

IN THE **FUTURE**

TECH MAHINDRA'S
THOUGHT LEADERSHIP DIGEST
FOR WSJ CEO COUNCIL 2021

THE FUTURE IS NOW

NXT.NOW™



We bring to you a collection of thought-leading commentary on a variety of topics that are disrupting and re-shaping the new normal at a continuous pace. These topics range from the future of work, digital disruption, commerce, cybersecurity, automation, artificial intelligence (AI), blockchain, drones, Internet of Things (IoT), 5G, and more. In The Future is a technology and future-focused thought leadership presented by Tech Mahindra in collaboration with WSJ Custom Content.

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Embracing Disruption, Driving Change

Chander Prakash Gurnani

CEO & MD, Tech Mahindra



Throughout human history, progress has come as the result of steady iteration as humankind grows and

expands its expertise. With each new innovation, a question asked is bravely answered, throwing sharp light on the ingenuity of the human species.

What started with fire and the wheel, evolved in innovative potential to plastics and electricity, and now, since the advent of the information revolution, we're in the midst of a momentous leap forward. Every epoch of human

history has had its share of disruptive change, each ushering in a wave of unprecedented societal change. This is what we call "the NXT".

While change is accepted as a necessary part of the way forward toward progress, how and when to create that change is less understood. This is the question of "Now". Identifying "Now" has been the key focus of many innovative minds in Silicon Valley and global tech hubs across Asia, Africa, Europe, Oceania and the Americas, working to make the world a better place, one disruption at a time.

In today's Covid-era world, however, disruption is no longer the sole purview



of the Big Tech—it is something that has affected us all. The global pandemic has singlehandedly rewritten the fate of many companies, industries and global regions.

Those institutions that have survived, revived and thrived during COVID-19 are those that were able to quickly accommodate change, most with the help of new and emerging technology. According to publications like Harvard Business Review, COVID-19 has been a lesson in the importance of corporate resilience, adaptability and succession planning.

At Tech Mahindra, our corporate culture has always encouraged innovation, experimentation, crowdsourcing and collaboration. Through the combined ideas and efforts of our many talented employees, we strive to be at the forefront of solving global problems, always keeping our customers at the heart of all we do.

Over the last few years, we have run programs such as “Connected World, Connected Experiences” to enable better experiences for our clients’ end customers; “Run, Change, Grow” in which we focused on helping our

Those institutions that have survived, revived and thrived during COVID-19 are those that were able to quickly accommodate change, most with the help of new and emerging technology.

clients run operations more efficiently, adapt to change quickly and grow their business through digital investments; and TechMNXT, which defined how Tech Mahindra is adapting itself to be relevant to its clients for the future. These strengths have played a significant role in making Tech Mahindra and our customers future-ready, future-proof and future-performing.

We continue to focus on human-centered experiences, having witnessed a dramatic shift in user expectations in just a few short years, starting with the advent of touchscreen smartphones and more recently propelled by the soon-to-be-realized 5G era. Users now expect full integration between their digital and physical realities. In a market of strong competition and ever-changing demand, our portfolio of companies specializing in everything from information technology to digital content and fintech offers an excellent mix of experiences, allowing us to offer our customers a next-level, human-centered experience of the future, now.

In continual conversation with our customers, we witnessed something unique in the midst of last year's widespread disruption brought on by

the COVID-19 global pandemic: those clients who were further along in their digital transformation journeys proved more adaptable and resilient. Leveraging this unique opportunity, Tech Mahindra, in collaboration with Dow Jones Intelligence, undertook a large-scale research study, surveying 400 senior executives on their digital strategies and view toward building organizational resilience. The Transformation Index documents what we already knew to be true—that an organization's ability to thrive in the face of disruption requires continual investment in re-skilling, rebooting and re-energizing processes, staff and company tech. With tomorrow's priorities in sight, we must approach everything with a sense of urgency and a deadline of yesterday.

"We are already late. We will always be." Make this the mantra of your life and your company, and you will catch up with the future very quickly. At Tech Mahindra we call this NXT.Now



How the pandemic accelerated Digital Innovation

Q&A with Sarah Venning

Chief Information & Transformation Officer, Pret A Manger

With stores closed and most customers working from home, the U.K.'s Pret A Manger switched its focus during the Covid-19 pandemic to a delivery model. Sarah Venning, Pret's Chief Information and Transformation Officer, discusses the challenges that brought and how it accelerated digital transformation.

