%20audit%20software%20means%20you,be%20addressed%20in%20good%20time.>

5. Obtain control totals of all the key data and compare with totals from the raw data to ensure all records have been properly obtained. This can be performed by importing the data in audit software and reviewing the statistics of all the key fields.

### ***Key Strategies for the use of CAATs***

CAATs are critical and important tools for Auditors. Hence, it is important to formulate appropriate strategies to ensure their effective use.

Some of the key strategies for using CAATs are:

1. Identify the scope and objectives of the audit. Based on this, the auditor can decide about the need and the extent to which CAAT could be used.
2. Identify the critical data which is being audited as per audit scope and objectives.
3. Identify the sources of data from the enterprise information system/application software. These could be relating to the general ledger, inventory, payroll, sundry debtors, sundry creditors, among others.
4. Identify the relevant personnel responsible for the data and information system. These personnel could be from the IT department, vendors, managers, etc.
5. Obtain and review documents relating to data/information systems. This should provide information about data types/data structures and data flow of the system.
6. Understand the software by having a walk-through right from user creation, grant of user access, configuration settings, data entry, query and reporting features.
7. Decide what techniques of CAATs could be used as relevant to the firm environment by using the relevant CAAT software as and when required.
8. Prepare a detailed plan for analyzing the data. This includes all the above steps.
9. Perform relevant tests on audit data as required and prepare audit findings which will be used for forming audit report/opinion as required.
10. Ensure that the relevant personnel are well trained in the use of CAATs.

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28 Bangalore ICAI, Computer Assisted Audit Techniques, [http://bangaloreicai.org/images/icons/ITT/5.%20Computer%20Assisted%20Audit%20Technique%20\(CAAT\).pdf](http://bangaloreicai.org/images/icons/ITT/5.%20Computer%20Assisted%20Audit%20Technique%20(CAAT).pdf).



The above can be summarized as follows:

IDENTIFY	OBTAIN	TEST	ARTICULATE
<p>Use your audit plan to identify where CAATs can be used.</p> <p>Focus on recognising specific audit needs.</p> <p>Identify data necessary to achieve the required results.</p> <p>Document your data requirements, i.e. the what, where, how and who.</p>	<p>Be forward thinking about timescales for data and resource requests.</p> <p>Make sure you use the data requirements document, keep it relevant to ensure the process is repeatable.</p>	<p>Ensure you have a clear plan and understanding of the tests you will perform.</p> <p>Use the most appropriate tool for your defined testing.</p> <p>Consider the volume of data you will be testing, this will impact required resource and time.</p>	<p>Emphasise conclusions are based on full population size, not just a sample of data to add weight to your observations.</p> <p>Draw out root causes, errors identified could be symptoms of larger issues.</p>

## VII. BLOCKCHAIN TECHNOLOGY

*"Blockchain technology is a form of digitalized, de-centralized public record of all cryptocurrency transactions. Blockchain was designed to record, not just financial-related transactions, but virtually everything of value."*

— Olawale Daniel

Blockchain technology has the potential to impact all recordkeeping processes, including the way transactions are initiated, processed, authorized, recorded, and reported.<sup>29</sup>

A blockchain is a ledger where transactions and data are pseudo-anonymously recorded and confirmed. It's a record of events shared between multiple parties.. Everything is written to a blockchain only once. There is no such thing as reversing a transaction; an entity can only append more data. Think how often the auditor spends time verifying whether stored data has been edited through fraud or error. Though

<sup>29</sup> Deloitte, Blockchain And Its Potential Impact On The Audit Profession, <https://www2.deloitte.com/za/en/pages/audit/articles/impact-of-blockchain-in-accounting.html>.

the two concepts are sometimes confused and used interchangeably, blockchain and cryptocurrency are not synonymous. Blockchain technology enables cryptocurrency's function, but its uses extend far beyond and varies by industry. In aviation, for example, manufacturers can track a part through the entire supply chain, from creation to implementation, ensuring the part meets Federal Aviation Administration standards. This can prevent counterfeit parts from entering the system, thereby increasing safety and reliability. In retail, Walmart and a group of food giants are teaming up with IBM and exploring how to apply blockchain technology to their food supply chains. The coalition—which includes retailers and food companies such as Unilever, Nestlé and Dole—aims to use a blockchain to maintain secure digital records and improve the traceability of food products at any point along the supply chain.

<b>Near real-time settlement</b>	A blockchain enables the near real-time settlement of transactions, thus reducing risk of non-payment by one party to the transaction.
<b>Distributed ledger</b>	The peer-to-peer distributed network contains a public history of transactions. A blockchain is distributed, highly available and retains a secure record of proof that the transaction occurred.
<b>Irreversibility</b>	A blockchain contains a verifiable record of every single transaction ever made on that blockchain. This prevents double spending of the item tracked by the blockchain.
<b>Censorship resistant</b>	The economic rules built into a blockchain model provide monetary incentives for the independent participants to continue validating new blocks. This means a blockchain continues to grow without an "owner". It is also costly to censor.

## Blockchain Technology Has Two Variants:

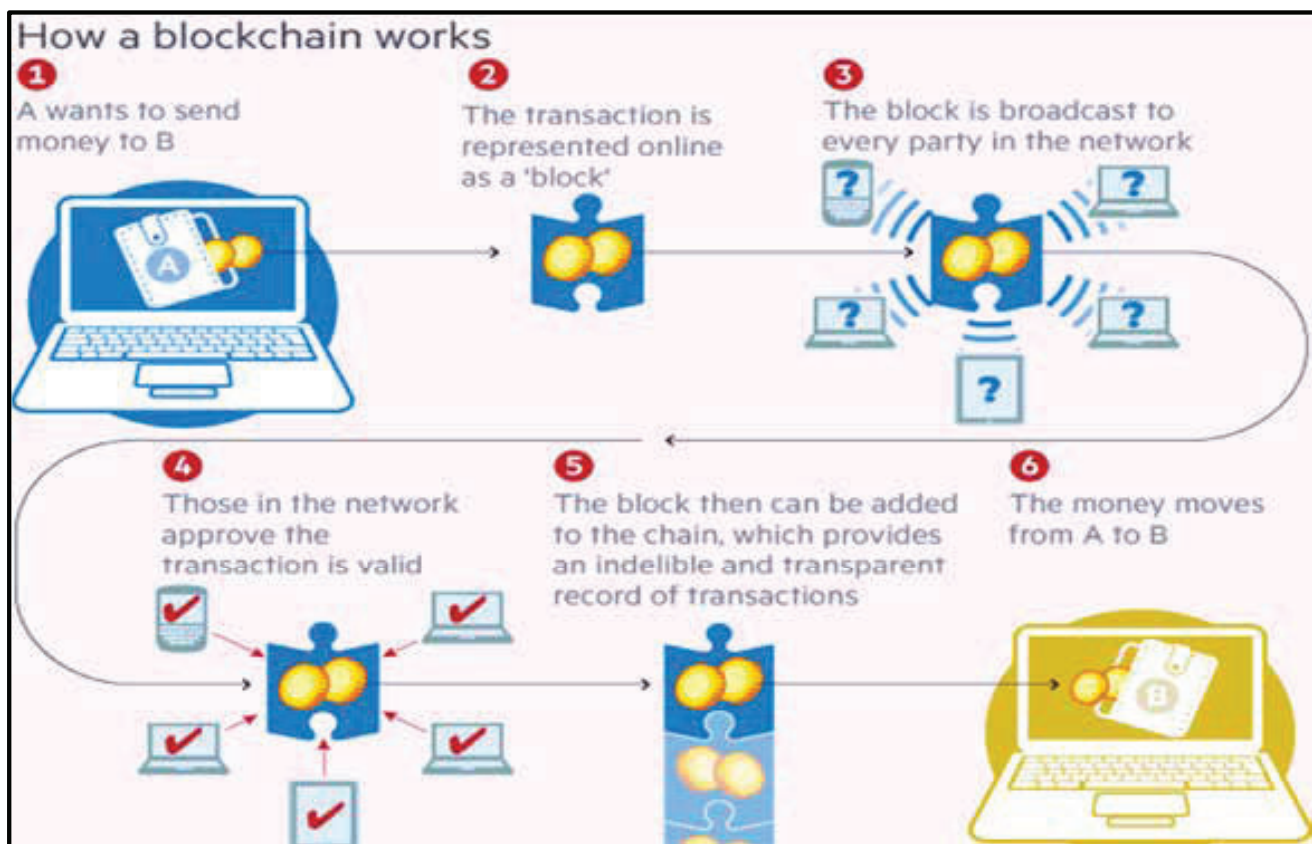
### Permissionless Blockchain

A permissionless blockchain is open to any potential user. For example, the Bitcoin blockchain is a public or permissionless blockchain; anyone can participate as a node in the chain by agreeing to relay and validate transactions on the network thereby offering their computer processor as a node. Joining the blockchain is as simple as downloading the software and bitcoin ledger from the Internet. Because the blockchain maintains a list of every transaction ever performed, it reflects the full transaction history and account balances of all parties.

### Permissioned Blockchain

The limitations of permissionless blockchains have led some organizations to explore the use of private or permissioned/consortium blockchains, which restrict participation

in the blockchain network to participants who have already been given permission by agreed-upon administrators. These blockchains address some of the drawbacks of public blockchains, but also sacrifice some of the potential benefits (e.g., decentralized transactions, wide distribution of the ledger, and a truly decentralized environment without any intermediaries). However, adoption of public blockchains is also expected to increase in the longer term once the key infrastructure and technical challenges of the new technology have been addressed. The paradigm shift introduced by blockchain (and the level of interest in blockchain-based initiatives) in many ways parallels the development of the Internet in the 1990s. With Internet technology, there was a strong initial emphasis on corporate intranets until a critical mass was reached and the broader public Internet began to offer more benefits to offset the perceived risks of participating in an open network.<sup>30</sup>



- **Existence/rights and obligations:** In the digital asset environment, the only identifier of an account (known as a wallet) is a random number and letter sequence. Blockchain technology allows for individuals and entities to “be their

30 Blockchain Technology and Its Potential Impact on the Audit and Assurance Profession, (2017), <https://www.aicpa.org/content/dam/aicpa/interestareas/frc/assuranceadvisoryservices/downloadabledocuments/blockchain-technology-and-its-potential-impact-on-the-audit-and-assurance-profession.pdf>.

own bank” and maintain full control over their funds. Consequently, there are additional considerations for testing the existence of digital assets that would involve proving a client has control of an identified wallet.

- **Completeness:** Since all digital assets in existence can be viewed on a blockchain at any point in time, the considerations around completeness focus not on whether there are “hidden” digital assets on a blockchain, but more on whether there are controlled wallets being intentionally and incorrectly excluded from the books and records. The balance presented on the financial statements should generally match the wallet listing provided by the client. From a completeness perspective, any differentiation between these amounts likely means that clients are either not listing all the wallets they control or not recording all wallets they control in their books and records.
- **Accuracy:** Since a blockchain is immutable—it cannot be edited—the processing of data is significantly more accurate than a typical database. Provided that comfort over data reliability is obtained, the auditor could be in a position where there is reduced risk over the accuracy of information related to digital assets. Conversely, information that is not related to digital assets and is sourced externally or inputted from an external source to a blockchain does not make the information inherently trustworthy. Recorded transactions or events can still be inaccurate due to human input error.
- **Cutoff:** One of the key features of blockchain is the time stamping of every transaction and data input. For transactions that are effective in real time, the blockchain could provide evidence of proper cutoff. The use of a blockchain would, however, not eliminate the auditor’s responsibility to test proper cutoff, because the recording of a transaction or event at a specific point in time does not necessarily mirror the appropriate treatment in accordance with the relevant accounting standards. Examples of this would include the prepayment of a service provider invoice that should be expensed over time or the transfer of rights and obligations in a sale of inventory that is in transit at the financial reporting date.
- **Presentation and disclosure:** Transactions entered on the blockchain may not always include all the data necessary to evaluate the transaction. Therefore, the considerations around presentation and disclosure exist almost entirely outside of the blockchain. A document written to a blockchain does not contact the document itself, but rather the metadata of that document in order to authenticate its use in the transaction. Likewise, if a digital asset represents an ownership stake in a building or other physical asset, the auditor would need to perform additional procedures to verify the physical component of the transaction. There are important disclosure considerations associated with how the holding is classified, such as whether it is based on the characteristics of the



token or the asset underlying the token. There are also additional challenges to consider when identifying the completeness of related party disclosures.

- **Valuation:** Since transactions on a blockchain are denoted only in the underlying digital asset(s), said digital asset(s) must be translated to the entity's reporting currency for purposes of financial statement presentation. Due to the significant volatility in the exchange value of digital assets to fiat currencies, a detailed valuation policy is paramount to an auditor gaining an understanding over the valuation of digital assets reported in the financial statements.<sup>31</sup>

**a. Matching internal accounting policies and practices**

Employing Blockchain will certainly improve client services but far greater use of this technology is in internal accounting management. Blockchain can remove Rube Goldberg processes (complicated tools/processes doing simple jobs) specifically in the areas of tax and assurance. Blockchain would become a congruent and perfectly matched record of transactions ensuring integrity and transparency for everyone involved.

**b. Real-time Audit trail and Assurance**

Entries recorded in real-time on Blockchain platforms are especially important for assurance providers, advisors and organizational stakeholders. Overall risk of making incorrect entries is significantly reduced because the transactions are logged by both parties, time-stamped, and verified via decentralization (in case of public Blockchain).

Being able to track historical data with such accuracy and efficiency helps to understand a clearer picture of a company's financial standing and overall performance. Real-time entries can also help draw attention to hidden accounts and minute details that may have otherwise been overlooked. Professional accountants can convert these up-to-date figures into useful information for management regarding wasted resources, redundant practices, and bottleneck processes that might be hindering performance. The real-time element of Blockchain allows professional accountants to focus on this kind of value-added work by significantly reducing the time needed to verify a company's accounting entries. With Blockchain, the scope of auditing drastically increases since the audit trail becomes more aggregated and accessible to accountants and other regulators. As such, this will improve auditors' chances of uncovering fraudulent activity.

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31 How Blockchain Technology Will Affect The Audit, (Nov 13, 2019), <https://rsmus.com/what-we-do/services/assurance/how-blockchain-technology-will-affect-the-audit.html>.

**c. Smart Contracts, Supply chain management and Real-time analytics**

Self-executing, programmed code within the Ethereum Blockchain acts in response to Smart contracts could be set up to automatically transfer funds/assets based on commands inputted by users of the software or conditions stipulated in receipts, royalty contracts, and payment schedules.

Interest payments could also be managed more effectively using smart contracts and additional ledger accounts. Capital asset accounts could integrate smart contracts to regularly depreciate equipment in order to keep the net book value up-to-date. Most well-known trailblazer for supply chain management using Blockchain technology is Provenance. Status of raw materials, work-in-process, and finished goods becomes more traceable, more accurate, and less time consuming for the professional accountant to consolidate. Smart contracts, supply chain management and real-time analytics work in unison to automate parts of the monthly consolidation process for sustainability and financial reporting.

**d. Taxation and Revenue Recognition**

Using current accounting principles, revenue recognition and tax allocation are done retrospectively. However, Blockchain technology has the potential to record each of those instantaneously in real-time. This in turn would make tax evasion virtually impossible and lower the cost of tax compliance. UK Government Advisors have proposed that Blockchain technology be integrated to automatically calculate value-added taxes (VAT)/goods and services taxes (GST).

Coupling the real-time features of Blockchain with smart contracts to ensure Anti-Money Laundering (AML) compliance would also make organisations less likely to engage in illicit tax practices. There would be more transparency, making it easier for regulators to expose companies engaging in tax fraud.

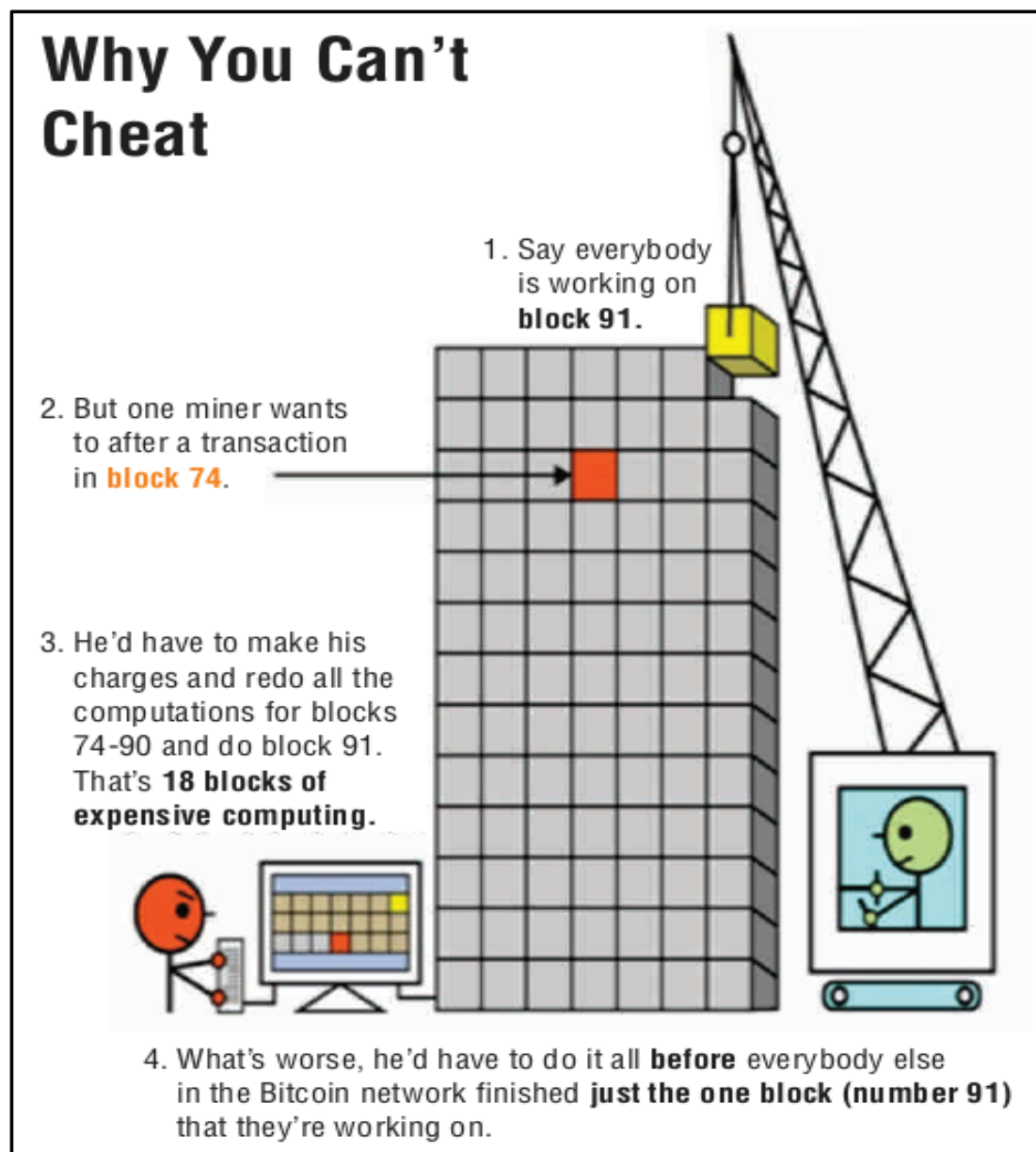
Since third party records would now be digitized in real-time, firms would not have to wait for their transactions to be cleared or balanced by an intermediary. Additional ledgers can also be set up to track repair and maintenance expenditures to capital assets, which can be cited in insurance clauses. Likewise, accounts receivable/payable, intangible assets, inventory accounts, and long-term and short-term loans will also be redefined by Blockchain.<sup>32</sup>

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32 Taxguru, ICAI Concept Paper On Blockchain Technology Adoption Trends And Implications For Accountancy Profession 2018, (Sept 17, 2018), <https://taxguru.in/chartered-accountant/blockchain-technology-adoption-trends-implications-accountancy-profession.html>.

**SA 500 states that** the objective of the auditor is to design and perform audit procedures in such a way as to enable the auditor to obtain sufficient appropriate audit evidence to be able to draw reasonable conclusions on which to base the auditor's opinion.

In COVID times the appropriateness or the measure of audit quality has been very difficult to manage since the data in many cases isn't given in the format which is required by the auditor. Since a lot of the data has been received online, CA firms will always have this lingering doubt on whether the data has been edited or changed by the client before it is shared with the auditor. In the blockchain technology the data cannot be edited, it can only be added. This reduces risk of fraud since every single transaction is recorded.





**It has been said that Blockchain will do for transactions what the Internet did for information.** What that means is that it allows increased trust and efficiency in the exchange of almost anything.

Hence, the concepts of blocks as time progresses is going to become more and more relevant. In my opinion, blockchain technology with its real time ledger and triple entry accounting system can change the face of modern day audit. We believe that blockchain technology can create an environment where the only role of a chartered accountant will be checking and evaluating the role of IT risks which may impact the end result of the audit process as a whole.

### VIII. THE INTERNET OF THINGS

*"The Internet is no longer a web that we connect to. Instead, it's a computerized, networked and interconnected world that we live in. This is the future and what we're calling the Internet of Things."*

*-Bruce Schneier, Security Technologist and Author*

Wireless technology already allows devices including mobile phones, tablets, and computers to communicate with the internet from almost anywhere. But now, devices not traditionally considered "smart," such as appliances, car diagnostics, HVAC systems, and wearable fitness monitors, are using sensors to capture data and transmit it to the internet.<sup>33</sup>

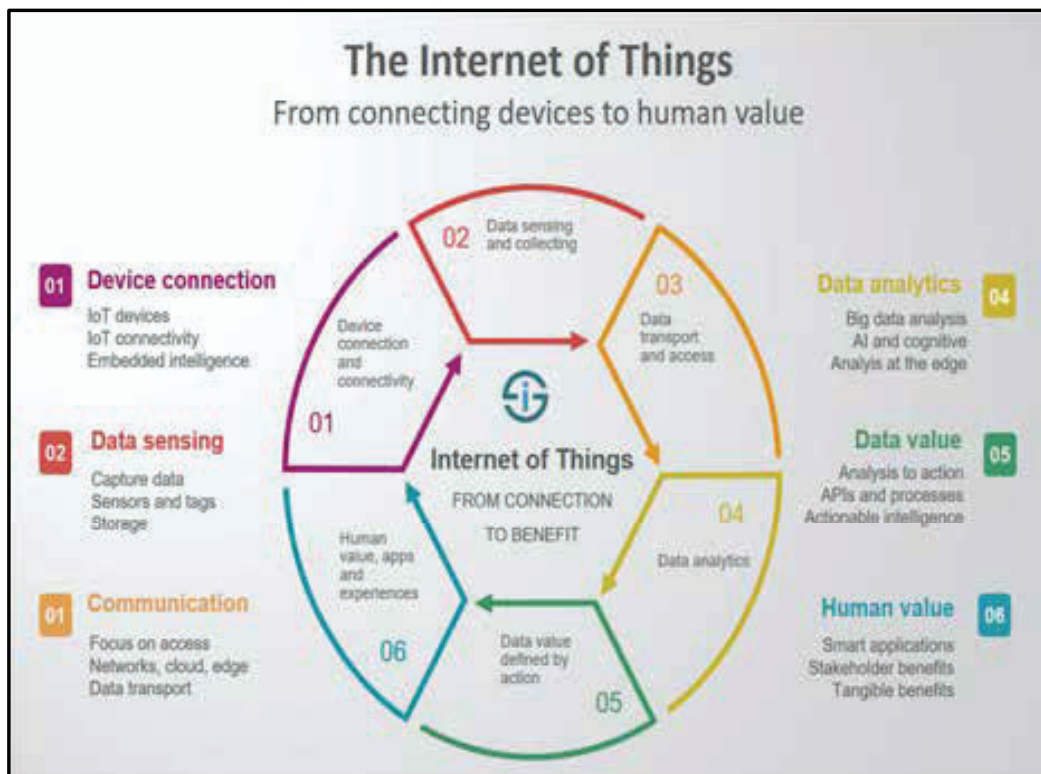
The future, stimulated by COVID -19 will see every single appliance and device have internet connectivity capability. Internet connectivity will also mean that devices will be able to provide updates to their manufacturers. Do you want to know how often a customer turns on your product every day? Or how many times it is used before it breaks? Or how many devices that customer has in her house? The IoT will one day provide that type of invaluable market intelligence to CA firms' corporate clients.