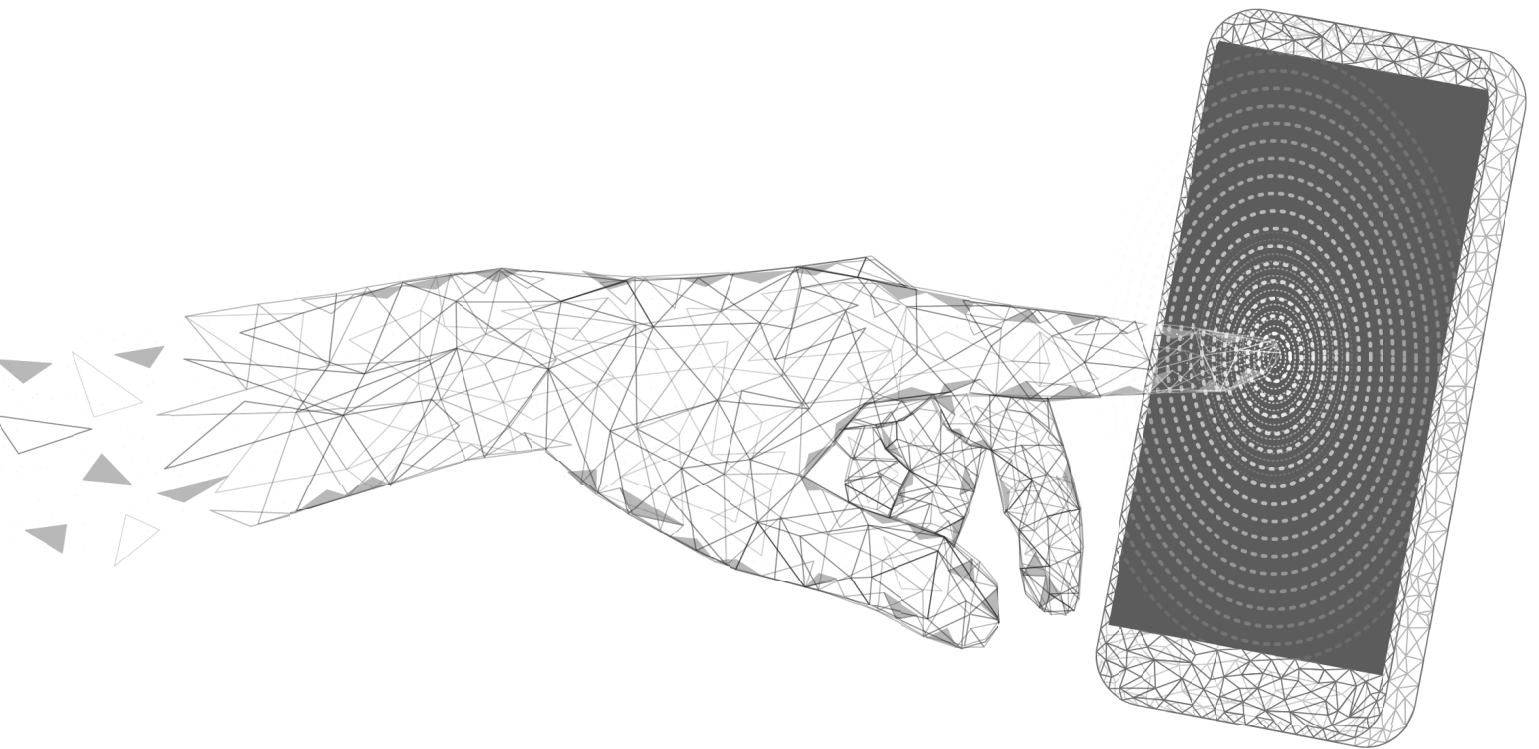


The pandemic cut footfall substantially and required you to pivot to delivery services. To what extent were your

digital efforts ready for that challenge? And what did you need to put in place quickly?

In the past, the Pret model always relied on having customers in our

shops, whether that was in city centres, suburbs or transport hubs. So when the pandemic forced us to shut our shops, we quickly realised that we were going to have to radically rethink this model and find new ways to bring Pret to people. The delivery service is one example of this, where we expanded our number of delivery partners from one to three and our teams did a fantastic job at adapting to meet this increased demand. Rethinking our delivery partner strategy ended up being a fantastic opportunity for us—we can now plan for



a future where delivery is an important driver of our overall sales rather than a bolt on. We have also launched a new click-and-collect trial in London and Manchester, giving customers another opportunity to shop with Pret on their own terms.

How has the work done during the pandemic accelerated your digital transformation project?

In many ways the pandemic simply accelerated a long-term digital strategy that was already underway at Pret. We have since fundamentally transformed our business model. The business has delivered more change in one year than in 30 years of history combined. At the heart of this transformation has been establishing new trading channels which are providing new revenue streams—including the UK's first coffee subscription service, a significantly

expanded online delivery offer, a new range of Pret Consumer Packaged Goods available through leading retailers and a new range of new partnerships.

What are your digital priorities as we come out of the pandemic? And how have those priorities changed over the last year?

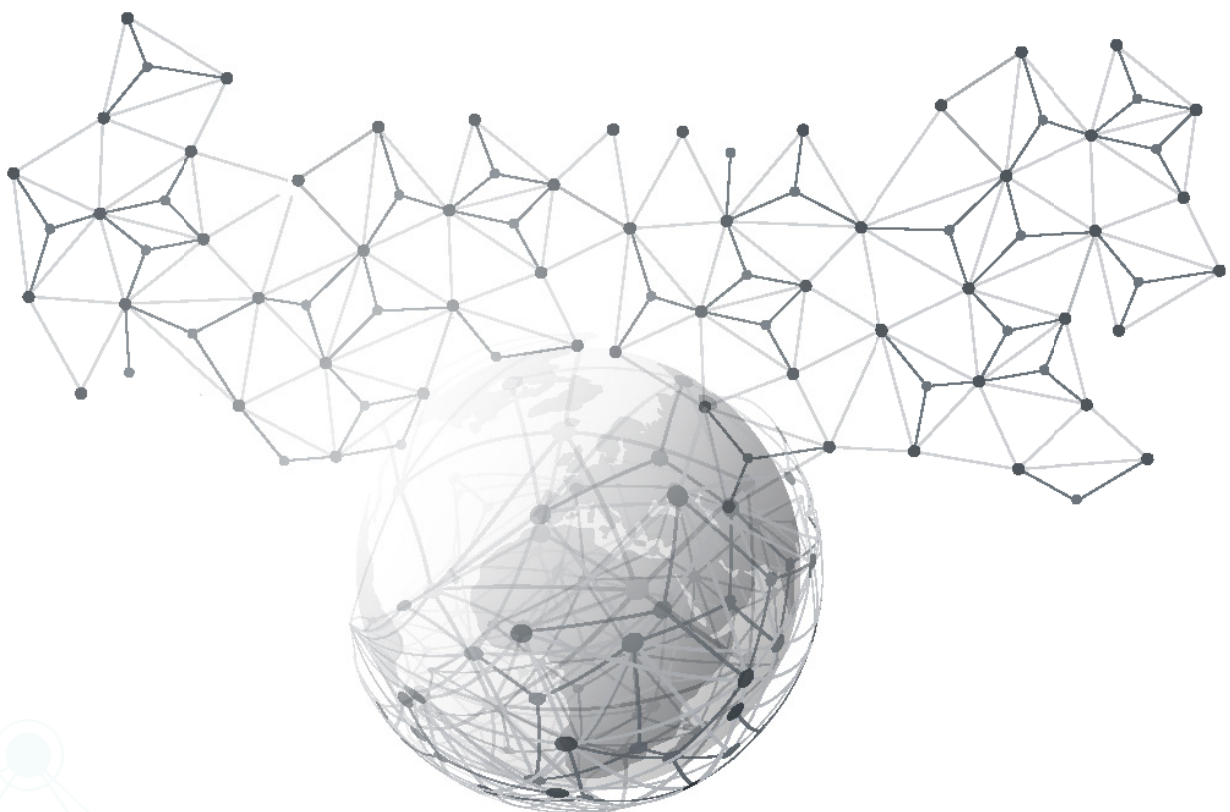
We intend to keep up this pace of innovation for the foreseeable future and we have a lot of exciting initiatives in the pipeline. Our industry-leading coffee subscription—now almost a year old—has opened up a new digital relationship with our customers. It's providing us with data-led insights on what people are buying and what they are not, helping us find opportunities to give people something new. We are continuing to look at ways to let people experience the joy of Pret whenever and wherever is convenient for them.

What do you think the hospitality sector can learn from Pret's experience with using digital technology to handle disruption?

The last 12 months have served as a reminder that as a business we must continue to be nimble and innovative. Pret has evolved to become a multi-channel business, bringing Pret to the people wherever they may be living, working, or travelling. While a lot of our changes came from within Pret, we also had to look outward and seek help from partners working in the digital space. We are positioning ourselves for a strong future by making changes and thinking differently. Initiatives like our coffee subscription and retail range showcase Pret's pioneering spirit, which will be crucial as we move forward.

What can hospitality learn from other sectors about successful digital transformation?

There is a huge amount that can be learnt from others. However, we are a sector that fundamentally relies on providing customers with wonderful food and coffee experiences, made special by joyful customer service. Aspects of this will always be physical rather than digital experiences. Nevertheless, during the pandemic the industry has taken on the challenge with thousands of businesses across the sector opening up new channels in order to survive. This experience has shown us that a multi-channel approach relying on a mix of physical and digital service is the key to the hospitality industry's future





Driving innovation with Artificial Intelligence (AI) and Big Data

Q&A with **Javier Campos**

Head of Experian DataLabs, UK & Ireland.



Javier Campos is the Head of Experian DataLabs for the UK & Ireland. Javier is also a permanent member of the Bank of England & FCA AI Public-Private Forum, an industry group created to accelerate AI adoption within the UK Finance industry. Here, he shares his insights into how AI and Big Data are key to innovation and new product development

We use AI in a large number of areas. Where regulation permits, we use it in our current core business of calculating increasingly accurate financial risk and credit scores, and enabling these to be made in real time. We also use it in many other areas such as fraud, anti-money laundering and marketing.

Fraud prevention, in particular, is an area that has been growing rapidly, particularly with the rise in online consumer activity during the pandemic. For instance, we now have models that can reduce false positives in credit card transactions. Our latest one, launched recently in the U.S., detects and prevents 'Synthetic ID Fraud'. This is where organized crime groups steal various datasets to create so-called 'Frankenstein profiles'—synthetic profiles where all individual fields contain real

data, but the combination does not actually exist. This type of fraudulent profile can 'bypass' existing rule-based systems, which check each profile field against an existing database, but do not validate the whole person. AI is much better at deciding whether a profile is real or not.

Which part of the business presents the greatest untapped potential for AI and Big Data to drive innovation?

AI will impact practically all enterprise areas and improve many consumer products. It is now approaching an inflection point that I would compare to the impact of electricity back in the 1800s. Before electricity, any factory requiring [steam] power had to be located close to a coal mine. But electricity allowed power to be decentralized and distributed remotely, far away from the source. This, in turn, changed the way industry and then society was able to locate and organize. The same is happening with the transformational potential of AI. It will enable distributed decision-making in every part of an organization as AI-supported insights are pushed to the frontline. While most processes will benefit, customer-facing areas should be prioritized, so consumer data can be used to create a next-best-action engine using AI.

How do you see debates on data privacy and data ownership developing over the next few years? How will companies like Experian reassure

consumers that they are getting value in return for sharing their data?

This is a very important conversation and I am pleased Experian is at the forefront. As a highly regulated company, we have been managing consumer data safely since the 1970s and have developed industry-leading practices. I think that AI and other scientific advances such as encryption and synthetic data will provide answers to some of the current privacy challenges, with techniques such as homomorphic encryption, secure multi-party computing, or zero-knowledge proof (ZKP) showing particular promise.

We also see a trend to shift ownership of data back to the consumer, who are happy to share their data if there is enough of a value exchange. But the benefit has to be tangible. In the U.K., Experian has launched Experian Boost, which uses Open Banking to run an algorithm on the bank accounts of consenting customers to assess how they manage their money and see whether we can improve their credit scores. It has been highly successful, so there is a clear benefit because a better score means cheaper credit.

How does Experian DataLabs relate to the rest of the business—and to customers? What are the benefits of having a dedicated lab for innovation, compared with, say, innovating within each business unit?

The challenge with innovation is that there is no silver bullet. Any organizational model has pros and cons. We launched DataLabs back in 2010 and believe there are a few key reasons to create a cross-business unit. One is scale and team retention—good data scientists are very hard to find, and it is easier to have a central team that can be deployed to the most important projects, rather than individuals scattered across the organization. A cross-business unit can also focus on ‘moonshot’ projects, in new areas, or with longer return on investment (ROI), while individual business units are (rightly!) very focused on short-term revenue and growth.