By allowing for more real-time capture of relevant information for business planning and resource allocation, the IoT enables businesses to improve processes, reduce costs, and manage risks. It allows companies to gather behavioural information on customer usage and buying preferences to increase revenues. Internet of things will change the entire process flow of a company flowing from billing into ERPs and other systems. Internet of things will provide an insight into warning signals and will provide

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33 Maria Murphy, How The Internet Of Things Will Impact CPAs, (May 18, 2015), [https://www.aicpastore.com/Content/media/PRODUCER\\_CONTENT/Newsletters/Articles\\_2015/CPA/MAY/impact\\_CPAs.jsp#:~:text=The%20IoT%20has%20the%20potential,aspects%20of%20accounting%20and%20auditing.&text=Things%20\(IoT\).-,The%20IoT%20has%20the%20potential%20to%20revolutionize%20the%20way%20businesses,aspects%20of%20accounting%20and%20auditing.](https://www.aicpastore.com/Content/media/PRODUCER_CONTENT/Newsletters/Articles_2015/CPA/MAY/impact_CPAs.jsp#:~:text=The%20IoT%20has%20the%20potential,aspects%20of%20accounting%20and%20auditing.&text=Things%20(IoT).-,The%20IoT%20has%20the%20potential%20to%20revolutionize%20the%20way%20businesses,aspects%20of%20accounting%20and%20auditing.)

a greater understanding of risks. World Class mid-sized CA firms should be hiring smart professionals who should be technology driven. The future audit, taxation and compliance client work is going to be primarily dependent upon the data recorded by the sensors inbuilt within an appliance. COVID 19 has shown us that everything can be done from home. It has stimulated the growth of e-services leaving the age old paperwork behind. After the dot com revolution we saw companies shift to websites. Auditors had to take on professional understanding of how a simple website works in order to understand the risks involved in a single transaction.



## How IoT Will Influence Accounting and Billing Systems

It is believed that IoT can remodel the accounting and billing industry. Since it connects all devices on a global scale, the data harvested by each connected device can be translated into stellar strategies. IoT can be used with suitable accounting software to automate the process of accounting and billing to improve its overall productivity. Thus, IoT has the potential to enhance the accounting system in many ways.

## Connectivity within accounts

An audit is an integral part of every organization. However, only those people who are on the receiving side can understand the pain, stress, and chaos that is involved in the pre-auditing period. Before an audit, all the members of the accounting team gather the financial data and compile it properly for the auditors to check.

This process could be hassle-free if all the ledgers were connected; transactions and other entries like donations were recorded, sorted and verified in real-time; and the status of each transaction was trackable. This would save plenty of time as well as efforts of the entire team and even reduce the paperwork involved. Well, IoT has the power to make all this possible.

In fact, it has the tendency to empower the businesses to use connected tools and analyse, consolidate, store and process the financial data in real-time. In this way, it leads to little or no stress on the accounting team. IoT used in conjunction with online billing software simplifies the process of billing and accounting. IoT can update final accounts based on amendments in acts and compliance. It can auto calculate penalties based on non-compliance, late filing or any other anomaly.

### **Optimization**

IoT connects devices to each other devices, which leads to cost, time, and process optimization. Using IoT, the businesses can have better information about their workforce.

They can easily find out what their employees are doing and where they are, so they can assess the downtime, most productive time, most productive employees, and even decipher the area/employee that needs replacement.

It facilitates the businesses to leverage the power of information to carry out performance appraisal of every employee. In this way, IoT empowers the organization and allows it to optimize all its processes.

### **Handling the Balance Sheet**

For any organization, inventory tracking is a tedious and intimidating process. Tracking everything from a single piece shipped to the customers across the globe to the goods coming in can create chaotic situations. However, businesses can leverage the power of IoT to enhance the process of inventory tracking.

The products can be integrated with the RFID (radio frequency identification) chip that facilitates tracking. It gives data related to the exact location of the product, its name, its usability, current status (whether in use or not in use), and the name of the person who has/owns it. Not just tracking, but IoT helps in overall inventory management.

Businesses can deploy this technology to update and maintain its stocks in real-time. Smart shelving can be created to allow businesses to find the details of inventory at any time. This information can then be employed by businesses to make decisions whether they need to order a particular product or not along with the quantity

required. This prevents unnecessary wastage and it even avoids the situation of depleted stocks.<sup>34</sup>

For a mid-sized CA firm the transition from paper based audits to understanding the process flow of a transaction based on sensors and RFID tracking can be very difficult. However, just like the modern CA firm transitioned from the use of typewriters into the use of computers, technologies like internet of things, blockchain and artificial intelligence will be eased into audits and taxation as well. In our opinion resistance to change is the only thing that may prevent CA firms from operating. The only difference in the technology boom this time is the fact that due to COVID 19 the boom is taking place significantly faster. Hence every mid-sized firm to stay relevant in this super dynamic environment should be ready to smoothen the transaction by having a basic understanding of this technology.

While many would call it a bane, corona virus has in fact opened up a world filled wherein the requirement of personal touch has reduced significantly by better, more efficient artificial components. This world has the capability to destroy those professionals who aren't ready to be more tech savvy.

Technology can be a boon to CA firms if they prepare and adapt. The pandemic has pushed CA firms to an inflection point where embracing technology is no longer an option but a necessity. It has also made workers more vulnerable. With the right steps and actions, CA firms can take the crisis as an opportunity to build for the future.

*"The Internet of Things is not a concept; it is a network, the true technology-enabled Network of all networks." — Edewede Oriwoh*

## IX. CLOUD BASED AUDIO AND VIDEO CONFERENCING

*"Video Conferencing during these COVID times is what keeps an organization relevant."*

Cloud based audio and video calls existed since the early 2010s however they became the need of the hour during the lockdown. It is impossible for a Modern CA firm to function without having a way of communicating with employees, clients and customers. Communication in this pandemic turned out to be the knight in shining armor protecting us from the health war.

Before seeking out vendors and pricing options, the first step should always be evaluating your needs. The advantage of using cloud solutions is that as the needs change, you can easily scale up or down to match the same. To start, answer these ten questions about your current requirements:

1. How many locations do we need to connect?

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34 Hitendra Rathore, How Will IoT Impact the Accounting and Billing System?, (June 23, 2019), <https://dzone.com/articles/how-iot-will-impact-the-accounting-and-billing-sys>.

2. Do we have remote or work-from-home employees?
3. How many total employees will use the service?
4. How many meeting rooms need to be video-enabled?
  - What types of devices does the solution need to support?
    - Meeting room system
    - Mac®
    - PC
    - iOS mobile/tablet
    - Android™ mobile/tablet
    - Windows® mobile/tablet
5. How secure and encrypted is the video conferencing software?
6. Do we want separate systems for audio and web conferencing?
7. What is the main target for employees to use the service?
  - 1:1 conversations
  - Multiway group collaboration
  - Large/all-hands meetings
8. How tech savvy is your staff?
9. What are the features available and the features you need?
10. Does the software have meeting recording facilities?
11. Do you need the facility of breakout rooms (to conduct meetings within meetings)?<sup>35</sup>

The software or applications available for video conferencing include Zoom, Google Meet, Google Duo among others. Scheduling of conferences makes it easy for partners to manage their time appropriately and at the same time also be updated

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35 The Cloud Based Video Conferencing Solution Guide: Tips, Features, and Examples, <https://www.lifesize.com/en/resources/guides/the-ultimate-guide-to-cloud-video-conferencing#:~:text=With%20cloud%20video%20conferencing%2C%20you,can%20connect%20to%20the%20Internet.&text=This%20guide%20is%20designed%20to,collaboration%20solution%20for%20your%20needs.>

about the happenings in the firm at the lower levels of authority. For instance, Google Meet has the functionality to directly block meeting time on the Google Calendar and constantly sending updates and reminders. Presentations and documents can be shared using the facility of 'Screen Share'. Screen sharing allows for visualisation of data and helps in creating a flow, as and when an individual speaks or walks through the data.

The benefits of Cloud based audio and video conferencing have been elucidated hereinafter:

- 1) **Affordable:** Cloud based video conferencing reduces the travel costs and other infrastructure costs. Offices do not need to bear costs have holding big conference rooms. Online video conferencing allows for connectivity at a cheaper price. Zoom has a limited cost for unlimited minutes of video meetings.
- 2) **Increased efficiency:** Cloud-based video conferencing is faster to deploy, manage and use. It has very little impact on the IT team because anyone can set it up. Once trained or adept, with the relevant use of cloud infrastructure, employees at all levels will find it extremely simple to navigate through large volumes of data and information efficiently.
- 3) **Simpler management and usability:** You don't need to worry about keeping the video network up and running. The service provider will typically manage the solution. Administrators can simplify their tasks and access critical information through an intuitive web console to control users and settings quickly and easily. Additionally, it is simpler for sector/department specific employees at the top level to keep a track of the happenings in the whole firm vis-à-vis a specific sector or department. This enhances collaboration across various departments.
- 4) **Ensuring you entitle your entire company:** Enable every employee and every meeting room with a suitable cloud-based video conferencing solution.
- 5) **Make use of automated cloud-based software updates:** You will never have to worry about having to use out-of-date or an older version of software. With cloud-based video conferencing, feature updates are automatically pushed to all connected video systems and applications to ensure that your team is running on the latest software version.
- 6) **Enjoy high quality:** You can bring high-quality video and audio to the meeting room and mobile devices.
- 7) **Experience increased security:** Support for secure firewall traversal allows you to conduct your meetings with coworkers and partners, suppliers and anyone outside your organisation. Support for encryption lets you conduct your meetings with confidence.



- 8) **Remove interoperability:** You can remove the burden of providing interoperability among multiple users irrespective of their preferred devices, including standards-based video systems, laptops, tablets and smartphones.
- 9) **Enable recording and sharing:** You can record video calls with one click from every type of device, whether it be a laptop, tablet or smartphone. You can also access recorded videos instantly and have them neatly organised in your personal video library where they can be easily viewed and shared.
- 10) **Join from your browser:** You can have all the rich features that you are used to in your desktop and mobile apps in your web browser.<sup>36</sup>
- 11) **Audits:** Online audits can be extremely helpful. Raw data can be sent over and hence there is no risk of data being tampered. Fraud risk becomes relatively lower as confirmations can be conducted and recorded over zoom meetings itself and today, electronic data and recordings also serve as an effective means of evidence in a court of record. Information can be transferred by a client and the same can be monitored over call. Further, the use of enhanced online softwares can help manage and analyse large volumes of data efficiently and swiftly, thus saving time and resources.

Cloud conferencing systems represent a newer, alternative technology and differ significantly from traditional conferencing systems.

Software implementations with respect to videoconferencing have several theoretical benefits.

First, client software can be more widely and immediately deployed because it is installed on computers and other devices already in use, provided, of course, the machines have sufficient computing power to run the client software, have the operating system for which the software was designed, and have video and audio capabilities.

Second, videoconferencing can be made increasingly mobile because client software can be installed on laptops, tablet computers, smartphones, and other devices equipped with cameras and one or more forms of wireless technology. Although traditional videoconferencing appliances can be connected to wireless antennae and moved about, their inherent size and that of cameras and monitors to which they connect limit mobility.

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36 10 Benefits Of Cloud-Based Video Conferencing,(Mar 29, 2016), [https://www.actis.co.in/10-benefits-cloud-based-videoconferencing#:~:text=1\)%20Reduced%20costs%3A%20A%20cloud,no%20expensive%20infrastructure%20to%20deploy.&text=6\)%20Enjoy%20high%20quality%3A%20You,meeting%20room%20and%20mobile%20devices](https://www.actis.co.in/10-benefits-cloud-based-videoconferencing#:~:text=1)%20Reduced%20costs%3A%20A%20cloud,no%20expensive%20infrastructure%20to%20deploy.&text=6)%20Enjoy%20high%20quality%3A%20You,meeting%20room%20and%20mobile%20devices).



Third, cloud technology is more scalable, limited only by the capabilities of the computers on which the server software is installed, the capacity of the networks used for communication, and licensing costs. Because traditional videoconferencing relies on Microcontrollers (MCUs) for multipoint conferencing and various models have an upper limit connection capacity (e.g., 4, 8, 16, etc.), each of which is priced at multiples of single units, scalability is an issue. Finally, the use of client software on existing computing platforms introduces economies of scale and the potential to reach more end users directly. The intended target user population is anyone working anywhere. In contrast, traditional videoconferencing units are costly, intended for institutional use in exam rooms, conference rooms, or classrooms, and usually require trained users and technical support.<sup>37</sup>

From the perspective of a CA Firm comparable with international standards, in our opinion, even after the pandemic ends and things get back to the new normal, the productivity may improve if a 60:40 approach is followed to start with wherein 60% of the work can be conducted remotely from home. However, we may still use 40% of site visits for audits and other client work where physical appearance is required. In our prediction we are looking at approximately the year 2025 wherein most of the work will be conducted over the cloud and we could optimistically even reach a 95:5 ratio on similar lines. Most of the meetings will be conducted via video conferencing. The reason video conferencing can be so helpful is that it gives global connectivity. With Zoom and Google Meet and various such applications, it does not really matter apart from the governing regulations whether the audit has been conducted in the same country or abroad.

Every single client will have access to the best possible services at the most affordable prices. Cloud based video conferencing opens us to a world of globalization and combination.

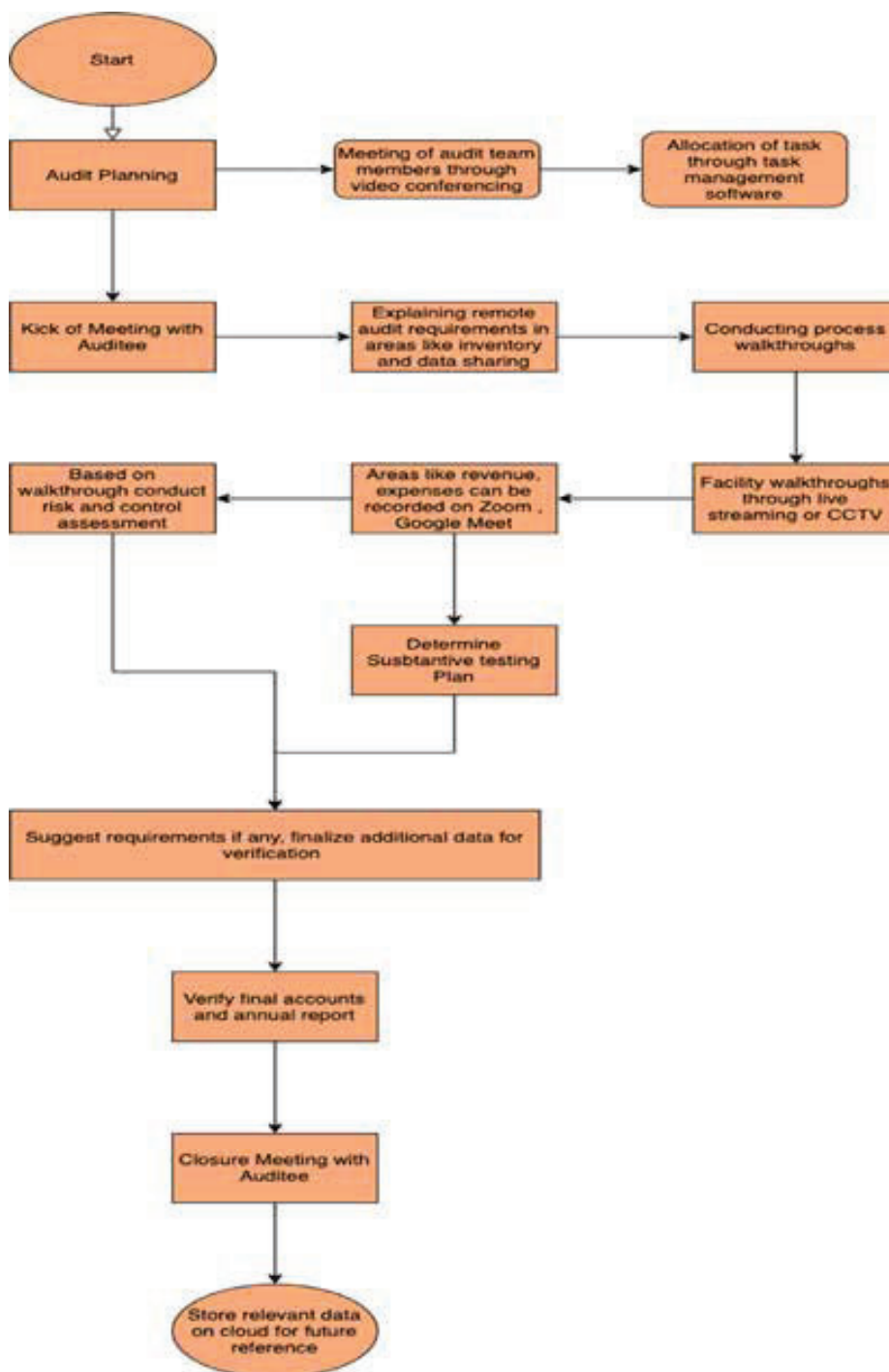
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37 Wei-Li Liu, Kai Zhang, Craig Locatis, and Michael Ackerman, Cloud And Traditional Videoconferencing Technology For Telemedicine And Distance Learning, (May 01, 2015), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4432776/>.

## X. REMOTE AUDIT, RISK AND COMPLIANCE, E-FRAUD ASSESSMENT AND DETERRENCE: TRADITIONAL VS MODERN AUDITS

*"The future of audits does not lie in being at the client place but being able to conduct the same work remotely."*

The remote statutory audit framework can be understood using the flowchart below:



For audits to be conducted remotely during times of COVID 19 a modern CA firm has to protect the security of this client confidential data. The same can be done by enabling a private cloud for storing the information within the audit team. Employees should be given access only to the files of the client they are auditing and nothing else. The auditor has to make sure that the client data stored within the cloud has been encrypted and is secure.

Selection of samples can be based upon audit guidelines and samples can be selected based on the raw data that has been provided. For confirmations, mid-sized audit firms may use Zoom, google meet, Cisco Webex or any other form of online video conferencing to make sure that these confirmations are opened and identified by the auditor while they are available on call. Google Meet, Zoom, etc provide the functionality of recording the meetings. This functionality makes sure that the auditor can go back to the recording of the meeting to understand anything that he may have missed out. Earlier, what used to happen is that during walkthroughs and meetings the auditor could not record the meeting. This lead to issues such as the client explanations of processes being forgotten or major risk areas being missed out. With online recorded meetings, the efficiency of the auditor increases several times over since he can refer to the video multiple times and make sure he has obtained a proper understanding of the processes before he performs any tasks.

Raw data extracted from the system means that the data cannot be adjusted and hence changes in data or data modification as a risk can be completely ruled out. Certain audit clients provide system access to their auditors which makes it very simple for an auditor who know has access to use whatever data he may require from the system. However, for the client this may expose his financial data and hence a check needs to be maintained on the same. As a mid-sized CA firm we have come across several issues while extracting the Ledger Accounts. It has happened many a times during virtual audit that the ledger accounts which have been extracted, have not been extracted entirely or certain dump of data is missing. Hence, it is important that the auditor uses the entire dump and does not compromise on the size of the data provided.

In case the client does not allow screen recording of areas like revenue, expenses, accounts receivable the same must be mentioned in the final report and an explanation should be taken from the client for the same. As an alternative we recommend that the auditor may use CCTV footage in extreme scenarios wherein screen recording cannot be provided.

## **A. How Digitisation can impact Audit (A financial reporting perspective)**

### ***Inventory***

Since the supply chain might have come to a halt, the stock of inventories kept would have increased. Inventories need to be valued at the lower of cost or

Net Realisable value (NRV) on the basis of Indian Accounting Standards (IND AS 2). Hence in cases where the Net realizable Value is lower it must be valued at the NRV after careful examination. The fixed overhead cost allocation has to be based on normal capacity ignoring the idle plant. As for inventory, auditors can use Video Conferencing applications like Zoom, Google Meet to carry out an inventory count.

### ***Impairment Test For Assets***

IND AS 36 post COVID will require a reassessment for the need to impair non-financial assets like property, plant & equipment, intangibles and goodwill, considering reduced economic activity, change in financial forecast and budgeted cash flows, etc. Management will have to modify the explanatory note in financial statements with regard to an impairment test carried out with a sensitivity analysis. Digitised applications can provide a benchmark in these situations and help in adjusting the value of the assets based on the available benchmarks.

### ***Financial Instruments And Their Valuation***

Current market sentiments are not the correct representative for the market prices as at year-end and the maker of the financial statements has to understand the volatility and the volume of transactions and volatility thereto before estimating current market prices. Accordingly, additional care must be taken in case of the financial assets and financial instruments which are mark-to-market price at the end of the period. Rates should be reviewed for incorporating forward looking estimates based on the expected credit loss model. Digitisation can be used to understand the market prices after setting an appropriate trading volume standard.

### ***Bad Debts***

Trade Receivables at the end of the year may certainly give rise to questions with regards to liquidity. Payments may go beyond their due dates and hence management must provide for doubtful debts. Firms may use data analytics to check for the period for which debtors have been outstanding. This analysis will help in determining whether debtors have been paying periodically or not and also will help in determining their credit worthiness.

### ***Borrowing Costs***

There has been a disruption of work due to lockdown and since this period refers to one wherein the period of active development has been interrupted such borrowing costs cannot be capitalized and should be shown separately as an expense in the profit and loss. Digitisation can be used by auditors to

determine the amount of days active development has actually occurred without any disruptions and can be hence used in analysing the borrowing cost to be capitalised.

### ***External Confirmations***

Auditor shall perform alternate audit procedures if inadequate / no responses are received from external parties for balance confirmation. Digitised software can be used to roll out confirmations with electronic signatures and watermarks of the firm to avoid physical signing and paperwork.

### **Assessment Of Significant Accounting Estimates And Assumptions Ad Assessment Of Going Concern**

Considering the fact that lot of estimation and assumptions will be involved for factors such as impairment of assets, provision for onerous contract, contractual penalties, contingent liabilities, repayment of debts, etc., and the unfavourable financial conditions of the client, the auditor should prepare an online checklist which can be rolled out through an e-mail.