Finally, innovation should happen across the whole organization. If you have teams in each business unit that are not curious and driven to innovate, perhaps you do not have the right people in place. I think you need different types of innovation and also a system across the organization for scaling. Ideas are

relatively easy and cheap, the difficulty is in executing them at the right time and scaling to your entire customer base.

What can other businesses learn about innovation from Experian’s model?

The Experian model has been very successful in proving ROI over a period of time. One of the challenges to running an innovation lab in any organization is how closely to link revenue to the cost base year-on-year. If you set the ROI payback too short, this could cause the team to focus on short-term revenues rather than looking at bigger or wider areas that might take longer to materialize. This is true for any innovation or R&D unit. Additionally, when developing AI products, the ROI framework tends to be different. An AI product can be more costly in the short term and not as effective when it has not seen much data, however its performance will start improving very rapidly once it has access to greater amounts of data. This means it is more like an exponential ratio than the linear revenue growth from traditional projects. It is worth companies taking the time to learn and understand these lessons because this model of working can be truly transformative.





The Battle against Covid-19

Lessons from Tech Mahindra's War Room

Chander Prakash Gurnani

CEO & MD, Tech Mahindra

What it means to be a business grounded in social purpose

The pandemic has intensified our company's resolve to RISE and help the wider community, and deepened our understanding of what it means to be a business with purpose today and into the future, says C.P. Gurnani, Tech Mahindra's CEO



For more than a year, India has confronted an extraordinarily challenging public health emergency that is still far from over. When the Covid-19 crisis first erupted in March 2020, our immediate concern at Tech Mahindra was for the safety and welfare of our employees and their families. But we rapidly escalated our response as the virus's devastating social and economic impact became apparent.

As the nation went into lockdown, we went to work. Our innovation factory undertook extensive research on potential therapeutics for Covid-19. When the second wave surged in April 2021, our focus immediately shifted to India's hard-pressed public health system and towards ensuring social relief. We helped bridge the supply gap by providing emergency medical supplies and equipment, and also converted several Tech Mahindra premises into Covid-19 clinical care units. Meanwhile, our volunteers on the ground engaged on multiple fronts, from facilitating vaccination drives for employees and their dependents, equipping frontline workers, distributing ration kits and school supplies, and partnering with NGOs to protect India's most vulnerable communities.

This process has immeasurably broadened our understanding of what it means to be a business grounded in social purpose. We have discovered hidden strengths, and are reminded every day that all our expertise and industrial might is worth nothing unless it can be put to the service of our communities.

Lesson #1: Someone has to be first, even in a crisis—the value of innovation

Tech Mahindra's Makers Lab has always been committed to developing smart solutions that serve a vital social purpose. Since the start of the pandemic, our innovative team has played a critical role in our pandemic mobilization, conducting extensive Covid-19 research that has led to several breakthroughs.

For example, we are working with partners such as Reagene Biosciences and Indras to identify FDA-approved drugs that can be redeployed as therapeutics for Covid-19, using a biological computation technique developed by Makers Lab. A patent application has been filed by Tech Mahindra and Reagene for a drug molecule that can potentially attack the virus. Meanwhile, Makers Lab continues to explore whether the same technique can facilitate other drug discoveries to help combat not just Covid-19, but also other diseases.

I am extremely proud that Tech Mahindra has been leveraging its scientific expertise to deliver new pathways for eradicating Covid-19.

Lesson #2: Choose your battles and make every action count

Defeating the virus is, of course, only one side of the story. A terrible price has been paid in lost lives and livelihoods, leaving millions in need and placing unbearable grief and stress on bereaved families.

With the Tech Mahindra Foundation, our emergency relief initiatives continue unabated, working in partnership with government and international agencies, NGOs and other businesses across India. Currently, the Foundation is running several Covid-19 relief programs in India. Among many initiatives, we This internal engagement has reminded us that personal wellness is not just a matter of physical health and access to medical support. No company can successfully navigate the pandemic without the physical and mental resilience of its people. Holistic wellness must always come before business and this message has been reinforced by the recent appointment of Tech Mahindra's first wellness officer, who is responsible for ensuring the welfare of all our employees and their families, as well as company stakeholders such as partners and vendors.

As a company, we claim no originality in promoting wellness. On the contrary, it is encouraging that a growing number of firms in India and worldwide acknowledge in the wake of Covid-19 that a “good” business is one that sees people as its most precious asset.

Lesson #3: Trust in young talent to step up

From my vantage point as CEO, I have observed since the start of the pandemic how our youthful leaders have taken rapid, purposeful strides to execute core Covid-19 initiatives on the ground. For instance, our location heads looked into the set-up of our Covid-19 care units and hospitals. I have seen our young HR and location contacts drive wellness initiatives within the company, enabling key partnerships with NGOs to support nationwide efforts to combat the virus including facilitating the set-up of oxygen plants.

We would not have managed to make significant headway in Tech Mahindra’s support for the fight against Covid-19 without the contribution of many such emerging leaders. Indeed, some of the youngest leaders drive our entire Covid-19 Resolve to RISE program, Tech Mahindra’s collective effort to help the community, employees, families, and customers. Even Makers Lab’s Covid “Seva” taskforce includes young colleagues in their early twenties.

These and many other actions by the next generation of Tech Mahindra leaders illustrate how Covid-19 has shattered the notion of traditional corporate roles and responsibilities. The pandemic has taught us that we need to be agile, take bold steps, and empower leaders based on their actions and not the designation assigned to them.

Lesson #4: While you are fighting today, keep an eye on tomorrow

None of what I have described above amounts to a revolution for Tech Mahindra. Instead, I see our unfinished Covid-19 journey as giving added urgency to our vision of what it means to be a business with purpose and compassion.

Covid-19 has taught us that business success and social purpose are indivisible in a world where future disruptions are inevitable. We need to live that lesson every day, to be always prepared, as the world slowly emerges from the pandemic.