### ***Group Audit***

In case of audit of consolidated financial statements where the component(s) auditors are located in severely affected places, the principal auditor may make use of alternative digital tools in the form of video conferencing, filing detailed questionnaire, etc. for conducting the audit. It shall consider the impact of COVID 19 on the financial statement of its components. Several accounting firms have been creating and outsourcing customised software which looks after the consolidated entities including their governing laws and accounting treatments.

### ***Forensic Auditing and Accounting***

The vast amount of scams and corporate scandals taking place in the country and on a global scale, have opened new opportunities for accountants in areas as forensic accounting. The Sarbanes-Oxley Act of 2002, was also introduced in the United States to prevent and detect white collar crimes.

A CA's expert knowledge of accounting and finance; combined with investigational and fraud-detection techniques and the application of law, all using digital tools; makes accountants' ideal for investigating criminal financial transactions and even scams on a larger scale. Forensic accountants help with interpreting whether activities are illegal in such areas as; financial statement fraud, money laundering and illegal routing of funds, embezzlement of funds, white collar crimes, insolvency and bankruptcies, policy claims, and security-related transactions related fraud. They work with advocates, enforcement personnel,

the government bodies and can also act as expert witnesses during court proceedings providing a record of the information gathered and analysed during the course of inquiry and investigation.

The increased use of digitization increased cyber crimes such as; identity theft, e-mail phishing, device hacking, software piracy, deliberately spreading computer viruses with an aim to destroy data store therein, online theft of files and data, digital scams, bank related frauds and so on. The job market is open to CAs to prevent such frauds. There are even specialized certificate courses available for specialization in such areas, thus enhancing the value and demand of such experts two-fold.

## **XI. REMOTE CONSULTANCY**

Remote working has recently become a global trend and even more recently a global economic contingency plan<sup>38</sup>. Opportunistic firms ought to capitalize on this remote revolution.

In the traditional days of consulting, consultants on site directly contributed to the assignment success. Firms involved multiple teams and individuals at different levels and saw in-person collaboration and face-to-face meetings as the most efficient practice. But with the pandemic and technological growth and the rise of Remote working, this is no longer the scenario. Working with a remote consultant can be just as beneficial vis-à-vis working with one in person.

Consulting in this context would involve advising on aspects of Tax, Direct or indirect, national or international; Transfer Pricing, International Treaties, Multinational and bilateral agreements and Action Plans under Base Erosion Profit Shifting; Audit and Assurance; Corporate Restructuring, Mergers and Acquisitions and building tax-efficient business models; Litigation strategy; Forensics and Accounting; Aspects of FEMA, Securities and Exchange Board of India Regulations, Black Money Act, Money Laundering, Insolvency and Bankruptcy Code, Banking and investments and every other regulation; and other relevant aspects that could be associated with the role of a CA. In a nutshell, it basically involves everything right from the establishment of a business or a company, to restructuring, to dissolution of the same.

Consulting is all about delivering services, but as technology and professional services transition to the cloud, the way in which services are provided, consumed, processed and invoiced is also changing. Companies want to be efficient, they want to invest in their human capital, and this is where consulting as a service viz. CaaS offers an

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38 Laurel Farrer, Enthusiastic Versus Experienced: What To Look For In A Remote Work Consultant, <https://www.forbes.com/sites/laurelfarrer/2020/03/12/enthusiastic-versus-experienced-what-to-look-for-in-a-remote-work-consultant/?sh=7cb7e99a12a0>.



alternative. Traditional consulting typically requires clients to spend on overhead, flights, hotels, and other related travel expenses that in effect don't add any direct value to projects. In a CaaS model, firms are searched for remotely and services provided at a lower cost, while performing the same activities. CaaS focuses on strengthening IT governance and developing project-management skills. A true CaaS offering includes highly qualified mentoring resources, deployment methodologies that meet best practice from the relevant knowledge areas and innovating governance platform. This innovation supports the client organization and its clients with on-demand access to the progress and status of their project.<sup>39</sup>

The benefits of remote working are many right from increased productivity levels, to lower rental and travel costs, and higher retention rates and productivity of top talent with increased returns. It allows firms to grow their services by working with clients in other regions, on a national and international level. Partners can line up more meetings back to back with no commuting between appointments, while managers can continue to supervise the working of teams remotely, allowing the firm to generate more revenue and at a faster pace. This same skill (sharing knowledge remotely) has also proved useful.

Now, more and more organizations including Twitter, Facebook, Apple, Google, are taking the leap into remote work in response to COVID-19.

Ultimately, there are going to be various firms offering to provide services during this global economic catastrophe, but the real question is this: there's a big difference between a mere advisor and a consultant. Business usually turn to CAs for help with restructuring businesses. But the professional world is booming with passionate individuals working 20 hours from home? On the other hand, consulting giants usually specialize in brick-and-mortar businesses and aren't equipped to advise on the nuances of virtual operations. Amidst the same, clients want professionals whom they can trust and who can effectively guide them through remote work change management.<sup>40</sup>

Under remote consultancy, there is nothing different. The same services are offered, however, remotely. Thus, it is imperative to: (1) leverage the best of what you have—ideas, people and other resources—wherever they may be; and (2) challenge the traditional norm to adapt to changing times.

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39 Consulting As A Service: Remotely Building Internal Competencies, (April 01, 2019), <https://www.consulting.us/news/2029/consulting-as-a-service-remote-consultancy-support-at-a-lower-cost>.

40 Laurel Farrer, Enthusiastic Versus Experienced: What To Look For In A Remote Work Consultant, <https://www.forbes.com/sites/laurelfarrer/2020/03/12/enthusiastic-versus-experienced-what-to-look-for-in-a-remote-work-consultant/?sh=7cb7e99a12a0>.

## Benefits of Remote Consultancy

### **Cost Savings**

It is a simple and convenient way of getting everyone you need “in the room” without paying for logistical travel and expense costs.

Firms can save on overhead costs. Rather than paying travel expenses for a consultant to come on-site, they can spend this money elsewhere to help their business grow. Companies can dedicate the time saved on travel to other projects and work. Quite often, in on-site consulting assignments, companies bill by the hour. With remote engagements, consultants will only bill for active working hours or on a retainer basis. Especially for engagements of a longer duration, the cost reduction can be substantial.<sup>41</sup> Similarly, for the consulting firm, it reduces travel expenses, which can be used in other areas of the firm; other administrative and overhead costs viz. requesting and maintaining visas for international clients. No office/work space ought to be rented. Emails, social media, Skype, instant messaging, and other web-based applications can be used to communicate and provide effective solutions. This increases the return on the consulting investment, which is minimal.

*“Our implementation was completed on time and within budget.”*

*- IT Director, Canadian Largest Retailer<sup>42</sup>*

### **No Travel Time = More Project Time Available**

The time that would be spent traveling, can be invested on ‘billable’ hours.

Many companies don’t have a dedicated workforce for individual projects. For instance, if a company is embarking on a new Enterprise Mobility Management (EMM) project, and the firm does not have any dedicated mobility staff, it may be a good bet to choose a remote working option. Onsite consultants are dedicated to individual projects. Therefore, the firm may not be unable to dedicate resources to multiple clients at the same time. Remote consulting firms can work with many firms simultaneously, allowing for flexibility in scheduling meetings as well as a last-minute meeting alteration or emergency can be simply rescheduled and the time recouped given enough lead-time.<sup>43</sup>

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41 Brian Wong, Working With A Remote Consultant, (Jan 27, 2020), <https://ntegro.com/2020/01/27/working-with-a-remote-consultant/>.

42 Remote Consulting Services, <https://www.axiossystems.com/remote-professional-services>.

43 Alice Joo, The Benefits of Remote Delivery, (April 26, 2018), <https://blogs.vmware.com/services-education-insights/2018/04/benefits-remote-delivery.html>.

Remote working discards the need to travel and allows the workforce to dedicate more time for working sessions, meetings, trainings and timely follow-ups. Reducing travel time can also help improve the productivity of consultants, prevent jet lag (arising on account of extended travel), and deliver their best possible output at any point of time in the day. Thus, remote consultancy leads to accelerated outcomes.

*"Time preparing and travelling to a meeting is 3X time spent on a videoconference"*

*-Forrester Research<sup>44</sup>*

### **Agile Project Methodology**

While traditional consulting used a very straightforward consultancy model, the agile method has recently become popular. In the past, consultants would meet with a client on-site to gather requirements and provide opinions at a later date. The consultants would merely rely on data provide during such sessions and this often resulted in companies rushing and providing incomplete requirements, causing the overall opinion to be inappropriate to the case at hand. With the agile methodology, consultants engage with their clients on a recurring basis, with meetings and feedback sessions being held online. Consultants follow a piecemeal approach, whereby, they gather information and deliver a portion of the requirements before moving onto the next requirement. This allows the company to apply such adjustments in real-time and on a timely basis. The agile model, as the name suggests also offers a huge amount of flexibility and adaptability.

### **Working Like A Multinational Company**

Many companies have already employed remote workers or have offices in different locations or are expanding to different locations. As a result, they have to develop the tools to work on an international scale. Working as a remote consultant can actually improve a firm's reach in the global market, by tapping clients they never would have through on-site consulting. A firm can develop strategies, techniques and procedures around such consulting services and face remote challenges.

### **Hire and Assign The Best Talent**

Consulting services organizations that embrace the remote engagement model can leverage the benefits associated with working remotely to recruit and retain skilled employees from all across the globe.

Some of the key benefits for individuals that are able to work remotely and/or from home, which further enhance job satisfaction, include:

- **Improved work/life balance:** Remote workers have a lot more flexibility to coordinate personal activities around work, giving them the ability to spend

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<sup>44</sup> Remote Consulting Services, <https://www.axiossystems.com/remote-professional-services>.

more time on things they want to do and with their families, and where, when and with whom they want to do them.

- **Greater productivity:** Time that would be spent travelling to a customer site or on a long commute to the office can now be invested on productive work related tasks. Eliminating distractions, provides additional opportunities for increased productivity. And since remote workers are not physically constrained to a client site, consultants are able to work on multiple projects and work-streams more efficiently, resulting in higher utilization rates, increased exposure to clients and/or more learning opportunities.
- **Better workplace conditions:** Resources assigned to remote engagements typically have better-equipped workspaces than what some customers would be able to provide. They can also ensure that their workspace fits their work style better (e.g.: work from home environment, multiple screens, a comfortable chair, equipment on demand, among others). Better workspaces mentally promote better work.<sup>45</sup>
- **Flexibility in work hours:** Some individuals like to be early worms while some like to be night owls. With no clear demarcation of office hours now, employees have the flexibility of working as and when they like, provided deadlines are met.

### ***Flexibility in Deployment of Resources<sup>46</sup>***

When undertaking a remote engagement, consulting firms can consider leveraging individuals who would otherwise be inaccessible or unavailable for a specific project or location. This model makes it possible for resources in any time zone or country to participate in an engagement without the complications associated with being 'onsite'. Staffing managers can now focus on finding the best resources for their major projects without having to worry about external factors such as limited flight availability, high cost of travel or having to request and wait for visas to be approved for international employees, to name a few. Additional staffing flexibility is achieved through a more granular assignment of resources to project tasks and/or phases. Since a remote project can be broken down into smaller chunks of time - as opposed to full weeks when going onsite – it becomes easier for project managers to schedule and assign resources with the required skillset for each task.

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45 Zaid Haiman, The Benefits of Remote Consulting, (May 07, 2018), [https://www.linkedin.com/pulse/benefits-remote-consulting-zaid-haiman/?src=aff-lilpar&veh=aff\\_src.aff-lilpar\\_c.partners\\_pkw.123201\\_plc.adgoal%20GmbH\\_pcid.449670\\_learning&trk=aff\\_src.aff-lilpar\\_c.partners\\_pkw.123201\\_plc.adgoal%20GmbH\\_pcid.449670\\_learning&clickid=2RaTNfRETxyOR%3AAwUx0Mo3Q1UkEw3RVkZ2knR40&irgwc=1](https://www.linkedin.com/pulse/benefits-remote-consulting-zaid-haiman/?src=aff-lilpar&veh=aff_src.aff-lilpar_c.partners_pkw.123201_plc.adgoal%20GmbH_pcid.449670_learning&trk=aff_src.aff-lilpar_c.partners_pkw.123201_plc.adgoal%20GmbH_pcid.449670_learning&clickid=2RaTNfRETxyOR%3AAwUx0Mo3Q1UkEw3RVkZ2knR40&irgwc=1).

46 Ibid.

Remote consulting assignments facilitate efficient coordination of logistics. Resources can be diverted towards the larger projects and higher responsibilities, while also enhancing consultant availability. There is no need to figure out logistics and coordination of the same.

For example, an associate could be assigned to complete lower complexity project tasks from home, allowing for subject matter experts or senior managers or directors to be brought in only for higher complexity activities. This approach has the added benefit of making it possible for the top level to be available for multiple engagements simultaneously, instead of limiting their bandwidth to meeting a single client at one time.

### ***Improved Service Quality***

It is common for customers to provide incomplete requirements or to rush the completion of project tasks because the 'onsite consultant' is leaving at the end of the week. This can lead to recommendations that are not entirely in sync with the client's business model. When this occurs, the final solution may not yield the expected results, and more often than not, additional work is needed to correct deviations.

Under remote consultancy, since matters move at the liberty of the client, they can take their time in gathering the relevant data before providing it to the consultant. Additional requirements can also be provided online, at any point of time during the duration of the project. This enables the consultant to design and implement a solution that resonates with what the client is looking for and satisfies his requirements.

The result is an enhanced service model that ensures project quality by allowing the project to be aligned with the data and information provided, on a timely basis.

Enhanced work hours and dedication on the part of the staff and increased collaboration with the client, can help enhance the overall outcome.

### ***Extended Work Hours = Catering to More TimeZones***

Consultants providing services internationally often provide support for multiple countries. Further, with employees of the team working in different time zones too, it would be possible to communicate with consulting firms at all possible times. As soon as a company needs an update or an issue surfaces, the queries can be immediately resolved rather than having to wait until the opening of business hours. For projects that require dedicated project monitoring and follow-up, a consultant's availability round the clock could be extremely resourceful.

### **Quicker Access To Resources**

One of the biggest benefits to remote consultancy is easy and open access to technical knowledge, databanks and resources and information online.

“Having a complete digital record of all activity gave us transparency and peace of mind.” -IT Manager, Large Bank<sup>47</sup>

### **Solutions For Enhanced Remote Consulting Services**

A consulting business consists of:<sup>48</sup>

#### **Practice Development**

You build a practice with certain expertise based on your target market. Observe opportunities; come up with ideas, analyze them and develop a relevant and viable approach or solution that you can pitch to clients.

#### **Service Development**

You find and make your pitch to a client that can benefit from your approach or solution or service and is willing to pay for it.

#### **Engagement Delivery**

You enter into a contract with a client and implement your approach or solution on a personalized basis.

All this requires a dedicated workforce for smooth functioning. This often means firms are navigating two sets of challenging priorities: the internal ones with their own team and the external ones with their clients.

Here are some solutions to improve the quality of Remote Consulting Services so offered:

#### **Think Digital First**

As an agile firm, one must always work around the innovations to build a sustainable service model. Firms need to get adept with technology, for every new customer needs it. Since your clients are using digital platforms, you need to be able to tap every opportunity to connect with them. As customers drastically shift to digital platform to obtain services, it is imperative to comprehend this and their changing needs. This journey has been rightly explained in Kotler’s 5A model – Awareness,

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<sup>47</sup> Remote Consulting Services, <https://www.axiossystems.com/remote-professional-services>.

<sup>48</sup> Richard Jhang, Running A Consulting Business With Remote Teams, <https://miro.com/blog/features/richard-jhang-consulting-business-remote-teams/>



Appeal, Ask, Act and Advocate (Consult in our case). All these stages have to be considered for digital consultation.<sup>49</sup>

### ***Designing A Remote Service- Smart Work***

Merely replacing a meeting with a video conference call hardly does the job. We have to work Smart and Intelligently.

The firm must fully embrace remote services, digital tools, the use of embedded AI as well as dramatically different ways of teamwork. It is also important to be updated with the technologic advancements and revisit and tweak strategies from time to time to be in sync with changing markets. The same should be understood and tested correctly before implementation to avoid any backlash.

### ***Be Present And Active Everywhere***

In today's time, firms need to stay active on traditional as well as modern platforms to keep in touch with clients and also source new ones. It is also relevant to remain in sync with the relevant social media platforms used to enhance reach.

### ***Internet Connection***

Even though this may sound basic, nothing ruins an online meeting faster than someone losing connection or — even worse — getting frozen with a silly look on their face. It interrupts the flow of the meeting. Beyond that, if someone is paying you by the hour, you're literally wasting their time and money. Thus, it is necessary to invest in internet connectivity for longer periods of time, so that calls or videos do not drop and consultations follow a regular flow, akin to in-person consultations. You can use a LAN connection, Ethernet cable or reliable WIFI. A steady Internet connection is critical.

### ***Obtaining Client Comfort For Remote Consulting***

The first hurdle you'll need to get over is making your clients feel comfortable with the value you can deliver remotely. Working remotely may be new to the clients you interact with. Acknowledge this from the start and provide guidance to make them — and yourself — more comfortable. Be sure to stress the benefit of doing something as opposed to waiting for weeks, possibly months, for in-person meetings to occur. Most clients today are regular users of technology and related platforms. This may not be the ideal situation for others, but it's something where a firm must promise to offer enhanced value. A firm can also ease these concerns by being prepared with a strategic plan of the road ahead and provide value services to the client online and accommodate each of his requirements.

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49 10 Golden Rules for Digital Entrepreneurs of This Decade, <https://www.entrepreneur.com/article/347651>.

### ***Develop A Solution Based on Client Needs***

Once the client is comfortable with the digital platform, based on your research, and your area of expertise, determine how you can help them. The solution must be communicated online and any doubts or clarifications cleared. It is also perfectly fine to not be able address every challenge. A firm wants to make the best of what they have, know and can offer, rather than providing an incorrect overstated opinion.

### ***Leverage The Right Applications And Equipment***

You need to offer people multiple communication channels so they can find what is most convenient. Do not feel compelled to standardize or modernize. Multiple communication channels can also be combined to maximize the reach of interactions and select the optimal channel. Actively experiment with AI and robotics to further enhance communication.

### ***Teleconference Technology***

One of the most important elements of any business relationship is communication. Before March 2020 a quick phone call was sufficient to discuss urgent questions. For more in-depth discussions with clients, conference calls are scheduled. But with the onset of COVID-19, we have come to rely on video calls more and more. During these rapidly evolving times, we crave connection. And these technologies are the best way to connect with our customers. Research has shown that nonverbal communication can be 90% more important than any accompanying spoken word. This explains the huge surge of interest in video conferencing technology over the last few weeks.<sup>50</sup>

### ***Zoom***

This tool is designed for hosting webinars, teaching online courses, conducting online training, master classes, workshops and videoconferences. Although Google Hangouts offers some of the same features, Zoom allows you to record meetings as well and cater to a larger audience. This is extremely helpful since it reduces the amount of notes your clients and employees have to take and the recording can be referred to for future projects. This will help firms focus on what the client is saying and understanding his needs, and the scope of work. Additionally, not everyone would be available at the same time to attend meetings. Recording meetings makes the content accessible to everyone and simplifies the scheduling process.

**Pro Tip:** Download the app as opposed to using the browser version. You'll be less likely to experience lags or hiccups. Avoid Zoom fatigue.

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50 Chris Stevens, Delivering Personalized Integration and Consulting Services While Working Remotely, (May 13, 2020), <https://www.extensis.com/blog/delivering-personalized-integration-and-consulting-services-while-working-remotely>.

### ***UberConference***

On that note, you can also use UberConference. UberConference is a great free voice and screen sharing tool. You can screen share with your client and show them what they need to see, even when they're at a different location.

The best thing about the free version is that you can have a permanent URL, eliminating the need to send a fresh link each time and minimizing confusion.

### ***Calendly For Scaleable Meeting Scheduling***

Calendly is an application used for scaleable meeting scheduling and to minimize the back and forth between emails so that work can actually get done.

### ***Slack For Asynchronous Communication***

The firm can be on Slack with all of its clients so the firm is embedded with their team. This is also a pro tip for the consultants and agencies out there that if you are communicating constantly with your clients, solving those big problems, and helping them be successful, you will retain more clients.

So, Slack can be used to be involved in conversations with them in real time.

Asynchronous communication is great, but it's all about managing your own energy and your client's expectations for communication.<sup>51</sup>

### ***Yondo<sup>52</sup>***

Yondo allows anyone to sell live online consultations and videos on their own website.

As you can see, there's some overlap between Zoom and Yondo. While Zoom is used for long-term consulting engagements and recording meetings, Yondo is used more for hourly consulting or shorter meetings with lesser people.

### ***HoneyBook<sup>53</sup>***

HoneyBook is an integrated project management, proposal, billing and invoicing software designed to help you automate various operational processes. Since you may be juggling other responsibilities while working remotely, this is a great way to get some time back. The ability to quickly send proposals and invoices is a great feature.

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51 John Doherty, 5 Tools And Strategies I Use For Remote Consulting Success, (Sept 26, 2017), <https://thenextweb.com/contributors/2017/09/26/five-tools-strategies-use-remote-consulting-success/>.

52 Terry Rice, How to Save Your Consulting Business by Shifting Online, (May 17, 2020), <https://www.entrepreneur.com/article/347707>.

53 Ibid.

Once you have these setup, it takes about 5 minutes to send them out. Your clients can sign contracts online, which is beneficial since many of them may not have access to a scanner or printer.

**Pro tip:** During times of uncertainty, it's beneficial to bill clients on a retainer or project basis as opposed to hourly. This will make it much easier for you to forecast revenue, which will reduce stress.

### ***Audio/Visual Equipment***

Purchasing a pair of noise-canceling headphones or equipment could go a long way in improving concentration and focus and replicating the *gravitas* of an office-like environment. Individuals would be able to hear better during meetings and absorb more while working. Either way, avoid using the mic from your smart device or laptop! It doesn't work, even if you try to lean towards it for better voice quality.

In regards to a camera, the one on your computer should be sufficient, but you can obviously get a webcam as well. Depending on your working environment — and the clients you work with — and the level of professionalism, one may also want to get a backdrop so you have a more professional looking background. For instance, advocates, during the course of hearings, are required to use a white background, akin to a court environment.

### ***Ensure That Employees Get Involved and Feel Involved***

Firms should give all employees and consultants the option of connecting with company leadership and news during regular team calls and an opportunity to voice their grievances. They should share updates about how project is coming through along with major developments, share insights and best practices, – and get feedback and answer questions, while keeping conversations open.

### ***Visualize***

Visualization is a common and powerful language between individuals. Because we think, work, and talk in unique ways, a good visualization may be the most effective tool to get everyone on the same page quickly. The same could be in the form of flowcharts, graphics, diagrams, used in lieu of more formal documents, especially when explaining important clauses of structures or business models, as this saves time, enhances fidelity of communication, and ensures that the firm and the client are on the same page. This further aids in eliminating discrepancies of thought and understanding.

### ***Emotional Intelligence And Soft Skills***

When technology hiccups occur, which are quite frequent, your response will be crucial. But it would be comforting to smile through such problems and yet be

confident. As the online host, a client would look up to him to make sure things are perfectly normal. So if problems come up, smiling as you handle them gives the audience confidence that you have things under control, ensures trust and confidence in your work and will buy you some time to handle any issues that have cropped up.

To paraphrase, *“Don’t freak out”*. These days, not freaking out, no matter what the situation, is good advice, regardless of the context.<sup>54</sup>

### ***Personalisation of Services<sup>55</sup>***

The new age clients are spoilt for choice and have wavering choices. To target such audience; firms must offer unique yet personalised experiences to retain client loyalty and satisfaction. Their likes/ dislikes and needs must be met. Focus on providing quick resolution to any issues raised to avoid unwanted online disputes, which can hamper the ongoing relationship between the client and the firm. This would further provide a competitive advantage and level playing field even for small firms.

### ***Invest in People, Knowledge and Expertise and in Knowledge Sharing.***

#### ***Conduct One-on-One Meetings with Clients***

**Priorities change throughout the week. Thus, recurring meetings with clients keep firms updated about upcoming needs.**

In A Nutshell, Answers to the Following Questions Ought to Be Remembered by The Firm when Providing Remote Services:

1. Is this something that we can do? (e.g. any conflicts of interest, legal or regulatory situations, available bandwidth)
2. What positions the firm competitively on the remote platform or differentiates the firm from competitors? (Eg- Past success/reputation in this domain, goodwill/credibility, client relationship and loyalty, relevant experience, unique expertise, team of experts, personalization of services, research/data, pre-fabricated solutions, strategic and forward planning)
3. Implementation of Remote Technology previously, hurdles faced and leveraging the same (Eg- Re-usable sample proposals and approaches, proven teams of experts, relevant research/data and solutions, client references to leverage as part of the new proposal)

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54 Terry Rice, How to Save Your Consulting Business by Shifting Online, (May 17, 2020), <https://www.entrepreneur.com/article/347707>.

55 10 Golden Rules for Digital Entrepreneurs of This Decade, <https://www.entrepreneur.com/article/347651>.

4. What is a good approach for delivering the client-requested work online: Preliminary discussions, Request for Information, key activities, deliverables and Regular Follow-ups?
5. Who can deliver this work, and how should they be organized? Which employees are best suited to the performance of the job or project at hand?
6. How much time and money would it take to ensure a holistic digital transformation? How can existing resources be leveraged and enhanced for the same?
7. What are the key risks, assumptions, and non-negotiable constraints of the remote platform and how can the same be overcome or minimised?
8. How should collaborations across teams, departments and clients be enhanced? (e.g. Strategic project plan, assignment of responsibilities/tasks, booking review meetings with key clients)
9. Should the project leader be changed to someone better qualified/more available?

With all the digital disruption in the market, there have to be changes in how consulting services are delivered.

## **XII. E-ASSESSMENTS**

Electronic assessment, also known as digital assessment, e-assessment, online assessment or computer-based assessment, is the use of information technology in case of litigation. Technology can be used for instant assessment; helping to boost engagement, identify gaps or discrepancies instantly and report the same.

As per the E-assessment Scheme, 2019, '*e. Assessment*' means the assessment proceedings conducted electronically in 'e-Proceedings' facility through assessee's registered account in digital portal.

The COVID-19 crisis has presented an unprecedented challenge to the provision of core public services that were traditionally delivered face to face, including healthcare, education and justice and has forced Assessing officers, Tribunals, courts and advocates to adapt at pace. Gyms are shifting to virtual workouts, therapists are transitioning to telehealth sessions, learning and development companies are finding ways to create virtual experiences and even court hearings are being conducted online. Litigation is an essential service for civil society. In the wake of the current pandemic, assessments across the country have gone into an urgent-only, online-only mode with electronic filings, email mentions and, online hearings via video conferencing/ video calling facilities. The urgent-only format will come to pass, with this being adopted as the new normal.



Litigation has moved right from the use of stenograph machines to laptops and computers and now software for online assessment and hearings. Within this context, it has been possible to continue substantially the full operation of assessments through e-filing and on a remote access basis.

Remote assessments are not a new concept. “Paperless” workings and e-filings had already been taking place. We saw the implementation of digitally-administered GST, which has significantly transformed the way in which tax compliances can be performed. Project Insight, a flagship project of the Income Tax Department, to widen tax base and increase compliance, had already started using contemporary technology for data mining, research and analytics against black money and tax evasion by sourcing the taxpayers’ data. Sharing taxpayers’ data across direct taxes and GST administration is also becoming a reality. As part of this action-packed agenda, the Central Board of Direct Taxes went ahead and notified the faceless e-assessment Scheme under the Income Tax Act.<sup>56</sup> In the longer run, it is believed that the scheme will advance to a progressive system of assessment, providing greater consistency in tax assessments nationally and offering ease to taxpayers.

The Central Government introduced the Faceless Assessment Scheme to provide greater transparency, efficiency and accountability in Income Tax assessments. All provisions introduced under Faceless Assessment, under the Income Tax Act, 1961, are introduced to-

- (a) Eliminate the interface between the Assessing Officer and the assessee during the course of proceedings, to the extent that is technologically feasible;
- (b) Optimise the utilisation of resources through the economies of scale and functional specialisation; and
- (c) Introduce a team-based determination of arm’s length price with dynamic jurisdiction.

This further enhances the importance of e-assessments and necessitates an in-depth understanding of the same.

Shorter matters, such as directions, hearings or mentions at the Court and Tribunal level, are usually being dealt with on the papers itself, by telephone or video-link appearances or a combination of the two. The approach to more substantial matters including final hearings is dealt with on a case-by-case basis. Litigation and assessments are also an important aspect of a CA Firm’s work and with systems migrating to the online platform, it is imperative that CA firms also catch-up and adapt to the same for longer term benefits and try to normalize the process as much as possible for the benefit of clients as well.

<sup>56</sup> Garima Pande, E-assessment- A Game Changer, (Jan 02, 2020), [https://www.ey.com/en\\_in/tax/e-assessment-a-game-changer](https://www.ey.com/en_in/tax/e-assessment-a-game-changer).

E-assessment is best realised at the current point in time as a collection of 'off the shelf' remote communications platforms being used to achieve the single aim of keeping business going safely. Within this context, it is necessary for a remote access Court or officer and the representative to seek as far as possible to replicate, for all types of hearing, the 'live' assessment process. Such remote litigation facilitates the judicial system to function as a service, not a place. It is a real opportunity with the positive potential to make the entire process more streamlined, efficient, accessible and inclusive; only if adopted and implemented well by both parties to a case. It may prove a catalyst for the system and firms to embrace technology and reduce reliance on in-person hearings and hard copy documents, and focus more on written submissions. CAs will be required to deploy their professional skills in a more persuasive and efficient manner in the new litigation environment. Such deployment does not require new skills, but requires strengthening of those already existent and forward planning in technology and adaptability. Such methods need to be well-designed, well-researched and well-delivered.

### ***Civility, Cooperation, Collaboration, Communication***

E-assessments require civility, professionalism, cooperation, communication and collaboration between parties, both before and during the hearing, to achieve a just outcome.

An overview of the best practices for e-assessments may be summarized as follows:

#### ***Prepare In Advance***

Failing to prepare is preparing to fail. Good preparation is the key to success and should be the guiding principle. The increased emphasis on written advocacy and preparation would mean more preparatory work in advance to ensure a successful outcome. It will be important to check the flow and quality of written submissions, the submission and completion of requisite documents, filling of forms in the correct format and compliance, correct page referencing, among others. Taxpayers need to prepare themselves to handle the information request and show cause notices

CAs must also, on the basis of past experience, determine the level of information; documents, preparation and strategic planning that will be required. Preparation would also involve preparing the client, other parties to the matter, approaching a relevant Counsel and getting familiar with the format and procedure of e-assessments.

There should be an overall e-assessment strategy and successful implementation of the same.

#### ***Getting Familiar with the Procedure***

The parties along with CAs must get familiar with the procedure and process of e-assessments, filing of documents, the form and manner of written and oral

submissions, access verification and authentication of information, procedure of e-proceedings, various compliance related aspects, tracking the status of assessment, display of relevant details, the necessity of in person hearings, the mechanism for faceless inquiry, valuation, collection of information, penalty or recovery of tax and the procedure to file an appeal with the higher level of authorities. CA firms also ought to be in sync with the various updates being administered in the process of e-assessment.

It is pivotal to understand what parameters or risk management strategy will be deployed to examine or review the submitted information and the opportunity that the taxpayers would get to explain their tax data and positions before any adverse conclusions are drawn against them.

Only once CAs are themselves familiar with the process, will they be able to guide clients in the right direction and represent them appropriately.

### ***Generic Skills and Knowledge in E-assessment<sup>57</sup>***

The firm and management should have (or be trained to have) the following skills and knowledge, irrespective of their role in the e-assessment process:

- a general understanding of the principles of assessment
- an understanding of the importance of security in the conduct of assessment
- a general familiarity with the e-assessment systems
- an awareness of legislation and codes of practice
- the general regulations of relevant awarding bodies, and regulatory authority guidelines and codes of practice.

### ***Division of Responsibilities<sup>58</sup>***

The responsibilities with respect to e-assessment should be divided within the firm as follows:

- senior management (responsibility for developing and supporting an e-assessment strategy for the organisation)
- coordination/operational management viz. directors and managers (implementation of the e-assessment strategy and policies, and accountability for the e-assessment process)

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57 E-assessment, A Guide To Effective Practice, (2007), [https://www.e-assessment.com/wp-content/uploads/2014/08/e-assessment\\_-\\_guide\\_to\\_effective\\_practice\\_full\\_version.pdf](https://www.e-assessment.com/wp-content/uploads/2014/08/e-assessment_-_guide_to_effective_practice_full_version.pdf).

58 E-assessment, A Guide To Effective Practice, (2007), [https://www.e-assessment.com/wp-content/uploads/2014/08/e-assessment\\_-\\_guide\\_to\\_effective\\_practice\\_full\\_version.pdf](https://www.e-assessment.com/wp-content/uploads/2014/08/e-assessment_-_guide_to_effective_practice_full_version.pdf).

- associates (responsibility for operational systems and processes)
- technical support (responsibility for the technology), whether provided in-house or via a third party
- working with the client at all stages (maximising the potential for success through the e-assessment process).

In addition, a number of other existing roles will be changed by the use of e-assessment.

### ***Pre-Assessment Consultation***

CA Firms must also seek instructions from their clients on the strategy and outcome. Key points ought to be discussed much prior to assessment. CA firms must also ensure that at certain occasions, clients are okay with CAs taking decisions on their behalf or themselves attending a proceeding in person or virtually.

### ***Simplification of Submissions***

Since all communication will be done electronically, there is a need for assessees to ensure that the documentation/details submitted to the authorities are in a clear and simplified manner. This is also essential as there will be very limited or no interaction with the authority, which might make it difficult for the authorities to understand the taxpayer's complex business transactions and tax positions based on the information submitted electronically.

The oral submissions must also be made in articulate and simplified manner, such that they can be heard, understood and retained.

### ***Importance of Written Submissions***

In the words of CS Vaidyanathan, Senior Advocate, Supreme Court of India<sup>59</sup>–

*This is an inflection point for the legal profession in India. The disruption occasioned by Covid-19 has put forward challenges that can be best countered with wholesome and wholesale changes – by the adoption of online courts with limited or no oral hearing but based on brief written submissions.*

The art of litigation is now likely to be substituted by structured and precise pleadings, supported by strategically crafted written submissions. The preparation of written submissions and detailed list of dates, is at many occasions determinative

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59 Cyril Amarchand Mangaldas, Gavel To Click: Covid-19 Poised To Be Inflection Point For Online Courts In India, (Apr. 12, 2020), <https://www.bloombergquint.com/opinion/gavel-to-click-covid-19-poised-to-be-inflection-point-for-online-courts-in-india>.

for a party's case. On account of such heavy reliance on written material, CAs must ensure that the submissions are short and crisp, have a structured flow, state all relevant facts and grounds of appeal, narrate the issue at hand in a simplified manner, complete in all respects, reflect the positives in the case, and self-explanatory in getting the client's viewpoint across to the authority.

Mandatory pre-hearing written submissions are effective in this regard, unless extremely voluminous or lacking focus. Where authorities are required to skim through thousands of pages of documents on a daily basis, the CA must ensure that the client's written submission captures the attention of the authority and possesses retentive value.

E-filing should not be taken as an invitation to overwhelm the Court with documents and submissions. One strategy to manage this is, to prepare a detailed road map document that can be used as a checklist during the proceedings. The document could also function as a reference in written submissions to assist the CA in explaining to the officer/relevant authority, how matters have or will be proved.

The success of a virtual hearing is also dependent on the relevant ease with which the representatives provide references to the written submissions, handle documents in an organized fashion and use screen-sharing facilities. This also ensures that the authority and representative are in sync.

### ***Effective Use of Technology***

CAs have to become aware and familiar with the operating technology used for handling documents and referencing through screen-sharing facilities. During the course of proceedings, CAs may even keep three devices- one for screen sharing, one for reference to documents for personal use and one for taking individual notes.

For ease of reference, all relevant documents for a particular case can be condensed into an e-paperbook (like a convenience compilation) with page numbering. If you have a point to make about a document you nearly always need to make sure that you and the judge/officer and the opponent's advocates, have that document in front of them. A condensed book must refer and reproduce documents as they are contained in official record to avoid confusion.

To further use documents to substantiate the case at hand, CAs must focus on materiality and relevance vis-à-vis the quantum of documents provided, to establish a stronger case.

Additionally, CAs ought to:

- Get familiar with the software to be used for the remote hearing
- Test the link prior to the hearing and report any discrepancy

- Have knowledge of the code of conduct and dress-code
- Have steady internet connection with good audio/video quality
- Conduct a mock hearing prior to the actual one for the sake of familiarity
- Follow the Rules of Practice
- Mode of raising objections
- Only one person should speak at a time. The other parties must keep their microphones on 'Mute' mode, while the opposite party is making submissions or while the Judge is speaking
- Maintain confidentiality of the hearing and the submissions provided thereto
- Ensure that all their points are made or heard during the course of the hearing.

Technology can also be used to Examine witnesses or other parties online, prepare a Statement of Oath, record the meeting or note down important points discussed at the hearing or meeting.

### ***Effective Structure to the Case***

Indian tax proceedings are known to be bulky ones and voluminous. However, with proceedings moving online and with a time-crunch, the importance of crisp arguments is on the rise. It is important for every CA to Identify the main issues, narrow arguments on the basis of assessment of priority, relevance and materiality. If the party does not have a strong case with respect to a particular line of argument, the same should be eliminated in entirety, unless specifically questioned by the authority or Judge or the opposite party.

CAs can capitalise on the flexibility offered by remote hearings. Virtual courts in the lockdown have also tried to move beyond conventional methods, to focus on relevant issues and complete the hearing within the allocated timeframe. One such instance is an order passed by the Delhi High Court, directing parties to file a 3-page submission, accompanied with 15-minute video clips of oral arguments; following which, they could file and exchange 2-page written replies with a 10-minute video of oral arguments in response.<sup>60</sup> Thus, adding an element of innovation to virtual proceedings.

### ***Confidentiality And Security***

Confidentiality and security are implied terms in case of any hearing or proceeding. Complex issues of data protection arise when there is an excessive exchange of a vast amount of data online – both personal and pertaining to the case. A cyber-protocol, mutually agreed by the parties, may be followed in this regard.

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60 Sat Prakash Soni v. Union of India & Ors. CrI.M.A. 6348/2020 in W.P. (CrI) 3034/2019, Delhi High Court (June 1, 2020).



### XIII. HUMAN RESOURCE MANAGEMENT SYSTEM

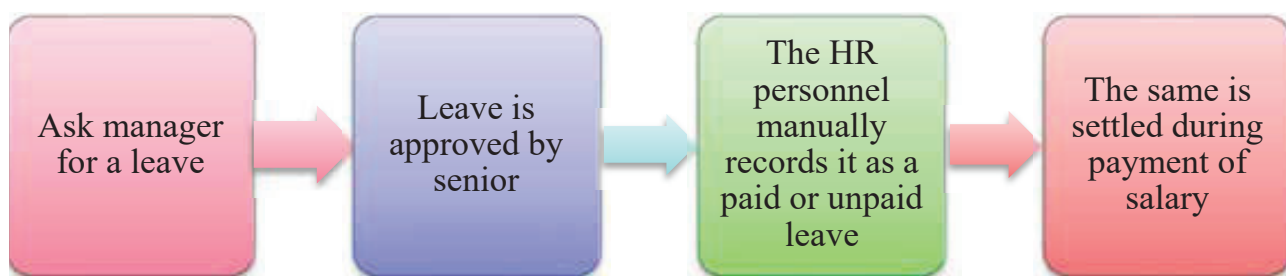
*"There are only three measurements that tell you nearly everything you need to know about your organisation's overall performance: employee engagement, customer satisfaction, and cash flow." -Jack Welch*

A HR Management System is a complete integrated software which manages all administrative services pertaining to human resources, and also resolves general issues by streamlining recruitment and reducing employee turnover as a whole. An HRMS can typically be a specialized HR software or a comprehensive one.

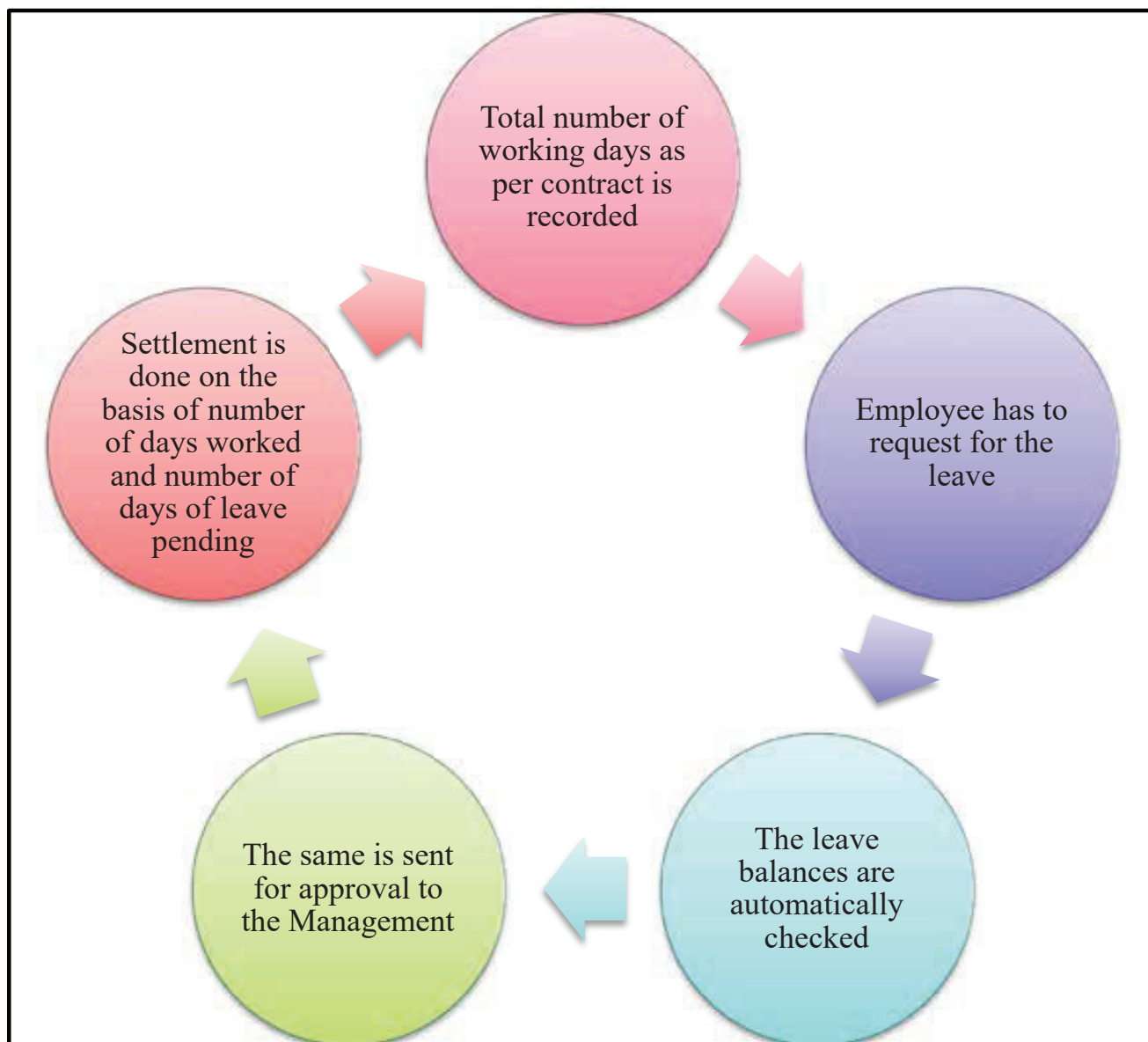
A specialized HR software specializes in a single process, for instance, recruitment or payroll. It has advanced functionalities like recruitment may look after procedures all the way from the interview of individuals to compliance with the firms human resource policy. It may also allot a particular department to the new employee based on his resume, his interests and skills. The HR Management System allows for ease in doing tasks and complete automation.

A comprehensive HR software takes the entire human resource function as a whole under its wing right from recruitment, training, transfers, to performance appraisal and exit interviews. It is wholistic in its approach and includes all the data related to an employee and has an appropriate redressal system in case of queries. Such a software may also look after reimbursements in cases of employees incurring expenditure on work related matters or trips.

In normal parlance, an employee while applying for leave will have to opt for the following process:



However, an HRMS follows a very different approach, as follows:



In our opinion, *"The 2010s were led by individuals who were able to manage their employees efficiently and were able to delegate their work, but 2020s will be led by individuals who are able to synchronize technology into all their processes and human resources."*

An HR Management System in today's world has become more and more relevant. *"Employees are the lungs of the organization which maintain the smooth functioning."* The difference between a good and the best CA firm or any professional organization, dependent on human resources, is its ability to keep its employees and workforce motivated and happy and to provide them a sense of belonging so that they undertake the firm and its clients' work as their own. In the pre-digitization era,

we would usually have an HR personnel looking after employee productivity and their needs, however in the post digitization era, we are looking at technology and automation as a one-stop platform providing details about the employee, his skills, trainings and performance appraisal, hours and extra hours worked, leaves taken, his work performance, employee benefits, his level of satisfaction as well as his relevance and upskilling. Examples of HRMS include-

- Human Resources Information Systems (HRIS): An HRIS plays the core data-management role needed for multiple HR functions such as recruiting and tracking applicants, storing employee data, managing payroll and benefits, maintaining regulatory and legal requirements, etc. An HRIS can be standalone software designed to integrate with other HR applications, or it may be the central database in an all-in-one HR software system. Systems such as “Bridge” and “HRM Axis” have been breaking ground and barriers of misconceptions.
- Applicant Tracking System (ATS): An ATS is a recruiting software that helps streamline the hiring process for an organization right from the job interview to the allocation of a department. It typically handles tasks such as posting job openings to multiple job boards, storing applicant data, and screening applications for potential matches. However, in the presence of umpteen ready-made applications on similar lines, ATS has lost its relevance. Firms prefer third parties like LinkedIn or Naukri.com to connect with individuals looking for jobs and meeting the qualification requirements.
- Onboarding: Onboarding software helps streamline and track the process of introducing new employees to an organization and other employees. It often includes elements like electronic signatures, pre-boarding packages, assigning of buddies, training tracking, employee questionnaires, and other automated functions to help HR ensure they are providing a compliant, smooth onboarding experience for new employees. This basically looks after all the requisite paperwork.
- Performance Management: This is a platform for HR professionals, managers, and employees to assess employee skills, set performance goals, and track improvement. “Trakstar”, a software which is platform independent has become the spearheading technology in this market.
- Employee Engagement: Helps improve employee sentiment and increase individual and team engagement and foster collaboration between departments and the organisation. This is done through everyday work priorities, feedback, coaching, and analytics. These systems basically look after simple stuff like organising internal trainings and seminars and their major relevance is seen in large firms.<sup>61</sup>

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<sup>61</sup> HR Software, <https://www.bamboohr.com/hr-glossary/hr-software/>.