The most valuable lesson I have learnt so far: We will overcome together.





Redefining Digital Strategy

Q&A with

Roy van Griensven

Corporate Digital Officer, Mitsubishi Chemical Advanced Materials

Roy van Griensven, Corporate Digital Officer at Mitsubishi Chemical Advanced Materials, joined the company just before the Covid-19 pandemic hit. Here, he outlines his thoughts on digital strategy, the importance of co-creating projects, and delivering value to customers.



As the Corporate Digital Officer at Mitsubishi Chemical Advanced Materials (MCAM), what are your top priorities in

developing a digital strategy?

Our digital strategy does not stand alone; it's an enabler of our overall company strategy, which focuses on growth, operational excellence, and people. We prioritize four pillars for digital: improving customer experience, advancing operational excellence for

internal processes, developing new business models, and enhancing the employee experience with workforce enablement and improved infrastructure.

Investing in these four areas is a constant balancing act, focusing on structurally implementing sustainable capability improvements through better technology, competences, processes, and data.

How can the digital experience improve the relationship of management with customers and employees?

When it comes to customer and supplier engagement, our industry has a lot of room to mature. Ease of doing business



with MCAM is a priority for us and we're moving ahead in full collaboration with customers and suppliers. We believe that co-creation of projects throughout the ecosystem is the only way to truly drive change and implement value-added improvements. We start with how we can improve for our customers and suppliers, and work back to what that means for us.

In these times when working from home is a default rather than an exception, we're striving to make it as easy as possible for people to use company assets, while at the same time increasing focus on security. For example, providing unconstrained access to undocumented knowledge for anyone in the company is one of the many innovations we're working on to

continuously invest in our people.

More than half of the respondents to the Tech Mahindra/Dow Jones Transformation Index say they have implemented cloud technology and IoT, such as Wi-Fi 6 and 5G. What technology do you plan to incorporate into Mitsubishi's strategy?

We're investing in future state technology across all business domains, specifically where it makes a real difference and drives added value for our company, our customers, and suppliers. I don't believe in a cloud strategy per se—cloudification shouldn't be a strategy and purpose in itself. We've recently moved the biggest part of our company crown assets to a newly-managed cloud datacenter and will continue to do so

where this makes sense. As part of our Industry 4.0 approach toward connected factories, we're also investing step-by-step—again, based on defining what's needed to achieve the outcomes we desire, rather than just assuming that having everything connected is the goal.

The Transformation Index also reports that 83 percent of respondents have changed or accelerated their digital priorities due to Covid-19. How have you had to change or adapt digital priorities at Mitsubishi due to the pandemic, and what has been the impact on your overall strategy?

I came on board just before the pandemic hit and we had already laid out our strategy for how digital would support our growth plans. Covid-19 only marginally changed things, with a greater focus on accelerating employee productivity, but overall we already had all the components we're working on now. What the pandemic has done is increase appreciation among our wider ecosystem of the need to accelerate, which has helped us in the deployment and execution of our strategy.

Looking beyond the pandemic, where do you believe the biggest disruption to corporate digital strategy lies, and where will you focus attention?

Overall, I have a hope that more companies will move away from viewing digital strategy as a purpose in itself.

Too often I see a digital strategy being presented as a box that companies have to tick. For me, a digital strategy

is temporary until digital becomes standard in all our usual operating mechanisms in existing functions, such as R&D, sales, marketing, supply chain, and finance.

We will continue to heavily invest in improving customer engagement, both with our current customers as well as leveraging the wider ecosystem and platforms to drive co-creation and define new solutions in partnership. Alongside this, we are becoming more data-centric—in our supply chain, for example—and will continue to bank on our initial investments in cognitive automation. We're seeing great results and there is massive opportunity to be more efficient and effective in optimizing our sales and operations planning processes, for example, which again results in greater reliability when it comes to delivering to customers.

We also strongly believe in innovation and co-creation with customers. As an example, we are structuring our (product) content in such a way that it can eventually be seamlessly syndicated to our customers, helping them to sell and integrate our products as efficiently as possible. These are just a few examples—there are many more opportunities ahead that we're working on.





Bright Spots

Finding opportunities in times of disruption

Views by

Kristiina Lammila
CIO, Ahlstrom-Munksjö

Rajesh Chandiramani
Senior Vice President, Global
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Analytics, AI, ESRM, Blockchain

Johan Wibergh
CTO, Vodafone Group

Over the past 12 months, industries around the world have seen their business practices overturned as they dealt with the fallout from COVID-19. Supply chains were delayed and interrupted, global travel halted and offices shuttered—yet despite these challenges many companies discovered an opportunity for rapid adaptation and growth.

*While it was a tough pill to swallow, the pandemic's unprecedented disruption forced businesses worldwide to reevaluate priorities and streamline operations, and has made "resilience" the by-word of today's business environment, as per the **World Economic Forum, McKinsey and Ernst & Young.***

Adaptation through digitization

While resiliency takes on a slightly different definition from industry to industry, all companies can become more resilient by investing in the right technology and digital transformation, according to new research undertaken by Tech Mahindra and Dow Jones Intelligence. The Transformation Index surveyed 400 C-suite executives from around the world, 80% of whom represent organizations with over \$1 billion in annual revenue, on their

experience of the 2020 pandemic. The research found that those companies with digital strategies in place were better positioned to navigate the disruptions, while nearly all companies (99%) reported a greater awareness of opportunities for digital transformation.

"Investing in digital technologies like data, analytics and AI is an important first step for any business expanding its digital strategy and a necessary step to obtain a 360-view of one's company," says Rajesh Chandiramani, Senior

Vice President and Global Business Head for Digital Technology at Tech Mahindra. “Big data, analytics and artificial intelligence should no longer be considered the remit of tech specialists but instead an integral part of executive strategy for building data-driven and AI-enabled enterprises.”