#### **XIV. INCIDENT MANAGEMENT AND ANOMALY CORRECTION**

*"An incident is just the tip of the iceberg, a sign of a much larger problem below the surface." -Don Brown*

Digitisation may have changed the way we look at our work however while technology brings in revolutionary methods of work, it also brings in technical issues. These issues can be termed as incidents or sometimes, based on the scale, even disasters.

As we have repeatedly stated previously that the only risk we may face moving forward is an inherent risk of technology failing. Something, as simple as loss of the network line or applications repeatedly crashing or a virus attack leading to a major loss of data. In 2020, we saw some email giants face server issues because they were unable to manage the quantity of requests coming in. While technology has few million benefits, we could say that in India in particular we are still in the "trial and error" phase with technology. An anomaly is basically a deviation from the actual result so expected.

What can we do to solve such issues? The answer lies in "Simplicity".

An employee should ensure that every time he generates a result using a software he must make sure that he has saved the same either offline or either in the form of a backup, that can be recovered in case of a disaster/incident. This allows for execution even during times when internet connectivity is not accessible. There must be a particular day during each month (preferably weekends) wherein remote access can be taken and the system can be updated and backed-up.

Each device provided to an employee must have a remote access system inherent within the same. Examples of such systems include, "AnyDesk", "TeamViewer" among others.

A modern CA firm should have a team of experts sepccifically dedicated to the operating and handling of IT systems, Intranet networks, incident handling and disaster recovery. This team may either be in-house or the work outsourced. Each time an employee observes an incident or an anomaly, he must report the same to an IT personnel so that the issue can be further resolved temporarily and for similar occurrences in the future.

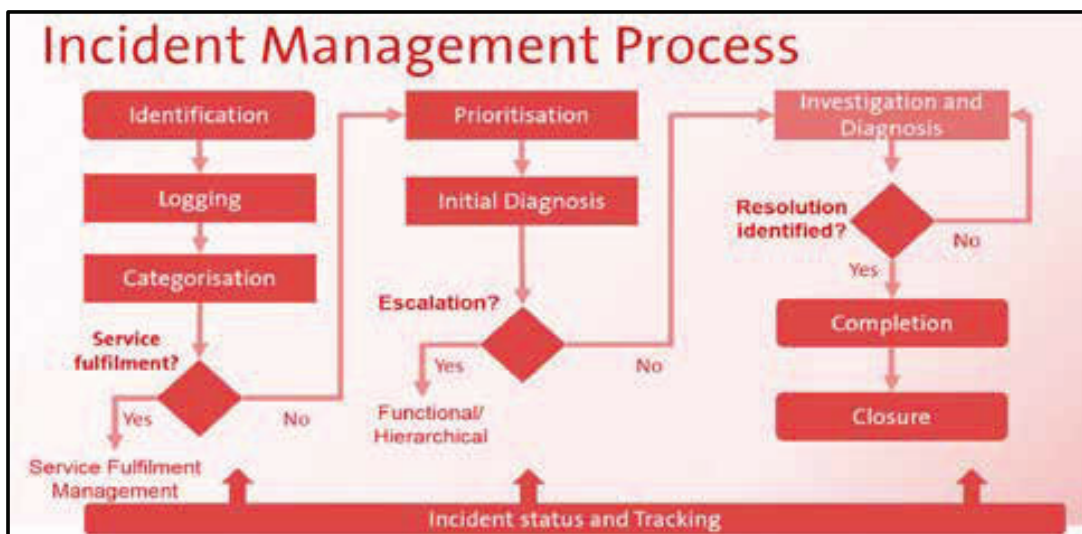
Firms have been moving onto the cloud for data storage so that the data is available at all times. A typical storage cloud allows for data accessibility at all times.

While all these options seem very viable, there are certain advanced firms which have created their own in-built applications that look after such incidents and provide solutions. These systems are created to streamline the applications and when an

employee faces an issue pertaining to a particular software he may raise a request for that particular software and experts provide recommendations and solutions. Incase an employee needs access to a particular application with restricted licenses, the system can also be used to generate such a request.

An IT incident management system basically helps in bifurcating between problems typically into *software-related*, *hardware-related* and *other problems*.

Software-related problems are those that pertain to applications or internal softwares or operating systems while hardware-related problems pertain to issues in network infrastructure and connectivity such as the monitor, motherboard, other parts of the device, among others; and lastly, other problems look after miscellaneous errors generated while using operating devices.



The process thus may be summarised as follows-

First, the incident and its location ought to be identified. On identification of the incident, logging basically refers to the reporting of the incident to the concerned personnel or IT Service Desk that may categorize the same, as provided above; Prioritise the areas needing urgent attention; conduct an initial diagnosis into the same and post that, an in-depth investigation into the problem, if need be; and lastly, on understanding the cause behind occurrence of the incident, find a solution and implement the same. The idea is not just to provide a temporary solution but also prevent future occurrences of similar incidents.

*"Everything new comes with its issues, an anomaly should be seen not as an abnormality but as an opportunity, an incident should not be seen as something inefficient but as a future precedent."*

## XV. REFLEXIVE MONITORING

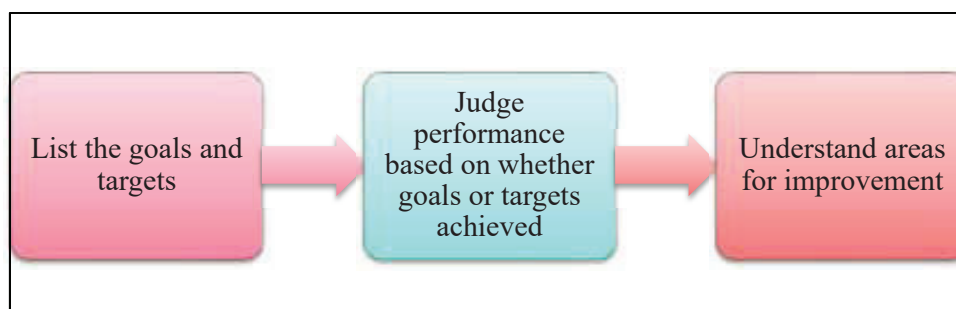
Reflexive Monitoring in Action (RMA) is an integrated methodology to encourage learning within multi-actor groups or networks as well as institutional change in order to deal with complex problems. Appointed reflexive monitors stimulate collective learning and the design and adaptation of actions targeting a future system change. The key is to trigger recurrent collective reflection on the results of actions undertaken in light of systemic barriers as well as opportunities. While facing everyday struggles of an ongoing transformative change process, these system innovation initiatives will thus be able to change their practices, relations and rules and contribute to the long term goal of survival and sustainability.<sup>62</sup>

To put it in simple terms, Reflexive Monitoring is an innovative monitoring and evaluation method. It aligns daily activities with long-term ambitions and the impact of a project. The method enables users to gain an insight into the progress and direction of their project in real time. Reflexive Monitoring helps to evaluate day-to-day activities and to respond to them<sup>63</sup>

while considering the larger picture. This is especially helpful when addressing complex challenges.

Even at an employee level, in the world of digitization, reflexive monitoring can be used by an employee to set his personal goals, understand what he aims to achieve and benefit from the work he has undertaken, continuously monitor the same and undertaken performance appraisal. Many organizations have self evaluation online forms which are filled by employees on a six monthly or yearly basis, to evaluate their own performance on a timely basis and also benchmark the same with the performance of other employees or past performance. In a similar fashion, firms may also use reflexive monitoring to assign goals and targets based on industry standards, benchmark the performance of the organisation with such goals, identify deviations and cause behind the same and take corrective action.

*A typical reflexive monitoring process includes:*



62 Reflexive Monitoring in Action, <https://www.wur.nl/en/show/Reflexive-Monitoring-in-Action.htm>.

63 Reflexive Monitoring, <https://connectingnature.eu/innovations/reflexive-monitoring#:~:text=Reflexive%20Monitoring%20is%20an%20innovative,their%20project%20in%20real%20tim>.



## XVI. VIRTUAL LEISURE

About 32.9 percent employees interviewed have opined that they are not satisfied with the work in the lockdown, with 20.33 percent stating that work life balance needs improvement, owing to the lack of distinction between office and work hours, weekdays and weekends.<sup>64</sup>

In many ways, 2020 has been a year unlike any other—and that's true at work as well. Whether your team is back in the office with safety measures in place or still fully remote and juggling childcare and virtual learning, COVID-19 has put a strain on our schedules, our budgets, and frankly, our sanity. But that doesn't mean virtual leisure is out of the question. In fact, it's more essential than ever to stay connected with coworkers or celebrate the year (or at least the fact that it's ending). You just may need to adapt to the times this year with virtual holiday party ideas.

This could be in the form of virtual events, including online party games and icebreakers, virtual festivities, virtual contests, fun online workshops, 'no work' days, among others.

In 2020, we've learned that it's more important than ever to stay connected with each other and to toast one another's accomplishments when possible. With more employees than ever working remotely and feeling disconnected from the office, companies are enhancing the power of virtual platforms and digital tools to find unique ways to engage their people, build a bond among team members, create a sense of normalcy and maintain their company cultures.

The circumstances may call for tweaks to office party traditions or the introduction of new ones. Maybe you use such occasions as an opportunity to give back to the community, or perhaps you'll send supplies to each employee to make celebrating at home but together virtually, even more special. If your office is remote, gathering online for a virtual holiday party might make the most sense. To prevent it from feeling like another meeting, celebrate with activity-based party ideas you might not consider in a normal year when dinner or cocktail parties are standard. As an inclusive holiday party idea for remote workers (or shy or dry) employees, you might even consider virtual office team-building parties more often.

No matter what you decide to do, it's important to acknowledge that team members may be affected by the pandemic in very real and different ways. Every office ought to be cognizant of the fact that every employee must be involved in such activities, that may be undertaken at a department or firm level and that every employee looks

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64 Lockdown affected work-life balance, WFH schedule doesn't let Indians spend time with family, Aug 2020, <https://economictimes.indiatimes.com/magazines/panache/lockdown-affected-work-life-balance-wfh-schedule-doesnt-let-indians-spend-time-with-family/articleshow/77754414.cms?from=mdr>

forward to office holiday parties as a break from the minutiae of the typical workday. That's a little harder to do when everyone is at home, but it's still possible to switch up the scenery a bit. The extra thought and preparation ahead of time will shine through and make your coworkers feel appreciated and motivated.

The idea is to keep such celebrations fun and cohesive, and technology and various applications have helped us achieve this, now more than ever. Think about how you consume digital entertainment and create your virtual experience accordingly. The content should be visually stimulating, entertaining, and engaging.

While COVID-19 has helped us achieve the productivity levels we require, at the same time it has also immensely increased our screen time. Hence, it is very important that we allocate time between home and work, akin to an office environment, unless urgent deadlines are required to be met. It is imperative to disconnect after work and enjoy the process by pursuing things of interest. Meditating, playing a sport or any activity or simple reading your favourite book, can all be a major stress buster. In the world of digitisation, we may use several technologies to allow us to gain access to virtual workouts. Online television shows also allow for a good source of entertainment. Video conferencing in times of digitisation allows us to connect with are friends. While virtual stress is increasing on a day to day basis virtual leisure has definitely become a requirement.

## ELEMENTS OF DIGITISATION

### I. SECURITY

*As cybersecurity leaders, we have to create our message of influence because security is a culture and you need the business to take place and be part of that security culture.*

*-Britney Hommertzheim*

In this era of digitisation, cyber threats have multiplied on account of wide access to large amounts of data in public domains, free data platforms or common softwares. In such a scenario, one may have the network infrastructure in place to process and analyse data, however, how must one protect the CA firm from cyber security threats is the real question.

1. **Use Known Software:** Approximately 60% of the software used by Indian companies are unregistered and unregulated exposing them to cyber threats. While working with confidential data it is very important to make sure that there is no data leakage and loss of critical data. Hence, the genuineness of the software makes a major difference.
2. “Cracked” or “Jailbroken” software should not be used. This software may include malicious content which may disrupt the entire system.
3. The terms and conditions are very important and should be read, not simply “accepted”.
4. Custom installation should be used instead of standard installation.

### How Will Cyber-Security Ensure Digital Transformation For The Future?

In today’s technological climate, the confidence gleaned from a competitive advantage can be largely attributed to cyber-security and data stewardship to make the most of the digital environment. Incorporating an efficient security policy, speaks volumes about the work ethic of a company and helps to enhance goodwill and credibility.

In the age of analytics and intelligence, competing in a data-driven world is difficult. It would not be an exaggeration to say that today’s business environment has become hyper-competitive, and organizations that are not continuously reinventing their business with data at its core will inevitably fall off the tracks, watching from the sidelines while their market is disrupted. However, as burgeoning digital natives were built for analytics, legacy companies have to do the hard work of overhauling or changing existing systems. Redesigning to a stage of data-driven decision-making is not always a simple proposition, especially when accounting for cyber-security implications in tandem. Some companies have invested heavily in technology but have not yet changed their organizations to make the most of these investments. Many

are struggling to develop the talent, business processes, and organizational muscle to capture real value from analytics and cyber-security. This value, however, is not guaranteed.

As technology advances, so does the level of cyber risk that organizations must navigate. According to a Deloitte report, analysts estimate that cyber risk globally *"could slow the pace of technological innovation by as much as USD \$3 trillion in lost economic value in 2020."*<sup>6</sup> Organizational vulnerability to cyber threats can be reduced by developing a strong cyber-security strategy, that is specific to the company, based on the size and volume of transactions, to manage cyber resilience with confidence. Investments in cyber-security allow organizations to understand their level of cyber resilience based on critical business assets, their threat landscape, and the maturity of their cyber capabilities. Further, integrated dashboards allow organizations to monitor their level of cyber resilience and can be customized for an operational, managerial and executive audience. Effective implementation remedies organizational imbalance and presents a full picture of the cyber-protected enterprise by addressing security standards, policies and practices, increasing cooperation and information sharing, and enhancing collaboration between partners.

### **Overcoming Paralysis By Analysis When It Comes To Cyber Risk And Security**

It is no secret that the financial costs of a cyber-attack could be large enough to cripple small and medium-sized businesses. In addition to the obvious negative financial implications, brand equity is equally decimated when consumers view their privacy as being violated, altering consumer trust and long-term brand reputation. The number of data breaches reported by UK financial services firms to the Financial Conduct Authority (FCA) increased by approximately 480% in 2018 to 145, up from just 25 in 2017. Organizations are struggling to keep up with the cybercriminal community. Digital transformation; including cloud adoption, SD-WAN, and IoT as well as adoption of other emerging technology, is creating and expanding new and sometimes unexpected means of cyber attack.

According to Forbes, enterprises who are prioritizing cyber-security are creating a formidable competitive advantage over peers, as the typical U.S.-based enterprise will lose on average of \$7.91M from a breach<sup>8</sup>, nearly double the global average of \$3.68M according to IBM's 2018 Data Breach Study<sup>9</sup>. Digital natives are becoming increasingly more and more comfortable with technology, and are giving away more personal data than ever, despite growing risks and consequences. An Experian study revealed that 70% of consumers globally *"are willing to share more personal data with the organizations they interact with online, particularly when they see a benefit."*<sup>10</sup> Another survey conducted by the Center for Data Innovation came to a similar conclusion, finding 58% of consumers are *"willing to share their most sensitive personal data"* (i.e., biometric, medical and/or location data) in return for using apps and services<sup>11</sup>. Consumers are putting trust in organizations to manage and protect

their private data securely, and organizations in turn must become well-equipped with a cyber-security strategy to do so and ensure that such trust is not broken. In the professional sector, where customers are the king, their satisfaction, utmost trust and loyalty are of significant importance. The prevalent challenge and necessity to overcome and prepare for cyber threats is to incorporate security into a core strategic vision. The next step is to develop the right business processes and building capabilities, including both data infrastructure and talent. It is not enough simply to layer powerful technology systems on top of existing business operations. All of these aspects of transformation need to come together to realize the full potential of cyber-security.

### **Embedding Cyber-Security Into Digital Transformation**

It is highly important for organizations to make security the starting point, and not an afterthought. Despite the abundance of data breaches across the globe, security remains an afterthought for a vast majority of digital transformation activities undergone by current businesses such as; mobility, cloud services, and customer experience programs; and taking the same lightly or for granted. No firm really realized the importance of cyber security till an unforeseen event occurs. Security is unfortunately seen as slowing down a project, rather than enabling its success. Understandably, however, with time pressure to get a project up and running, the lack of sensible security considerations is a problem for organizations striving for true cyber resilience and vigilance.

As apparent across today's digitized climate, with the increasing frequency and publicity of cyber-attacks getting grander and more complex, businesses must realize that their customers are more aware of cyber issues than ever before. Apart from electronic devices in the form of laptops and personal computers, there are increasing threats to data even on our smart phones or by way of tapping calls, retrieving old messages on WhatsApp or other social media. Thus, embedding a cyber-security strategy at this point in time is a critical competitive advantage, for it ensures increased trust within the firm's policies and work ethic. According to a survey of IT and Security professionals, approximately 18% of organizations agreed that their security team had been involved in all their digital transformation projects, and 76% agreed that security considerations were added too late in the project, ultimately resulting in projects being delayed due to being retrofitted after key decisions had been made. In the same survey, 85% of respondents agreed that the security team could have done a better job if they had been included earlier in the project. The key challenge and overall objective for the security team is to reassure the organization that their IT infrastructure is secure and resilient. However, it is important for organizations today to understand that no digital transformation project should ever start without understanding its security implications, as this could modify things for worse in the longer run.

Organizations who can harness these capabilities effectively will be able to create significant value and differentiate themselves, while others will find themselves increasingly at a disadvantage. Today, more than ever, we are all heavily relying on the emerging digital economy and data online. And as our organizations, government agencies, and critical infrastructures move to this ever-evolving digital model, a major security event could have catastrophic consequences for all of us. It is also important to remember that cybersecurity events do not care about political, social, or economic borders. When an infrastructure or economic system is brought down and compromised, everyone suffers.<sup>65</sup>

### **Setting Cyber Protection In A Professional Context**

While most service owners, partners, and customers understand digital, they still need support to know where the anomalies are, where the risks lie, and how to recover quickly from any downtime. This is where support from the IT department or IT experts comes in.

Using risk management, it can strike a careful balance between enabling flexible fast services and the need to prevent threats from bringing down service lines. However, to do this effectively, it needs to relinquish its traditional role and accept that others need to be trained in digital security too.

Where new security challenges arise, the IT department can add value through applying what it has learned from previous experiences. It can become the standard bearer of security best practice in digital transformation both inside and outside the organization.

### **What Does This Mean For Cyber Security Within Your Organization?**

As an organization becomes truly digitally enabled and its footprint extends beyond the traditional IT boundary, the security measures used to protect services must become more flexible. Intelligence-led security needs to be built into every digital activity right from the very beginning. Mindsets must change, as security can no longer be an afterthought or the role of one individual or department.

While IT security may no longer be the sole preserve of the IT department, it can be an influencer of security controls - especially if it embraces its new role as a quality controller and knowledge provider to others. In doing this, it can ensure the digital security measures implemented are as successful as the digital enterprise it sets out to protect.<sup>66</sup>

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65 Cyber Risk And Security In The Era Of Digital Transformation, <https://www.hgsdigital.com/blogs/cyber-security-in-the-era-of-digital-transformation>.

66 Rethinking Cyber Protection in the Digital Age, <https://www.fujitsu.com/global/services/security/insights/digital-transformation/>.



Businesses should use different **cyber security measures** to keep their business data, their cashflow and their customers safe online. These measures should aim to prevent risks from various sources, including:

- internet-borne attacks, e.g.- spyware or malware
- user generated weaknesses, e.g.- easily guessed password or misplaced information
- inherent system or software flaws and vulnerabilities
- subvert system or software features

### **Essential Cyber Security Measures**

The following processes and tools are fairly easy to introduce, even for the smallest businesses. Combined, these will give you a **basic level security** against the most common IT risks.

#### ***Use Strong Passwords***

Strong passwords are vital to good online security. Make your password difficult to guess by:

- using a combination of capital and lower-case letters, numbers and symbols
- making it between eight and 12 characters long
- avoiding the use of personal data
- changing it regularly
- never using it for multiple accounts
- using two factor authentication

Protection can also be provided against password-guessing attacks. For instance, a device automatically getting locked for a limited period of time, on multiple attempts to crack the password or the use of modern identification systems in the form of face identification or use of biometrics.

Create a password policy for your business to help staff follow security best practices. Look into different technology solutions to enforce your password policy, for instance, scheduled password reset. Find different password strategies that could boost your business security. Ensure that passwords are not common for different websites or pages and are updated on a monthly or quarterly basis, as may be convenient. Ensure that employees, unless trusted, do not have access to such passwords.

## **Control Access**

Make sure that individuals can only access data and services for which they are authorized. For example, you can:

- control physical access to premises and computers network
- restrict access to unauthorized users
- limit access to data or services through application controls
- restrict what can be copied from the system and saved to storage devices
- limit sending and receiving of certain types of email attachments

An attempts at accessing unauthorized data must be detected and reported. Modern operating systems and network software will help you achieve most of this, but you will need to manage the registration of users, user authentication systems and keep track of the same online.

## **Put Up A Firewall**

Firewalls are effective gatekeepers between your computer and the Internet, and a major barrier to prevent the spread of cyber threats, such as viruses and malware. Make sure that you set up your firewall devices properly, and check them regularly to ensure they have the latest software/firmware updates installed, or they may not be fully effective. Firewalls can also be used to ensure server security and protection from unknown websites or emails from unknown sources.

## **Use Security Software**

You should use security software, such as anti-spyware, anti-malware and anti-virus programs, to help detect and remove malicious code if it slips into your network. Discover how to detect spam, malware and virus attacks or protect/backup data, even on the occurrence of an unforeseen attack.

## **Update Programs And Systems Regularly**

Updates contain vital security upgrades that help protect against known bugs and vulnerabilities. Make sure that you keep your software and devices up-to-date to avoid falling prey to criminals and regularly read the Update policy before implementation.

## **Monitor For Intrusion**

You can use intrusion detectors to monitor system and unusual network activity. If a detection system suspects a potential security breach, it can generate an alarm, such

as an email alert, based upon the type of activity it has identified. See more on cyber security breach detection.

### ***Raise Awareness***

Your employees have a responsibility to help keep your business secure. Make sure that they understand their role and any relevant policies and procedures, and provide them with regular cyber security awareness and training. The clients making use of the firm's network infrastructure must also be made aware and educated with respect to the same.

***Network Security*** protects network traffic by controlling incoming and outgoing connections to prevent threats from entering or spreading on the network.

***Data Loss Prevention*** protects data by focusing on the location, classification and monitoring of information at rest, in use and in motion.

***Cloud Security*** provides protection for data used in cloud-based services and applications.

Intrusion Detection Systems or Intrusion Prevention Systems work to identify potentially hostile cyber activity.

***Identity and Access Management*** use authentication services to limit and track employee access to protect internal systems from malicious entities.

Encryption is the process of encoding data to render it unintelligible, and is often used during data transfer to prevent theft in transit.

***Antivirus/anti-malware*** solutions scan computer systems for known threats. Modern solutions are even able to detect previously unknown threats based on their behaviour.

As a whole, we can say that even though cyber threats have been increasing at an alarming rate, if we manage to keep ourselves alert, aware and secure, cyber-crime can be significantly minimised. To achieve cyber safety, we must realize the issues created and ways to overcome the same and not fall prey to online traps.

With various laws and legislations being enacted around cyber security laws and ensuring protection and privacy of data online, Honourable Shree Narendra Modi has rightly quoted, "I dream of a Digital India where cyber security becomes our integral part of our National Security."

## II. COGNITIVE PARTICIPATION

**Cognitive Participation is the relational work that people do to build and sustain a community of practice around a new technology or complex intervention.**

1. **Initiation:** When a set of practices are new or modified, a core problem is whether or not key participants are working to drive them forward. For instance, the work of setting up a service is often delegated to a small group of managers and professionals who are charged with the work of setting up systems, procedures, and protocols and engaging with others to make things happen.
2. **Enrolment:** Participants may need to organize or reorganize themselves and others in order to collectively contribute to the work involved in new practices. This is complex work that may involve rethinking individual and group relationships between people and things. *For example, getting nurses to 'buying in' to a falls prevention strategy is vital to its success, but the work of buying in to the strategy is not simply about individual commitment, but is about building communal engagement.*
3. **Legitimation:** An important component of relational work around participation is the work of ensuring that other participants believe it is right for them to be involved, and that they can make a valid contribution to it. *New service interventions often founder because of a lack of investment in ensuring that they fit with the ways that different groups of professionals - and CAs - define their possible contribution to them.*
4. **Activation:** Once it is underway, participants need to collectively define the actions and procedures needed to sustain a practice and to stay involved. *It is essential to keep the new practices in view and connect them with the people who need to be doing them.*

Cognitive Participation can be immensely hampered if the organization is resistant to change. While adapting to new technology employees should keep an open mind.

*"Cognitive participation creates a dynamic but consistent environment within the organization which improves the overall efficiency."*

## III. E-PRODUCTIVITY

*"Productivity is being able to do things that you were never able to do before."*

*-Franz Kafka, writer*

As an element of digitisation, e-productivity forms one of the most important elements. In adapting to the new normal it is important that we realize that a great

organisation, while adapting to digitisation, should not fail to reduce its overall effectiveness or efficiency.

*E-productivity* is recording of data related to employee tasks and overall time taken to complete those tasks in an orderly manner. This ensures that employees do not show slack while performing tasks.

### ***Make Sure You Are Leveraging The Right Tools In The First Place***

Every new piece of productivity tech is going to promise the moon and the stars when it comes to turning everything around, lighting a fire in you and in your employees or co-workers. And while many of do that have power to deliver the services, the cold hard truth of the matter is not every new piece of productivity tech is going to fit perfectly in your already existing workflow or professional culture. You have to be sure that your choosing the right tools for the job, and that may be skipping over the new, hot productivity tech for slightly more established technology that “just works”.

### ***Automate And Systemize Everything You Can***

According to Chad Otar, CEO of Excel Capital Management, and there is no greater piece of leverage in business today than automation, systemization, and scalability – and there’s no greater way to achieve those factors in the end by leveraging technology to help you with the heavy lifting.

The more you can automate and systemize your daily workflow or your business processes, the more your productivity is going to increase. Turning over this kind of work to machines that are lightning fast and incredibly consistent will always be more productive than having people handle these kinds of tasks individually on a willy-nilly kind of basis.

### ***Keep Open Lines Of Communication***

Traditional meetings are dreaded by just about everyone involved, but online meeting places and communication tools give everyone the opportunity to share updates and information with one another but also provide a whole host of other benefits that standard meetings never could.

For one, these messages are instantly recorded exactly as they are sent. There’s very little room for misinterpretation, very little room for forgetting things spoken, and the tools that facilitate this kind of communication make it easy to immediately implement or follow-up on the messages that are being shared. It is almost akin to the concept of having a record of the minutes of a meeting.

## ***Schedule Everything***

If you are serious about improving your productivity so that you can get more out of the standards 24 hours a day that everyone else has, you have to fall in love with scheduling and the power of your calendar and make the best use of all the time that you have on hand.

Calendar applications (like Google Calendar, for example) interface with most every kind of application you can imagine and are instantly accessible on every device you'd like to use to improve your productivity. Run your day according to your schedule – doing your level best to account for every minute of work time possible – and you'll find your productivity shoots right through the roof.

## ***Utilize Time Tracking Tools***

This tip details nicely with the scheduling tip shared above and combined together, they may prove to be the most important of all the productivity tips we've included here in this quick guide.

The reality of life is that the only things that are improved are the things that are constantly measured and tracked. Everything else has the potential to slip through our fingers and slipped through the cracks, and the odds are pretty good you are either overestimating or underestimating the amount of time you have available and the amount of productive time you are putting in on a regular basis.

By tracking your time (utilizing any of the simple and straightforward time tracking tools out there right now), you'll be able to better analyze how you spend your time already. You'll get an x-ray vision of your daily routine, but more importantly, you will be able to see where you are spending the most amount of time as well as where your most productive time needs to be. This will help you prioritise on the basis of tasks needing more urgent attention and having urgent deadlines.

While you may believe a particular task or client to be important or urgent or the long hours spent on performing the same, highly productive, chances are that right now you're spending a lot of your most productive time on things that are anything but high leverage, and that your most high leverage efforts are having time necessary to complete them hijacked without you even noticing it. Time-tracking tools can thus, also help eliminate this misconception.

## **IV. E-DOCUMENTATION & DIGITAL LIBRARY**

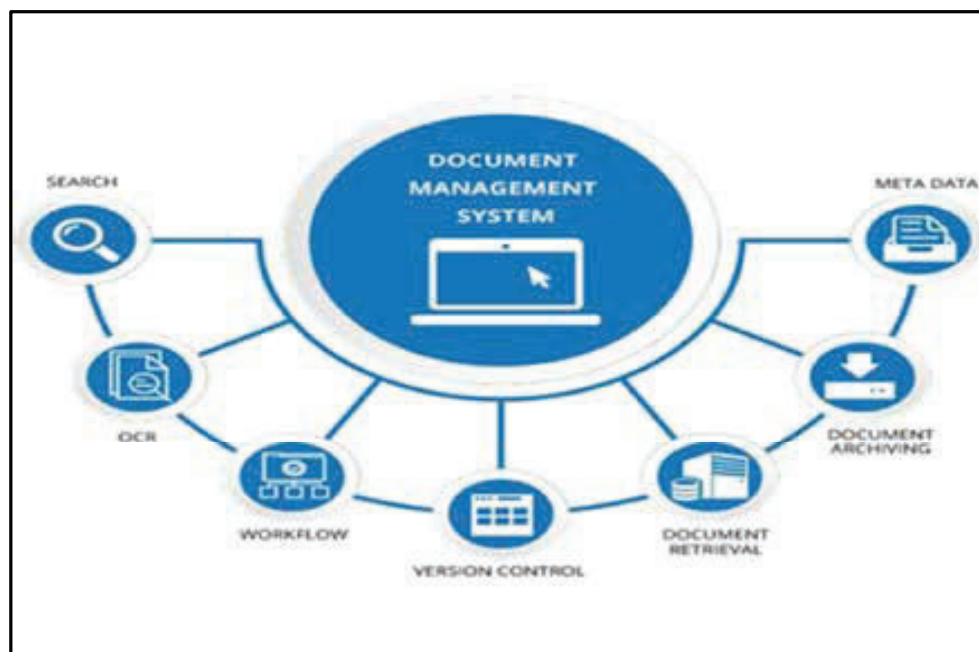
"The world digital library is an attempt to go beyond Europe and the Americas... into the culture where the majority of the world is, online" James Billington

In the new digital era, paper work only makes the process extremely cumbersome and time consuming. E-documentation refers to filling of forms, returns, documents;



recording of work papers all, over the computer. E-documentation ensures that there is absolutely no paperwork or the same is minimized. Previously, CA firms and other professionals faced the issue of not being able to navigate through thousand pages of documentation. This used to result in repetition of mundane tasks, which were already completed in the previous year.

As stated by several analysts, we believe we are entering a stage where online documentation will be the way forward for compliance with documentation standards. The world of type-writers and books has taught us the need to be able to store data such that files can be searched without wasting hours in the folder room. A digital library is such an electronic database, which stores all the data and helps navigate through different files and documents based on categories and filters. While digital transformation has changed the way we work, it has also completely modified the way we store the work that is completed for future reference and record. Cloud technologies act as an online storage, internal private clouds allow for storing information, which can be accessed only by only a selected few. Working from home and remote locations has made it necessary for firms to store all the available data received from the client at one place, which can be accessed by all employees remotely, using internet connection. The cloud services while providing a relevant solution also have their own flaws. A cloud may have security issues and certain firms prefer to create customized software for documentation. Customized software work on a particular algorithm. These algorithms allow for offices to manage their data and allow for archival of files of a particular client after the work has been completed, for future reference.



As can be seen from the figure above, the system has functionalities such as searching for clients, using certain text to figure out documentations, document archival and retrieval.

E-documentation and digital libraries not only act as an efficient way of storing

data, they also allow for an anywhere access mechanism. Therefore, we must understand that the smaller firms can now compete with large players by bringing their systems and data access and storage facilities at par with the large firms, ensuring that they don't have any loss of data or an efficient recovery management system, they are able to correct their mistakes based on their previous documentation and hence, are able to reduce their overall downtime in completion of the work. This entire process increases the standard of work from an organizations perspective in the long run.

## **V. INCREASED TRANSPARENCY**

The online platform while having immense amount of IT risks associated with it, ensures a transparent flow of events. Online transactions are very difficult to manipulate. With the advent of new technology like block-chain, internet of things, etc. which use functionalities like triple ledger systems, the task of an auditor is reduced to checking only the accuracy and relevance of the transactions and can rely on the overall authenticity. Digitization brings with it a very important factor i.e. genuineness. A digital platform makes sure that most of the transactions that are studied and checked are genuine and do not depend on any form of Manual Intervention. Electronic signatures, watermarks have ensured that confirmations can be received even when approval cannot be conducted physically.

While many look at digitization as a threat, from the perspective of a CA firm, digitization gives the world details about tasks that are being performed. In the COVID-19 scenario many people have issues with trust and hence, digitization provides a basis for which people can believe in the reliability of transactions.

## STANDARDS FOR DIGITISATION

Guidelines, Standards and Procedures for managing digital records are an important element of the Strategy framework. It aims to define the organization's approach to managing digital records and provide the necessary senior management, authority for the implementation of the framework. Procedures outline how the guidelines and Standards will be implemented.

### ***Guidelines for Storage and Storage format:***

Guidelines for storing the scanned files need to be formulated and enhanced. For active files, the storage can be in the respective client system of the user who is performing the scanning work as these are normally migrated using the Migration Module. For files that are identified to be outsourced, the department can, on a Central File Server, identify the storage so that systematic and periodic back up can be taken. Accurate labelling of stored files is critical for the success of the digitization process as active physical files should be readily available for reference from time to time.

### ***Guidelines for Maintaining Quality Control:***

Most software and hardware that will be used in a digitization program will provide a range of variable parameters such as image resolution and output file format, and informed choices need to be made on each of these.

### ***Compression And File Size:***

Some form of compression should be applied to digitized records to enable storage and access in an efficient manner. Lossless compression provides file size reduction while being able to reproduce an exact, true and accurate digital copy of the image created at time of digitization. Wherever possible, lossless compression should be employed.

Lossy compression is not suitable when original paper records are authorized for early disposal as the accuracy of the image may be called into question. However, when originals are being retained, the additional file size reduction that lossy compression provides can mean that a small, perhaps indistinguishable, loss of data may be acceptable for some file types. When employing lossy compression techniques, the resulting image should not appear noticeably different from the original paper record.<sup>67</sup>

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67 Department of Electronics and Information Technology,  
[https://eoffice.gov.in/downloads/Final\\_Digitisation\\_Framework\\_Updated.pdf](https://eoffice.gov.in/downloads/Final_Digitisation_Framework_Updated.pdf)

### ***Colour Management:***

Colour management must begin with the correct scanner operation and the time of capture so that the original scan is as accurate a representation as possible. The aim point adjustments and white neutralization provide the starting point for good colour management. However, additional steps must be taken to capture colour images that represent the original document well. When possible, the original document should be compared to the scanned image under controlled viewing conditions on a colour-controlled monitor. Using graphics processing software such as Photoshop, the image may be adjusted so that the colours are a close match. During production, the required adjustment may be noted and run as a batch process.

### ***Security Guidelines:***

The security guidelines of the digitised documents before they are uploaded and migrated to eOffice are mentioned in the section. Once the digitised documents are on the eOffice, the security of eOffice as applicable prevails. Systems and procedures need to be evolved to protect the documents that are digitised and placed in temporary locations and await migration to eOffice. For large digitization programs that may be widely distributed throughout an organization and where several staff need to add to and modify the collection of digitised records, a system may be used to manage access to the information and to provide an audit of system access and modification. On a smaller scale, digitizing implementations, security and access control may be provided through the use of a password protected system by a single operator, with other authorized staff given read-only access. This could be accomplished using the built-in security features of most current computer operating systems.

- Safe custody and handling of the original paper files and documents need to be ensured.
- Responsibility of the documents needs to be allocated at the time, document collection is done.
- Access controls should be applied and maintained within a file management system. This includes specifying who can read or alter a document, preventing copying or printing, or setting an expiration date.

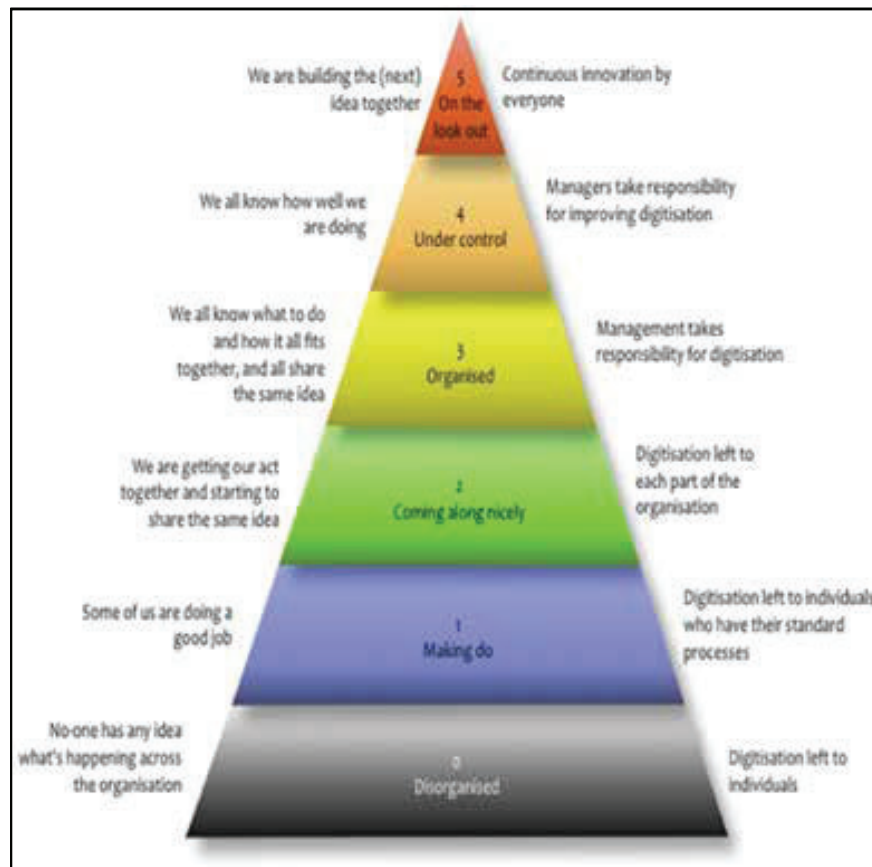
### ***User Training:***

Training on how to convert the physical files to electronic files and its migration to eOffice needs to be imparted to the section users. This is normally undertaken by the Digitisation Coordinator of the section. Need for adherence to the following factors need to be emphasized to the users performing the conversion:

- Scanning guidelines.

- Storage formats.
- Security
- Confidentiality

*"India is on the cusp of a paradigm shift in the way digital solutions are being deployed for large-scale societal impact; getting the non-tech elements right will be critical".<sup>68</sup>*



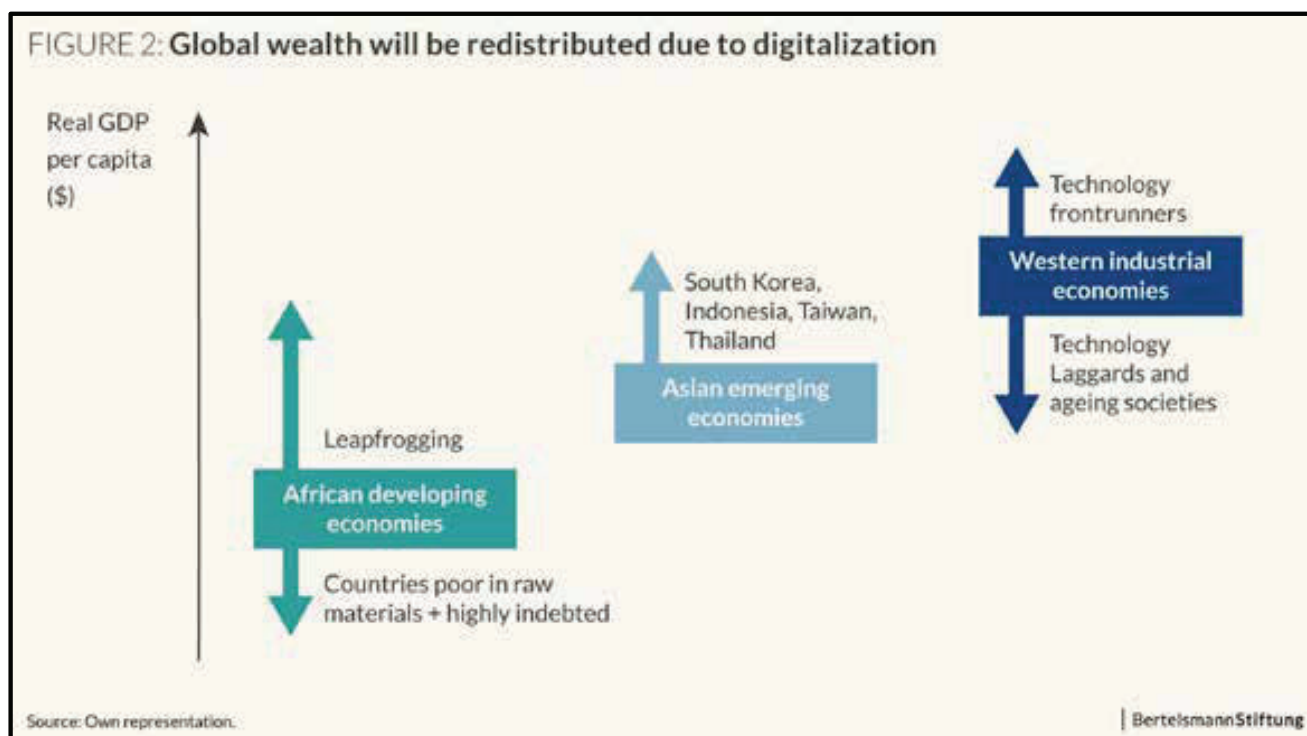
## COMPETING WITH THE GLOBAL LANDSCAPE

*I dream of a Digital India where knowledge is strength - and empowers the People.*  
**Narendra Modi**

Digitisation has changed the economies of countries. Digitisation has transformed countries across the world in different dimensions of economic activities like capital, labour and markets. There are four major stages of Digitisation- Constrained, Transitional, Emerging and Advanced. Countries like Sweden, Denmark and the United States have reached the advanced stage whereas countries like Bangladesh are still in the constrained stage. India is in the Emerging state and as time progresses; experts have predicted digitised unicorns in Indian startups, which have the capability to drive us not only to the advanced stage but also show the world the way forward.

In the future, the international competitiveness of individual economies will depend crucially on **how quickly** digital technologies are used in production, manufacturing and supply chain related processes along with professional services. This digital transformation in turn depends on whether a country has the necessary resources for this transformation.

The resources available depend largely on the level of economic development achieved. As a rule, this is measured by the level of real gross domestic product (GDP) per capita. With this indicator, the world can be divided into three groups of countries – exemplarily and roughly simplified as follows.





## **1. Western Industrial Economies**

If we look at the current situation of GDP per capita, the western industrialized countries have the highest per capita income. They are the technology frontrunners, the introducers of technology that we may not have even heard of yet, the disruptors and hence, superpowers. If these countries succeed in promoting the use of digital technologies, they will become even more competitive and invincible. The result will be a further increase in GDP per capita. This includes nations like the United States of America, in particular.

Those industrialized countries that fail to undertake digital transformation are losing their competitive advantage or not keeping pace with the world. This applies to economically weak countries that are also heavily indebted, such as Greece and possibly Italy. Ageing societies can also fall into this group of countries because the innovative power and productivity of an ageing society tends to be lower.

## **2. Asian Emerging Economies**

Many emerging Asian economies have experienced strong economic growth over the past two decades. They therefore possess the financial resources for digital transformation. We have seen countries like Japan take the lead when it comes to introduction, implementation and management of nuanced technologies and developments. All that is required to be done by other countries alike is to harness the power of such technology and implement it in a disciplined manner in everyday life. This applies not only to China, but also to every other Asian economy. Such transformation would ensure that such nations are at par with the more advanced ones and global powers, and become a force to reckon with in the years ahead.

## **3. African Developing Countries**

A mixed picture arises with respect to African countries:

- On the one hand, African countries have a young and growing population. If these countries succeed in building a digital infrastructure and promoting the education sector, strong economic growth can emerge as a result.
- Some of these countries may even be able to skip a technology step. Economists call this leapfrogging. For example, a country that does not yet have a landline for telephony is setting up a mobile network and is therefore on the same technological level as an industrialized country.
- On the other hand, it becomes problematic for poor, underdeveloped economies that have no valuable raw materials and no access to the capital

markets. They are in the danger of being left behind in economic terms because they are losing competitiveness and being rendered redundant.

***Digital Economy: Changing Competitiveness And The Distribution Of Global Wealth***

The international competitiveness of a country is crucial for the prosperity of its people. If an economy is competitive, domestic companies can sell their products at home and abroad. This secures jobs and generates income for employees.

With improved competitiveness, the country can produce more goods and services and thus increase GDP – and GDP per inhabitant. Global prosperity is being redistributed: A successful digital transformation increases people's prosperity. In countries that fail to do so, GDP per inhabitant falls.