Indeed, 57% of respondents to the Transformation Index reported that digital transformation accelerated their decision making processes, while over half (52%) said it had broadened their understanding of market changes. AI was also identified as a key area for both present and future value creation by survey leaders.

According to Kristiina Lammila, CIO for Ahlstrom-Munksjö, “By the end of 2024, 75% of enterprises will shift from piloting to operationalizing AI for their business, driving a fivefold increase in streaming data and analytics infrastructures. Pre-COVID models based on historical data may no longer be valid as AI techniques such as reinforcement learning and distributed learning will be creating more adaptable and flexible systems to handle complex business situations.”

Investing in agility

The most resilient businesses maintain an agile business plan that allows them to adapt to ongoing challenges. The clearest path to agility can be found through investment in a full spectrum of digital tools, adapting them as needed, and freeing up employee time and resources.

“Cloud adoption is equally bringing a remarkable technological advancement to global businesses. And with the arrival of 5G technologies, connectivity will play an ever-expanding role with internet speeds allowing us to use a phone or tablet for functions that once required the power of a desktop computer,” says Mr. Chandiramani. “That said, there is no one-size-fits-all strategy, as some companies may choose to rely on traditional servers for a portion of their business. Cloud technology must also be accompanied by major upgrades in cybersecurity approach by enterprises.”

Adapting digital tools can also add greater agility to a company’s operations, according to findings of the Transformation Index research, with 59% of respondents reporting that digitization had improved their products and services and 58% reporting that it had motivated employees and enhanced management operations. The most valuable digital strategies cited for improving organizational agility included: investing in advanced analytics, the internet of things, augmented data management, cloud technology, and innovative networks like 5G and WiFi6. In addition, keeping your enterprise safe from cyberattacks while undertaking digital transformation is critically important, and achieving a cyber resilient organization is key for ensuring a safe and secure enterprise.

A comprehensive digital strategy,

however, must be accompanied by executive management sponsorship to gain buy-in from board members on the one end and roll out new workplace digital tools on the other, says Mr. Chandiramani. "C-suite executives play a very critical role in ensuring that digitalization doesn't just become a one-time project during the investment stage but digital becomes a part of organizational culture, adopted by every department in its day-to-day work," he says.

Reimagining technology for an inclusive digital future

The challenges of the past 12 months have not only provided a lesson in how to become more efficient but for some have also revealed new business opportunities. Some 83% of Transformation Index respondents reported an accelerated pace of innovation following the pandemic, while 76% reported discovering new business opportunities. Businesses that were able to accelerate or adapt their products to provide remote services have also flourished over the past year, notably in

the areas of healthcare, education and logistics.

The Transformation Index also captured viewpoints of the CXO community, including Johan Wibergh, CTO of Vodafone Group, who shared his thoughts on the important learning opportunity that 2020 represented. "At Vodafone we recognized early on in the pandemic that being connected was pivotal to maintaining business and personal ties. We increased the capacity of our networks, supported governments with their digital agendas and helped businesses work from home."

Now one year later, Vodafone is "reimagining technology to ensure that everyone has equal access to the digital world," says Mr Wibergh. "We have a venerable history of innovating during times of crisis. We should not lose sight of our collective experiences during the pandemic to build a more inclusive digital future."





Blue Skies Ahead

By Nikhil Malhotra

Chief Innovation Officer, Tech Mahindra



In 2014, when I decided to return to India from the U.S., I was deeply inspired by one unique facet of American culture: its great

respect for the humble garage.

Why a garage you ask? Those familiar with Silicon Valley lore know that some of the most innovative tech companies like Hewlett-Packard and Google started in garages in northern California, which provided a space for the kind of innovation and misadventure needed to dream up truly revolutionary ideas.

The “garage” to me is synonymous with the kind of blue sky thinking we’ve come to associate with the American tech industry and I wanted to bring this approach back home.

India has long been seen as a solution center to the world. I wished to change that and change the way we look at not just solutions but at the core of problems.

At that time, the conditions were also ripe for Tech Mahindra to consider investing more into R&D within IT services; A new, forward-looking government was fueling the sort of transformation India stood poised for.

Inspired by the American approach, we added a little local flavor when we founded our own Tech Mahindra Maker’s Lab. This being India, we thought a wet kitchen might be more appropriate than a garage, as that’s where the alchemy happens—where we mix together all the different flavor and color elements of our subcontinent to create real magic.

The idea behind the Maker’s Lab was to see how we could harness the potential

of not just researchers in a lab but from our wider community of academics and business leaders. Collaboration and collective innovation were central to this R&D lab.

For our first “experiment” we rolled up our sleeves and, taking a children’s bike, disassembled and retrofitted it with sensors before trying to figure out how to control its center of gravity so it could stand on its own. We had been working on it for three months when suddenly the news came that Boston Dynamics in the U.S. had achieved self-balancing robots.

While we put that project aside, we didn’t abandon the thought-spark and passion it had come to represent. And if you visit our Pune Maker’s Lab today, you’ll see that bike proudly displayed—a constant reminder of our first successful failure.

In the years since, our Maker’s Lab has focused on disruptive technologies like machine learning, AI, robotics and IoT, and how harnessing these we can work to innovate by design to disrupt our world forward.

One of our first successful experiments saw us re-examining the chatbot and its frameworks around the world. We found that the one element missing among all of them was that of “design.” From there we developed Entellio, our

cognitive bot framework that can be adopted for any number of industries and customer service scenarios. Despite its many accolades, we still view it as an “endless prototype” as its growth and improvements are never-ending.

Much of our work on robots looks at how man and machine can come together, for example with our concept robot Saarthi, for which we won an Aegis Graham Bell award in “connected life.” Saarthi is an AI personal healthcare assistant designed to relieve over-burdened nurses and doctors by providing routine medical services like dispensing pills and compiling reports, aided by new advances in facial and voice recognition software.