The digital transformation of one's own economy, thus becomes a prerequisite for securing and improving a country's prosperity.

***Digitisation As A Whole Can Make The World A Global Village***

As far as accounting firms are considered, European and American Firms make up 60% of the digitised professional environment. The service sector has been building up and contributes a major portion to the economy. Hence, as far as digitization is considered, CA firms and other professionals have some ground to make up. Indian Mid Sized firms have shown their capability today and, in the times, ahead, will be sure to catch up with the world<sup>69</sup>.

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69 Dr. Thieb Petersen, Digital Economy: How Is Digitalization Changing Global Competitiveness And Economic Prosperity?, (Sept 2019),  
<https://ged-project.de/digitization-and-innovation/digital-economy-how-is-digitalization-changing-global-competitiveness-and-economic-prosperity/>.

## CONCLUSION

### I. SHIFTING ROLES- WILL WE REALLY NEED CAS?

*"Some people call this artificial intelligence, but the reality is this technology will enhance us. So instead of AI, we'll augment our intelligence."*

*-Ginni Rometty, CEO of IBM*

Accounting is the language of any organization and the profession has begun to modernize, such that it has gained a life of its own. *Smart devices offering Smart and Information Advantages* and accounting software have changed the industry completely. For instance, With a simple shift from a pen and paper to programs such as Microsoft Excel, accountants now have an electronic spreadsheet with thousands of pages of data that can be analysed at the click of a mouse. The job has become less tedious and mundane with less scope for error. The core training for accountants, which formerly included basic compliance related aspects has now evolved to also include training in information technology. Accounting technology has eliminated the number cruncher and performing extensive calculations sitting behind a desk, and has allowed the CA to find new challenges with new innovative "millennial" solutions.

The complexities in traditional accounting that chartered accountants had to deal with, were diverse. Technology stepped-in to resolve all such issues and delays in this industry.

***Today we have Smartphones, Smart Cars, Smart cities- With technology getting SMARTer, does it mean humans are getting dumber? –Rebecca McNutt***

***The real debate that arises in this context is, will the introduction of technological advancements make the role of a CA now redundant?***

For a traditional CA, the answer could be affirmative; however, for a modern tech-savvy CA, the answer is definitely negative. On the one side, there are those CAs that embrace technology and on the other end are those that fear the same.

The fact is that today technology and Artificial Intelligence is nothing without the power of its creators i.e., humans. There always will be a need for that human genius - human intelligence - on the other side of technology. The field of accounting and finance is not just about numbers, algorithms or simply compliance with tax and audit laws. It is essential for someone to further analyze & interpret the AI data for every business is different and that's where the human intellect comes in. Though AI may provide faster processing of data, at some point every organization or business would require a professional to know how and when to perform a certain activity.

This disruption is gradually empowering people and firms all across the globe but it is here for transforming jobs and creating enhanced opportunities rather than superseding humans. Accountants now have more options and tasks to accomplish in an organization with greater focus on strategic aspects of the work, leaving repetitive and monotonous compliance related work, confirmations, verifications and analysis in the hands of the machine. They have obtained a chance to unburden themselves, put on their thinking caps, and shoulder higher responsibilities in an organization. The share of accounting tasks done by machines is going to be substantially high in the days ahead. These tasks may be automated, consolidated or procured as a service by developing the same in-house, through a managed-service provider or by outsourcing the same. As such, data will be available on demand through self-service portals and as an output from AI. Traditional tasks such as audit, tax, accounting, statutory and regulatory reporting and global consultancy services will be automated.

The role of a CA is evolving continuously to accept higher responsibilities in the global markets. The future of the profession depends on being flexible, adaptable, open to innovation and willing to disrupt. Leveraging professional opportunities in the digital era will require more focus on analytical and advisory roles by harnessing technology as a tool. CA professionals need to understand and analyse market trends and take appropriate steps for enhanced decision-making in line with such trends. The expectations from CAs to match the economic and technological changes are on the rise. CAs are expected to go beyond their conventional role and play the role of a complete one-stop solution provider and hence, ought to continuously upgrade their skillsets.<sup>70</sup>

Within the next few years, there could be large scale adoption of digital tools such as robotic process automation, artificial intelligence, advanced analytics, blockchain and IoT.

Digitisation may look like a threat in today's professional environment but if looked upon keenly, it can be a major impetus to CA firms. While AI increases the risk of being unemployed, the demand for Chartered Accountants has only increased since the dot com bubble and has never looked back ever since. The important thing for a professional is to stay relevant in order to survive and thrive in today's dynamic environment. One has to keep updating himself and stay ready with the new technology. AI may be used by CA firms in all areas such as tax, audit, consultancy and litigation. While digitisation can replace all the mundane tasks, there still lies the element of professional touch and personalised services, which can be offered by a Chartered Accountant himself. The changing environment of COVID has given a major

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70 Sheetal Banchariya, Knowledge Of New Age Skills Is A Must For Chartered Accountants, <https://www.educationtimes.com/article/campus-beat/70180151/knowledge-of-new-age-skills-is-a-must-for-chartered-accountants-says-icai-president->.

breakthrough to the technology industry and has boosted CA firms to completely shift online but at the same time there are critical areas which can only be looked after by CA professionals. Hence, in my opinion while it may seem very unlikely that Artificial Intelligence will replace the Chartered Accountant, the Chartered Accountant should make sure that he uses this to his advantage in the super dynamic professional environment.

In our opinion CAs can become the hyperloops in the digitisation sector. We as professionals have a choice to either embrace the new technology, quicken the pace of adoption and zoom ahead of others with it or decide to stay redundant and wait for things to get back to the old normal.

The world is progressing very fast and in this extremely dynamic environment of change and adapting to the new normal, we must look at the positives. Most countries like India have seen this as an opportunity to digitize their processes. Modern Accounting firms are using customized software to satisfy their needs, while others that do not possess the requisite resources, choose to outsource the same. The use of cloud networking has increased and has broken barriers in creating virtual spaces. Information has become available to an accountant with the click of a mouse. This has changed the nature of an accountant's work. More doors are opening with the use of information technology, leading to diversified opportunities in the field of accounting. New specialized areas have developed. Business owners have started looking to professional accountants for technology advice. Integrating client's technologies properly with accountant's systems makes the practice even more efficient.

For a Modern Firm, while it is imperative to understand that digitization ought to be used, it is also extremely important to make-sure that the processes are implemented correctly. Employees should be given the right training and appraisal and virtual experiences before they are ready to take up this technology on a larger scale. The top-level management ought to see that the information technologies support the organizations' strategies and objectives. What firms need as an in-depth knowledge of technology and a faster computer to keep firms ahead of the game.

***In a nutshell, Strategic aspects that firms today ought to keep in mind are:***

***1. Embrace The Strategic Importance Of Data***

Innovation is now being driven by data. Firms must view their data collection as a competitive asset. High-quality data, and the tools to effectively access it, are critical assets for all innovation-driven organizations. The key focus should be on using tools to build, curate, mine, update and connect such data.

## 2. *Recognize The Value Of Human Capital*

The hype surrounding artificial intelligence, machine learning and other emerging technologies makes it easy to forget the genius of the human brain. Though technology and data are important, and algorithms can do great things, human curiosity is what truly drives and guides innovation. Human expertise is still a key component for success, especially in advisory where data goes beyond just text and numbers. Humans are uniquely capable of analyzing and connecting data, putting it in context and bridging the gaps where judgment is needed. One of the most dangerous mistakes we can make is allowing AI-driven conclusions to steer our path, without careful vetting and understanding of the underlying data by our teams.<sup>71</sup>

## 3. *Focus On Core Competencies*

Firms today are so focused on implementing technology that they lose sight of their core competencies or their competitive advantage. The aim should be strategically focusing on what makes the firm and its core skills, and incorporating technology while not losing sight of the same.

The knowledge, skills and abilities necessary for even the entry-level accountant now include the application and integration of information technology along with other basic profession-related skills. Not only does an accountant need to have the requisite accounting knowledge and its application, interpretation of regulations and tax laws; they must mandatorily possess strong skills in information technology, to be able to merge professional services with information systems.

## 4. *Collaboration Between Humans And Machines*

If we try to recollect things that we have learned in our life or even a year ago, we realize that we cannot for the human memory is limited. Machines never forget. They have the ability to store every input and analysis established. That's where machines become interdependent with humans. Machines use existing data, but cannot create new knowledge or innovate. Cognitive advancement is limited by certainty of context. Professionals feed the necessary data structure to the devices, which is then recognized and processed. Thus, humans will continue to be essential to bring in new ideas and further enhance nuanced innovations.

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71 Manuel Guzman, Three Strategic Imperatives For The Next Decade Of Scientific Innovation, (Jan 10, 2020), <https://www.cas.org/blog/three-strategic-imperatives-next-decade-scientific-innovation>.



## 5. Professionals Of Tomorrow

To adapt and stay ahead of the race, professionals must not only implement digitization but also prioritize fostering a team of skilled individuals and shifting the work culture and mindset to maximize the potential of technology. An “Either-or” approach will not be suitable.

Together all of the above must provide successful forward business planning, and compliance-related strategic decisions with reference to IT and business models. Such individuals will be in greater demand by the profession.

As the world keeps coming up with innovative systems like blockchain, internet of things, artificial intelligence and robotics, we as Chartered Accountants should realize the need to adapt to the fast moving idea of change, ‘get a hold’ on technology as a whole and make sure we create an overall environment conducive to the growth of technology. In our opinion, we want to see a day where we make sure the phrase, “True and Fair View” becomes “True And Correct View”, “reasonable” opinion becomes “correct” opinion.

*“The rise in digitalization has resulted in machines quickly taking over the tasks traditionally performed by humans, making room for humans to focus on higher-order tasks or new ones which require new skill sets. Accountancy and finance professionals will increasingly require knowledge beyond their main domain of accountancy and finance as well as their industries.*

*While digital solutions provide useful outputs, human intervention remains essential, such as in the areas of problem-solving, exercising commercial acumen, identifying strategic insights and conveying them across the organization.”<sup>72</sup>*

Accountants should look at the rise of technology not in terms of potential job loss, but task loss. The professional insight and personalization of services offered by a CA along with his genius, cannot be replaced. Digitization is intended to augment our growth, not act as a roadblock. Advancements that help us modernize ought to be **celebrated and not feared**.

Rather than evaluating how such changes could potentially replace CAs and other professionals, the same ought to be embraced as a powerful driver to growth. Freedom and flexibility are aspects to be celebrated. Embracing these will revolutionize the firm on a global scale, putting it at the forefront of modern technology-based solutions.

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72 The Impact Of Digitisation On Accounting Roles, <https://www.peoplesmattersglobal.com/news/skilling/machines-to-displace-humans-for-majority-of-the-accounting-tasks-study-26792>.

The accounting profession is now speaking a new language of service. It is the language of future generations of professionals. The evolution of technology has been tremendous with strong growth potential for the future. The advancements have taken the industry to many new levels of opportunities and opened up areas of specialization as discussed in this publication. In comparing and contrasting the changes that have occurred with the use of digitization in the services of a chartered accountant, enterprise productivity has created stability, opportunities for growth and a level playing field for Indian accounting firms vis-à-vis global giants.

The world is only going to grow digitally from here on today and professional firms should understand that while digitization may risk our jobs, it will surely broaden our horizons and reach.

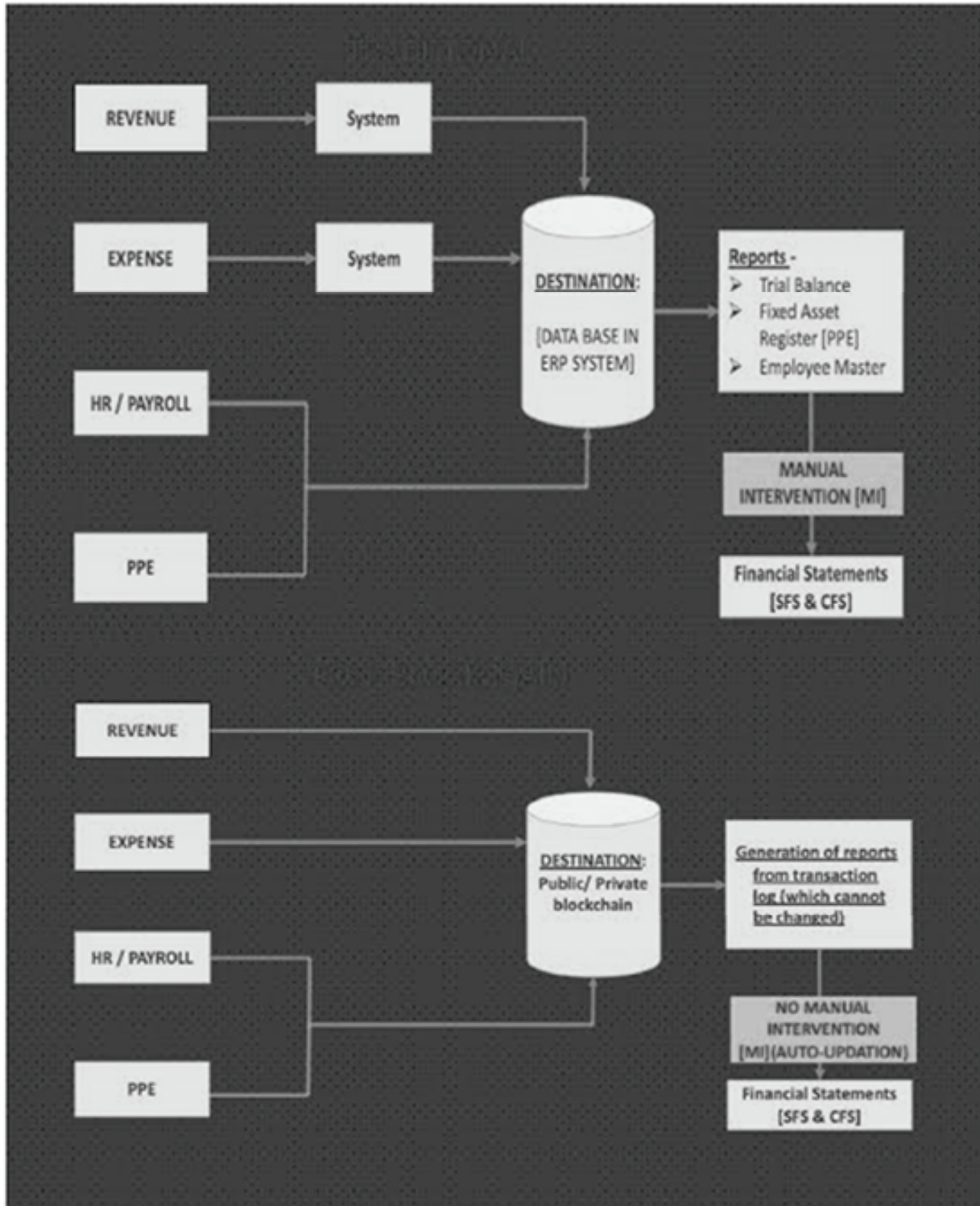
*"Our future success is directly proportional to our ability to understand, adopt and integrate new technology into our work." – Sukant Ratnakar, Author*

*"If you don't innovate fast, disrupt your industry, disrupt yourself, you'll be left behind."*

*- John Chambers, chairman emeritus of Cisco and CEO of JC2 Ventures*

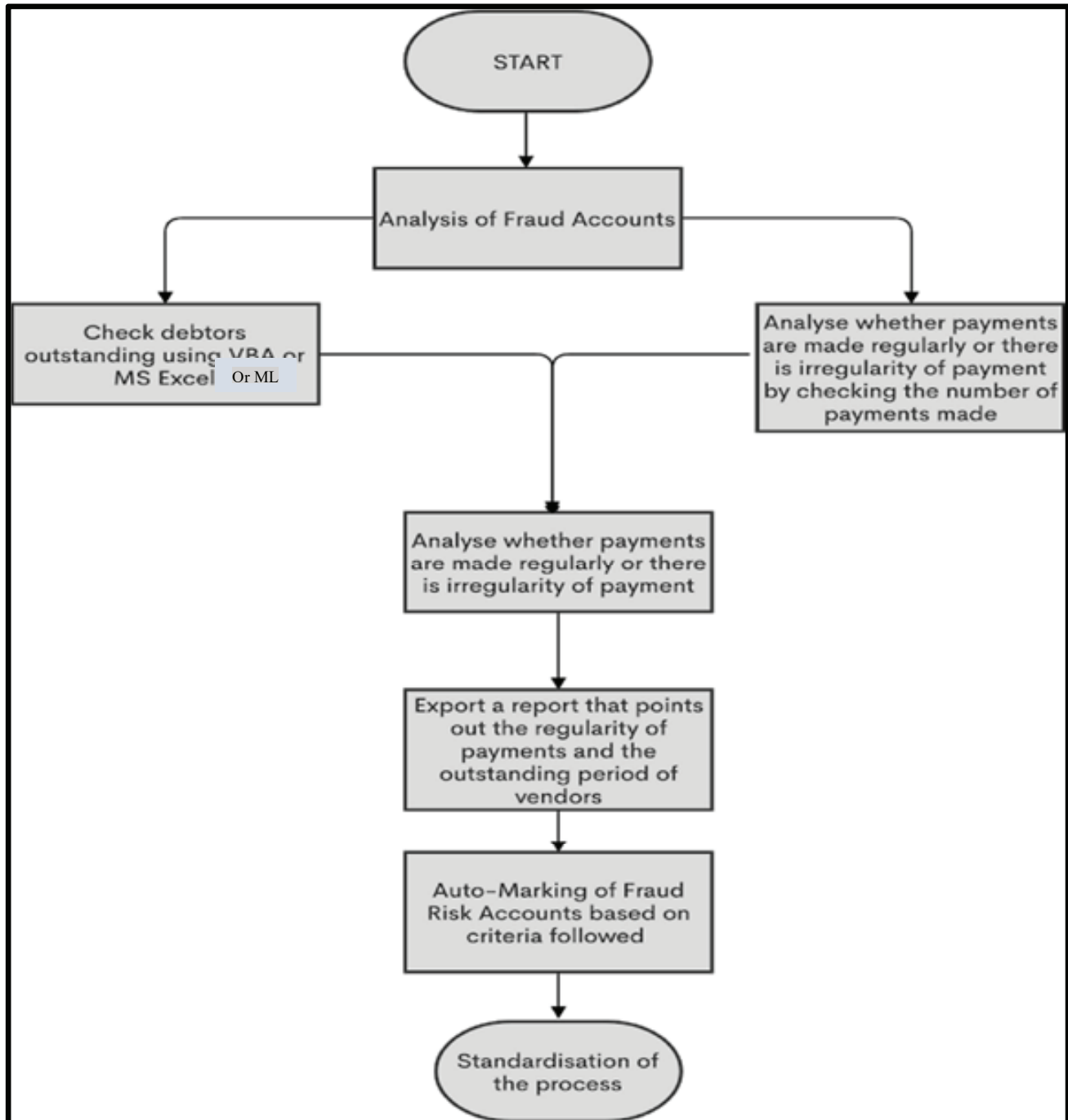
## ANNEXURE: AUTOMATED PROCESSES (Illustrations)

*Difference between traditional offices and digitized offices using blockchain technology and how the use of such technologies shall be the new normal*



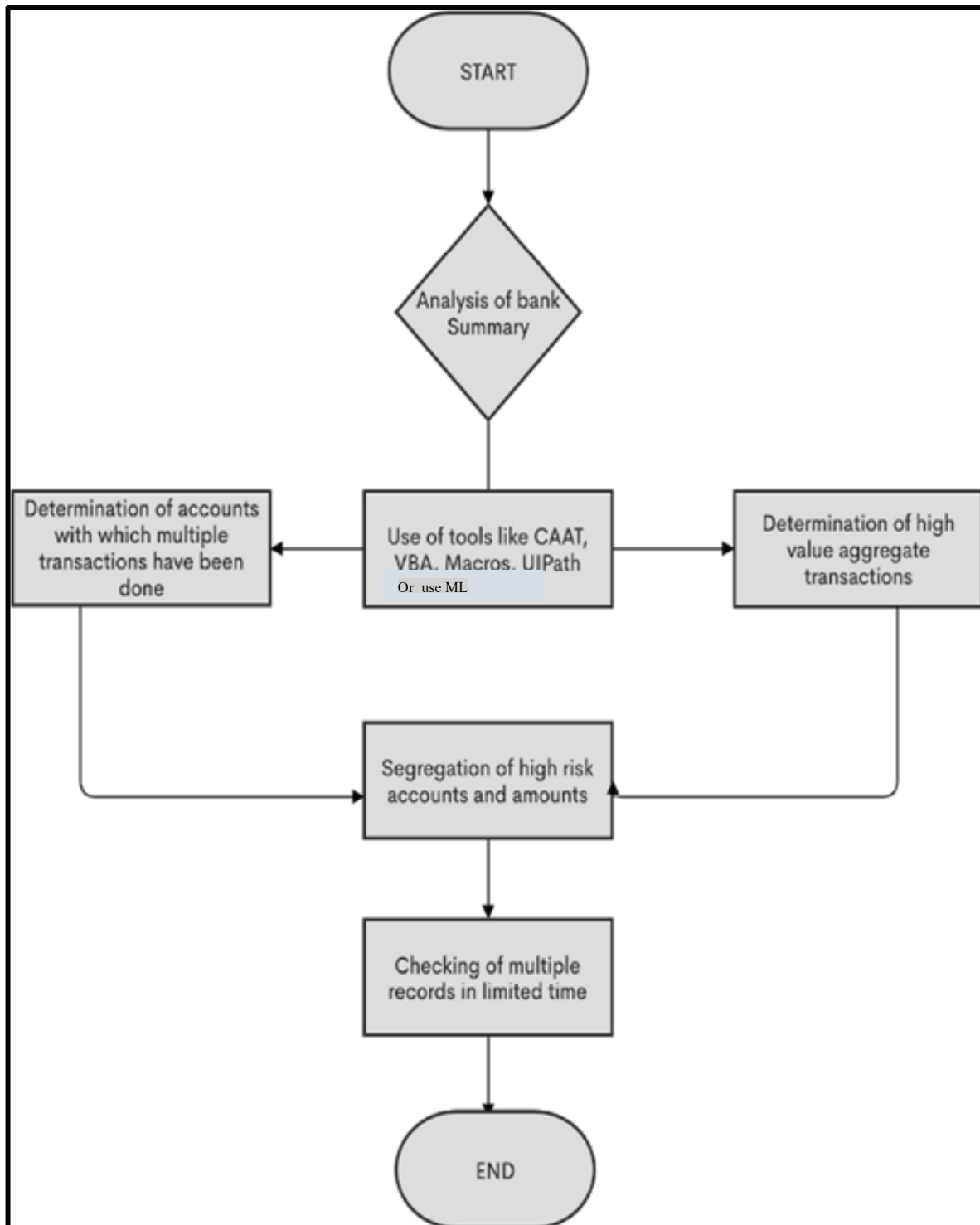
## Fraud Transactions

*Illustrative flowchart depicting analysis of fraud transactions using digitization and automated tools:*