Today, our Maker’s Lab has expanded from its first wet kitchen in Pune to Bangalore, Hyderabad and Chennai. We have also opened labs overseas in the U.S., U.K., Germany, China, Japan and New Zealand, where we collaborate and co-create with our many partners.

We are proud to say that we were the first IT services company in India to do a project on quantum computing with our partners in U.K. Based on this successful experience in the lab, Tech Mahindra has taken quantum computing on as a major bet for the future.

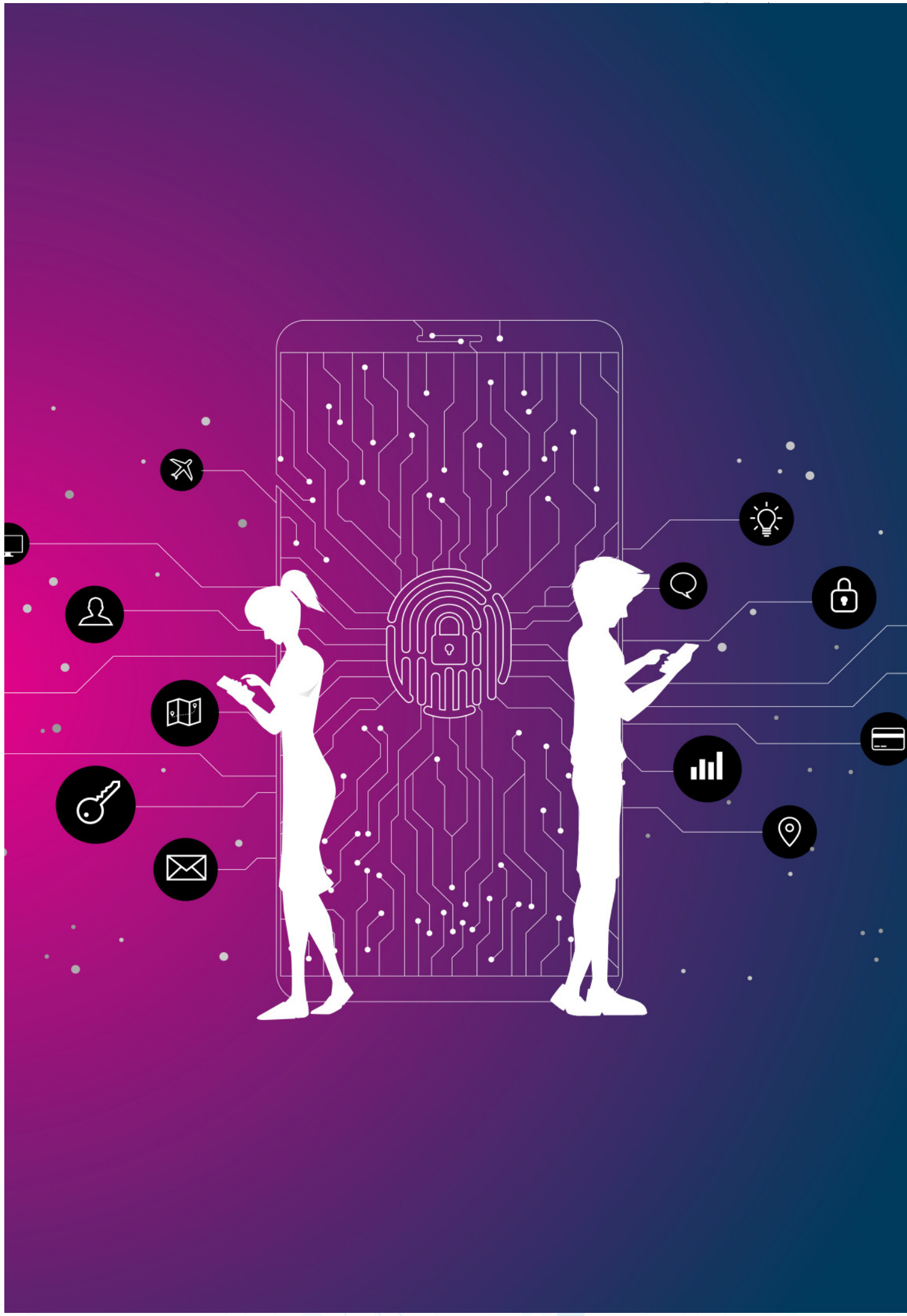
Our next projects will open up a whole

new chapter, looking at how voice recognition software can be more inclusive of India's linguistic diversity. We have 1,645 dialects and 26 mother tongues, very few of which are currently accommodated by Google, Apple or Amazon.

We are working with the government and NGOs to bring predictive data-based assistance to the farmers of our country, while also tackling the equally important issue of autonomous vehicles, which have the potential to dramatically transform road safety in India.

Our next Maker's Lab is slated to open in Australia, which will further expand our potential for innovation, as will the global rollout of 5G. Despite some unusual setbacks for the world this year, we see only blue skies ahead.





Finding Business and IT Opportunities in the Face of a Pandemic

Q&A with **Sanjeev Rawat**

Chief Information Technology Officer, Hutchison 3 Indonesia



In 2020, Dow Jones Intelligence in collaboration with Tech Mahindra launched a global thought leadership survey of 400 senior executives, examining the challenges and opportunities that the COVID-19 pandemic brought to their digital strategies. The resulting report, The Transformation Index, identified the digital strategies that industry leaders are embracing to thrive, spurred on by the pandemic.

Interviews undertaken as part of the research, such as this one with **Sanjeev Rawat, CITO for Hutchison 3 Indonesia**, provided illuminating insights about how the pandemic is changing IT operations today and in the future. *This conversation has been edited and condensed for clarity and brevity.*

How did the COVID-19 pandemic affect your digitalization strategy?

People get confused about what “digital transformation” and “digitalization” mean. The terms are vague in most people’s minds. Digital transformation is a situation where you transform multiple systems in one go. Digitalization, on the other hand, is a step-by-step process. We began our digital journey—and it is a journey—four or five years ago. So we had already anticipated what technology we needed.

As a result, there was little variation between what projects IT had planned and budgeted for 2020 and what we had to do when the pandemic struck. The pandemic didn’t drastically change our digitalization strategy. However, people’s mindsets changed. We had always had tools like Zoom and Microsoft Teams, but as people started to work from home, they became absolute necessities.

Does that change in mindsets affect how IT interacts with employees, customers and partners?

From an IT point of view, our job is to give people the right tools and make those tools usable. It makes no sense to spend money on a tool that nobody uses. Consequently, educating people is an important part of my profile.

For both internal users and customers, you will never have a successful digital journey if you don’t use the right communications channels to educate them. You’ll be bombarded with tickets, asking for help dealing with tech issues. If I want to avoid that situation, I need the right set of questionnaires and trainings to keep our internal and external customers happy.

You asked about partners. For digital projects, the biggest challenge is choosing the technology that is the

right fit for your organization and the right partners, who are sustainable and maintainable. Any type of partnership is based on documentation or a contract. A good partner is someone who goes beyond the contract in critical times. Someone who will listen and be proactive in advising you on technology and any challenges that may come up well before they do.

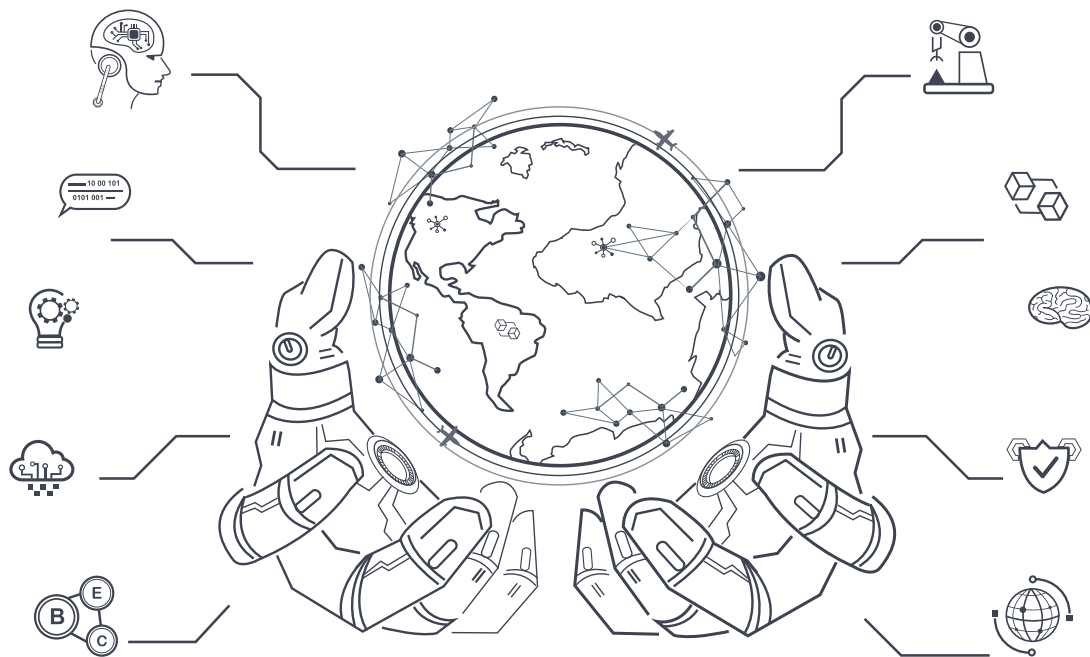
Did you see any new business opportunities as a result of the pandemic?

The pandemic actually provided numerous opportunities to both the IT department and the business.

Most of our digitalization work had been aimed at providing the proper tools for customers. Automating business processes was given a lower priority so that was happening at a slower pace. One positive of the pandemic, from an IT point of view, was that the situation pushed the need to automate business processes.

Our business model was already moving toward digital ecommerce platforms, like providing the connectivity for digital vending machines. The need for different revenue streams was made even more clear by the pandemic. We had to find new ways to reach out to customers, such as through portals or SMS blasts.

Artificial intelligence and machine learning became more important for monitoring and understanding the behavior of customers. We needed to understand what channels they were using, such as Facebook, Instagram and WhatsApp. We needed to more narrowly microsegment our customers. That way we could give them the right information, but not irritate them with too much information or information that wasn’t of value to them.



Another opportunity came from the regulatory side. The Indonesian government, for example, gave benefits to students to deal with the challenges of the pandemic. As a result, we were able to bring more of those students to our network as customers.

How will the pandemic affect how IT in your organization operates from this point forward?

In IT, we had a dramatic change in mindset as well. We used to think that IT systems were so critical that we could not support them without having a large staff on site, 24/7 to manage an application and deal with any issues. Because of the pandemic, almost our entire staff is working from home. We only have five or six IT personnel in our Operational Control Center, whereas before we would always have at least 50 people.

The surprising thing is how seamless the transition has been. We have delivered all our projects on schedule. This has made me consider different ways that we can change the IT model

for greater efficiency. Perhaps, we can move more of the work offsite, or even offshore it, and enjoy some OPEX savings. This has been a learning opportunity for both IT and the business.

Nobody wants to spend more than they have to. CIOs must ensure they are aligned with the CXO on the decision-making around cost-cutting.

The pandemic has shown us that technology has a much bigger role to play. We have to always keep resilient and keep ourselves on our toes, constantly challenging ourselves to explore new state-of-the-art technology that is flexible, scalable and secure for business. In today's world, almost everything is getting confined and getting served by technology, and IT folks will have a busy time.

IN THE FUTURE

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