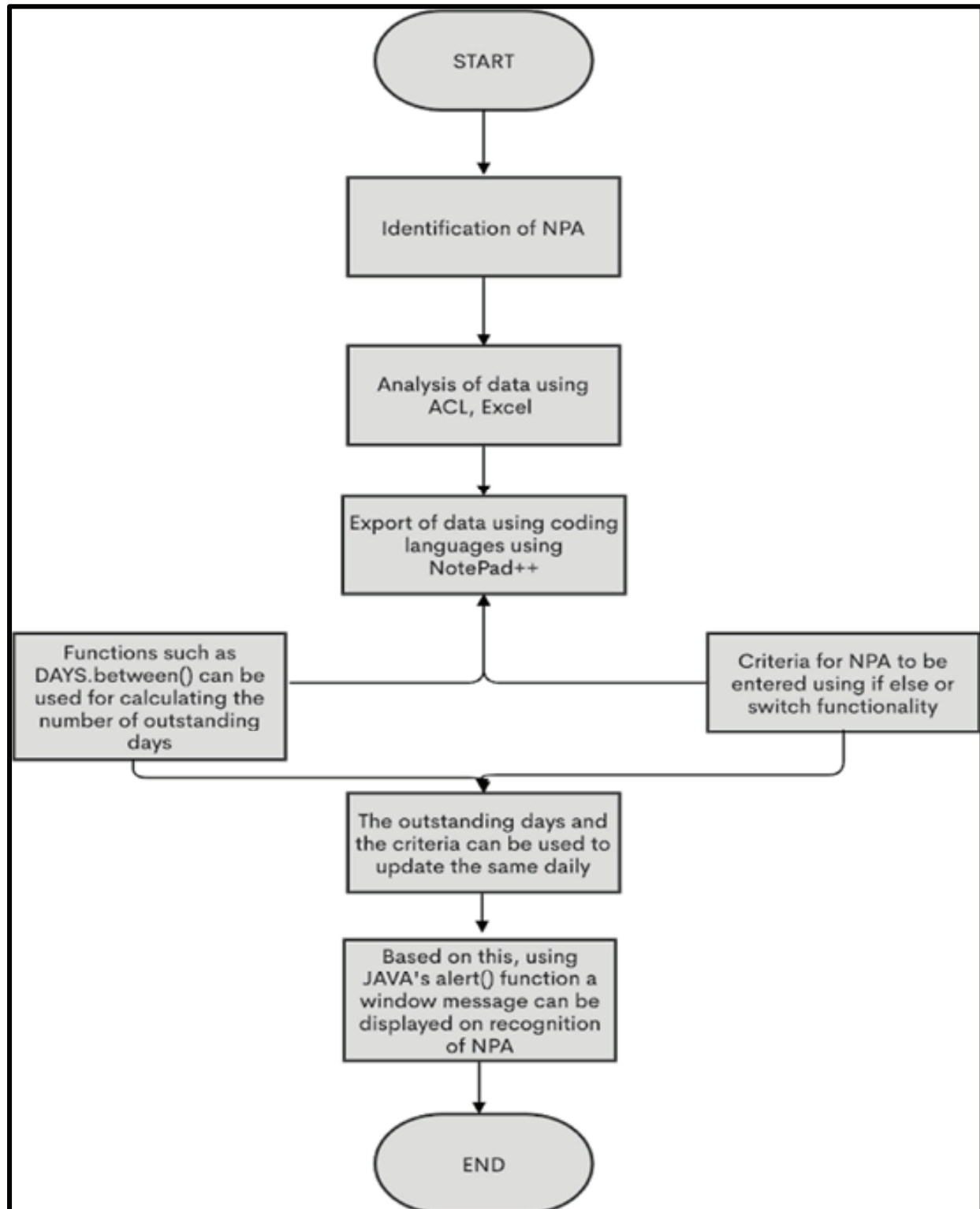
## IRAC- Bank Audits

*Analysis of bank summary in a simplified manner using digitized tools and the use of computer assisted audit techniques, along with automated classification of transactions, checking multiple records at one time, among others:*



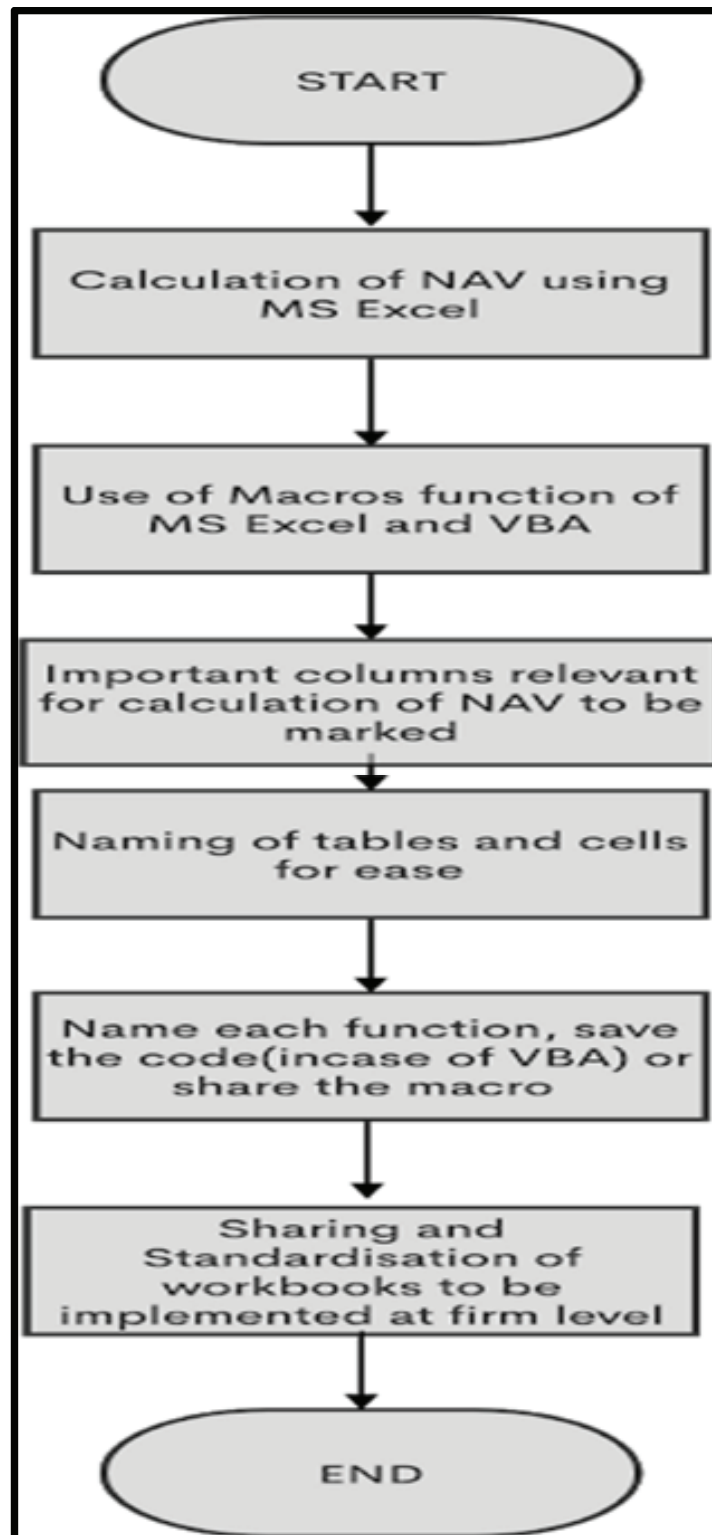
## Investments

Flowchart depicting identification of NPA using automated tools and programming:



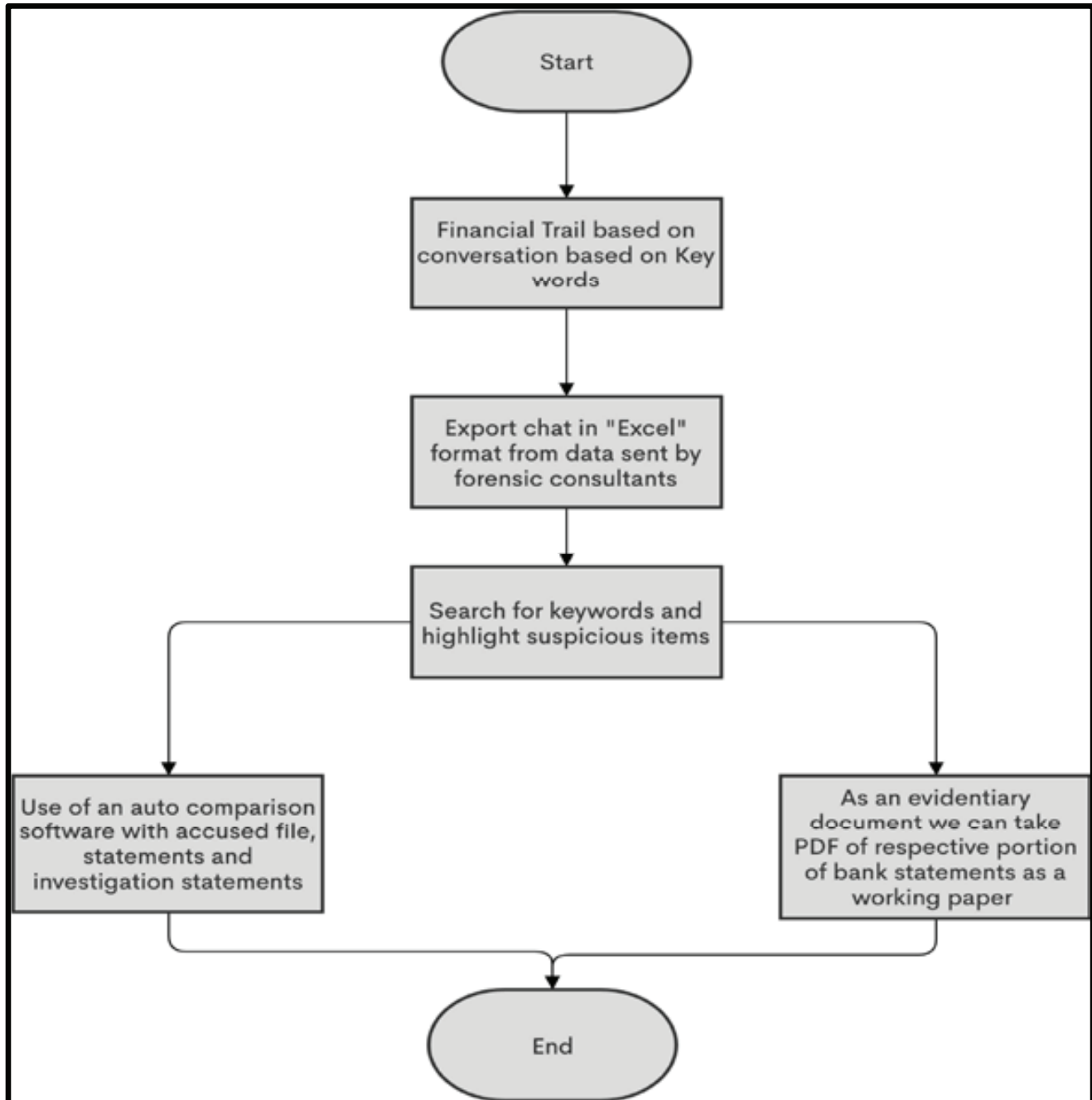


Flowchart depicting simplified process of calculation of NAV using digitized tools and using macro functions:



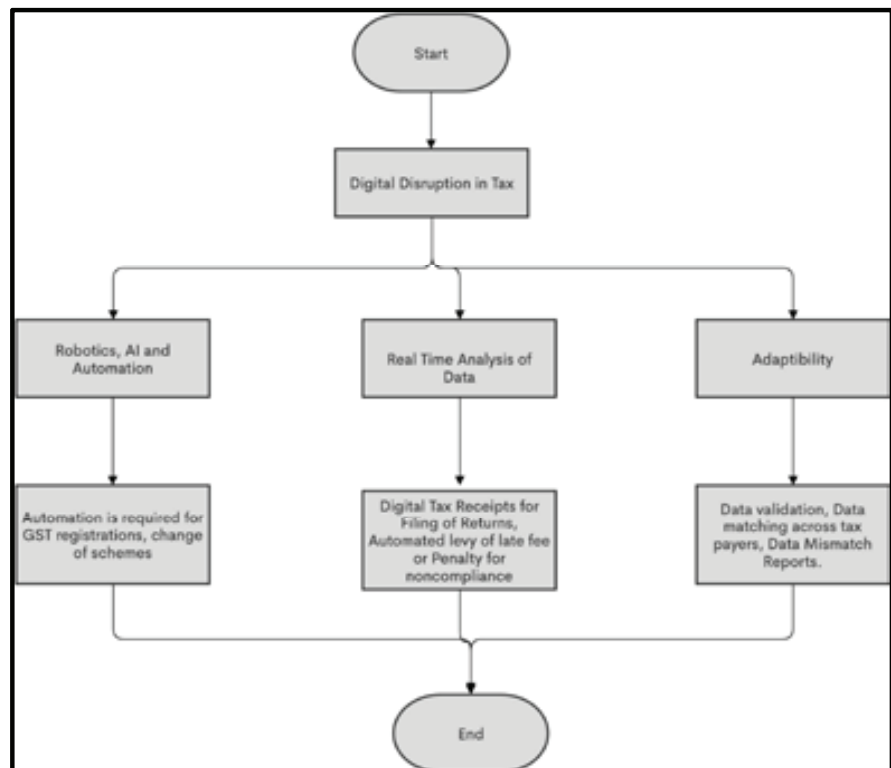
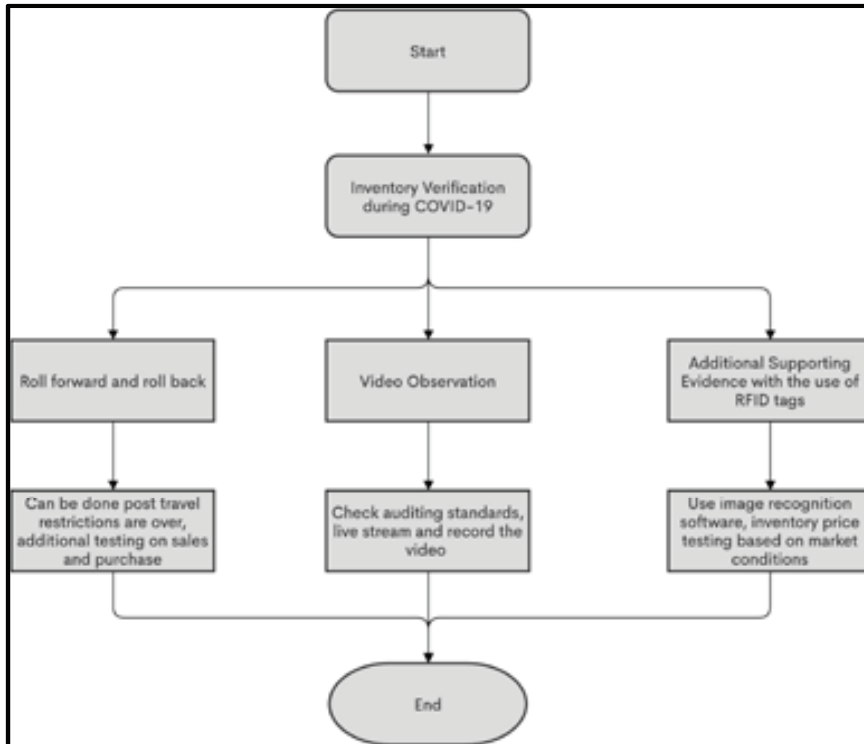
## Forensics

*Identifying suspicious transactions based on analysis of keywords:*



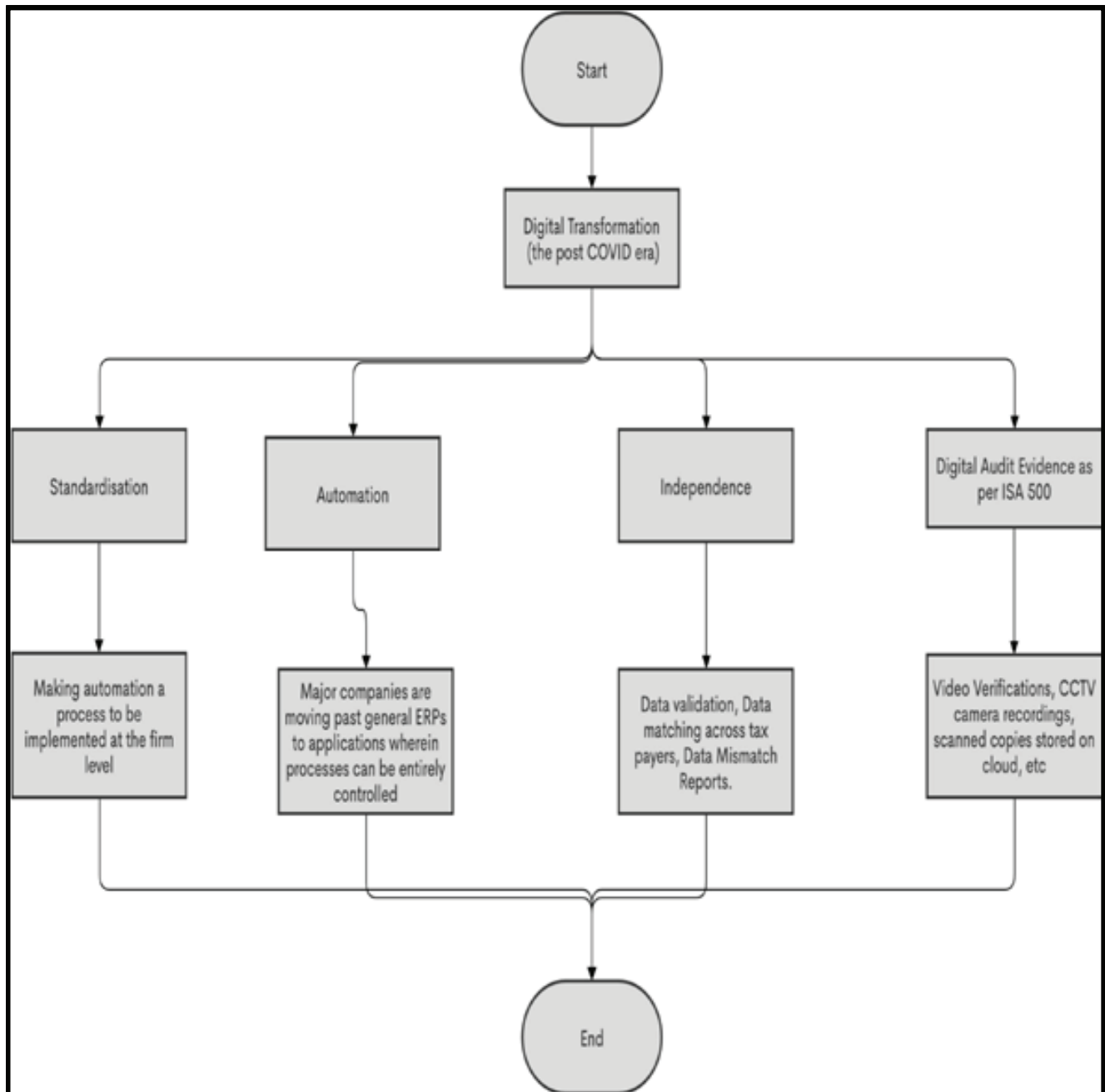
## Remote Inventory Verification

*Inventory Analysis and Verification using modern software:*

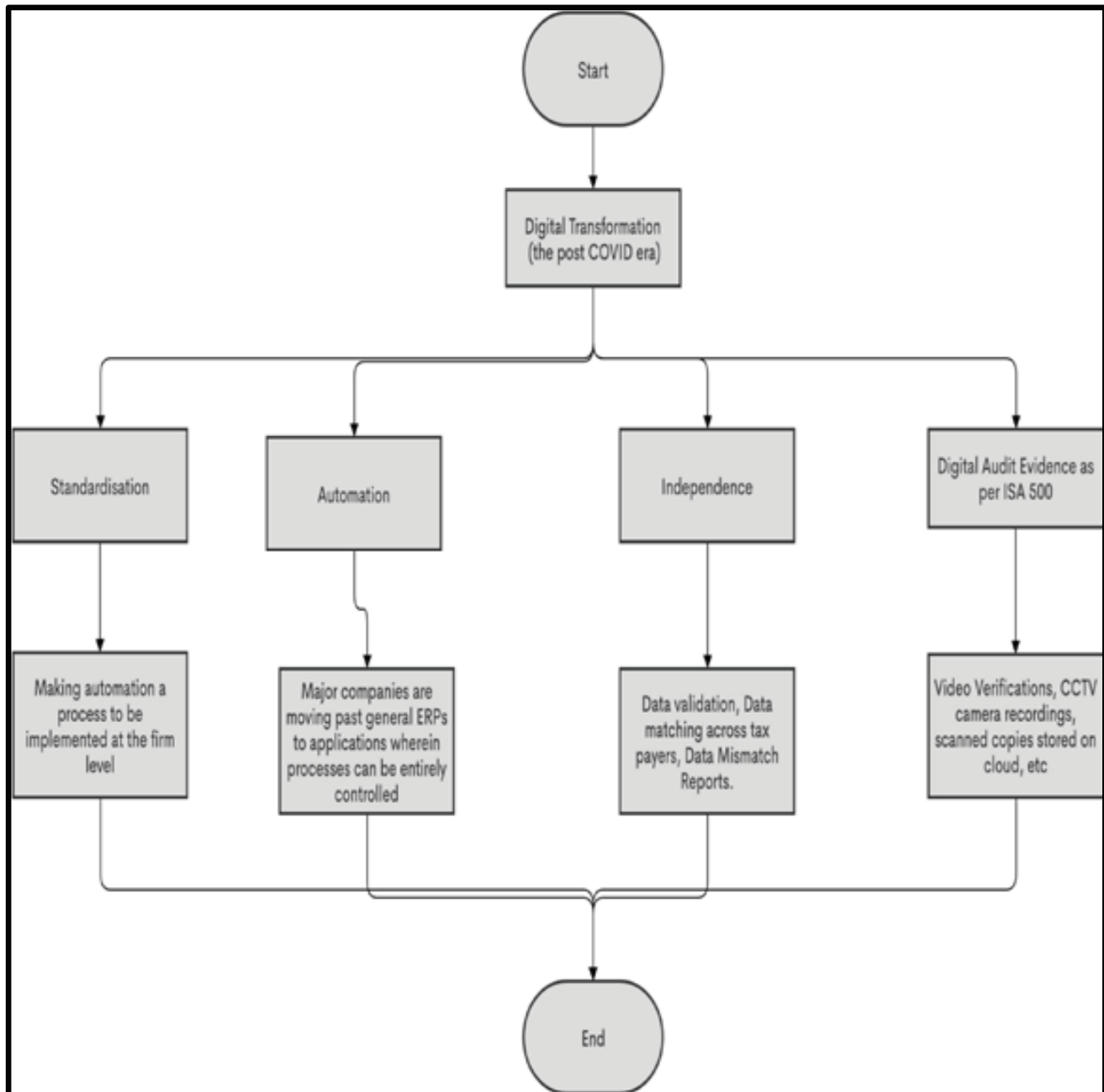


## Taxation

Analysis of how taxation process can be simplified:



## The new normal CA firm:



## DMS (Document Management system) IMPLEMENTATION PROCESS FOR CA FIRMS

